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Social Comparison: An Unexplored Factor In Counselor Development

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SOCIAL COMPARISON: AN UNEXPLORED FACTOR IN COUNSELOR DEVELOPMENT

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To those that lose themselves in comparing with others – please know that you are ***incomparable***.

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Abstract

Though social comparison behaviors have been widely studied in both occupational and academic contexts, no empirical study has investigated how social comparison presents in counselor education programs. The purpose of this study was to investigate the relationships between social comparison orientation, counseling self-efficacy, sources of counseling self-efficacy, and program satisfaction. The researcher distributed paper and online surveys to capture self-report data from 242 counselors-in-training (CITs) from CACREP-accredited programs in the United States on the Iowa-Netherlands Comparison Orientation Measurement (INCOM), the Sources of Counseling Self-Efficacy Scale (SCSES), an adapted version of the Counselor Self-Efficacy Scale (CSES-A), two subscales of the Psychology Program Satisfaction Survey (PPSS) and the Perceived Stress Scale (PSS). The researcher tested the hypothesized causal model using Structural Equation Modeling in which social comparison orientation significantly moderated the relationship between sources of counseling self-efficacy and counselor self-efficacy which then predicted levels of program satisfaction. Results indicated that CIT comparison orientation significantly moderated the relationship between sources of self-efficacy and self-efficacy in multiple ways, the most significant being that high comparison orientation of ability strengthened mastery experiences' contribution to overall counseling self-efficacy. Self-efficacy in turn significantly predicted program satisfaction. This study carries many implications for supervisors and instructors of CITs, including new perspectives on how to navigate barriers to self-efficacy development and satisfaction as well as rationale for integrating psychoeducation on the ways social comparisons can help or hinder their students.

SOCIAL COMPARISON: AN UNEXPLORED FACTOR IN COUNSELOR DEVELOPMENT

CHAPTER ONE

INTRODUCTION

Counselor education programs are required by the Council for the Accreditation of Counseling and Related Educational Programs (CACREP; 2015) to ensure that counselors in training (CITs) develop counseling-specific skills and dispositions across eight competency areas: (a) human growth and development, (b) helping relationships, (c)social and cultural diversity, (d) group work, (e) career and lifestyle development, (f) appraisal, (g) research and program evaluation, and (h) professional orientation (CACREP, 2015). Counselors trained in the eight CACREP core competencies demonstrate positive qualities such as improved performance on credentialing exams (Milsom & Akos, 2007; Scott 2001), more ethical practice (Even & Robinson, 2012), and a clearer counselor identity (Mascari & Webber, 2012). However, graduate level CITs face challenges to developing counseling skills and dispositions.

Master's in counseling students in higher education face challenges to learning at the undergraduate, graduate, and counselor education-specific levels that may compound over time. For instance, college students at the undergraduate level often experience stressors related to life transitions such as feelings of isolation, loss of support and structure, and difficulty adjusting to new routines (Kurtovic et al., 2018; Stewart, 1995). Academically, college students may experience fear of increased academic expectations, more difficult coursework, and pressures related to career determination (Lin & Huang, 2014). Students that pursue graduate studies experience unique additional stressors such as a change in traditional learning structures (Peters, 1997), more difficult coursework and requirements to integrate new and complex skills (Hyun et al., 2006) and expanded internal and external stressors such as complex financial situations and a difficulty balancing personal and professional time (Ledesma & Cobos, 2016).

Master's in counseling students may experience the compounded effects of undergraduate, general graduate, and counseling-specific stressors (Lee et al., 2018). Academic stressors such as specialized and difficult course materials (Lin & Huang, 2014) can lead in some cases to lack of motivation and feelings if incompetence (Karimi et al., 2014). CITs experience personal stressors, including difficulty balancing multiple roles (Furr & Carroll, 2003), and general stressors of counseling work (Truell, 2001), leading to higher instances of mental health struggles, lower work satisfaction, and problems coping with perfectionism (Fye et al., 2018; Larsonet al., 1992; Puig et al., 2012). The program environment can also become a barrier for development, especially when there is a negative or competitive program culture or peer influence (Astin 1984, Christakis & Fowler, 2009; Edwards & Patterson, 2012; Hanna, 1998). Overall, anxiety related to performance and the rigor of program requirements (Skovholt & Ronnestad, 2003) can be seen to affect student development and wellness during their studies.

Statement of the Problem

Counselor education programs have attempted to address some of the common stressors experienced by students through the provision of programmatic support via supervision and pedagogical approaches that integrate wellness (Lenz & Smith, 2017). Programs are explicitly required to provide emotional support for students (CACREP, 2015). Instruction in self-care is one such method of support, yet students may still experience the effects of stressors and fail to implement self-care (Foster & McAdams, 2009).

To better understand the struggles that students face as well as the methods implemented to support them, educators often utilize the framework of Bandura's theory of learning and behavior, Social Cognitive Theory (SCT; Bandura, 1986, 1997; Larson, 1998). SCT is one theory that researchers in counseling and counselor educators use to describe and explain

counselor development. SCT is a theory in which personal, behavioral, and environmental factors bi-directionally influence each other through a process called triadic reciprocal determinism. Another central tenet of this theory is that human beings have agency, or "capacity to exercise control over one's own thought processes, motivation, and action" (Bandura, 1989, p. 1175).

Social cognitive theorists believe that a central component of action and motivation is self-efficacy. Self-efficacy is defined as an individual's belief in their ability to produce given attainments (Bandura, 1997). Bandura proposed that self-efficacy belief guides human behavior. Four factors, or sources, contribute to self-efficacy development, and it is the interpretation of these sources of self-efficacy that bolster or diminish self-efficacy beliefs.

Mastery Experiences are an individual's interpretations of past actions and experiences (Bandura, 1997; Chen & Usher, 2013; Usher & Pajares, 2009). It is important to note that the interpretation of the mastery experience is what produces the self-efficacy belief, rather than objective performance attainments. For instance, a counselor may interpret the completion of a counseling intake as a success, therefore improving their self-efficacy beliefs regarding their ability to conduct intake sessions. However, another counselor who has already completed many intakes may not be as quick to interpret the completion of an intake as a success, necessitating additional experiences to serve as markers of success.

Social persuasion encompasses verbal, non-verbal, written, or other forms of communicated judgements from others (Bandura, 1997; Britner & Pajares, 2006). In counseling, this can include verbal encouragements from supervisors on counselor performance, written feedback on documentation or assignments, body language of clients, or any communicated evaluation of a counselor's actions. *Social Persuasion,* like all sources of self-efficacy, is

dependent on an individual's interpretation of the communication. Two counselors may receive the same piece of feedback from an advisor, but one that interprets the feedback, for example, as genuine will likely become more self-efficacious whereas another student who feels the feedback cannot be trusted may not.

Vicarious Experience, or *Modeling,* involves learning by observing others (Bandura, 1997). Witnessing the current or past success or failure of others such as classmates, peers, or even oneself, can influence one's appraisal of their own ability to perform a similar task. The most impactful vicarious experiences occur when the social model is similar to the observer (Schunk, 1987). Vicarious experiences in counseling programs may look like students observing tapes of classmates' counseling sessions, supervisees witnessing supervisors model a technique, or students verbally discussing what they have done in their practicum experiences.

The fourth source of self efficacy is one's *physiological or affective state.* When an individual experiences feelings or moods such as pain, exhaustion, stress, anxiety, calm, or adrenaline, their interpretation of those states may influence their self-efficacy beliefs regarding the task at hand (Bandura, 1997; Chen & Usher, 2013). For instance, counselors who feel intense anxiety when beginning a counseling session may interpret those feelings as indicators of unpreparedness, lowering their self-efficacy belief. Alternatively, counselors who feel a more positive rush of adrenaline at the beginning of a session may take this as a sign of competence and experience a boost in self-efficacy.

Self-efficacy development is an important hallmark of counselor development because self-efficacious counselors typically demonstrate behaviors and dispositions that contribute to counselor success (Larson & Daniels, 1998). Examples of these positive behaviors and dispositions are more use of advance skills, improved service delivery, lowered anxiety, and

improved wellness (Al Darmaki, 2004; Hish et al., 2019; Ikonomoupolos, 2016; Larson & Daniels, 1998; Mullen & Lambie, 2016; Mullen et al., 2016; Orlinsky & Howard, 1989). For this reason, counselor education programs intentionally integrate ways to improve counselor self-efficacy such as social persuasion in supervision feedback (Larson, 2008), opportunities for mastery experiences such as practicum and internships (Kozina at al., 2010), opportunities for modeling in group supervision (Pei Boon, 2018), and emotional support (CACREP, 2015).

However, CITs encounter a multitude of stressors and challenges during the course of their academic programs, rendering self-efficacy development a difficult task. Research on counselor self-efficacy development indicates that multiple factors may impact self-efficacy development (e.g., Larson, 2008). A student's progress in their program may affect their expectations of success or failure, which may influence how they interpret sources of self-efficacy (Mullen & Lambie, 2016). In addition, although many studies demonstrate that self-efficacy generally increases over the course of a program, other studies have shown that the development trajectory may be curvilinear in that students' self-efficacy beliefs increase and decrease over the course of their studies (Goreczny et al., 2015). Further, few studies have explored specific sources of self-efficacy and how they contribute to overall counselor self-efficacy (Pei Boon et al., 2020). Because of the impactful nature of self-efficacy belief development for CITs, it is vital that counselor educators and supervisors have a clear picture of what dispositions and contexts may be at play.

In considering what traits may impact self-efficacy development, one must examine the methods by which sources of self-efficacy are internalized. According to Bandura, the internalization of sources of self-efficacy is "not inherently enlightening. It becomes instructive. . . . through cognitive processing. . . .and through reflective thought" (Bandura, 1997, p. 79.

Bandura goes on to state that the internalization of sources of self-efficacy is regulated by both an individual's specific preferences for type of information attention as well as the heuristics or rules that an individual uses to weigh and integrate that information (1997). In light of these parameters surrounding the internalization of sources of self-efficacy, it can be said that individual traits and dispositions may moderate the relationship between sources observed and resulting self-efficacy beliefs.

One such trait that may impact self-efficacy development may be social comparison orientation. Social comparison Theory (Festinger, 1954) is an explanatory theory of behavior and learning. Festinger posited that in the absence of concrete standards individuals maintain a drive to compare themselves with others to evaluate their own ability or opinion. Social comparison is commonly thought to be either upward (toward a perceived superior) or downward (toward a perceived inferior). Social comparison behaviors are commonly conducted in academic and occupational contexts (Dijkstra et al., 2008) and are especially common in environments where new skills are being learned (Gerard, 1963; Larson, 1998; Mills & Mintz, 1972) which could indicate that social comparison behaviors may be ubiquitous in counselor education contexts.

Social comparison can be prompted by diverse motives and is also thought to vary across traits, demographics, and contexts (Buunk et al. 1990; Mussweiler et al., 2012). Previous investigations into what traits may affect comparison behaviors have demonstrated that, in many cases, social comparison behaviors are mediated by an individual's social comparison orientation (SCO), or their attention to social comparison information. SCO can affect individuals' emotional state (such as jealousy, frustration, or motivation) and performance (such as task avoidance, perseverance, and opportunity seeking; Buunk & Gibbons, 2006, Gibbons & Buunk, 1999). Given that SCO is an attentional process and that attention moderates the effects of

sources of self-efficacy, SCO could be a trait that affects the development of counselor self-efficacy. Therefore, one of the aims of this study is to better understand the effects of SCO on the relationship between the sources of counselor self-efficacy and counselor self-efficacy. However, it is also important to confirm the relationship between counselor self-efficacy development and other important student outcomes, for instance, that of program satisfaction.

Program satisfaction is demonstrated to contribute to counselor development and may serve as a protective factor against some of the commonly experienced stressors in a counselor education program. Students' positive feelings toward their program can contribute to feelings of belonging, productivity (Love, 1993), lower instances of dropout and burnout (Jensen 2016; Tinto, 1987) and may contribute to overall wellness (Stenstrom et al., 2015). Further, program satisfaction has been linked with the development of self-efficacy beliefs in that more efficacious individuals report higher satisfaction. However, literature on how student satisfaction develops is lacking in counselor education programs, indicating a need to understand what factors contribute to positive feelings toward an individual's program (Jensen, 2016), and resultingly, how programs can improve both counselor development and program satisfaction.

At the time of this study, there had been no empirical investigation into the effects of SCO in the development of counselors-in-training, leaving a gap in the field's knowledge regarding how individual student factors such as comparison orientation and stress affect their development of self-efficacy beliefs. Therefore, this study investigated the relationships between social comparison orientation, sources of counseling self-efficacy, counseling self-efficacy, and program satisfaction. In the following section, I will outline the rationale for the study, the methodology I used to investigate the primary research question, and the results of the study followed by a discussion of the limitations and implications of the findings.

Definition of Key Terms

Self-Efficacy. According to Bandura (1986, 1997), perceived self-efficacy is an individual's belief in their ability to perform a task of achieve an outcome, or that they have skills and knowledge sufficient enough to succeed on tasks and overcome barriers (Sutton & Fall, 1995; Wood & Bandura, 1989). It is important to note that self-efficacy refers to an individual's self-appraisal of their competency, rather than actual ability.

Sources of Self-Efficacy. As proposed by Bandura (1997), self-efficacy beliefs are formed through the contribution of four specific sources, namely mastery experiences (interpretations of past actions and experiences), social persuasions (verbal, non-verbal, or written communicated judgements from others), vicarious experiences (learning by observing others), and physiological/affective states (individual feelings or moods, including physical sensation). An individual's interpretations of the various sources of self-efficacy are generated through self-reflectivity and the resulting judgements inform self-efficacy beliefs.

Social Comparison Orientation. Social comparison orientation is defined as an individual's tendency to compare themselves with others (Diener & Fujita, 1997, Gibbons & Buunk, 1999; Gibbons & Gerrard, 1995). Gibbons & Buunk (1999) demonstrated evidence that comparison orientation can be seen as a combination of *comparison of abilities* and *comparison of opinions*¸ in line with the original theory of social comparison (Festinger, 1954).

Program Satisfaction. Program satisfaction is defined as the positive feelings a student has about their program (Danielson, 1998) and is a function of to what extent the training experience met or failed to meet the student's expectations (Cacioppo, 2000). Overall, satisfaction can be thought to be comprised of satisfaction with curriculum, instruction, and

advising (Coffman, 2003). In the context of this study, it also includes satisfaction with clinical training (Gealy, 2016)

Research Questions and Hypotheses

This study tested a hypothesized model to better understand the role of social comparison orientation (as measured by the Iowa-Netherlands Comparison Orientation Measure [INCOM]; Gibbons & Buunk, 1999) in relation to Sources of Self Efficacy (as measured by the Sources of Counselor Self Efficacy – Malaysia (SCSE-M; Pei-Boon et al., 2020), Counselor Self-Efficacy (as measured by the Counselor Self-Efficacy Scale [CSES]; Melchert et al., 1996), and program satisfaction (as measured by the 'coursework' and 'clinical training' subscales of the Psychology Program Satisfaction Survey [PPSS]; Gealy, 2016). The following research question guided my study: (1) RQ1: "To what degree does counselors-in-training social comparison orientation moderate the contribution of sources of counseling self-efficacy to counselor self-efficacy and, resultingly, program satisfaction?"

I hypothesized that counselors-in-training's social comparison orientation would fully moderate the contribution of sources of counseling self-efficacy to counselor self-efficacy which will predict program satisfaction. Because very little is known about the relationships between the studied variables in counselor populations, I also integrated three exploratory research questions. Specifically, I asked (a) Does counselor self-efficacy correlate with stress?, (b) Do reported sources of counseling self-efficacy predict program satisfaction?, and (c) Are there differences in social comparison orientation across age, gender, race/ethnicity, stage of program, program modality, and counseling track? Following existing research outside of the counseling field, I hypothesized that self-efficacy would correlate with stress, that reported sources of self-

efficacy would predict program satisfaction, and that there would be significant differences in comparison orientation across the various groups sampled.

Methods and Design

I used a correlational cross-sectional design survey method to investigate my research questions. To determine the sample size for the study, I consulted with various rules of thumb and recommendations for representativeness and power (Kline, 2015; Nunnaly, 1967; Schumacker & Lomax, 2010), and conducted an a priori power analysis for SEM (Soper, 2021) in which the proposed model had 5 latent variables and 20 observed variables. Though there is empirical evidence that smaller sample sizes may be adequate for SEM analysis, I decided on a sample size of 200 participants with the goal of obtaining 400. My sample consisted of master's in counseling students enrolled at in-person or online CACREP accredited counselor education programs. I used tailored survey design methods (Dillman, 2014) to create paper and digital packets that include a cover sheet informing the participants of the nature of the study and their ability to refuse participation at any time as well as the four psychometric measures and a demographic survey. I recruited participants through non-random convenience sampling by contacting instructors of CITs and sending packets for completion or links to the survey. After the data was collected, it was exported into SPSS (Version 27) and then screened, analyzed for missing cases or incomplete data, trimmed, and cleaned. The data analyses were applied using both SPSS and AMOS (Version 27).

To examine the research questions, I utilized the Iowa-Netherlands Comparison Orientation Measure (INCOM; Gibbons & Buunk, 1999, the Sources of Counselor Self Efficacy – Malaysia (SCSE-M; Pei-Boon et al., 2020), the Counselor Self-Efficacy Scale (CSES; Melchert et al., 1996), and the 'coursework' and 'clinical training' subscales of the Psychology

Program Satisfaction Survey (PPSS; Gealy, 2016). Each of the utilized scales had been found to have acceptable reliability and validity for the constructs being measured. In addition, I used a demographic survey to identify participant age, gender identity, racial/ethnic identity, program progress, program modality, and counseling track. The survey packet was tested on peers, colleagues, and counselor educators as well as experts in assessment in order to ensure the survey was clear and effective. Before collecting data, I obtained approval from the Institutional Review Board at William and Mary.

Data Analysis

To answer RQ1, I utilized Structural Equation Modeling to test direct and indirect relations between variables (Gay et al., 2019). First, I tested the measurement models for the constructs and conduct a confirmatory factor analysis to test relationships between latent and manifest variables. I then evaluated the model using Kline's (2015) steps for SEM: (a) model specification, (b) model identification, (c) selection of measures, (d) estimation of model fit, (e) model re-specification, and (f) results reporting (Kline, 2015). The analysis process began with step d. Fit indices (see Table 1.) were used to determine the goodness of fit of the hypothesized model to the data obtained.

In addition to my primary research questions, I investigated three exploratory research questions. For ERQ1, "Is counseling graduate students' CSE associated with their stress", I performed a correlational analysis. For ERQ2, "Do counseling students' reported sources of counselor self-efficacy predict program satisfaction?", I performed a simultaneous multiple regression analysis. Finally, to answer ERQ3, "Does social comparison orientation differ across age, race, gender, counseling track and program status?", I conducted a one-way analysis of variance (ANOVA) to identify mean differences across groups.

Ethical Considerations

Before conducting the study, I obtained approval from the authors of the utilized scales to administer these scales for the purpose of the research project. In addition, the study was approved by the William & Mary Institutional Review Board. Participants were notified via an explanation of the research project of their right to cease participation at any time as well as any potential risks to their wellbeing as a result of the content or process of answering the surveys. Participants were also notified that their participation in the current study would in no way affect their standing in their prospective programs and would not be influential in any evaluation or grading performed by their program.

Significance of the Study

Social comparison may be a factor that significantly affects counselor self-efficacy development, yet prior to the current study, it had was unexplored in counselor education. This study demonstrated evidence that counselor-in-training social comparison orientation may significantly affect the way that students attend to and integrate sources of self-efficacy into their efficacy beliefs. Specifically, SCO can enhance or reduce the contributions of sources of self-efficacy, with implications for overall CSE development. Further, the study found that there are some differences in SCO trends across age and racial/ethnic identity, indicating a need for supervisors and instructors of students to take cultural background and other identity factors into account when screening for SCO. SCO was also correlated with stress which is a significant finding due to the fact that the SCO means for the sample of counselors in training was higher one average than general populations. Programs should integrate considerations of SCO and its effects on students when implementing wellness policies and strategies.

Counselor self-efficacy development carries important implications for counselor wellness and performance. While CSE development literature demonstrates a lack of understanding of how counselor attributes and other contextual factors affect CSE development, this study offers a more nuanced understanding of the specific sources of SE that most impact student CSE beliefs. This knowledge will allow instructors and supervisors to tailor interventions and lessons to best build self-efficacy belief in their students. In turn, CSE beliefs predicted program satisfaction, a major implication for counselor educators and program administrators for how program success is evaluated. Overall, the results of this study serve as a basis for future research on how supervisors, instructors, and counselors alike can address the effects of social comparison through interventions, increasing awareness, and identifying ways to mitigate the negative effects of comparison while harnessing its potential benefits.

Limitations

Sample size may have been a limitation to this study. Despite additional research that indicates smaller sample sizes such as 100-200 cases can be sufficient (Boomsma, 1982, 1985), and an a priori power analysis that indicated a sufficient sample of 150 (Soper, 2021), researchers indicate that larger samples are helpful in increasing the analysis power (Krejcie & Morgan, 1970, Schumacker & Lomax, 2010). While I met my initial sample requirement of 200 (n = 242), a larger sample may have allowed for more power of analysis. In addition, the measurements are bound by limitations on self-report data. The measurements used in the study may have limited the findings' validity as two of the measures, the Psychology Program Satisfaction Survey and the Sources of Counseling Self-Efficacy Scale, have not been widely used or validated by additional research studies. The sample was skewed toward high response rates by White females, limiting the generalizability of the findings. The COVID-19 pandemic

affected the method of data collection and possibly the overall stress and experience levels of the counseling respondents.

The method and analysis of the study also introduce potential error. The survey was conducted using non-random sampling, which introduces bias as the sample was taken from convenience, possibly creating a cohort effect. SEM requires strong evidence for relationships between variables; however, there is a lack of research on the explored topic in counselor populations, potentially affecting the ability of the proposed structural model to be correctly estimated. In addition, correlational research findings are limited by the large sample sizes required to find significant and representative results and to establish predictive models. Last, because this is not an experimental design, causality cannot be implied and significant results should still be evaluated with caution. The following chapters will outline in greater detail the theoretical background of the problem and related constructs along with the methodology of the intended study, the results of the analyses, and discussions of how the findings relate to current literature.

Chapter One Summary

Chapter one reviewed the experiences of counselors in training, including their program goals, their experiences of stressors, and the current methods counselor education programs use to support their development. In addition, I reviewed how social cognitive theory is used in counselor education as well as the related concepts of self-efficacy. I discussed the formation and implications of self-efficacy beliefs in counseling as well as how the stressors of a counseling program may hinder CSE development. I introduced the factor of social comparison and social comparison orientation as a potential moderator in the development of self-efficacy belief. I also reviewed the importance of building program satisfaction in students and how that process is

related to self-efficacy development. I then reviewed the study design and methodology I used to answer my main research question as well as the limitations and ethical considerations for the study. In the next chapter I will review in more detail the background of the problem and the literature surrounding the studied constructs. In chapter three, I will discuss the specifics of my methodology and study design. In chapter 4, I present the results of the quantitative inquiry. Last, in chapter five I discuss how the results, support, expand, or challenge current and previous research as well as the limitations encountered, the potential implications for counselor education, and future directions in research for the studied topic.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Chapter two will review the background literature on counselor experiences of stress, theories of counselor development, the importance of self-efficacy development, and a new factor to consider in counselor education: social comparison. The following sections will overview known stressors that students endure at the undergraduate and graduate levels and how those stressors affect their academic, personal, and environmental experiences. I will also review social cognitive theory and its application to education in general and to the realm of counselor education. Self-efficacy development, an element of social cognitive development, will be discussed along with theory regarding self-efficacy development and implications for student outcomes. I will review social comparison theory, an understudied topic in counselor education, along with its ties to social cognitive theory, its potential application in counselor education, and the rationale for studying the construct among counselors in training. Though this study focuses on the predictors of self-efficacy, it is important to also understand the outcomes of improving self-efficacy beliefs. Therefore, I will end this chapter with a discission of program satisfaction as an outcome variable, how it may be influenced by self-efficacy and comparison, as well as the importance of attending to satisfaction in counselor education programs.

Review of the Literature

The largest counseling accreditation board, the Council for the Accreditation of Counseling and Related Educational Programs (CACREP; 2015; Sweeny, 1992) requires that counselors in training (CITs) develop counseling-specific skills and dispositions in order to graduate, conduct evidence-based practice (Barrio Minton et al., 2013) and, in some cases, to be licensed as a professional counselor (Urofsky, 2012). In addition to less concrete skills such as

creativity and problem solving (Nelson & Neufeldt, 1998), CITs learn skills, theory, and practices through the structure of a uniform and standardized approach across programs in order to prepare them to be competent professionals in the field (Hill, 1990; Hurt-Avila & Castillo, 2017; Wilcoxon et al., 1987). The competency areas include ability acquisition and learning in the categories of (a) human growth and development, (b) helping relationships, (c)social and cultural diversity, (d) group work, (e) career and lifestyle development, (f) appraisal, (g) research and program evaluation, and (h) professional orientation (CACREP, 2016). Counselors trained in the CACREP competencies demonstrate more ethical practice (Even & Robinson, 2012), increased professionalism (Milsom & Akos, 2005), improved outcomes on licensure exams (Milsom & Akos, 2007; Scott, 2001) and may develop a clearer counselor identity (Mascari & Webber, 2012), indicating the usefulness and necessity of acquiring said competencies. However, the path to competency is complex and can be affected by barriers at multiple levels. The following sections review these potential barriers to counseling student development.

Barriers to Counselor Development

Despite program-level attempts to develop counselors along CACREP-required paths, barriers exist that impede the development of skills and competencies. The following section will outline how barriers at the undergraduate, master's program, and counseling program levels affect student stress and development.

College Student Stress

Broadly speaking, college students face challenges during their academic experiences that can affect their development. Students beginning a program of studies often experience fear of academic expectations, feelings of loneliness, and alienation (Stewart, 1995) and a disorienting loss of support groups, structure and oversight (Bland et al., 2012; Kurtovic et al.,

2018). Students at a later stage of their learning encounter more difficult coursework, the potential for involvement in leadership and role-taking responsibilities, pressures of career determination, and the challenge of transitioning to the workforce (Lin & Huang, 2014). Overall, college students endure significant academic, social, and personal challenges (Hales, 2009; Howe & Strauss, 2000; Hudd et al., 2000; Kurtovic et al., 2018), resulting in a college population with increasingly high levels of mental health struggles (Kitzrow, 2009). In addition, societal and interpersonal effects like racism and prejudice are additional stressors for individuals that hold minority status or intersecting identities regarding race, sexual orientation, or gender identity (Longerbeam, et al., 2004; Ma, 2020; Shahid, Nelson, & Cardemil, 2018; Strayhorn & Terrell, 2010; Vakkai, 2020), leading to decreased wellbeing and even pre-mature dropout from their studies.

Graduate Student Stress

Students who pursue higher levels of education or graduate studies experience the compounding effects of general personal, social, and academic stressors in addition to unique challenges of graduate studies. For example, entering into graduate studies signifies a change in traditional learning structures for many students, leading to increases in stress (Peters, 1997). Ledesma and Cobos (2016) discuss the propensity for graduate students to experience both internal and external stressors and list four common stressors of graduate students: academic responsibility, time management, financial situation, and personal relationships. Graduate students are more likely to face pressure to conduct research and take on higher-level projects that may cause stress as a result of needing to perform novel skills and obtain more complex knowledge (Hyun et al., 2006). Additionally, graduate students are more likely to be adult learners who encounter their own unique barriers to learning such as need for autonomy, diverse

life experiences, levels of interest in material, financial needs, scheduling problems, transportation, or child care (Leib, 2013). To sum up, an integrative literature review conducted by Cesar et al. (2018) concluded that graduate students experience high academic workload, difficulties related to income and financial stress, work/life balance, and navigating professional relationships with advisors and colleagues. An overview of current counselor education literature suggests that counseling students experience many of the general stressors of graduate studies and, further, other unique and significant stressors specific to counseling contexts.

Counselor Trainee Specific Stressors

Students in counselor education programs balance a variety of roles and responsibilities including but not limited to those of student, counselor, supervisee, supervisor, researcher, and burgeoning professional. Over the course of their training and development, CITs encounter the general struggles associated with higher education but also endure academic, personal, and program-specific challenges that can hinder their counselor development and potentially lead to burnout (Lee et al., 2018).

Academic Stressors. Graduate coursework in counselor education can be uniquely challenging as it demands the acquisition of advanced theory as well as the mastery of practical techniques and dispositions (CACREP, 2015). The difficulty of the course material can in some cases lead to academic burnout or stress related to achievement (Lin & Huang, 2014). Academic burnout can have serious implications for a CIT's acquisition of pertinent counseling theory and techniques, such as lack of motivation toward learning, and feelings of incompetence (Karimi et al., 2014). In addition, academic stressors can be exacerbated by problems with time management, difficulty balancing study and work or family life, and varying levels of academic preparedness.

Personal Stressors. Similarly, personal challenges, such as pre-existing mental health conditions, propensities toward perfectionism, experiences of racism or discrimination, or variances in motivational processes hinder counselor development. In general, those that pursue a master's degree in counseling experience stress (Truell, 2001). Further, practicing counseling and carrying out the various roles and responsibilities of a CIT may lead to stress accumulation for a counselor in training (Furr & Carroll, 2003). Because of trends showing high rates of mental health struggles in the helping professions (Gilroy et al., 2002), it is reasonable to assume these experiences of anxiety and depression may interact with the existing academic stresses associated with graduate coursework. Depression and anxiety in CITs can in some cases lead to burnout, the experiencing of chronic emotional stressors leading to overload in an individual (Puig et al., 2012). Counselors experiencing burnout are more prone to poorer performance on counseling-related tasks (Bowman, 1982; Hiebert et al, 1998; Larson et al., 1992) and may be at risk for lowered self-esteem, or lowered satisfaction with their work. Furr and Carroll (2003) reveal additional worries of CITs that center around their performance and client outcomes. Though not always, CIT's with high expectations of their performance may also carry perfectionism tendencies. In a study on perfectionism in CITs, Fye et al. (2018) found that perfectionist school counselors with maladaptive coping skills were more likely to experience burnout, which in turn affects the quality of client services (Maslach, 2003; Mullen & Gutierrez, 2016).

Students from underrepresented populations or international students can experience the general stressors of counselor education programs along with more specific stressors related to experiences of racism and oppression, disproportionate social justice workloads, and stereotype threat. Vakkai et al. (2020) reviewed international student distress as being in part a result of

language barriers, financial concerns, social connectedness, and isolation. Further, students of color may experience overt or covert racism in their programs as a result of unjust admittance practices, the dominance of White-centric counseling theory, lack of resources for students from marginalized backgrounds, or microaggressions (Robinson, 2012).

Environmental Stressors. Faculty, staff, and supervisors within counselor education programs can alleviate or exacerbate student personal and academic stressors via the environment they create and expectations they hold. Multiple studies have shown that students enrolled in a positive and supportive program environment experience less anxiety and improved performance (Hanna, 1998) and students in a welcoming atmosphere are more likely to perform well academically (Astin, 1984). Peer environment within the program can influence student emotional experiences such as prompting anger, jealousy, sadness, loneliness, joy, and happiness (Christakis & Fowler, 2009; Edwards & Patterson, 2012). Peer involvement contributes to personal development in students (Astin, 1999) and can have an effect on student depression and anxiety (Kovach, 2003; Loring & Wright, 1987; Stecker, 2004), while having a sense of community can lower experiences of stress (Clark, 2009; Reiser, 2010).

In a similar way, students respond in varying manners to program culture or expectations. For instance, students in highly competitive programs may feel additional pressure to outperform others or forego self-care (Djikstra, 2008). Though competition can at times prompt improved performance, it can also lead to unhealthy levels of stress and discourage persistence (Posselt & Lipson, 2016) and is associated specifically with academic stress (Abouserie, 1994). Aside from expectations to succeed and potential opportunities for competitiveness, counselor education programs are prone to ambiguous expectations regarding use of theory and skill, multiple roles, and professional development (Skovholt & Ronnestad, 2003). Counselor educators expect

students to fulfil a variety of roles, such as that of both student and practitioner, which can lead to boundary confusion and result in additional stress regarding ambiguity (O'Connor, Slimp, & Burian, 1994).

In sum, enrollment in counselor education programs is necessary for the development of counselor skills and competencies, but also exposes CITs to stressors at the academic, personal, and programmatic level that may affect a student's ability to develop the competencies required for graduation, licensure, and effective practice. CITs experience anxiety related to performance, intense scrutiny for gatekeeping purposes, ill-defined boundaries, difficulties with professional development, acquisition of skills, and high self-expectations (Skovholt & Ronnestad, 2003). This is not to say that programs have not endeavored to ameliorate struggles with wellness and development through programmatic interventions such as self-care initiatives. However, although programs are required by CACREP (2015) standards to ensure that students learn and engage in self-care (Harrichand et al., 2021; Roach, 2005) and infuse processes such as supervision with wellness-focused interventions (Lenz & Smith, 2010; Callender & Lenz, 2017), students may still fail to implement self-care practices (Foster & McAdams, 2009).

Summary

The previous sections outlined academic, personal, and environmental stressors that students in counselor education face during their studies as well as the development and importance of student satisfaction. Professors and supervisors of CITs have a responsibility to reduce barriers and promote counselor development (CACREP, 2015); thus, counselors must look to established theory to understand the complex and interactive experiences of students within counselor education programs. Through the theoretical lens Social Cognitive Theory (SCT), Bandura (1986, 1997) described the ways in which behavioral, personal, and

environmental factors can reciprocally influence one another, resulting in personal learning and development. In the subsequent section, I will describe SCT and its theoretical foundations as a mechanism to conceptualize student development.

Social Cognitive Theory

SCT is a well-substantiated approach to understanding student and CIT learning and development (Bandura, 1986, 1997; Erlich & Russ Eft, 2011; Larson, 1998). Bandura expanded on his social learning theory to craft SCT by introducing cognitive factors, such as thoughts, as basic determinants of human learning, modeling, and behavior. Through the lens of SCT, behavioral, personal or cognitive, and environmental factors bi-directionally influence one another (Bandura, 1986). In SCT, human beings have agency, which represents a human's "capacity to exercise control over one's own thought processes, motivation, and action" (Bandura, 1989, p. 1175). In turn, people are intentional actors in their own lives wherein one's thoughts regarding their conceptualization of skills and perceived differences between ideal and perceived performance prompts shifts in behavior (Bandura, 1997). As a result, people are both the creators and the products of their experiences. Bandura's term for this functional dependence between events is triadic reciprocal determinism. Each factor of the person, the environment, and behavior influences each other. This dynamic model of causation is considered to be the central tenet of SCT.

Personal or cognitive factors are determinants thought to be endemic to the individual, even if influenced by environmental factors, (Bandura, 1986). These can include a person's expectations, beliefs, values, thought patterns, biological properties, goals, and intentions. Environmental factors serve as situational influences, contexts or constraints on an individual. Environmental factors that can affect an individual can include the norms of their community or

surroundings, their access to experiences, social influences, and their amount of environmental control. Last, behavioral factors are comprised of a person's acquired and usable skills as well as their level and quality of behavioral rehearsal (Bandura, 1986). Behavioral factors can be thought to represent how, when, and how often an individual performs an action. Through triadic reciprocal determinism, personal factors may influence behavior and in turn, behaviors may affect development of personal factors. Similarly, one's environment may shape the carrying out of certain behaviors, but behaviors may influence outcomes that shift the nature of one's environment. Moreover, each of the three factors can vary with time in intensity and relevancy, creating an ever-changing dynamic process.

According to social cognitive theorists' beliefs about the reciprocal relationship of behavior, environment, and personal factors, people have the ability to act on their knowledge, skill, and successful learning. This behavioral capability, or agency, is another basic tenet of SCT and serves as a basis for understanding how individuals make changes and take action in their environment. Bandura viewed humans as capable of self-regulation, such that the individual maintains a part in producing the self-reflection, and beliefs such as motivation that further guide behavior and outcome expectancies (Bandura, 1989). Bandura proposed that one of the most influential of these beliefs is that of perceived self-efficacy (1982, 1986).

Self-Efficacy

Bandura established self-efficacy beliefs as a major component of SCT. Perceived self-efficacy is defined as one's estimate of their own ability to perform a task at a specific level of proficiency (Wood & Bandura, 1989), or belief that one possesses "certain knowledge and skills, as well as the capability to take action required to overcome problems and to succeed under the stresses and pressures of life" (Sutton & Fall, 1995, p. 332). Bandura clarifies that self-efficacy

refers more to the generative capability and integration of skills rather than the simple acquisition of a skill. In light of this idea, self-efficacy beliefs do not always correlate with ability, nor does ability always lead to perceived self-efficacy; rather, the development of self-efficacy is a multifaceted process that involves cognitive processes and interpretations of events.

Bandura (1997) outlined specific factors that contribute to the development of self efficacy, such as mastery experiences, vicarious experience, social persuasion, and physiological/affective states. An individual that experiences any of these four sources of self-efficacy will then weigh the information gleaned via self-referent thought to produce a self-appraisal of efficacy. This act of thinking and evaluating the resulting thought is called *self-reflectivity* and is a major process by which self-efficacy beliefs are developed. In the following section, I will describe these sources of self-efficacy with greater detail.

Mastery Experiences are an individual's interpretations of past actions and experiences as successful, rather than objective performance attainments (Bandura, 1997; Chen & Usher, 2013; Usher & Pajares, 2009). For instance, a counselor may interpret the completion of a counseling intake as a success, therefore improving their self-efficacy beliefs regarding their ability to conduct intake sessions. However, another counselor who has already completed many intakes may not be as quick to interpret the completion of an intake as a success, necessitating additional experiences to serve as markers of success.

Social persuasion encompasses verbal, non-verbal, written, or other forms of communicated judgements from others (Bandura, 1992, 1997; Britner & Pajares, 2006). In counseling, this can include verbal encouragements from a supervisor on counselor performance (Cashwell & Dooley, 2001), written feedback on documentation or assignments, body language of clients, or any communicated evaluation of a counselor's actions (Pei-Boon et al., 2015). *Social*

Persuasion, like all sources of self-efficacy, is dependent on an individual's interpretation of the communication. Two counselors may receive the same piece of feedback form an advisor, but one that interprets the feedback as genuine will likely increase in self-efficacy versus a student who feels the feedback cannot be trusted.

Vicarious Experience, or *Modeling,* involves learning by observing others (Bandura, 1997). Witnessing the current or past success or failure of others such as classmates, peers, or even oneself, can influence one's appraisal of their own ability to perform a similar task. The most impactful vicarious experiences occur when the social model is similar to the observer (Schunk, 1987). Vicarious experiences in counseling programs may look like students observing tapes of classmates' counseling sessions, supervisees witnessing supervisors model a technique, or students verbally comparing their practicum experiences.

The fourth source of self efficacy is one's *physiological or affective state.* When an individual experiences feelings or moods such as pain, exhaustion, stress, anxiety, calm, or adrenaline, their interpretation of those states may influence their self-efficacy beliefs regarding the task at hand (Bandura, 1997; Chen & Usher, 2013). For instance, counselors who feel intense anxiety when beginning a counseling session may interpret those feelings as indicators of unpreparedness, lowering their self-efficacy belief. Alternatively, counselors who feel a more positive rush of adrenaline at the beginning of a session may take this as a sign of competence and experience a boost in self-efficacy (Abel et al., 2011; Cooke et al., 1995; Kjerulff & Wiggins, 1976; Pei Boon et al., 2015).

Effects of Self-Efficacy Development

Levels of self-efficacy can, in turn, affect an individual's willingness and motivation to engage in tasks or pursue accomplishments (Bandura, 1988). For instance, strong beliefs of self-

efficacy in a particular task may give an individual a perception of potential positive outcomes of an action, which may affect their interest in and subsequent performance of the task (Lent et al., 1994). Outcome expectations are vital determinants of behaviors and are closely linked with self-efficacy beliefs to such an extent that self-efficacy beliefs account for almost all the variance in outcome expectations (Bandura, 1997).

Self-efficacious persons take action in their lives, even within systems that present barriers or encumbrances, to change their situations to suit their needs; conversely, people who doubt themselves are less likely to act to improve a bad situation and may even become discouraged or develop dependence on proxy control (Bandura, 1997). Self-efficacy beliefs may also affect an individual's psychological well-being, choices in career path, (Betz & Hackett, 1986; Lent & Hackett, 1987), motivation and perseverance (Bandura, 1988), and goal setting (Bandura & Cervone, 1986). However, an individual that perceives themselves to have low self-efficacy in an important skill or ability may experience high levels of stress and depression (Bandura, 1989), distress, anticipation of failure, impaired functioning and may at times overestimate difficulties and dwell upon deficiencies (Beck et al., 1976). In light of the various implications of self-efficacy development, it is important to understand how this construct presents with CITs, and what effects it may have on performance.

Social Cognitive Theory Applied to Counselor Education

SCT can be applied to counselor training effectively because it offers a framework for the acquisition of complex skills, especially in scholastic and organizational contexts (Bandura, 1989; Wood & Bandura, 1989). Cognitive and motivational processes bridge the gap from knowledge to practice, and can be similarly applied in a counseling context in which a student is expected to learn specific theories and interventions to apply them in a novel context. In

counselor education, expected behavioral outcomes include demonstrating appropriate counseling skills and dispositions (e.g., Counseling Competencies Scale-Revised; Swank et al. 2012), as well as meeting academic and dispositional requirements for performance (McAdams & Foster, 2007). The SCT determinants of behavior – personal, behavioral, and environmental factors – may affect CITs behaviors. Personal values, beliefs and goals can drive a counselor's career trajectory or theoretical orientation. Further, a CIT's self-efficacy and outcome expectations can play a large role in their experience in challenges such as practicum (Bischoff et al., 2002). Feedback given from peers or supervisors in settings such as live supervision (Anderson et al., 2000) may affect the actions a counselor chooses, their development of self-efficacy, or increase performance anxiety (Mauzey et al., 2001). In turn, counselors make choices in sessions, interact with peers or advisors, and engage in ethical decision making, influencing their development of attitudes or shaping their environment.

In this way, SCT concepts can also be used as a framework for understanding and addressing the previously discussed barriers to development faced by CITs. Academic stressors can be exacerbated by students' attitudes or motivations regarding their mastery of class materials and assignments (Bandura, 1997), the experiences of procrastination or perfectionist behaviors (Fye et al., 2018), or competitive environments that prompt academic burnout (Fairbrother & Warn, 2003). Personal stressors may be triggered by challenges to self-concepts during identity development, unstable levels of self-efficacy related to ambiguous professional tasks (Culbreth et al., 2005; Wallace et al., 2010), social feedback from peers related to ingroup/outgroup formation (Ioakimidis, 2010), or burnout as a result of poor boundary maintenance (Herlihy & Corey, 2016). Last, program-specific challenges like peer group formation and role navigation can be seen as an interaction between the behaviors of group

members, the individual beliefs and values of the student, and the pedagogical or programmatic culture of the school (Jensen et al., 2016; Wilks, 2008).

After identifying ways that SCT could be appropriate for the mental health practitioner population, Larson (1998) created the Social Cognitive Model of Counselor Training (SCMCT) to address the levels of complexity in training counselors. Larson discusses how counseling is a complex action best described by tenets of SCT such as the influence of self-efficacy on behavior and the cognitive, behavioral, and environmental influences exerted on CITs. In the SCMCT, most consideration is given to the triadic reciprocal process as it relates to the supervisor-supervisee dyad and the counselor-client dyad. It is within these contexts of counseling and supervision that self-efficacy beliefs impact behavior most, though at times through mediating effects such as other cognitive processes.

Larson developed the SCMCT in line with the basic assumptions of SCT and added considerations unique to counselor education contexts. For instance, greater attention was given to the personal attributes of race, gender, and identity and their reciprocal nature with other factors. Larson also discusses the various components of self-agency such as counseling related knowledge, goals, and self-evaluation that allow a counselor to react appropriately in ambiguous or novel situations. In practice, the model describes the counselor's reactive and proactive processes, including receiving feedback from others or their environment, weighing, evaluating, and integrating this feedback into action, then a later process of evaluating outcomes. As with SCT, self-efficacy – specifically Counselor Self Efficacy (CSE) – is a core consideration of the model. Where SCT does not imply a specific setting for self-efficacy development, Larson grounds CSE development in the supervisory and clinical relationships, with more social

persuasion occurring in the supervision context and more mastery experiences occurring in clinical settings

Counselor Self Efficacy

The construct of self-efficacy appears frequently in counseling literature. The development of self-efficacy is a main goal of counselor education programs and is an integrated part of many styles of pedagogy (Furr & Carroll, 2003), supervision (Leach & Stoltenberg 1997), and the training of counselors such as live supervision and Interpersonal Recall Processes (Goreczny, 2015; Melchert, 1996, Mullen et al., 2015). CSE refers to counselor's self-appraisal of their ability to produce counseling skills and interventions and is seen as being the main determinant of behaviors for counselors in training, counselor responses, perseverance, effort, and the usage of increasingly complex skills and theories (Larson, 1998). Researchers that study CSE's effect on practice and client outcomes have encountered difficulty generalizing self-efficacy measurements to the unique experience of counselors. Therefore, various researchers have endeavored to create scales that capture the construct of counselor self-efficacy. In 1983, Friedlander and Snyder developed the Self-Efficacy inventory, an instrument meant to measure the construct of counseling self-efficacy across the domains of assessment, individual therapy, group and family interventions, case management, and academic requirements. In 1996, Melchert et al. developed the Counseling Self-Efficacy scale, a 20-item scale that assesses counselors' self-reported beliefs of competency on counseling skills and competencies. Lent et al. (2003) developed the Counselor Activity Self-Efficacy Scale to assess for counseling-specific self-efficacy and to address the issues related to capturing counselor experiences and differentiating levels of skill difficulty seen in previous scales. Each of the scales mentioned

have been demonstrated to have convergent validity with other scales of self-efficacy (Larson & Daniels, 1998; Lent et al., 2003).

Levels of CSE inform counselor behaviors and usage of skills, persistence after failure, willingness to use more advanced skills, wellness behaviors, and lowered anxiety related to performance and appraisals of mastery (Akpanudo et al., 2009; Al Darmaki, 2004; Hish et al., 2019; Ikonomoupolos, 2016; Larson & Daniels, 1998; Mullen & Lambie, 2016; Orlinsky & Howard, 1989). Mullen and Lambie (2016) investigated the relationship between school counselor self-efficacy and program delivery, or their direct and indirect counseling and educational interventions. Using a sample of 693 practicing school counselors in the United States, researchers performed three studies. The first study utilized face-to-face data collection (n = 208); the second study utilized email and online methods or surveying participants (n = 195); the third study was completed via mail survey (n = 290). Participants were asked to complete the School Counselor Self-Efficacy Scale (SCSE; Bodenhorn & Skaggs, 2005), a scale of activity rating, and a demographics questionnaire.

Researchers (Mullen & Lambie, 2016) found that higher levels of SCSE predict service delivery, indicating that counselors with higher CSE may use techniques that counselors find challenging more often and are less likely to abandon challenging tasks. Though this sample is entirely school counselor related, which may limit generalizability to CMHC or family counselors, the findings of this study support previous findings by Vancouver and colleagues (2001) and Bandura (1986) that individuals that report high self-efficacy are more likely to perform challenging activities and are more likely to persevere through difficulties. However, results of these studies rely on self-report data and do not control for the quality of the interventions and services delivered, only the frequency.

Additional researchers have demonstrated the protective factor of self-efficacy development when setbacks occur. Hill et al. (2008) demonstrated in a quantitative evaluation of 85 undergraduate students in helping skills classes that even when setbacks to learning occur for students, practice and the later experience of succeeding contribute to CSE development. The reviewed studies indicate that the development of CSE can be an effective way to improve counseling behaviors as well as to serve as a protective factor through challenges faced by new counselors.

Self-efficacy development is seen to inversely correlate with academic stress by mediating the effects that external stressors have on the perception of threat (Bandura, 1995). Studies of students' self-efficacy further showed that students with high self-efficacy demonstrated lower stress and by extension improved academic performance (1995). In a study of 113 undergraduate psychology students from the United Arab Emirates, Al- Darmaki (2004) used an experimental design to investigate the effects of training on both CSE development and state trait anxiety. Researchers found significant mean differences between the group that had not yet engaged in practicum and that scored lower on CSE and the practicum-enrolled group which reported higher levels of CSE and lower anxiety. Though this study does not demonstrate a direct causality between CSE development and lowered anxiety, the authors illustrated the tie between training, resultant CSE development and the outcome of lowered anxiety related to counseling activities – a finding replicated in Ikonomoupolos (2016). As with previously discussed studies, the findings of this study are of limited generalizability given the sample from the UAE and the students were undergraduate psychology students.

Similarly, Lannin et al. (2019) investigated a sample of 225 helping students, or students receiving training in helping skills, at a midwestern U.S. university to determine the relationship

between physiological stress and self-efficacy. Students were assessed for blood pressure and heart rate before completing helping behaviors as well as levels of self-efficacy. When controlling for levels of SE, those reporting higher SE presented with diminished overall heart rate and blood pressure when faced with difficult counseling tasks. Because this is a correlational study, the findings cannot ensure that SE impacted stress reactions; however, the findings are in line with other related studies that also demonstrate diminished stress for individuals that report high SE. Hish et al., (2019) performed an analysis on a cross-sectional sample of 69 biomedical doctoral students in the United States. They found that perceptions of mastery mediated stress reactions and burnout. CSE can be seen to improve wellness behaviors as well. Akpanudo et al., (2009) demonstrated in a sample of 352 psychotherapists that CSE predicted wellness behaviors such as smoking cessation.

Self-efficacy research is also applicable to counseling-adjacent practices and competencies outside of counseling interventions and outcomes. For instance, in a study of 130 rehabilitation counselor education faculty, Bieschke et al. (1998) found that self-efficacy and interest can predict research productivity. CSE is also inversely related to anxiety in supervision sessions (Friedlander et al., 1986), with implications for the effectiveness of the supervision hour including improved counseling outcomes and practices by the supervisee and improved comfort in the supervision relationship. Multiple studies have found correlations between academic self-efficacy and performance in class (Bong, 2001; Brown et al., 1989) It may be anticipated, then, that self-efficacy could be a contributing factor to the performance of other counseling-related tasks as well such as engagement in consultation, pursuing of additional training, leadership, and advocacy efforts (Wood & Bandura, 1989).

Though sources of CSE are studied and addressed in counselor education programs in ways that seem to promote counselor self-efficacy development (Johnson et al., 1989; Larson, 1998; Melchert et al., 1996; Mullen et al., 2015), gaps still exist in the field's knowledge of how to develop self-efficacy beliefs in CITs. Much of the literature focuses on the impact of direct experience or supervisor input on CSE (Larson, 2008), general factors that contribute to development (Cashwell & Dooley, 2001), and the completion of practicum and internships placements (Kozina et al., 2010). However, early performances, especially for individuals early in their development, are exceptionally vulnerable to contextual influences, indicating that novice counselors may struggle to obtain stable self-efficacy beliefs (Bandura, 1997; Takata & Takata, 1976; Weinberg et al., 1979). Goreczny et al. (2015) conducted a study of 97 counseling students across pre-placement, internship, and field placement experiences to investigate differences in CSE between students at varying points in their program. Participants were assessed using the CASES (Lent et al., 2003) and COSE (Larson et al, 1992) questionnaires.

Researchers (Goreczny et al., 2015) found a curvilinear, rather than linear, relationship between level of training and CSE in which early trainees have high levels of CSE which diminish over time and eventually rebounding and reaching their highest levels once achieving advanced-trainee status. The curvilinear relationship between CSE and time spent in training indicates that more understanding of contextual influences such as personal attributes or program environment is key to developing stable self-efficacy beliefs. For instance, one possible explanation for changes in self-efficacy over time could be shifts in attention to, or changes in interpretation of, sources of self-efficacy. Therefore, one method of better understanding CSE development is to delve deeper into the individual sources of counselor self-efficacy development (Pei Boon et al., 2018).

The four sources of self efficacy as previously stated also apply to the development of counselor self-efficacy, wherein a novice counselor's self-efficacy can be shaped by their interpretations of counseling experiences, favorable outcomes of comparable peers, realistic encouragement from supervisors or instructors, and physical/emotional arousal during counseling activities (Bandura, 1989; Larson 1998). One study that examines sources of self-efficacy includes the work of Pei-Boon et al. (2018, 2020). In their initial study, the authors created the 25-item Sources of Counselor Self-Efficacy Scale -Malaysia (SCSE-M) by altering an existing scale of mathematic self-efficacy. The SCSE-M is constructed of items that reflected the four sources of self-efficacy in a counseling context. When tested with a sample of 541 mostly female Malaysian school counselors, the scale found good convergent validity with other scales of self-efficacy, and especially strong correlations between mastery experiences and social persuasion and counselor self-efficacy. Scales such as the SCSE-M may be useful in identifying specific ways that programs can contribute to the development of counselor self-efficacy by isolating the most efficient sources of self-efficacy in counseling contexts.

Diverse sources of self-efficacy exist, and some may remain untapped. Further, barriers to developing self-efficacy exist at the personal, behavioral, and environmental levels (Larson, 1998). Most research thus far on the development of CSE has been centered on supervisor or client effects, leaving other sources such as peer groups or program environment undiscussed. It may be that, in order to better understand CSE development, researchers will need to discover how each of the sources of self-efficacy are "selected, weighed and integrated" (Bandura, 1986). In the following segment, the author presents a potential factor that may affect attention to sources of self-efficacy – social comparison.

Summary

Social cognitive theory has been applied successfully in counselor education as a method of understanding how counselors' personal or cognitive, behavioral, and environmental factors reciprocally affect one another to impact learning of counseling skills and dispositions. The acquisition of skills and dispositions affects and is affected by counselor self-efficacy development, a construct that describes how competent a counselor feels in performing a task or demonstrating a disposition related to counseling. Mastery experiences, modeling, social persuasion, and psychological and affective arousal are considered sources of counselor self-efficacy. However, little is known about the degree to which each specific source contributes to counselor self-efficacy development as well as what other factors may affect that relationship. In the next section I will discuss a potential unexamined factor in counselor self-efficacy development.

Social Comparison Theory

Social Comparison Theory was first proposed by Festinger in 1954 as an explanatory theory for behavior and learning. According to social comparison theory, humans possess innate drives to evaluate their own opinions or abilities (Festinger, 1954). In the presence of concrete and objective evaluative standards, individuals will evaluate their abilities against clear standards to assess their competency; however, in the absence of such standards, human beings will evaluate themselves against comparable others to attain the same information (Gibbons & Buunk, 1999; Wood & Bandura, 1989).

According to Festinger's hypotheses, humans increase comparison behaviors as the importance or relevance of the compared trait or ability increases, indicating that in high pressure environments, comparisons may be frequent. Further, as an individual's appraisal of their own status grows further apart from the expected compared level, the more intense the individual's

drive to lessen the discrepancy will become. In a similar way to how Bandura describes modeling, comparisons with others tend to be with those who are similar to the comparer in the relevant ability or opinion (Festinger, 1954). However, because these comparisons are conducted without full understanding of the other's true ability or opinions, these comparisons may produce unstable expectations of anticipated outcomes, leading to over or underestimation of ability.

In general, social comparison can be thought to be prompted by three motives: evaluation, improvement, and enhancement (Taylor et al., 1995; Wood, 1989). Evaluation includes a need to understand oneself in comparison to a perceived target, including questions like "how am I doing" for abilities and "how should I feel" for opinions (Festinger, 1954). Improvement comparison motivation comes from a perceived deficit between oneself and an ideal (Gibbons & Buunk, 1999; Taylor & Lobel, 1989). Enhancement differs slightly as this kind of comparison is done specifically to enhance one's self-concept or self-esteem by comparing downward, or occasionally upward, to seem more adept in comparison (Wills, 1981). The motivations of the comparison can prompt the direction of comparison. Social comparison is commonly thought to be sub-divided into two directions – upward and downward – with separate motivations prompting each direction (Buunk et al., 1990; Mussweiler et al., 2012; Willis, 1981). Upward comparison seems to be motivated by a drive to improve, to address discrepancies in expected and perceived performance, or out of intent to model a superior other, whereas downward comparison may be prompted by a need to feel competent or more certain in one's own ability (Guimond, 2006). However, researchers of social comparison have recently begun to uncover evidence that motivations behind comparison directions may not fall perfectly along these lines (Zagefka & Brown, 2006) and that personal traits may impact the frequency and intensity of comparisons. A possible trait explanation involves an analysis not of an individual's

motivations to compare, but their natural proclivity toward comparison – social comparison orientation (Diener & Fujita, 1997).

Social Comparison Orientation

Gibbons and Buunk (1999) review literature that suggests individuals are prone to varying levels of comparison behaviors, often as a result of self-esteem difficulties (Campbell, 1990), uncertainty (Marsh & Webb, 1996), or intrapsychic states such as depression (Ahrens & Alloy) and neuroticism (Van de Zee, 1998). A further study by Gibbons and Gerrard (1995) demonstrated the existence of a potential "social comparison disposition" that affected changes in risk behaviors, illustrating the important connection between comparison propensities and behaviors. To capture social comparison orientation (SCO), Gibbons and Buunk (1999) developed the Iowa-Netherlands Comparison Orientation Measure (INCOM), which measures an individual's tendency to compare their abilities and opinions with others. During the scale development project completed with ten different adolescent and young adult samples in the United States (N > 4,300), and eleven samples in the Netherlands (N > 3,200), the authors found clear evidence of comparison dispositions. Individuals high in social comparison orientation, or high SCO, endorsed items that signified a propensity to seek comparative information. Individuals low in SCO did not endorse these items as frequently. The authors also found relationships between SCO and other related constructs such as attention to social comparison information, achievement orientation, interpersonal orientation, negative affect, neuroticism, and public self-consciousness along with state traits such as perceived stress.

An additional study by Gibbons and Buunk (1999) on social comparison orientation in a surveyed sample of undergraduate psychology students from a North American university (N=50) found that those high in SCO were more likely to seek out information on peer

performance. They also found that individuals high in SCO were more likely to experience positive impacts from downward comparisons as well as improved perceptions of their own status as a result of the comparison, indicating the SCO can affect the outcomes of comparison behaviors.

In a separate study, Civitci and Civitci (2015) found additional effects of SCO. In a survey study of 326 undergraduate students in Turkey, individuals that endorsed items that indicate high orientation toward seeking comparison information scored lower on measures of hardiness, or an ability to resist the effects of stress, as well as on a measure of life satisfaction. The researchers hypothesize that high SCO leaves an individual more at risk for the impact of stress and leads to lowered satisfaction with their life in general. Because the sample for this study was drawn from a single university of undergraduate students in Turkey, the findings may not be generalizable. However, the results are in line with what is expected given a review of literature on social comparison's effect on comparers (Buunk & Gibbons, 2006; Gibbons & Buunk, 1999). A fourth replication study of 400 adolescents by Gerrard et al., (1998), researchers found that individuals high in SCO were more likely to engage in risky behaviors when presented with a negative behavior prototype. These findings indicate that young individuals high in SCO are more likely to attend to or seek out social comparison information than those low in SCO and further, may be more at risk for more intense affective reactions.

Social comparison orientation and comparison direction are related such that SCO relates to an individual's trait of being likely or unlikely to seek out comparison information whereas comparison direction indicates if an individual perceives themselves as better or worse in regards to a comparison target (Festinger, 1954, Gibbons & Gerrard, 1995). Studies investigating the relationship between SCO and comparison direction show a complex relationship between SCO

and comparison direction (Buunk et al., 2001) with individuals reporting a high SCO experiencing different affective consequences of comparison direction than their low comparison counterparts. Moderating variables such as burnout can affect the strength of SCO on an individual's affective outcomes. Comparisons may induce negative affect in burnt out individuals at a higher rate for those high in SCO as compared to people with low SCO, providing evidence that "individual differences in [SCO] moderate the affective impact of social comparison" (Buunk et al., 2001, p.31.) Still other researchers have found results that indicate that goal orientation (e.g. achievement versus mastery goals; Darnon et al., 2010) as well as preexisting idealized versions of the self (Mcintyre, 2011) may be factors that contribute to the effects of SCO. It must be noted that other studies have demonstrated an opposite effect, with individuals high in SCO experiencing more positive effects such as improved job performance in a Chinese sample of a study by Liangtie and Xiao (2016).

Overall, it can be said that SCO prompts social comparison behaviors. For individuals high in SCO, comparisons may bring about more affective reactions as a consequence. Based on the prior research, it is logical to infer that a CIT high in SCO might experience heightened affective responses when they engage with interactions that prompt comparison such as formative and summative evaluations (i.e., evaluation of skills and knowledge), peer environments, or experiential activities.

Social Comparison and Social Cognitive Theory

Social cognitive theory and social comparison theory share a common tenet that human behavior is in part determined by social processes and environments. Social comparison can indeed be seen within each of the determinants of human behavior as posited by social cognitive theory. Personal factors, such as values and beliefs, can be formed by the comparison of one's

own opinions against another or a group, potentially leading to changes in opinion to move toward consistency with a desired status (Guimond, 2006). Similarly, a person's behaviors, such as demonstration of skill or competencies, can prompt social comparison depending on the behavior's outcome or a need for modeling by proxy (Dijkstra et al., 2008). Last, an individual may feel prompted to socially compare if they feel unique or different in their environment or if they are in an environment that urges competitive behaviors (Buunk & Gibbons, 2006).

Bandura discussed social comparison processes in writings on vicarious learning. According to Bandura, social comparison is regarded as a strategy to learn from a model or via proxy, the ability to put oneself in the place of another to assess whether or not the assessor has similar attributes or capabilities. The resulting information leads to beliefs about self-efficacy, outcome expectancies, and eventually behavior (Bandura, 1997). Alternatively, Festinger's viewed social comparison as a process that influences self-appraisal of rank or status, maintains self-esteem, and manages emotions (Festinger, 1954). It is possible to integrate these two views of the role of social comparison utilizing a framework such as Leaper's (2011) recommendations for bridging social science theories. Recommendations include making efforts to identify common language, using caution when assuming uniqueness, and synthesizing the strongest elements of a theory to create a bridged theory (Staats, 1991). In this way, we have identified that social cognitive theory and social comparison theory share common language around the role of comparison in learning, though they differ on the motivations and underlying processes of comparisons. Both theories posit that similarity between the comparer and their target is a predictor of comparison, and that cognitive factors such as how they judge and evaluate the resulting information moderate the effects of the comparison behaviors. Utilizing the strengths of

both theories will allow for a solid theoretical base to explore social comparison in counselor development.

Bandura's work on the sources of self-efficacy described the processes and utility of engaging with vicarious experiences, and Pei Boon et al. (2020) contributed to these findings by demonstrating how vicarious experiences affect student development. However, Festinger's (1954) work can provide a basis for understanding theorized drives toward comparison, the affective consequences of comparison, and the nuanced descriptions of comparison behaviors. Further, social comparison may be a factor that affects the way that individuals interpret the results of sources of self-efficacy. For example, if a student were to be given a grade on an exam but compare with another similar student who scored much higher, the student may interpret this as a failure in comparison and establish low self-efficacy beliefs. Further, for individuals high in SCO, the affective consequences of a poor comparison may be significant. Using both social cognitive theory and social comparison theory may be a useful way to understand how student learning and behavior is affected by the interplay of comparison and self-efficacy.

Social Comparison in Counselor Education

Social comparison theory has not been broadly applied to counselor education despite its relevancy to social cognitive processes and its potential for major developmental implications. Even without empirical evidence that counselors engage in comparison, counselor training programs offer many opportunities for comparison. Counselors, like students in other settings (Dijkstra, 2008) may compare their grades and academic achievement against that of fellow classmates. Further, counselors may compare their own motivations and level of effort on assignments and academic tasks against that of their classmates to determine if their efforts are sufficient (Levine, 1983). Students in counseling, especially those early on in their program, are

prone to seek information about their abilities or status that may not be readily or objectively available (Larson, 1998). Social comparison is often used as a way to bring an element of certainty to an unfamiliar situation and can be done by an individual in order to self-evaluate in a new setting or as a result of stress (Gerard, 1963; Mills & Mintz, 1972). Students in counseling are likely entering into novel situations when they begin the program, when they start experiences such as practicum and internship, and as the encounter new academic and professional challenges.

Social comparison can be affected and prompted by personal factors. For example, CITs may experience drives to compare as a result of mood or affective state, in times of heightened stress, or in the presence of threats to their self-esteem (Aspinwall & Taylor, 1993). Students may demonstrate comparative processes that vary as a result of cultural or identity traits. Though men and women engage in comparison behaviors at similar rates, social comparison tends to affect younger individuals more than older individuals (Callan et al., 2015; Guimond et al, 2007). As the majority of counseling students tend to fall into the young adult age range (CACREP, 2018), they may be particularly susceptible to comparisons. Baldwin and Mussweiler (2017) found that social comparison acts are often based in cultural values as well as environmental settings, underscoring the idea that social comparison presents differently for each individual. Comparative acts may also be influenced by an individual's social comparison orientation or levels of self-esteem, with some individuals being more likely to seek out comparison situations than others (Bergagna & Tartaglia 2018). Without existing literature, it is not possible to claim that counselors in training engage in comparison. However, theory describing the setting and prompts for comparison indicate counselors may engage in comparison frequently. If counselors

do compare often in their programs, they may be at risk for the affective consequences of comparison.

Social Comparison in Relation to Stress and Other Factors.

Social comparison can have meaningful effects – both positive and negative – on perceived rank and attractiveness. Upward comparison may prompt feelings of either envy or admiration, with envy leading often to a *tearing down* of the other and with admiration causing a tendency to align with the admired other (Van De Ven, 2017). Other negative after-effects of upward comparison include increased difficulty in focusing on learning tasks and knowledge as a result of jealousy (Cacioppo, Folwer & Christakis, 2009), drastic changes in decision making (Liu & Yu, 2018), and in academic settings, a lowering of academic self-concept (Dijkstra et al., 2008). However, positive and negative reactions to comparison can lead to increased motivation and effort in task related endeavors (De Ven, 2017) and can also foster a sense of camaraderie through shared experience and collaboration, indicating that all comparison is not negative.

In general, comparison orientation has been correlated with increased stress and perceived pressure (Gibbons & Buunk, 1999; Warren & Rios, 2013). Counselors that often compare regarding status and achievement may perceive or create a competitive atmosphere or lack of social connectedness in a program. A CIT's positive peer interactions can be a protective factor for overall psychological wellness (Hermon & Hazler, 1999) and success in the program, but negative interactions, possibly as a result of unfavorable comparison, can lead to difficult emotions and struggles in training (Cacioppo et al. 2009; Edwards & Patterson, 2012). It is important for supervisors and educators of counselors to be aware of some of the positive and negative effects of comparison and comparison orientation, lending rationale for the current study. Though the main focus of the current study was to establish evidence for comparison's

relationship with self-efficacy and it's sources, it is important to get a clearer picture of not only the predictors of self-efficacy, but also the outcomes it predicts. One such outcome that is relevant to counselor education is program satisfaction.

Program Satisfaction

Program satisfaction is another construct related to counseling students' experience in their programs and their development as counselors. Danielson (1998) defined satisfaction in a graduate program as positive feelings a student has toward their program including if the training experience met or exceeded their expectations (Cacioppo, 2000). Aitken (1982) described student satisfaction more specifically as an interplay of ratings on the curriculum, instruction, and advising students experience during their academic studies. Coffman (2003) explains satisfaction as a cognitive evaluative process wherein an individual assesses a circumstance against an internalized set of expectations to inform their judgement of satisfaction or dissatisfaction. In this process, if the *expected* and *actual* circumstances experienced during a training program closely align, the person is more likely to have a higher level of satisfaction.

CACREP's (2015) standards contain requirements for counselor education programs to evaluate aspects of their program, including effectiveness in training counselors, longitudinal data on graduates, and pass rates on counseling examinations (Section 4, A-E). Programs are required to demonstrate an empirically-based plan for evaluating program objectives (Section A), indicating a need for data that can be used in assessing and modifying programs to improve in line with CACRP requirements. Section B outlines annual reports required for programs to produce, including attention to "(2) demographic and other characteristics of applicants, students, and graduates." Though not explicitly stated, *program satisfaction,* as defined in the previous section, would qualify as "other characteristics".

Recent movements toward improving stakeholder input in counselor education programs (Urofsky & Bobby, 2017; Warden & Benshoff, 2011) have placed the spotlight on the student experience in evaluating programs for quality and effectiveness, with recent research demonstrating the value of student input (Welsh & Dey, 2002). Including student insights such as program satisfaction could be effectively used to identify ways counseling programs can improve (Haworth & Conrad, 1997).

Multiple possible predictors of program satisfaction exist in measures used to evaluate student satisfaction counseling related fields, including satisfaction with instruction methods, workloads, relationships with other students and faculty, and resources (Chen et al. 2012). Researchers have generated general models that predict student retention such as Tinto's Integration Model (Tinto, 1997), which describes student satisfaction with a program as an interaction of personal, demographic, social, and ability traits. In Tinto's Student Integration Model, which also extends to graduate student experiences (Ethington & Smart, 1986), each student trait (such as race, previous academic experience, family encouragement) contributes to or interacts with the program's traits (such as rigor, demographics, or social environment) over time as the student completes various aspects of the program. According to the model, higher resonance between student and program traits contributes to higher integration, resulting in a sense of belonging and relationship and a lowered likelihood of dropout (Tinto, 1987).

A focus group study of 24 mostly female counseling master's students conducted by Jensen et al. (2016) asked students to answer questions that related to their program satisfaction such as "What has contributed to your desire to continue in counselor education" and "describe the activities that have impacted your sense of satisfaction with your counseling program along with open ended questions that asked students to expand on factors outside of the program that

affected their perceptions. Analysis of the transcribed focus groups similar factors that contributed to satisfaction, namely connection with other students, trusting relationships with faculty, social integration activities, and activities that promote personal growth.

Student satisfaction can be a powerful outcome variable that can inform counselor educators and administrators. Early research on student satisfaction in counseling-adjacent fields links satisfaction with student outcomes such as motivation, productivity, and program completion (Love, 1993), along with lower attrition rates (Aitken, 1982). Student satisfaction's effect on academic outcomes are in line with later research that found that student satisfaction was an indicator and possibly a predictor of student wellbeing (Stenstrom et al., 2015). Student satisfaction has implications for post graduate success as well, with past and current researchers demonstrating that high satisfaction can be a precursor to improved job satisfaction and lower burnout after graduation (Clemes et al., 2008, Huebner, 1993; Lyons & Manion, 2004). However, a review of the research indicates that factors that contribute to satisfaction may vary across students, and there is little research on how student traits or orientations affect their satisfaction within their programs. In addition, little is known about how student stressors and program satisfaction are related for CIT populations. More investigation is warranted to more deeply understand what factors contribute to CIT satisfaction and what implications it might have for student and program outcomes (Gealy, 2016; Jensen, 2016).

Student satisfaction has additional implications meriting a better understanding of factors related to it. Though not directly related to student development, student satisfaction is a crucial element to recruitment and public perceptions of a program (Borden 1995; Cacciopo, 2000; Golde, 2001), which can in turn improve program performance by increasing the potential applicant pool to include more diverse student populations. In CACREP accredited programs,

programs share information about the program in the form of vital statistics and disseminate annual reports that describe the outcomes of their program evaluation (CACREP, 2015, Standard 4.E). Since student satisfaction may be an aspect of a counseling programs' assessment plan (Barrio Minton & Gibson, 2012; Urofsky & Bobby, 2012), it has implications for the recruitment of students and program modifications. Consequently, examining potential factors that enhance or hinder student satisfaction is relevant to improving program quality through assessment processes and program modifications tied to CACREP accredited programs.

Social Comparison in Relation to Program Satisfaction

Comparison behaviors have been found to contribute to levels of general life and job satisfaction both positively and negatively depending on the direction of comparison as well as various traits and dispositions of the comparer (Edillo et al., 2012, White et al, 2007) by prompting affective responses to the obtained comparative data. Social comparison is particularly impactful for satisfaction when the individual is high in SCO (Buunk et al., 2007). This implication is important to note, as social comparison orientation is affected in part by availability of ability feedback, which is difficult to obtain in counselor education programs, and psychological traits such as neuroticism and anxiety (Van der Zee et al., 1998), which are common in the counseling and related fields.

If a CIT is high in social comparison, this means they may risk having lower program satisfaction if they compare themselves with others that also have lower program satisfaction. Further, workplace environment, which is an aspect of program satisfaction, can impact the effects of comparison direction such that a positive environment is shown to prompt more positive feelings after upward comparison (Buunk et al., 2005). Though there is no existing research on the effects of social comparison specifically in counselor education satisfaction

contexts, there is evidence to suggest that other elements such as relative depravation, a state of being that results from feeling a discrepancy between actual and ideal situations which can (Merton & Rossi, 1968; Runciman, 1966), may overlap with CIT program satisfaction. In turn, program satisfaction may be affected in similar ways by social comparison orientation (Dambrun e et al., 2006).

Counselors in training are put in situations that are ambiguous, stressful, and challenging. Existing social comparison literature on the deleterious effect of social comparison, such as White et al. (2006), would indicate that counselors that exist in a state of anxiety, burnout, or in ambiguous circumstances (Buunk et al., 2001) may often engage in social comparison behaviors and in some cases to detrimental effects for their development.

Chapter Two Summary

In chapter two, I reviewed background rational for the proposed study beginning with an overview of counselor skill and disposition development at the field-wide and programmatic levels. I then discussed common barriers that students face through the lens of compounding stressors that begin in undergraduate studies and continue into graduate counseling programs. These stressors included academic, personal, and environmental factors.

To review the current climate in counselor education regarding the problem of student development, I chose to use the lens of social cognitive theory (SCT) to explain how students integrate social and cognitive factors as a path to learning. I reviewed the construct of self-efficacy and its effect on counselor development by describing the four sources of self-efficacy and how they related to counselor education. Further, I described specific ways that counselor education programs integrate SCT into classes and supervision processes as well as the implications that counselor self-efficacy development has on counselor and client outcomes.

I then identified social comparison theory as a related factor to counselor self-efficacy development while also demonstrating it as an overlooked construct in counselor education. I described motivations and directions of comparisons along with their implications, the affective consequences of social comparison orientation, and the implications that social comparison might have in counselor education. I also presented program satisfaction as a factor in counselor development that may shed light on the contributions of CSE and SCO to important program outcomes.

No research with the exception of the current study has examined social comparison within the counselor education field. Specific gaps include (a) how does comparison orientation affect counselor self-efficacy (b) how are counselor self-efficacy and stress related, (c) sources of self-efficacy impacts on program satisfaction, and (d) how comparison orientation presents across diverse groups. Thus, next chapter will review the sampling and data collection methods, the instrumentation, the methods used to investigate the primary and exploratory research questions, and the ethical considerations of the study along with limitations of the design.

CHAPTER THREE

METHODS

Counselors in training (CITSs) experiences a multitude of compounding stressors over the course of their academic careers, which may impact their development in areas of counseling competency. Despite efforts by counselor education programs, students continue to exhibit high rates of stress, burnout, and in extreme cases, dropout. One way to address these barriers to development is to address student learning through the lens of social cognitive theory and self-efficacy development. Counselor self-efficacy development has many implications, not only on the counselor's ability to effectively counsel, but also on counselor wellness and client outcomes.

Self-efficacy develops through the interpretation of input from four sources of self-efficacy: mastery experiences, vicarious experiences, social persuasions, and physiological/affective states. Faculty within counselor education programs often focus on mastery experiences and feedback as the primary influences of counselors-in-training development of self-efficacy (Bandura, 1997; Larson, 1998). However, other influences such as the effects of vicarious experiences and, by extension, the related factor of social comparison orientation (Bandura, 1997; Fong, 1998) likely impact the level of self-efficacy counselors-in-training report.

Social comparison behaviors occur when an individual seeks information about their abilities or opinions through cognitive comparison with others (Festinger, 1954). Social comparison behaviors have been demonstrated to contribute in both positive and negative ways to personal and professional development (Cacioppo et al., 2009; De Ven, 2017; Dijkstra et al., 2008), indicating that social comparison may affect the experiences of counselors-in-training as well. Yet, outside of the current study, there is no research to date within the counseling field that

has examined social comparison orientation and its relationship to self-efficacy or its sources. Therefore, in this study I examined the role of social comparison orientation in relationship to counselor self-efficacy to better understand the relevance of this concept in relationship to counselor trainees' development. Specifically, I tested to see if counselors-in-trainings' social comparison orientation affects the relationship between sources of counselor self-efficacy and overall counselor self-efficacy, resulting in greater program satisfaction.

Research Questions and Research Hypothesis

In this study, I examined the relationships between counselors-in-training social comparison orientation, sources of counseling self-efficacy, counselor self-efficacy, and program satisfaction. In addition, I administered a scale for perceived stress to better understand how it relates to the studied concepts. In the following section, I note the research questions used to guide this study along with the primary research hypothesis I tested.

Primary Research Question

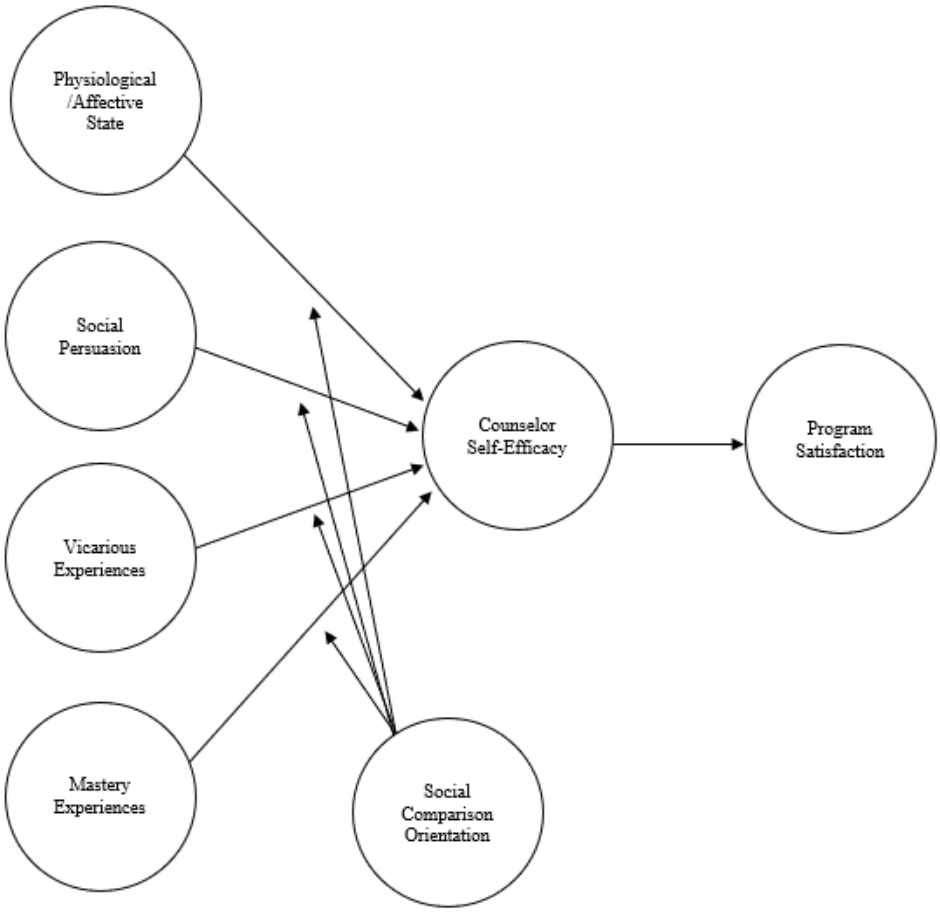
RQ1. Does counselors-in-training social comparison orientation (as measured by the Iowa-Netherlands Comparison Orientation Measure [IMCOM]; Gibbons & Buunk, 1999) moderate the relationship between sources of counselor-self efficacy (as measured by the Sources of Counselor Self Efficacy – Malaysia (SCSE-M; Pei-Boon et al., 2020) and overall counselor self-efficacy (as measured by the Counselor Self-Efficacy Scale [CSES]; Melchert et al., 1996), which in turn predicts program satisfaction (as measured by the 'coursework' and 'clinical training' subscales of the Psychology Program Satisfaction Survey [PPSS]; Gealy, 2016).

Research Hypothesis

Hypothesis for RQ1. I hypothesize that comparison orientation as measured by the INCOM (Gibbons & Buunk, 1999) will fully moderate the relationship between sources of counseling self-efficacy as measured by the SCSE (Pei Boon et al., 2020) and counselor self-efficacy as measured by the counselor self-efficacy scale (CSES; Melchert et al. 1996), which will predict program satisfaction.

Figure 1**.**

Conceptual Model, RQ1



Method

In this correlational research study, I employed cross-sectional survey data collection procedures to collect information about counselors-in-training social comparison orientations, sources of self-efficacy, counselor self-efficacy, program satisfaction, and perceived stress. Structural equation modeling (SEM) was used to test a hypothesized causal framework of the measured constructs. In addition, I conducted a series of exploratory analyses to identify hypothesized relationships between the variable as well as differences in scores on the measured constructs based on demographic characteristics of the sample. The following sections describe the research methods I utilized for this study.

Research Design

In this study, I employed a correlational, cross-sectional research design. Correlational research is used to determine if associations exist and to what degree they exist between independent variables by applying a range of statistical approaches. Correlational research is also used to examine the ability of one or more predictor/independent variables to forecast an outcome, or dependent, variables (Gay et al., 2019). In this specific correlational study, a predictive design was employed whereby my goal was to test the ability of several independent variables set within a casual framework to predict or modify an outcome variable using structural equation modeling. Correlational research can be used when it is either impossible or unethical to manipulate the variables being tested, though this introduces specific threats to the predictive power of the results such as failure to account for confounding variables and limited generalizability (Fleurence et al., 2010).

A cross-sectional study captures data from a sampled population at one specific point in time and can serve as a “snapshot of current behaviors, attitudes, and beliefs in a population”

(Gay et al, 2019, p 193) rather than a description of changes over the course of multiple assessments. Because little is known about the experiences of counselors-in-training social comparison orientations, a baseline study was needed to understand the current status of counselor experiences. In addition, cross-sectional studies are quicker and less expensive to complete and can be used to test multiple hypotheses and outcomes at one time (Levine, 2006). Lastly, because the entire population of counselors in training is unknown and unable to be captured by census survey, I used a sample survey to capture a sample of CITs from the United States.

Participants

The target population for this study was counselors-in-training within the United States. The counselors-in-training population is defined as master's level counseling students in Council for the Accreditation of Counseling and Related Educational Programs (CACREP) accredited counseling programs in the United States. Students were enrolled in either on-the-ground or online programs, were in multiple stages of their program of studies, and were enrolled in either clinical mental health, marriage and family, school counseling, or other counseling tracks endorsed by CACREP (i.e., School counseling, clinical mental health counseling, and family counseling). Anyone who was (a) not enrolled in a counseling program or (b) was enrolled in a program that is not accredited by CACREP was screened from consideration for the study. At the time of this study, there were 909 accredited programs based on a review of the CACREP registry of programs available on their website. In an examination of the 2018 CACREP annual report (CACREP, 2019, most recent available), there were approximately 50,000 students enrolled in CACREP programs across the United States. The sample of participants representing this population was selected through a nonprobability, or convenience, sampling method.

The researcher contacted program coordinators, CACREP liaisons, and instructors of counselors-in-training at CACREP-accredited universities in the United States and requested they administer the surveys to their students during class time. The researcher mailed packets of surveys along with return postage to instructors that agree to administer the paper surveys. I present more information about the data collection procedures in a later section. Though this method may lead to higher response rates than online survey methods (e.g., Nulty, 2008), convenience sampling introduces an element of bias which limits generalizability of the study results.

Sample Size Determination

Determining the appropriate sample size for SEM is important to ensure adequate power is obtained (Fowler, 2014) and that the target population is well-represented; therefore, multiple calculations of recommended sample size should be considered. In this study, I employed three frameworks to determine the desired sample size. First, I considered the sample size needed to be representative of counselors-in-training. Then, I considered the a priori power analysis based on the use of SEM. Lastly, I consulted several rules of thumbs for SEM sample sizes noted by scholars. The following section describes the decision-making process I followed. According to CACREP reports, there are approximately 53,000 students completing their counseling program at CACREP accredited schools. Using Krejcie and Morgan's (1970) recommendations on estimating sample size from estimated population, a sample closer to 381 would most effectively reflect the population of counselors in training (when n is > 50,000 and < 75,000).

Scholars in counselor education research have discussed the importance of evaluating and reporting statistical power (Balkin & Sheperis, 2011, Granello 2007). Power is generally defined as "the probability of rejecting the null hypothesis when the null hypothesis is false", or the

likelihood of obtaining a statistically significant finding (Thompson, 2006, p. 172). Power analysis helps a researcher avoid making a type II error, or failure to reject the null hypothesis when it should have in fact been rejected, avoiding the incorrect conclusion that no relationship exists between variables. More specifically, power analysis gives the researcher guidelines on the ideal sample size needed to obtain statistically significant data. Power analysis is conducted based on elements of the data analysis being conducted. A priori power analyses are completed prior to the conduction of a study and are possible when extant research on the topic permits the estimation of effect size (Balkin & Sheperis, 2011). A priori power analyses can be conducted using software such as G*Power (Faul, Erdfelder, Lang, & Buchner, 2007; Faul, Erdfelder, Buchner, & Lang 2009).

Using the recommendation set by Schumacker and Lomax (2010), I used the a priori sample size calculator offered at www.danielsoper.com" www.danielsoper.com (Soper, 2021). I identified 5 latent variables and 20 observed variables within the structural model and set the calculator to produce a medium effect size and 80% power with a resulting recommended sample size for of 150 participants. Lastly, I examined established rules of thumbs used for sample size determination in SEM research. According to some authors who identify a rule of thumb for sample size determination in SEM, 10 cases per indicator sets the lower bound of adequate sample sizes for SEM analysis (Nunnaly, 1967), which would result in an idea sample of 50 participants for RQ1. Another general rule of thumb is to multiply the number of parameters in the model by eight and add 50, which would prompt a sample of 90 for RQ1. Later researchers recommend a larger 20 to 1 ratio (Kline, 2015), which would indicate a need for 100 for RQ1. Schumacker and Lomax (2010) noted that most SEM studies have a range in sample sizes from 250-500 subjects. In consideration of conservative sample requirements (Schumacker and Lomax, 2010), and consideration of representation (Krejcie & Morgan,

1970), the proposed sample size for this study was a minimum of 200 participants but with the aim of acquiring 400 participants.

Data Collection Procedures

In this study, I employed survey research data collection methods to acquire participants responses to a series of measures. Survey methodology allows researchers to capture data to answer descriptive questions and questions about relationships between variables (Cresswell & Cresswell, 2018). One utility of survey methodology is to standardize the assessment procedure, supplying the researcher with uniform data as a result of asking the same questions in the same order with the same instructions given to the participants (Gay et al., 2019). Utilizing surveys with structured items and giving a maximum amount of time for survey completion are some specific methods of pursuing standardization and can aid the researcher in quicker and more accurate scoring of assessments. Another benefit of survey methodology is the ability it provides to reach a diverse geographical sample, allowing for a more representative measurement of the national population.

I employed two forms of data collection procedures, including (a) paper-based survey administration and (b) electronic-based survey administration. The surveys used to capture participant information were based on tailored design methods (Dillman et al., 2014). The paper survey packet included a cover sheet detailing information about the study including the rational, potential risks, participant rights, and research contact information. Each of the utilized measurements were printed on color-coded pages and included directions that specified how to respond to each. Because visual design has been shown to affect ease and frequency of response, special attention was given to readability and clarity of the measurements (Dillman et al., 2014). To beta test the surveys, I consulted with other counselors, counselor educators, and peers to

review for clarity and legibility of the survey packet. Minimal changes regarding layout and instruction were suggested and implemented.

Paper-Based Survey

A sample of at least 200 participants was sought to complete the paper-based survey. To administer the paper versions of the survey, I utilized two methods of data collection. For most schools within the central to southeastern Virginia region, I administered the survey packets to counseling students in person during class periods after obtaining permission from the instructor. For schools outside of this area, I sent packets with prepaid return postage to recruited instructors to be administered during class time and returned via mail. Completed surveys were manually calculated and entered into a spreadsheet to be uploaded for analysis to SPSS. Administrators of the survey packets were given a specific cutoff date by which they were to have returned the surveys for digitization and analysis.

To account for non-response rates, I recorded the number of packets sent to each class for completion. Each packet was contained within its own envelope and participants were instructed to seal the envelopes regardless of if they had completed the survey or not to obtain a count of how many participants received and participated or refused participation. No incentive was provided to the course instructor or participants completing the survey. Completed packets were mailed back to the researcher or picked up. I then hand-scored each survey item and transferred the results to a digital spreadsheet format.

Electronic-Based Survey

Additional participants were surveyed through an online survey host Qualtrics partially as a result of the SARS-Covid-19 virus and limitations on in-person interactions. The link to the survey was disseminated through multiple channels, including direct link sent to instructors and

supervisors of counselors-in-training that could not provide paper surveys to their students and links shared with counselor education program directors. Participants were informed of the purpose of the research as well as potential risks and were provided with a unique link to the survey packet for virtual completion. Each program sampled was given a unique link to the online survey in order to identify each sub-sample's origin. The online survey was active and open from November 2021 to January of 2022. Non-response rates were calculated from reported class sizes and responses started and not competed.

Measures

Iowa-Netherlands Comparison Orientation Measure.

To measure social comparison orientation, I used the Iowa-Netherlands Comparison Orientation Measure (INCOM; Gibbons & Buunk, 1999). The INCOM identifies an individual's orientation toward making comparisons of (a) ability, or how a person is performing specific tasks, and (b) opinion, or what they are feeling and thinking. The scale uses 11 items, two negatively coded to control for acquiescence bias, to assess an individual's propensity to make social comparisons regarding their abilities and opinions on a five-point Likert scale.

The scale has been tested internationally and scholars have established evidence for its validity and reliability in Germany (Schneider & Schupp, 2013), the United States, the Netherlands (Gibbons & Buunk, 1999), and Turkey (Cronbach's alpha = .82, Tekozel, 2000). The INCOM was originally reported to have an internal consistency of .83 and between .78 and .85 in the Netherlands and U.S. samples respectively (Gibbons & Buunk, 1999) and was demonstrated to have temporal stability for up to a year (.60) in the U.S.. The INCOM in demonstrated to have convergent validity with other direct comparison measures as well as measures of interpersonal orientation (Swap & Rubin, 1983; r = .45), public self-consciousness

(Fenigstein et al, 1975; *rs* =.38 to .49), attention to social comparison information (*rs* = .47 and .66) and various measures of negative affectivity and neuroticism (Gibbons & Buunk, 1999). The INCOM demonstrates divergent validity with similar but distinct measures such as social support and need for cognition (Gibbons & Buunk; Schneider & Schuppp, 2010). When tested against measures of social desirability, the INCOM was found to have weak correlations with social desirability, indicating a lack of influence by individual properties toward likeability (Schneider & Schupp). However, a caution when using this scale is that the construct of SCO may be sensitive to environmental factors. For example, comparison orientation increases in novel or challenging situations. Therefore, interpretations should take this into account (Gibbons & Buunk, 1999).

Adapted Counseling Self-Efficacy Scale.

Though many scales exist that measure counselor self-efficacy, I chose to use the Counseling Self-Efficacy Scale (CSES; Melchert et al. 1996) on account of its relatively short form, its specific utility with students engaging in individual and group counseling, its high Cronbach's alpha (.91), and its high test-retest reliability of the scale (.85). Melchert et al. developed the scale based on a review of necessary counselor skills and competencies and then sought out content experts to review the scale for content validity. The original scale consists of 20 5-point Likert-type items and assesses the counselor's self-report of their efficacy in individual and group counseling. Half the items are negatively coded to avoid response bias and scores on the scale range from 20-100.

The CSES is reported to have convergent validity with other measurements of counselor self-efficacy such as Friedlander and Snyder's (1983) Self-Efficacy Inventory (*r* = .83, Melchert et al., 1996; Gray et al., 2009), and has reported acceptable Cronbach's alphas with counseling

and psychology students (.77, Constantine, 2001; .85-.93, Pasquariello, 2013; .96, Mullen & Uwamahoro, 2015). The instrument showed temporal stability over the span of one-week with a test-retest coefficient of .85 (Melchert et al., 1996). An important finding to note is that the original authors of the scale found significant differences in CSES scores across level of training and experience, which should be taken into account for the current study as the study participant may be at various stages of their program progress (Melchert et al.).

I amended the original scale to be in compliance with Bandura's (2006) recommendations for measuring self-efficacy and renamed it the Adapted Counselor Self Efficacy Scale (CSES-A) for the purposes of this study. The changes made included changing the response scale from a 5-point Likert response to a "percentage of confidence" scale ranging from 0% confidence to 100% confidence regarding ability to perform a counseling task at that given moment. I also truncated the item stems to simplify them to the essence of the counseling skill or disposition being measured. For example, "I can effectively facilitate client self-exploration" became "facilitate client self-exploration".

Sources of Counseling Self-Efficacy Scale—Malaysia.

Pei-Boon et al. (2020) created a 25-item scale that uses 6-point Likert response items to assesses individual' mastery experiences, vicarious learning, social persuasion, and physiological and affective state. The authors adapted the Sources of Counselor Self-Efficacy Scale – Malaysia (SCSE-M; Pei-Boon, 2020) from the Mathematics Self-Efficacy Scale (Usher and Pajares, 2009) by replacing the word "mathematics" with "counseling". The authors then utilized an expert panel of reviewers to validate the instrument and the resulting scale achieved a Cronbach's Alpha of .87 for Mastery experiences, .86 for social persuasion, .93 for vicarious learning, and .92 for physiological and affective state.

The original research involving the SCSE (Pei Boon et al., 2018) found that mastery experiences and social persuasion predict counseling self-efficacy whereas physiological and affective arousal negatively affect CSE. Vicarious experience had no effect; however, vicarious experience within this scale may not fully capture the effect of social comparison behaviors, behaviors that correspond with vicarious learning. Later research with the SCSE-M (Pei Boon et al., 2020) demonstrated good internal consistency as represented by the coefficient alphas of the subscales (.86), as well as concurrent validity in a Malaysian sample with the Counselor Self-Estimate Inventory (COSE; Larson et al., 1992) with Pearson correlations with the SCSE-M subscale ranging from .18 and .26 (p = .000) and a significant reported overall correlation between the SCSE-M and COSE (r = .27, p = .000). Discriminant validity was tested using the Average Variance Extracted (AVE) with results greater than .50 indicating discriminative validity. Authors of the SCSE-M report results from the subscales are greater than the square root of the AVE, ranging from .54 to .662.

Perceived Stress Scale

To measure general stress experience by counselors in training, the current study used the Perceived Stress Scale (PSS; Cohen et al., 1983), a 10-item 5-point scale used to assess how an individual appraises their life to be uncontrollable, overloaded, and unpredictable within the last month. Higher scores on the scale indicate a higher level of stress. The general nature of the scale will allow for broad application to the experience of counselors in training rather than singling out academic or occupational stress.

The original study to develop the scale was performed with both college and community samples and found a Cohen's *d* ranging from .84 to .86 (Cohen et al., 1983). In a review of the literature that utilizes the PSS, Lee (2012) found that the Cohen's D of the PSS-14 was greater

than the commonly acceptable threshold of .70 in 11 of 12 studies. The shortened version of the scale, the PSS-10 was also found to have an acceptable Cohens *d* above .70 in 12 studies. The shortest version of the scale, the PSS-4 had an acceptable Cohens *d* in only half of the twelve studies in which it was used, prompting this researcher to utilize the PSS-14. Test-retest reliability for both the PSS-14 and the PSS-10 were found to reach acceptable levels in the majority of studies in which they were used. The factor analysis of the PSS revealed a two-factor structure in the majority of studies; however, the two-factor model accounted for a maximum of 50 percent of the variance, the lowest possible amount for significance, indicating the potential for the scale to be unidimensional.

The scale shows good convergent reliability with other scales of stress and has a reliability coefficient of .86. The scale was found to be correlated with multiple scales that measure negative affectivity such as depression, anxiety, and general health (Lee, 2012). In some studies, there were significant gender differences whereas in others, the differences were minimal or non-significant. However, the review of the literature found that in most studies where the demographics of the participants were captured, young, white, married, employed, earning a high income without children scored lower on average on the PSS (Lee).

In light of the above finding, considerations when using this scale include that the scale was normed on a population heavily skewed toward White participants, possibly limiting its validity with diverse populations. In addition, the scale's author notes that the predictive reliability of the reported values on the PSS may diminish after four to eight weeks given the ever-changing nature of stressors and environmental factors (Cohen et al., 1983).

Psychology Program Satisfaction Survey

Gealy (2016) developed the Psychology Program Satisfaction Survey (PPSS) to assess for doctoral student satisfaction with their currently enrolled program in order to assist with program evaluation. Items were derived from existing measures of satisfaction and address the multiple facets of a psychology program experience. Following a Principal Component Analysis, the scale was found to have eight components: Research, Diversity, Relational Support, Clinical Assessment, Clinical Intervention, Academic Enablers, Practicum, and Coursework.

For the purposes of this study, I utilized two of the subscales of the PPSS that were most relevant to the experiences of counselors in training: the coursework subscale and the clinical subscale which include 'assessment', 'intervention', and 'practicum'. The coursework subscale included six items that correspond to the student's satisfaction with the course offerings, the quality of the classroom experiences, evaluation, and the effectiveness of the teaching. Responders to the PPSS rate their overall impression of each category by selecting a value between '1' and '5' with '1' being "Did not meet my expectations", and '5' being "met or exceeded my expectations in most ways." Because the PPSS was used originally as part of a recent dissertation study on Psychology student satisfaction, the data supporting the scale's overall validity and with counseling students is limited to the initial testing of the scale. In addition, because I sampled students at all stages of their program of studies, I also included a sixth scale response item, "N/A", for students that had not yet completed practicum and therefore could not report on that aspect of their satisfaction.

Demographics Form

The demographic survey captured background data from the participants for use in addressing the exploratory research questions. The survey included questions regarding

participant age, gender, race, counseling track (CMHC, Family, School), and program status (year, online or in person). Please see Appendix X for the full demographics survey.

Data Analysis

After the data had been collected, it was exported into SPSS (Version 27) and then cleaned, and analyzed for missing cases or incomplete data. The data analyses were applied using both SPSS and AMOS (Version 27).

Data Analytic Approach to Test the Main Research Hypothesis

I selected SEM to test the main research hypothesis because SEM, like path analysis, can be used to "clarify direct and indirect relatedness among variables relative to a given variable" (Gay et al., 2019, p. 225). SEM is an extension of path analysis that expands on the analysis of the relationships between variables and includes the use of latent variables to craft a more solid theoretical foundation of associations. The resulting model serves as a causal statement about the relationships between variables. Because the construct of social comparison orientation is relatively unexplored in counselor education research, SEM will allow the researcher to begin solidifying the theorized relationship between social comparison orientation and other outcome variables with statistical precision. Unlike path analysis, SEM includes the calculation of the measurement models for each scale used in the model.

SEM makes use of exogenous (independent) and endogenous (dependent) variables to construct the theorized model. In this study, the exogenous variables are social comparison orientation and sources of counseling self-efficacy. The endogenous variables were counseling self-efficacy and program satisfaction. In this study, I engaged in a two-step process whereby I first tested the measurement models for the constructs being measured, performing confirmatory factor analyses to test relationships between the latent and manifest variables. Factor Analysis

"groups variables into clusters, or factors, based on correlations between items on a measurement" (Gay et al. 2019, p. 225). The resulting factors can be used in further analysis to give a deeper understanding of a sample's performance on a measurement.

In the second step, I evaluated the structural model that depicts the hypothesized relationship between the variables in the study. Specifically, I adhered to the following steps noted by Kline (2015): (a) model specification, (b) model identification, (c) selection of measures, (d) estimation of model fit, (e) model re-specification, and (f) results reporting (Kline, 2015). The following sections will highlight these five steps in more detail:

Model Specification. Model specification requires the researcher establish evidence for the proposed model through a thorough account of existing literature on the studies construct (Kline, 2015). In Chapter two, I outline the supporting literature for the presented model, including rationale for an existing relationship between social comparison orientation, counselor self-efficacy development, stress, and program satisfaction. However, it should be noted that using social comparison measures is a relatively new concept in counseling research, indicating that caution should be used in assumptions regarding construct relationships.

Model Identification. Model identification ensures that the parameters of the data allow for testing and are able to be identified. Models in SEM analysis must be just-estimated or over-estimated in order to meet the parameters for analysis. An ideal model in SEM is overidentified with fewer estimable parameters than the number of data points (Byrne, 2010).

Selection of Measures. The measures used in this study were carefully chosen based on their construct validity as evidenced by use in previous research, their reported reliability, and their relevancy to the research question (Kline, 2015). The selection of measurements is intended to operationalize the latent variables the researcher will investigate through use of instruments

that are clear, understandable, and accessible to the study participants. In this study, the Program Satisfaction questionnaire is the only measurement without a body of evidence that supports its reliability and validity with counselor populations, a fact that should be considered when interpreting the results of this study.

Estimation of Model Fit. Once that data was collected, the I used various indices of model fit to determine the goodness of fit of the proposed model to the collected data. Kline (2015) recommends using a variety of fit indices to analyze the fit. The fit indices that were used in this study are outline in Table 1 below. A poor fit for the specified model indicates the researcher will need to re-specify the model and run analyses until an acceptable fit is obtained.

Table 1

Description of Fit Indices

Fit Indices	Description	Cutoff Criteria
Chi Square	Compares predicted and observed covariance matrices. Larger sample size increases likelihood of significance.	Non-significant X^2 Indicates better fit
Goodness of Fit Index (GFI; Joreskog & Sorbom, 1982)	GFI estimates the presented model in comparison with no model at all.	> .90 is acceptable $\geq$ .95 is a good fit
Root Mean Squared Error of Approximation (RMSEA)	Compares independent to estimated models. Indicates "badness of fit", wherein best fit models have a value closer to '0'. RMESA is influenced by the model's degrees of freedom.	< 10 is a poor fit .05- .08 is acceptable $\geq$ .05 is a good fit
Standardized Root Mean Square Residual (SRMR)	Square root of the differences between residuals of sample covariance matrix and the hypothesized Model.	$\leq$ 0.08 may be acceptable $\leq$ .06 recommended

Comparative Fit Index (CFI; Bentler, 1990)	Compares improvement of the model over an independence, or null, model	>.90 acceptable fit
Tucker-Lewis Index (TLI; Tucker & Lewis, 1973)	Incremental fit index, affected by sample size	>.95 acceptable fit >.97 Good fit
Non-Normed Fit Index (NNFI; Bentler & Bonett, 1980)	Incorporates degrees of freedom into the model, Extension of TLI for SEM	>.90 acceptable fit >.95 good fit

Model Re-specification. In the case that the specified model does not fit the data to an acceptable degree, a researcher may need to re-specify the model. This may include a new review of the literature to uncover potential new information that may inform a new specified model. Upon re-specification, the research will once again identify the model, then utilize fit indices to estimate the model's fit to the data. Once an agreeable fit has been obtained, the researcher will continue on to the following step. The model tested in this study did not require re-specification.

Results Reporting. Once an acceptable model had been fit to the data, I reported the findings (found in Chapter 4 of this paper) including the measurement models, the results of the

confirmatory factor analysis, the final structural model, and the implications for the research hypotheses.

In SEM, the following statistical assumptions are required to be met. Structural equation modeling requires the careful specification of a model based off thorough textual evidence for the proposed relationships between variable. Further, SEM is performed under the assumption of independence of residuals, which means the residuals for a variable are mutually uncorrelated (Curran, 2003). SEM assumes a sufficient sample size along with acceptable reliability of the measurements (Kline, 2015). SEM requires multivariate normality, indicating that data should be free of univariate or multivariate outliers. Further, the data should be normal and linear. Non-normal or missing data must be rectified by the researcher. The researchers should inspect the independent variables for multicollinearity, which is a phenomenon in which independent variable are correlated and can affect the reliability of the inferences made from the data.

Data Analytic Approach to Test Exploratory Research Question One (ERQ1)

ERQ1 was investigated using a correlational analysis of the CSES (Melchert et al., 1996) and the PSS (Cohen et al., 1983). I first assessed the data for linearity. Finding the data to be linear, I then calculated the Pearson Correlation between the two scales. A Pearson's R between $\pm$ 0.50 and $\pm$ 1.0 is considered a strong correlation, whereas values between $\pm$ 0.30 and $\pm$ 0.49 are said to be medium in strength. A value that lies below $\pm$ 0.29 is considered a small correlation.

Data Analytic Approach to Test Exploratory Research Question Two (ERQ2)

To investigate the second exploratory research question, I performed a simultaneous multiple regression analysis. In Chapter 4, I report the F, R^2 and p values with a significant p value indicating a significant prediction by sources of counselor self-efficacy of program

satisfaction. I also report percentages of variance contributed by each of the sources of self efficacy on program satisfaction to better understand the relative influence of each variable using standardized coefficients.

Data Analytic Approach to Test Exploratory Research Question Three (ERQ3)

To answer the third exploratory research question, I conducted a one-way Analysis of Variance (ANOVA). To perform the analysis, I calculated the F and *p* values of the mean differences in order to identify any existing differences between groups. Significant *p* values indicate that there are significant differences between the means across the measured groups. I also performed the appropriate post hoc test to determine to find significant mean differences between specific groups.

Exogenous and Endogenous Variables

SEM makes use of exogenous, or independent, variables that are not acted on by other variables. In addition, the study examines exogenous, or dependent, variables to construct the hypothesized model. In this study, the exogenous variables studied were social comparison orientation and sources of counseling self-efficacy. The endogenous variables in the model are counselor self-efficacy and program satisfaction. Counselor Self-Efficacy served as an endogenous variable that was acted on by exogenous variables while also acting on an endogenous variable, program satisfaction (Kline, 2015). It is important to note that Program Satisfaction is an endogenous variable with two subscales within the measurement that capture Coursework and Clinical Training satisfaction while the Source of Counselor Self Efficacy scale is comprised of four subscales including mastery experiences, vicarious experiences, social persuasion, and physiological and affective arousal.

Ethical Considerations

Before conducting the study, I obtained approval from the authors of the utilized scales to administer these scales for the purpose of the research project. In addition, I obtained approval from the William & Mary Institutional Review Board. Upon collection, all data was stripped of identifying information. Participants were assigned confidential case numbers and all efforts toward ensuring confidentiality of the participants were made.

Participants were notified via an explanation of the research project of their right to cease participation at any time as well as any potential risks to their wellbeing as a result of the content or process of answering the surveys. Participants were also notified that their participation in the current study would in no way affect their standing in their prospective programs and would not be influential in any evaluation or grading performed by their program.

Though this study did not conduct an intervention, survey methodology can at times cause distress in respondents. Participants were given resources to pursue if distress arises from answering any of the study materials and also had the researcher's contact information for follow-up questions or to stay informed of the study's progress.

Limitations

Correlational and cross-sectional designs have specific limitations that coincide with their usage (Cresswell & Cresswell, 2017; Gay et al., 2019; Lau, 2017). Correlational research requires large sample sizes to establish predictive models, which in many cases is not easy to obtain. Correlational research demonstrates relationships between independent and dependent variables, but cannot fully account for the presence of confounding variables, indicating a risk of committing Type 1 error and attributing causality when none exists. Cross-sectional designs have similar limitations in the sense that they capture data at one particular point in time, leaving a

potential risk that the participants' answers may vary significantly under variant circumstances or with differing environmental conditions. Cross-sectional designs are also unable to capture the effects of time on the measured variables.

Survey methodology introduces unique threats to reliability and validity in that the researcher may not be present to explain and confusions surrounding assessment items or clarify the survey directions for participants. Similarly, lack of involvement by the main researcher may limit the ability to build rapport or follow up with participants, possibly leading to lower response rates. Rates of 50% or higher are generally accepted as sufficient for survey research, but lower rates of response can affect generalizability. In this study, the recruited instructors that will administer the survey packet to students may lack specific training in assessment administrations, potentially introducing error.

This study makes use of non-random sampling, potentially introducing sampling bias as the participants were contacted through the researcher's personal connections. In addition, limiting participation to CACREP-accredited schools may leave out the experiences of students at non-CACREP accredited institutions. Online survey research has its own set of limitations, including a possibility of inaccurate reporting as a result of anonymity, incomplete data, or a skew toward individuals that are more personally motivated to complete surveys. Lastly, despite efforts to remove barriers to counselor education, underrepresented groups like students of color, non-traditional students, and students with disabilities are still lacking in counselor education programs, potentially lending to an under sampling of those populations (Gay et al., 2019).

There are several potential limits of the measurements used in this study. Broadly, each of the measures relies on self-report data. Existing literature indicates that self-report data may be skewed by tendencies toward impression management or difficulties with inaccurate self-

appraisal. The length of the test battery may also be a deterrent to accurate responses as participants may tire as the study goes on. The INCOM does not specifically measure counseling-related comparisons although it is being used in a model that deals specifically with counseling-related behaviors and dispositions. Similarly, the PSS is a general measure of stress and does not correspond specifically to stressors experienced by counselors in training. The PPSS has two specific limitations. First, the measurement was designed for use with Psychology doctoral students. Though there are similarities across counseling and psychology programs, there are unique aspects of counseling programs that may not be represented by the PPSS. In addition, the PPSS has little supporting evidence of its validity and reliability due to only being used in its pilot study.

SEM introduces unique limitations to this study. Though the proposed structural model may be theoretically grounded, overestimation or misestimation of the model may lead to false significance. Difficulties in estimating parameters to be measures may result in overestimation of the model, necessitation re-formulating the model and re-testing. Regarding the measures that contribute to the model's structure, low or unknown reliabilities may limit the ability to find true significance.

Chapter Three Summary

This chapter reviewed and summarized the methodology I used to investigate the impact of social comparison orientation on counselor self-efficacy and program satisfaction through the use of structural equation modeling. This chapter also presented an outline of the SEM analysis procedure, a discussion of the data sources along with textual support for their use and limitations of the present study. Secondary research questions and their corresponding analysis

were also discussed. The following chapter will review the results of the investigation and analyses.

CHAPTER FOUR

RESULTS

In Chapter four, I report the results from a cross-sectional research study and discuss findings from my primary research hypotheses and exploratory research questions. In this study, I sought to determine the extent for which counselor-in-trainings' social comparison orientation relates to their counselor self-efficacy development, and to explore the relationship between counselor self-efficacy and program satisfaction. Specifically, I tested a hypothesized structural model that examined the moderating effect on social comparison orientation on the relationship between sources of counseling self-efficacy and global counselor-self efficacy (see Figure 1). In addition, the model I tested examined the contribution of counselor self-efficacy to participants' program satisfaction. I tested for relationships between six measures: the Iowa-Netherlands Comparison Orientation Measure (INCOM; Gibbons & Buunk, 1999), the Counselor Self-Efficacy Scale (CSES; Melchert et al., 1996), Sources of Counselor Self Efficacy – Malaysia (SCSE-M; Pei-Boon et al., 2020),a modified version of the Psychology Program Satisfaction Survey (as measured by the 'coursework' and 'clinical training' subscales of the Psychology Program Satisfaction Survey [PPSS]; Gealy, 2016), and the Perceived Stress Scale (PSS; Cohen et al., 1983).

Primary Research Question

My primary research question (RQ1) was:

1. Does counselors-in-training social comparison orientation (as measured by the INCOM; Gibbons & Buunk, 1999) moderate the relationship between sources of counselor-self efficacy (as measured by the SCSE-M; Pei-Boon et al., 2020) and overall counselor self-

efficacy (as measured by the CSES; Melchert et al., 1996), which in turn predicts program satisfaction (as measured by the PPSS; Gealy, 2016)?

I hypothesized that comparison orientation would fully moderate the relationship between sources of counselor self-efficacy and overall counseling self-efficacy, which in turn would predict program satisfaction. To test the primary research hypothesis and answer the research questions, I employed Structural Equation Modeling (SEM).

In addition to my primary research question, I had three exploratory research questions (ERQ) based on the gaps in research highlighted in Chapter two. The exploratory research questions included:

1. Does counselor self-efficacy correlate with their perceived stress?
2. Do reported sources of counseling self-efficacy predict program satisfaction?
3. Does INCOM vary across age, race, gender, track, and program status?

To analyze these questions, I applied the following data analytic approaches (a) Spearman Rho Correlations, (b) Simultaneous Multiple Regression Analysis, and (c) one-way analysis of variance (ANOVA).

In Chapter four, I will first report the procedures I utilized to capture my data as well as the demographic and descriptive statistics of the procured sample. I will discuss the procedures and considerations taken when screening, cleaning, and trimming the completed data set. I will then discuss the model specification process. I will report the results of a confirmatory factor analysis (CFAs) for the utilized measures and then proceed to the analysis of the identified model including the measurement model results for the main model. I present an initial and an alternative structural model to answer the primary research question. Last, I will proceed to answer the exploratory research questions.

Sampling and Data Collection

For this study, the target population included counselors-in-training enrolled in a masters-level counseling program. In order to capture a diverse sample of counseling student experiences, I pursued participants from both in-person and online programs as well as students from multiples stages in their programs (e.g., pre-practicum, enrolled in internship). Finally, I limited participants to those counselor trainees enrolled in programs accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). CACREP requires that counseling programs teach specific counseling skill, knowledge, and disposition and that these programs report Key Performance Indicators that demonstrate students learning. In addition, CACREP describes hour requirements and site supervisor qualifications for clinical placement courses (i.e., practicum and internship). As a result, participants in the study should have had a similar educational experience regarding content and clinical placement methodology due to being in CACREP accredited programs.

To ensure a sufficient sample size, I took into consideration the number of participants needed to achieve adequate representativeness of the population under study. A review of the CACREP yearly report from 2018 revealed that approximately 53,000 students were enrolled in CACREP-accredited programs at the time of the report. I consulted the work of Krejcie and Morgan (1970) to determine an appropriate sample size for representativeness and the recommended sample for a *n* between 50,000 and 75,000 was 381 participants. After determining the threshold for representativeness, I conducted an a priori power analysis for use in SEM.

To facilitate an a priori power analysis, I applied the a priori sample size calculator offered at www.danielsoper.com (Schumacker & Lomax, 2010; Soper, 2021). Using the

recommended a priori sample size calculator with 5latent variables, 20 observed variables, a medium effect size, and 80% power; the recommended minimum sample size to achieve a direct effect was 150 participants. I also consulted several rules of thumb for SEM sample size determination. Using a 10 cases per indicator rule (Nunnaly, 1967), a sample size of 50 is required for Research Question 1. In addition, Kline (2015) recommends a ratio of 20:1, which would yield a recommended sample of 100 Integrating the information from an a priori power analysis, the general rules of thumb for SEM and the recommendations for representativeness, I pursued a minimum sample requirement of 200 cases with preferred sample being closer to 400.

To recruit the sample, I utilized a convenience sampling procedure. My recruitment process involved contacting faculty members in counselor education to access their counseling students. Through email communication, I established connections with 18 different institutions in the United States. Using the Association for Counselor Education and Supervision (ACES) regional divisions, eight were in the Southern Region, four were in the North-Atlantic region, and six were fully online programs. Before starting data collection, I recruited counselor educators and peers to read through and take the survey as a way to evaluate clarity and flow of the surveys. The survey packet including the informed consent, the demographics, and the measured used in the study. Data were collected over November and December of 2021 and January of 2022. In order to achieve a diverse sample group, I reached out to schools with a larger demographic makeup of BIPOC and non-traditional students including HBCUs and online programs. The survey packet included both paper-based (for personal administration) and web-based questionnaires built in the Qualtrics online survey tool.

When capturing data using paper-based surveys, sampling occurred by (a) personal administration I led or (b) personal administration that a counselor educator at the university

offered to facilitate. I administered in person data collection at one institution with 65 counselor trainees being invited to take the study and 61 (94% response rate) completing the survey. In addition, three counseling programs were surveyed by personal administration led by faculty in those programs. For the latter data collection process, I sent through the mail with instructions for administration. Overall, 89 counselor trainees were invited through the second method of data collection with 65 completed surveys and a response rate of 73%.

Along with the paper-based method of data collection, I employed online surveys. I captured participants' responses by sending links to the survey to counselor educators who then shared with students in their classes. Each institution for which students participated online received a unique link to the online survey packet to ensure the source of the response was clear and evident. Overall, a total of 1, 209 students received an invitation to complete the survey through the online process with a total of 116 participants completing the survey for 10% response rate. After combining all samples, I acquired an initial total sample of 318 that would be screened for use in the study.

Data Screening

After acquiring the sample, I then screened the data for missing cases. Data collected in the paper and online collection procedures totaled 318 participants before screening, trimming, and cleaning the data. After a visual analysis of the data, 72 cases with more than 15% of data missing (Gaskin, 2016) were removed using listwise deletion in order to avoid significant estimate bias (Little, 1992; Tabachnick & Fidell, 2013). After listwise deletion, 242 cases remained, failing to meet the proposed sample of 250 but did meet general rules of thumb noted by Nunnaly (1967) and Kline (2015). After analyzing the remaining cases' missing data for

patterns using the Missing Completely at Random Test (Little, 1988), the data were found to be missing completely at random.

Because the data were found to be missing completely at random, missing values could be imputed to complete the data set. To impute missing values, I elected to use mean imputation methods (Cheema, 2014). Though each of the scales demonstrated a significant Schapiro-Wilk statistic indicating non-normality, the assessment of skewness and kurtosis found that only the SCSES-M and the Program Satisfaction Survey had skewness or kurtosis above or below the +/1 1 threshold (Hair et al., 2013); Therefore, there was diminished risk that mean imputation could significantly affect the distribution of the data. However, it should be noted that mean imputation can lead to bias in multivariate estimates such as correlation and regression as a result of diminishing the correlations between variables to '0' (Cheema, 2014). Cases with missing data were identified by running missing data calculations for variables with more than .01 percent of data missing. The means of each variable with missing data were computed in SPSS and them manually input to complete cases with missing data. A total of 12 cases were found to have at least one variable with missing data. Means were not imputed for categorical variables or for participants' age.

Lastly, I calculated Mahalanobis distance for the data in order to identify significant outliers that may affect the data distribution. After calculating the *p* values for each case, I sorted cases to find those with datum that were found to be below the .001 threshold. Nine cases produced significant Mahalanobis distance and therefore considered outliers. To address this concern, I first conducted the SEM with the outlier cases include. Then, I removed the outlier cases and compared the model outcomes. Both models, with and without outliers, resulted in near identical results. Thus, I decided to retain these cases in the final model.

SEM Statistical Assumptions

The main research question was explored using structural equation modeling. First, I evaluated the data to ensure that no statistical assumptions were violated (Hair et al., 2006). Assumptions for SEM include: (a) adequate sample size, (b) considerations of missing data, (c) treatment of outliers, (d) univariate and multivariate normality, (e) multicollinearity and singularity, (f) linearity of variables and homoscedasticity (Kaplan, 2009; Tabachnick & Fidell, 2007).

To ensure adequate sample size, I conducted a priori power analyses as well as utilized several rules of thumb for identifying idea sample size in SEM. Suggestions for SEM sample sizes range from low thresholds (e.g. 10 case per indicator; Nunnaly, 1967), to high thresholds (e.g. 250-500; Schumacker & Lomax, 2010). With this in mind, I calculated an a priori power analysis for SEM and produces a suggested sample size of 150 for a model with 5 latent and 20 observed variables. To ensure sufficient sample size, I selected a sample of 250 with the aim to obtain 400. I also attended to missing data as missing data can introduce bias to the estimates (Hair et al., 2006). I used both listwise deletion and mean imputation. I calculated Malahanobi's distances to determine the presence of outliers. While 9 cases demonstrated significant outliers, the models as run with and without the outliers performed no differently.

I next analyzed the data for normality. When conducting SEM, as well as multiple regression to test ERQ2, I calculated the normality of the residuals. Specifically, I used a visual review of histograms and the P-P plot as well as calculated the Shapiro -Wilks test of significant for normality for the data. Though the Shapiro-Wilks statistic was significant for each of the scales, indicating non-normality, I also reviewed the skewness and kurtosis. One method of identifying normality is to determine the skewness and kurtosis of the variables. Utilizing a +/- 1

rule of thumb for interpreting skewness, only two variables (SCSES-M and PPSS) produced values outside the acceptable range of skewness (Byrne, 2010; Hair et al., 2010, 2013). In addition, only the SCSES-M produced kurtosis values outside the range of +/-1. Age, semesters completed, and years completed were all found to be normally distributed. When analyzing for outlier data, three cases were above +/-3.0 in age when Z score calculated. One case above was +/- 3 in years' experience and 4 cases were +/- 3 in semesters experience.

I analyzed the data for multicollinearity, high levels of correlation between independent variables, by calculating the VIF and Tolerance for the model variables. Using the scores from the INCOM (Gibbons & Buunk, 1999), the SCSES-M (Pei-Boon et al, 2020), and the CSES (Melchert et al, 1987) as predictors for the PPSS (Gealy, 2016). The VIF scores for each of the scales were below 5 (1.05, 1.35, and 1.4 respectively) indicating low threat of multicollinearity. Tolerance values for each of the scales were also within the acceptable range. However, the condition index for dimension 4 was above the ideal threshold of 15, but below the problematic threshold of 30 (Kennedy, 2003), indicating that while other checks for multicollinearity were acceptable, there may be some existing issues with multicollinearity among the variables. Linearity is an important assumption in analysis using regression relationships. A visual inspection of scatterplots of the scale items for each of the scales in the model demonstrated no non-linear relationships. Last, I assessed for homoscedasticity by generating scatterplots of standardized residuals once again using the predictor and outcome variable used in the model. None of the plots demonstrated significant deviation, and thus homoscedasticity is assumed. A finding of homoscedasticity indicates that the regression model is equally accurate across the dependent variable's range (Garson, 2012).

Assumptions for the Exploratory Research Questions

For the exploratory research questions, many of the same assumptions required for SEM were met for these analyses such as normality, linearity, and accommodations for missing data. However, in order to perform correlational analyses, I also had to demonstrated homogeneity of variances. I did so by ensuring that there is a non-significant Levene's test in order to demonstrate indicating that the data do not violate the assumptions of homogeneity of variance. The INCOM scale demonstrated non-significance on Levene's test, (F (1, 242) = 4.035), p = 0.308), indicating homogeneity of variance.

Specifically for the ANOVA, I had to demonstrate independence of observations. Though there may be cohort effects on scores since many of the individuals are grouped in class cluster, there was no explicit significant threat to independence. Last, the multiple regression analysis required a large sample size to ensure generalizability. The sample size obtained was lower than the proposed sample; however, the number of cases was well above other more liberal thresholds. Multiple regressions are also sensitive to outliers. The outliers in this study were identified but did not seem to have significant effects on the outcomes of the model, and were therefor kept for sample size maintenance.

Descriptive Statistics

Participant Demographic Information

Participants answered demographic questions on a questionnaire attached to the survey packet. The sample produced a mean age of 29.5 (SD = 8.51, Mdn = 26, $Mode$ = 24). Participants' reported gender included 197 female (81.4%), 38 male (15.7%), three transgender / non-binary (1.2%), one respondent who identified as gender expansive/gender non-conforming (.4%), two respondents that preferred not to say their gender (0.8%) and one who preferred to

self-describe (0.4%). When asked to report race/ethnicity, 10 participants reported Asian (4.1%), 19 reported Black or African American (7.9%), 19 reported Hispanic or Latine (7.9%), 17 reported Multiracial (7.0%), 173 reported White (73.%) and 4 reported other (1.7%). The mean years in graduate school was reported as 1.3 (*SD* = .95, Mode = .5) while the mean for semesters in graduate school was 3.37 (*SD* = 2.39, Mode = 1). A total of 142 participants (58.7%) participated in in-person modality of learning, whereas 62 respondents participated in online learning modalities (25.6%), and 38 participants participated in a hybrid model (15.7%). Regarding program concentration, most students were in a clinical mental health counseling track (*n* = 133, 55.0%), followed by 71 (29.3%) in a school counseling concentration, 18 (7.4%) in a marriage and family therapy concentration, 10 in addictions concentrations (4.1%), 8 in military and veterans concentrations (3.3%) and one participant each reported specializations in art therapy (0.4%) and sex offender treatment (0.4%).

Table 2.

Demographic Characteristics of Trimmed Participant Sample

Variable	*n*	%
Gender		
Female	197	81.4
Male	38	15.7
Transgender / Non-Binary	1	1.2
Gender Expansive / Gender Non-conforming	1	.4
I Prefer Not to Say	2	0.8
I Prefer to Self Describe	1	0.4
Race/Ethnicity		
American Indian or Alaska Native	0	0
Asian	10	4.1
Black or African American	19	7.9
Hispanic or Latine	19	7.9
Multiracial	17	7.0
Native Hawaiian or Other Pacific Islander	0	0
White	173	71.5
Other	4	1.7
Program Mode		
In-Person	142	58.7
Online	62	25.6
Hybrid	38	15.7
Specialization		
CMHC	133	55
MFT	18	7.4
School	71	29.3
Other	12	8.2

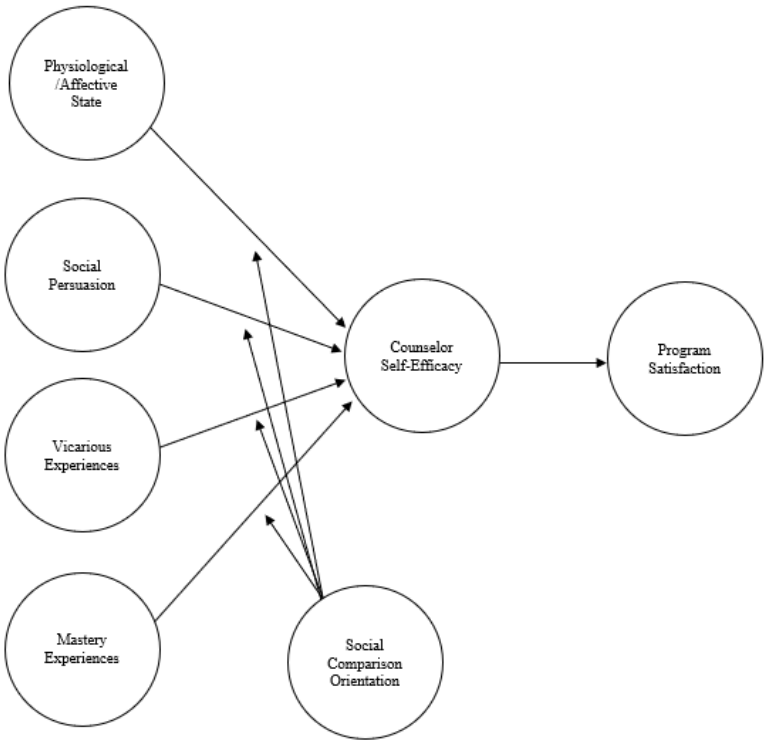
Structural Equation Modeling

SEM was used to analyze the primary research question. To establish a model to test using SEM, I identified hypothesized relationships between variables as established by evidence in existing research (Norman & Streiner, 2003; Weston & Gore, 2006). The proposed model can be found below in Figure 1. The identified model was then tested using a two-step process. The first step of SEM is to evaluate the measurement models within the hypothesized model. If the measurement models are found to have adequate fit, the structural model is evaluated. In my

study, I first examined the measurement models for each scale using CFAs, and when needed, exploratory factor analysis. Then, I created a parceled measurement model of the hypothesized relationships. I chose a parceled model of the relationships over using item-level indicators (i.e., second order model) because a moderation requires an evaluation of interactions between each of the indictor variables. Parceling the subscales allows for a more simple, parsimonious model that would permit a test of moderation. An item-level indicator model would have been too complex to achieve model fit. After testing the parceled measurement model and making required accommodations, I tested the structural model.

Figure 1.

Conceptual Model



Measurement Models

The first step in answering the primary research question included the examination of the measurement models for the scales in the study. To complete this task, I performed a CFA for each scale. In the CFAs, I used the Maximum Likelihood estimation approach on account of the scale data producing a significant Schapiro-Wilk statistic, indicating non-normality. to determine that the model is consistent with the empirical date while remaining robust to non-normal data (Joreskog, 1970; Lee, 2007). I also reported key fit indices and examined the factor loading for each model. Kline (2015) recommends that the basic fit indices to report include **chi-square,** the Root Mean Squared Error Approximation **(RMSEA),** the comparative fit index (**CFI)** and the **SRMR**. I have chosen to include the minimum discrepancy per degree of freedom (CMIN/DF), Tucker-Lewis Index (TLI), and the goodness-of-fit index (GFI) indices in order to understand the model fit in more nuanced detail and to account for problems with sample size. RMSEA values of < 0.05 and < .08 each indicate, good, and acceptable fits, respectively, whereas values between 0.08 and .1 are marginal and values above .1 are considered poor (MacCallum et al., 1996). CMIN/DF values < 3 indicate acceptable fit and those < 5 indicate reasonable fit (Kline, 1998; Marsh & Hocevar, 1985). GFI should be above .90 for good fit and the CFI, and TLI require values greater than .95 for good fit. SRMR is required to be between 0 and 0.08 for good fit (Hu & Bentler, 1999). Because the data were found to be non-normal, I utilized bootstrapping procedures to report the parameters with greater accuracy and to account for a smaller sample size (Byrne, 2010). The measurement models (CFAs) for each of the utilized scales will be presented below along with their fit indices and modifications if needed. I also report the internal consistency reliability for each measure.

Iowa-Netherlands Comparison Orientation Measurement (INCOM)

The Iowa-Netherlands Comparison Orientation Measurement **(**INCOM; Gibbons & Buunk, 1999**)** is an 11-item Likert style scale that assesses the respondent's orientation toward obtaining information about themselves from observances of others. I report the internal consistency reliability using Cronbach's α. For the INCOM scores, the internal consistency reliability was found to be good (Cronbach's α = .87). The subscales of Comparison of Ability and Comparison of Opinions scores were also found to be good and acceptable with Cronbach's α = .85 and Cronbach's α = .73 respectively.

Prior to running the CFA on the INCOM, I created the measurement model graphically in AMOS (see Figure XX). Gibbons and Buunk (1999) theorized that the INCOM includes two distinct subscales (a) *comparison of abilities (INCOMa)* and (b) *comparison of opinions (INCOMo).* When creating the measurement model, five of the INCOM items loaded on INCOMo and 6 loaded on INCOMa. The correlations of the latent variables were .78 comparison of abilities and comparison of opinions. The factor loadings ranged from .34 to .80. Scholars vary on the threshold of acceptable factor loading strengths wherein some researchers accept .3 (Hair et al., 1998) as a minimum loading strength for sample sizes larger than 350 while others suggest a more conservative .4 (Osborne et al., 2008; Stevens, 1992). Because the sample size for this study was below 250, I chose to utilize the more conservative .4 threshold. As shown in figure 2, one item (INCOM_10_r) did not reach the .4 threshold indicating it may be a poor performing item. Because CFAs are exploratory in nature, the item was not removed for this study but may be considered for removal in future studies. In addition, the correlation between the comparison of ability and comparison of opinion subscales was .78. Each of the fit indicators (see table 3) applied to the INCOM's measurement model were within acceptable range for a good model fit. These results provide evidence that the INCOM performs well as a two-factor

scale and demonstrates acceptable reliability, although one item (INCOM_10_r) performed poorly.

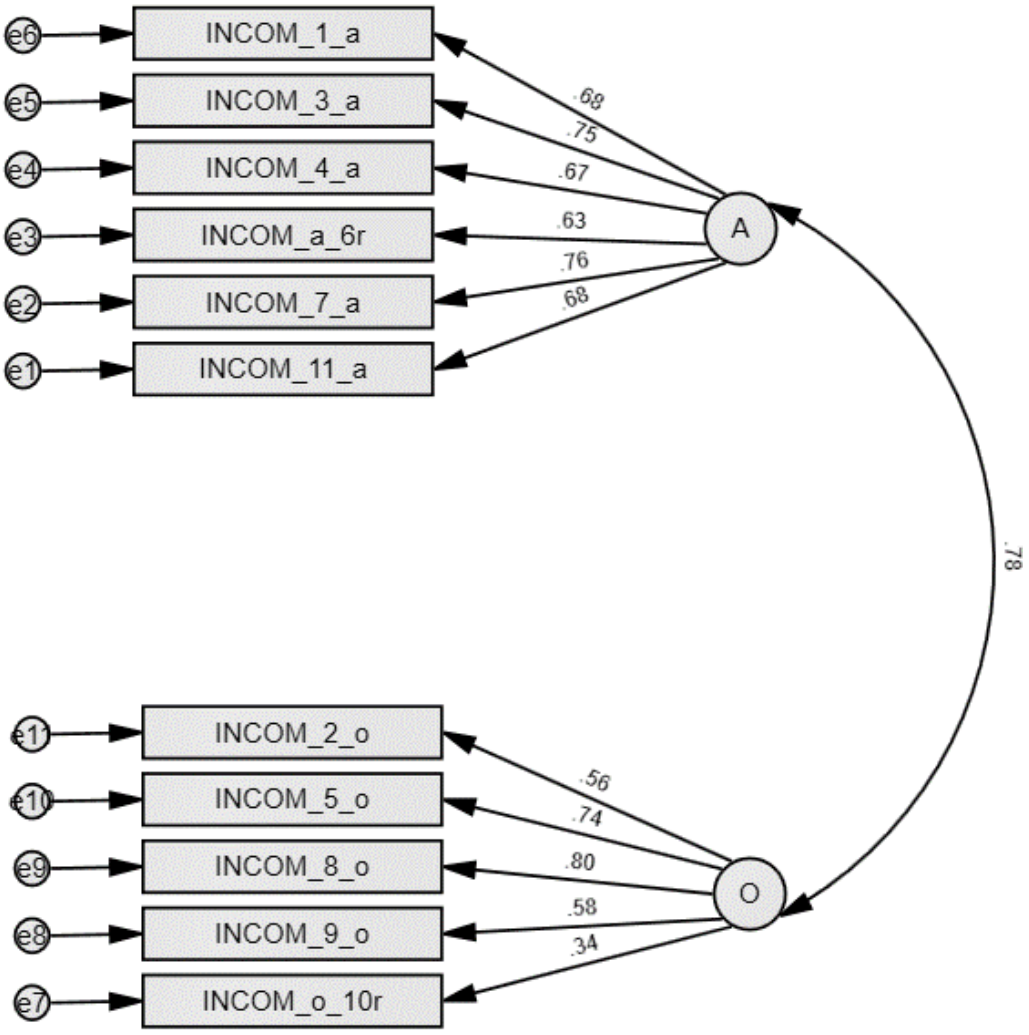
Table 3. *Fit Indicators for INCOM*

	$\chi 2$	*Df*	CMIN/DF	CFI	TLI	RMSEA/ Hi-Lo		SRMSR	GFI
Model 1	94.70	43	2.20**	.95	.93	.07	.05 - .09	.83	.93

Note: ** = $p < .001$ CMIN/DF = Chi-square Fit Statistic/Degrees of Freedom, CFI = Comparative Fit Index, TLI= Tucker-Lewis Index, RMSEA = Root Mean Square Error of Approximation, SRMR = Standardized Root Mean-Square Residual, GFI = Goodness-of-fit Index

FIGURE 2.

CFA for INCOM with standardized output



Adapted Counseling Self-Efficacy Scale (CSES-A)

The Counseling Self-Efficacy Scale (CSES; Melchert et al., 1996) is a scale that measures the level of confidence a counselor has in their ability to perform the counseling specific tasks enumerated in the scale. The original form of the CSES is a 20-item scale Likert-style scale. I adapted the format of the scale responses as well as the stems of the items to be in line with Bandura's (2006) guidelines for measuring self-efficacy. Specifically, I removed stems such as "I am confident that I can…" and truncated each item to its root (e.g., "Perform crisis interventions"). The response categories were changed from a five-point Likert scale to percentage of confidence from 0% to 100%. Because this version of the scale had not been used in prior research, I performed an exploratory factor analysis (EFA) to determine a factorial structure and identify the factor loadings for each of the items. The resulting scale will be called the Adapted Counselor Self-Efficacy Scale (CSES-A)

To conduct the EFA, I performed a principal axis factoring extraction procedure (PAF), which is an effective procedure for use with non-normal data (Costello & Osborne, 2005). I employed a Promax rotation due to a likelihood that the factors in the scale were correlated (Costello & Osborne, 2005; Hair et al., 2013). Utilizing Kaiser's rule (Mertler & Vannatta, 2005), I evaluated the eigenvalues of the extracted factors. I consulted the eigenvalues as well as the scree plot for factor loadings and accepted a three-factor solution. An examination of the factor loadings indicated that each item had a significant loading. A review of the items and the factors loading resulted in three constructors that I identified as (a) skills of counseling (*skill self -efficacy*), (b) group-related counseling skills (*group self-efficacy*), and (c) ethics and dispositions (*ethical self-efficacy)*. For the CSES-A, the internal reliability was found to be good ($\alpha = .95$). The subscales of Skill Self Efficacy ($\alpha = .93$), Group Self-Efficacy ($\alpha = .95$), also had

good reliability while Ethical Self- Efficacy (α = .61) was just below the acceptable threshold of .7. This finding indicates that the third factor of *ethical self-efficacy* may not reflect a unique and homogenous construct within the measurement, despite. However, multiple factors can underly a low Cronbach's α, such as a small number of items (there were only three items loading onto this factor), poor interrelatedness of the items, or heterogeneity of the construct (Tavakol & Dennick, 2011).

After finalizing the EFA, I applied the resultant model in a CFA. Items were allocated to each of the three scales (i.e., skill self-efficacy, group self-efficacy, and ethical self-efficacy) on the CSES. The factor loadings for the items ranged from .64 to .96 on the initial model. The correlations of the latent variables were .69 between skill and group self-efficacy, .74 between skill and ethical self -efficacy, and .56 between group and ethical self-efficacy. The initial model produced poor fit (see Table 4). Thus, I consulted the modification recommendations and identified items with high covariance. The processes resulted in correlating error terms for three items (see Figure 4). The items that were correlated loaded on to the same subscale and had high covariances according to the modification indices, signifying a large probability they measure a similar construct. In addition, upon a review of the item wordings, they were found to have significant theoretical overlap that permitted them being correlated. I made minimal modifications by correlating three error terms in order to avoid biasing the parameter estimates (Hermida, 2015). However, still only one of the fit indices was able to be found acceptable (see Table 4), indicating poor fit and possibly lack of construct validity.

Table 4. *Fit Indices for CSES*

	χ 2	Df	CMIN/DF	CFI	TLI	RMSEA/ hi-lo		SRMSR	GFI
Model 1	705.27	167	4.22**	.86	.84	.12	.11 - .13	37.30	.77
Final Model	574.55	164	3.50**	.89	.87	.10	.09 - .11	36.03	.80

Note: ** = $p < .001$ CMIN/DF = Chi-square Fit Statistic/Degrees of Freedom, CFI = Comparative Fit Index, TLI= Tucker-Lewis Index, RMSEA = Root Mean Square Error of Approximation, SRMR = Standardized Root Mean-Square Residual, GFI = Goodness-of-fit Index

Figure 3. *Initial CFA for CSES with standardized output*

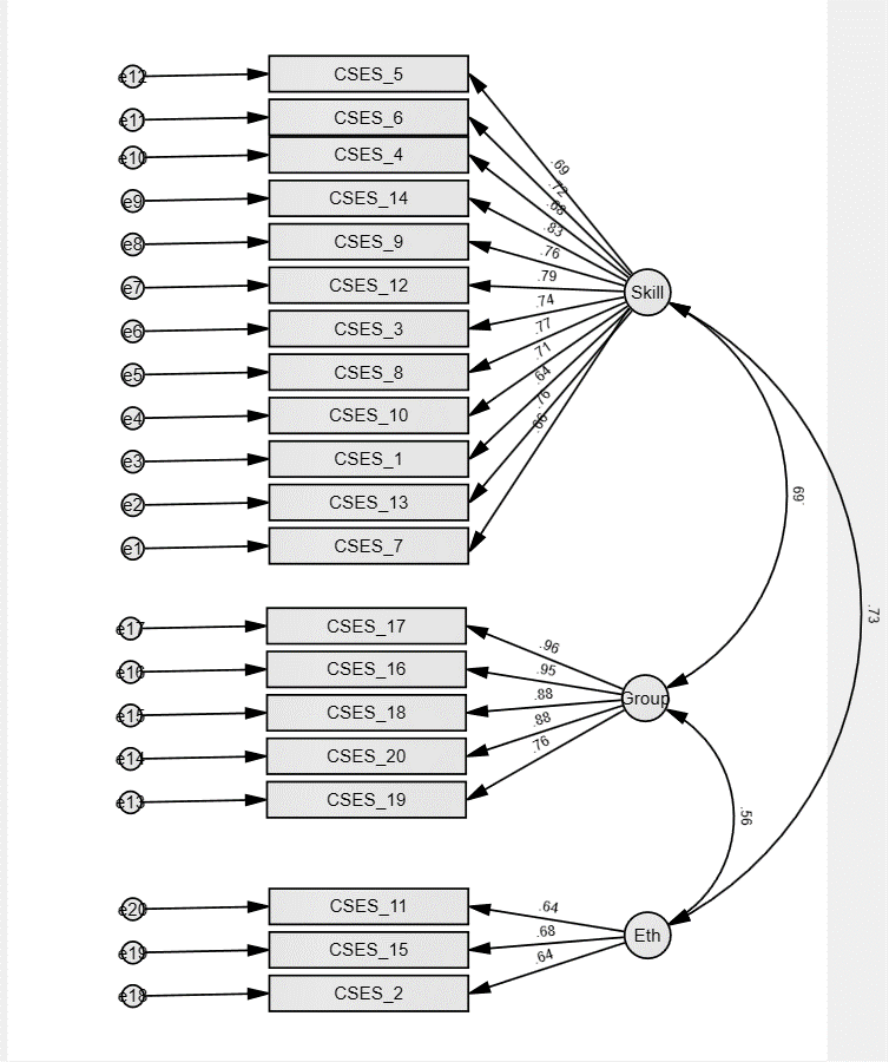
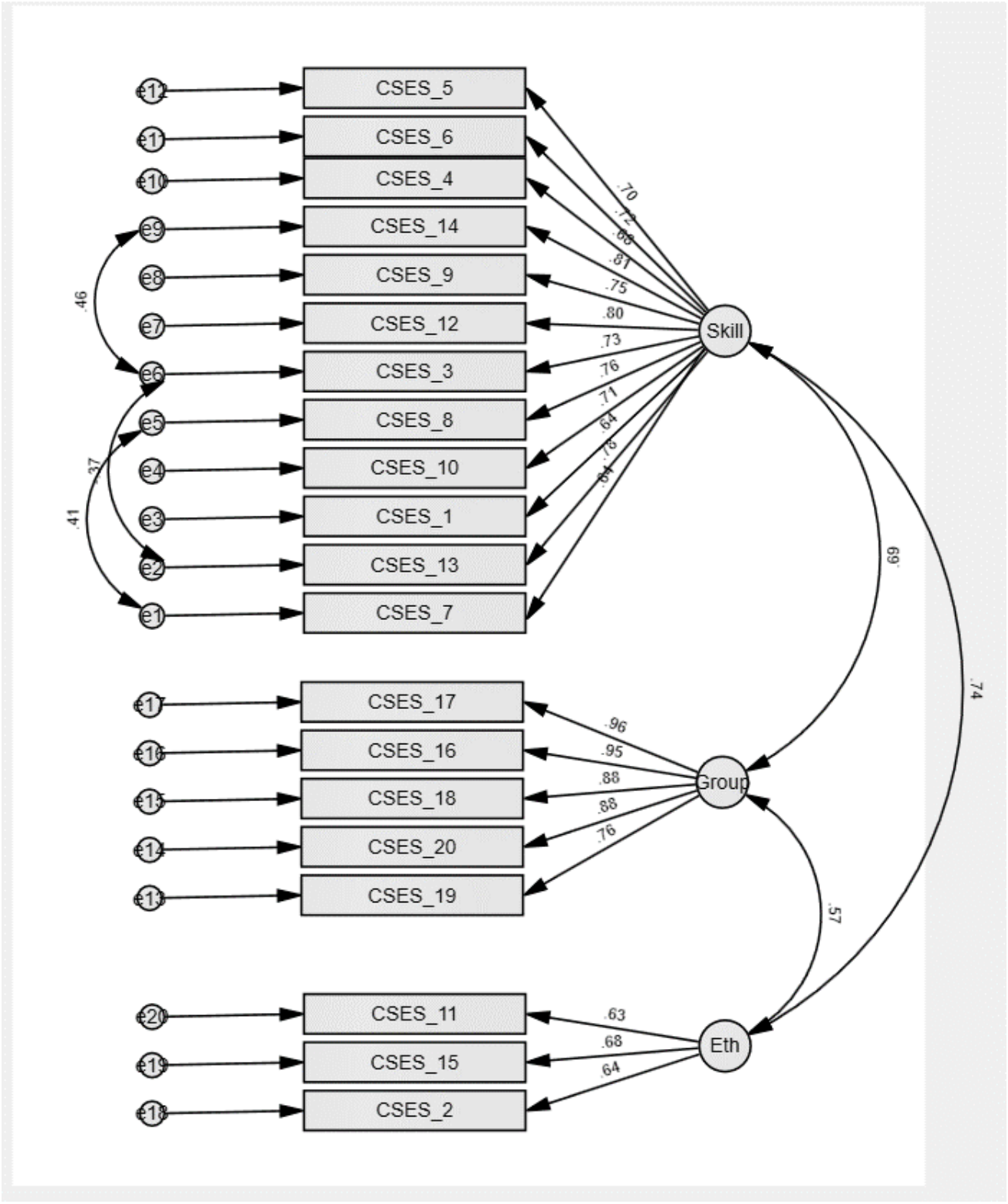


Figure 4. *Final CFA for CSES with standardized output*



Sources of Counseling Self Efficacy Scale-Malaysia (SCSES-M)

The Sources of Counseling Self-Efficacy Scale-Malaysia (SCSE-M; Pei-Boon et al., 2020) is a 25 item Likert-style scale that measures reported contributions of the four sources of self-efficacy in a counseling context. The scale items were constructed to reflect experiences of each of the four sources of self-efficacy including mastery experiences, social persuasion, vicarious experience, and physiological/effective state on a scale of *definitely false* to *definitely true*. No modifications were made to this scale. For the SCSES, the internal reliability was found to be acceptable (Cronbach's α = .85). The subscales of *Mastery Experiences* (Cronbach's α =.73), *Vicarious Experiences* (Cronbach's α =.74), *Social Persuasion* (Cronbach's α =.88), and *Physiological/Affective State* (Cronbach's α =.82) were all found to be within the acceptable range for reliability.

In the measurement model in AMOS, the I loaded the items onto a 4-factor pattern in which each item corresponded to the factor for which it was originally identified. See Table 6 for the matrix of factor correlations. The factor loadings ranged from -.28 - .90, indicating that Item 14 ("Even when I work very hard, I do badly in counseling sessions") did not load significantly onto its factor (*Mastery Experiences*). The initial model demonstrated acceptable fit in CMIN/DF and RMSEA only (see Table 5). Thus, the modification indices in AMOS were consulted to see if there were items that merited being covaried. As previously stated, it is best to avoid a large number of correlated error terms and is unacceptable to correlate errors from different subscales because this may diminish the theoretical accuracy of the assumed relationships as well as bias the parameter estimates (Hermida, 2015). After correlating errors terms on two items (see Figure 6), the model was tested again. Before correlating the items, the content of them was reviewed a

theoretical justification was made. Despite these modifications, the final model was a poor fit (see Table 5) below.

Table 5. *Fit indicators for SCSES-M*

Model	χ 2	Df	CMIN/DF	CFI	TLI	RMSEA/ hi-lo		SRMSR
Model 1	812.034	269	3.02**	.83	.81	.09	.08 - .10	.10
Final Model	651.419	266	2.45**	.88	.86	.08	.07 - .09	.09

Note: ** = $p < .001$ CMIN/DF = Chi-square Fit Statistic/Degrees of Freedom, CFI = Comparative Fit Index, TLI= Tucker-Lewis Index, RMSEA = Root Mean Square Error of Approximation, SRMR = Standardized Root Mean-Square Residual, GFI = Goodness-of-fit Index

Table 6. *SCSES-M Correlation Among Latent Variables*

Variable	Mastery	Vicarious Exp.	Social Persuasion	Phys/Aff State
Mastery	1			
Vicarious Exp.	.77	1		
Social Persuasion	.95	.71	1	
Phys/Aff State	-.27	-.05	-.21	1

FIGURE 5. Initial CFA for SCSES-M with standardized output.

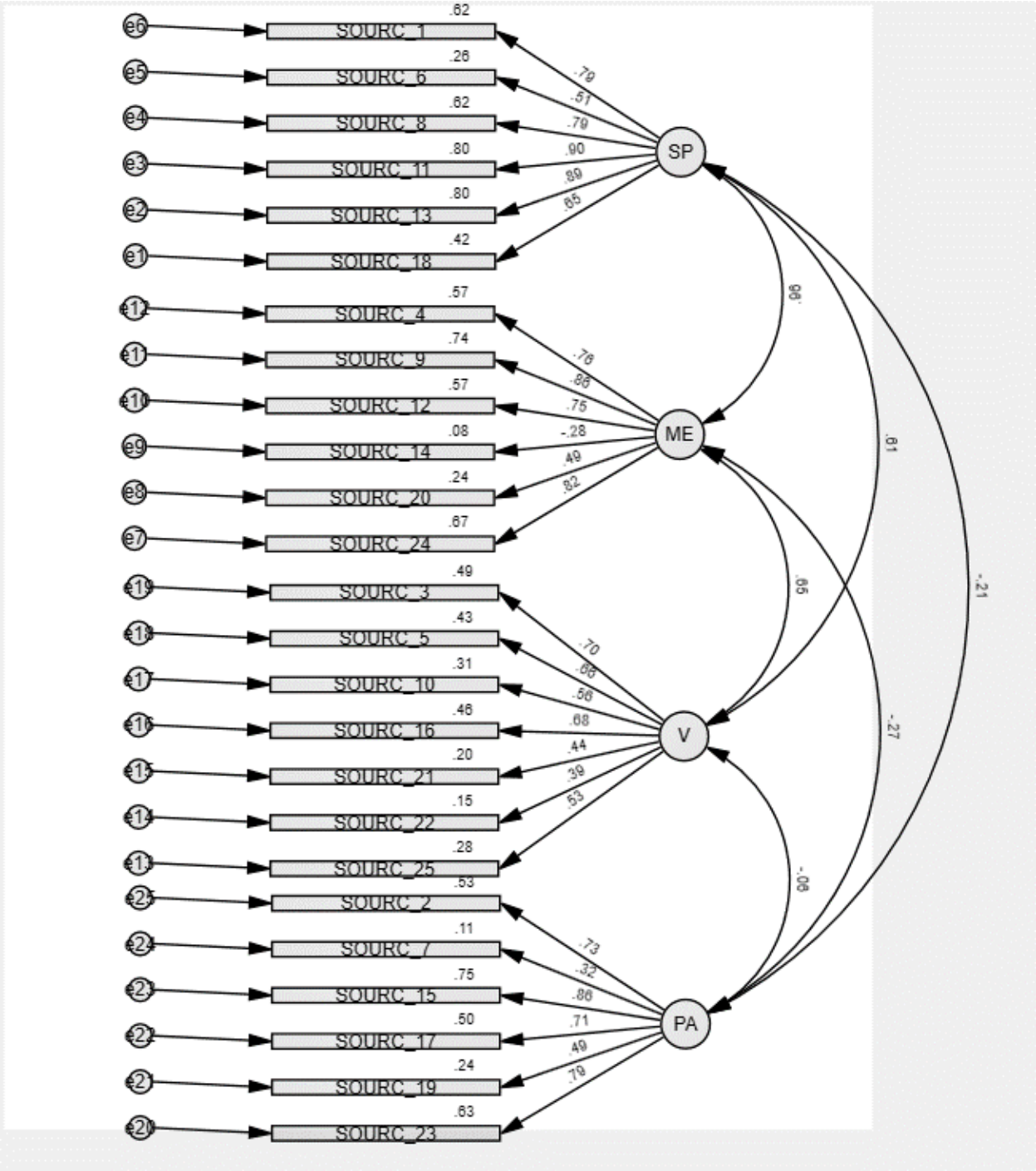
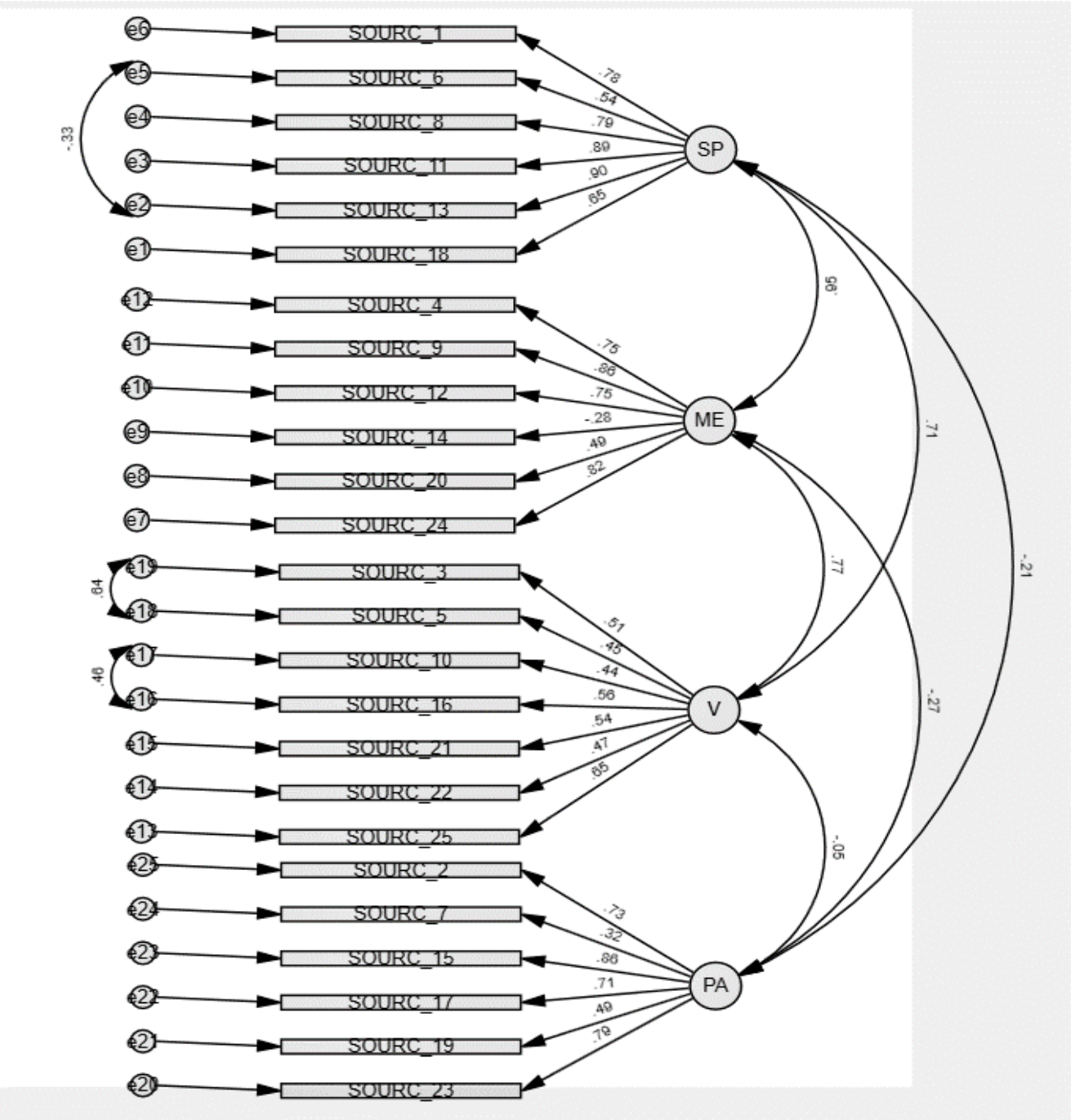


FIGURE 6. *Final CFA for SCSES-M with standardized output.*



Psychology Program Satisfaction Survey (PPSS)

The Psychology Program Satisfaction Survey (PPSS; Gealy, 2016) is a 22-item Likert-type scale that assesses for how much a given aspect of a psychology education program meets the expectations of the respondent. The original scale is comprised of several sections encompassing aspects of a psychology program. For the purposes of this study, I used only two of the sections as identified from the original measurement: *coursework* and *clinical training.* For the PPSS, the internal reliability was found to be good (Cronbach's $\alpha = .94$). Scores on the subscales of Coursework Satisfaction (Cronbach's $\alpha = .80$), Practicum Satisfaction (Cronbach's $\alpha = .93$), and Clinical Training Satisfaction (Cronbach's $\alpha = .95$) were found to have good internal reliabilities. I ran the first CFA using the two sections as separate subscales but the model was found to have very poor fit.

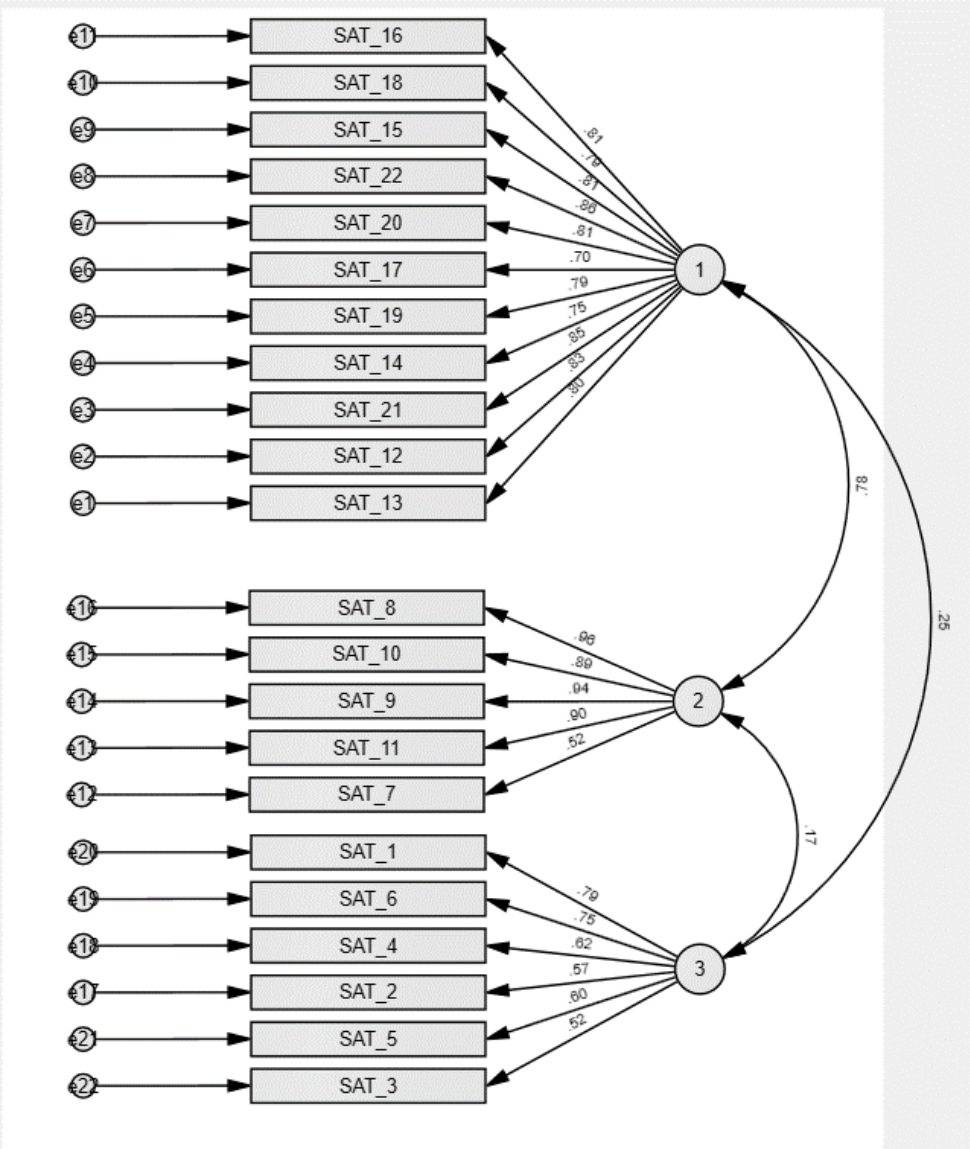
I formed the measurement model in a three-factor pattern with factor loadings ranging from .52 - .96. The correlations of the latent variable were .78 between clinical and practicum satisfaction, .25 between clinical and coursework satisfaction, and .17 between practicum and coursework satisfaction (see Figure 8). The three factors included *coursework satisfaction, practicum satisfaction, and general clinical training satisfaction.* In the initial model, only the CMIN/DF and CFI were found to have acceptable fit. After examining the modification recommendations, I noted items with high covariances. These steps resulted in one set of error terms being correlated, which improved the fit of the model to where CFI and RMSEA were also found to be within acceptable ranges (see Table 7). The items that were correlated included similarly worded items that measured theoretically related concept.

Table 7. *Fit indicators for SAT*

	$\chi 2$	Df	CMIN/DF	CFI	TLI	RMSEA/ hi-lo		SRMSR	GFI
Model 1	636.86	206	3.09**	.90	.89	.09	.09 - .10	.19	.81
Final Model	500.31	205	2.44**	.93	.92	.08	.07 - .09	.18	.84

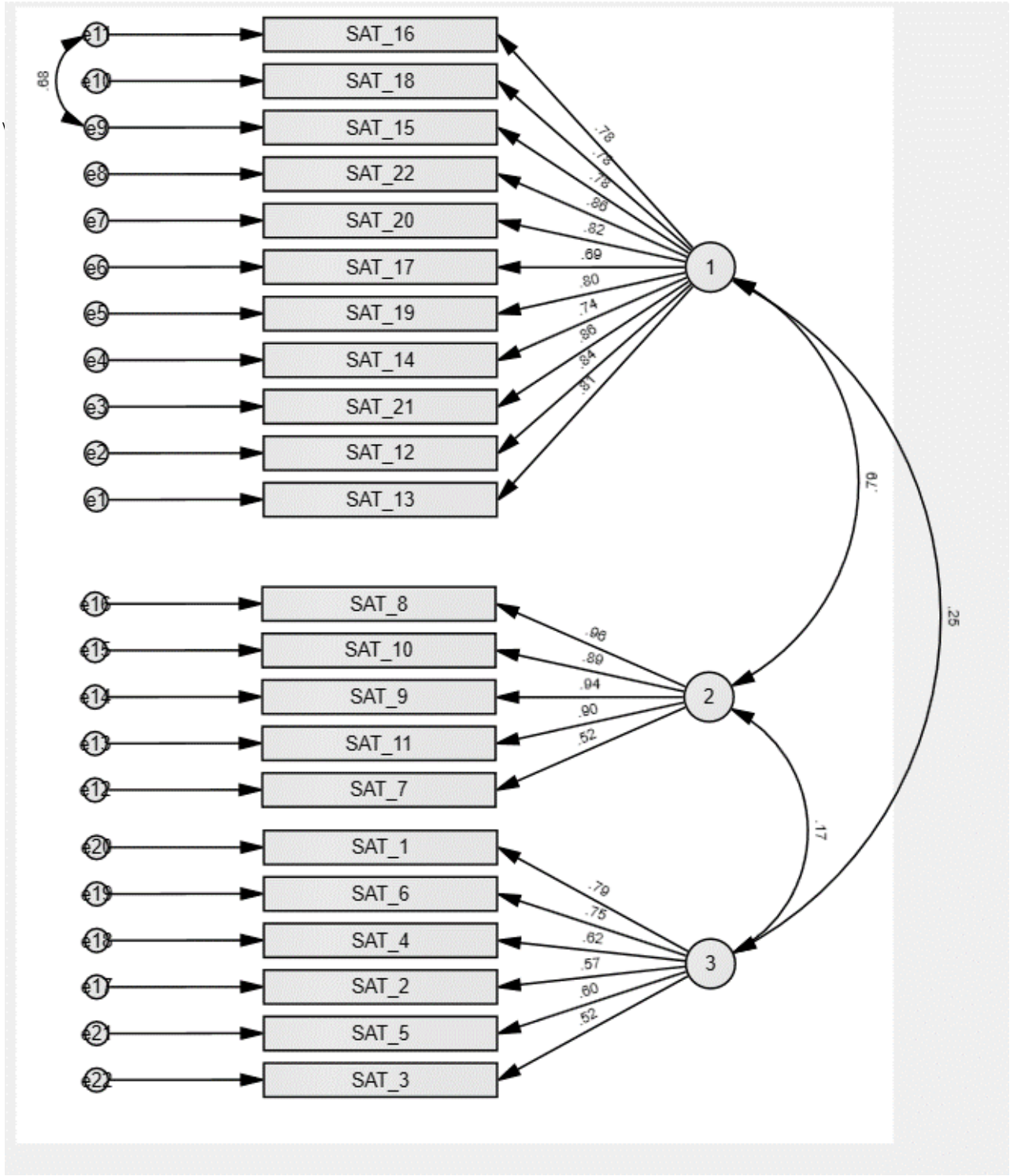
Note: ** = p < .001 CMIN/DF = Chi-square Fit Statistic/Degrees of Freedom, CFI = Comparative Fit Index, TLI= Tucker-Lewis Index, RMSEA = Root Mean Square Error of Approximation, SRMR = Standardized Root Mean-Square Residual, GFI = Goodness-of-fit Index

FIGURE 7. *Initial CFA for PPSS with standardized output*



Note. Factor 1 = *Clinical Satisfaction*, Factor 2 = *Practicum Satisfaction*, Factor 3 = *Coursework Satisfaction*

FIGURE 8. *Final CFA for PPSS with standardized output*



Summary of Measurement Model Analysis

Overall, each of the scales featured in the structural model were found to have good reliability, including their respective subscales, as demonstrated by the reported Cronbach's alphas of each scale and subscale. One subscale, *ethical self*-efficacy, did not have an acceptable Cronbach's alpha, indicating that it may poorly reflect the construct. Two of the measurement models were also shown to have acceptable overall model fit (INCOM and PPSS). However, two of the models did not (CSES-A and SCSES). Three of the models required modifications by correlating error terms for theoretically related items. Because the SCSES and CSE scales met few to none of the indices for model fit, interpretations of the structural model outcomes should be made with caution as poor fit on CFA analyses may indicate poor construct validity.

Analysis of Primary Research Question

Measurement Model

After evaluating the measurement models created for the scales in the study, I proceeded to test proposed structural model. In the first step to the test the structural model, I completed a measurement model based on the primary research question. Testing for moderation requires the examination of interactions between variables. To examine these interactions, I parceled the subscales on the measures to ensure a parsimonious model that also conveyed the proposed casual framework. The model as identified in the previous chapter is based on previous research surrounding social comparison, counselor self-efficacy, and program satisfaction as latent variables. Figure 10 displays the measurement model for the primary research question.

The initial model that I tested treated the variable of sources of self-efficacy as a latent variable. The decision to use a latent model for sources of self-efficacy is due in part to other studies that treat the sources of self efficacy as unique, if related, contributors which contributed

to good model fit when correlating predicting overall self-efficacy. However, I later tested a model in which each source of self-efficacy independently predicts self-efficacy, which is in line with suggested approached for measuring self-efficacy (e.g.; Usher et al., 2007). In addition, using the observed variables will allow for a more nuanced understanding of the relationships in the model. In this model, SOURC had four subscales that corresponded to the four commonly accepted sources of self-efficacy beliefs: *mastery experiences* (items 4, 9, 12, 14, 20, 24), *vicarious experiences* (items 3, 5, 10, 16, 21, 22, 25), *social persuasion* (items 1, 6, 8, 11, 13, 18), and *physiological*/*affective states* (items 2, 7, 15, 17, 19, 23). The four subscales were parceled to form observed variables, which makes up the latent variable of SOURC. The INCOM measurement contained two sub-scales, including *comparison of ability* (items 1, 3, 4, 6, 7, and 11) and *comparison of opinion* (items 2, 5, 8, 9, and 10). I parceled the two subscales to form the indicator variables for the latent variable of INCOM.

The CSE scale demonstrated a three-factor structure in which *skill self-efficacy* (items 1, 3, 4, 5, 6, 7, 8, 9, 10, 12, 143, and 14), *group self-efficacy,* and *ethical self-efficacy* (items 2, 11, and 15) emerged as subscales within the measure. I parceled the item on each of these scales to form the observed variables for the latent variable of CSE. Last, PPSS demonstrated a three-factor solution wherein *coursework satisfaction* (items 1-6), *practicum satisfaction* (items 7-11), and *general clinical training satisfaction* (items 12-22) emerged as subscales. I parceled these subscales to form the observed variables that form the latent variable of SAT. Table 8 is a correlation table of the variables within this study.

Table 8. *Initial Model Correlation Matrix Among Variables*

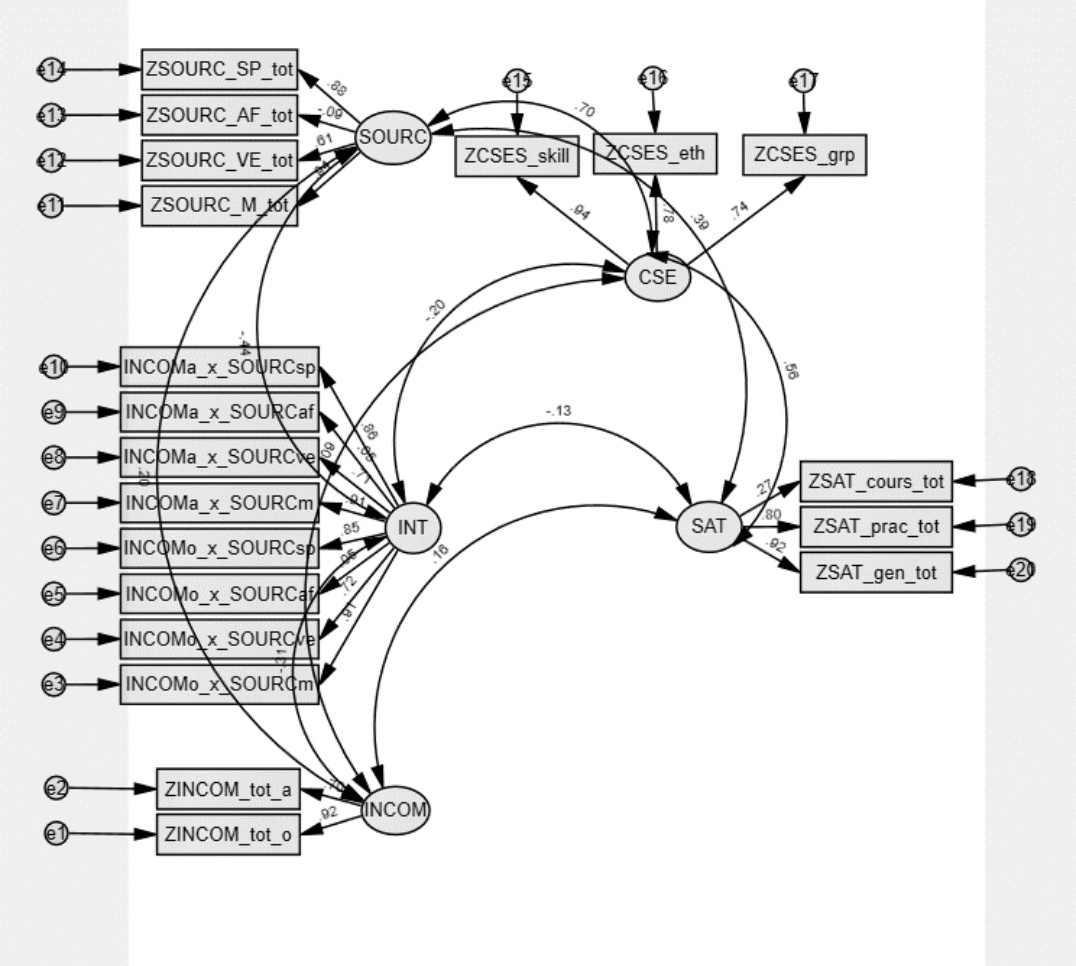
Variable	INCOM	INT	SOURC	CSE	SAT
INCOM	1				
INT	-.31	1			
SOURC	.20	-.44	1		
CSE	.09	-.20	.70	1	
SAT	.16	-.13	.39	.56	1

The main research question posits that INCOM will moderate the relationship between the SOURC and the CSES. In testing for moderation, I am looking to see if the relationship between an independent variable (SOURC) and a dependent variable (CSE) changes in strength or direction based on the values of a moderator variable (Warner, 2012). When testing for moderation in AMOS, interaction variables are calculated between the moderator and independent variable. To demonstrate the interaction of the INCOM and the SCSES, I calculated the interaction terms and integrated them into the model as predictor variables for CSES. It should be noted for clarity that to evaluate the regression of the interaction terms, INCOM and SCSES were both specified as predictor variables of CSES, although INCOM was not hypothesized to predict CSES (Gaskin, 2011). In addition, before calculating the interaction, I standardized the scores on the indicator variables using Z-scores.

The measurement model was built and tested in AMOS utilizing the same fit estimates as the CFAs (noted earlier). The standardized scores for INCOM and its subscales, SOURC and its subscales, CSE and its subscales, SAT and its subscales, and the interaction effects of INCOM and SOURC (INCOM_x_SOURC) for each of the subscales (8 total) make up the measurement model. Each of the latent variables were correlated with one another including the interactions variables. The analysis for fit was run utilizing a Bollen-Stine bootstrapping method to account for non-normal data.

The results of the model estimate demonstrated overall poor fit (see Table 9). The initial measurement model had a significant Chi-square ($\chi 2$ = 853.46), *df* = 160, $p < .001$). The CMIN/DF value was 5.33, indicating poor fit. The CFI and TLI were below the cutoff value of .90 (.78 and .74 respectively). RMSEA was .13 (LO = .13, HI = 1.14) which was outside the acceptable range. SRMSR was .08 which is just at the <.08 threshold. Because the data were found previously to be non-normal, a Bollen-Stine bootstrapping procedure was performed to assess overall fit. With a $p < .05$ ($p = .005$), the model is found to be a poor fit.

FIGURE 9. *Initial Measurement Model*



Revised Measurement Model

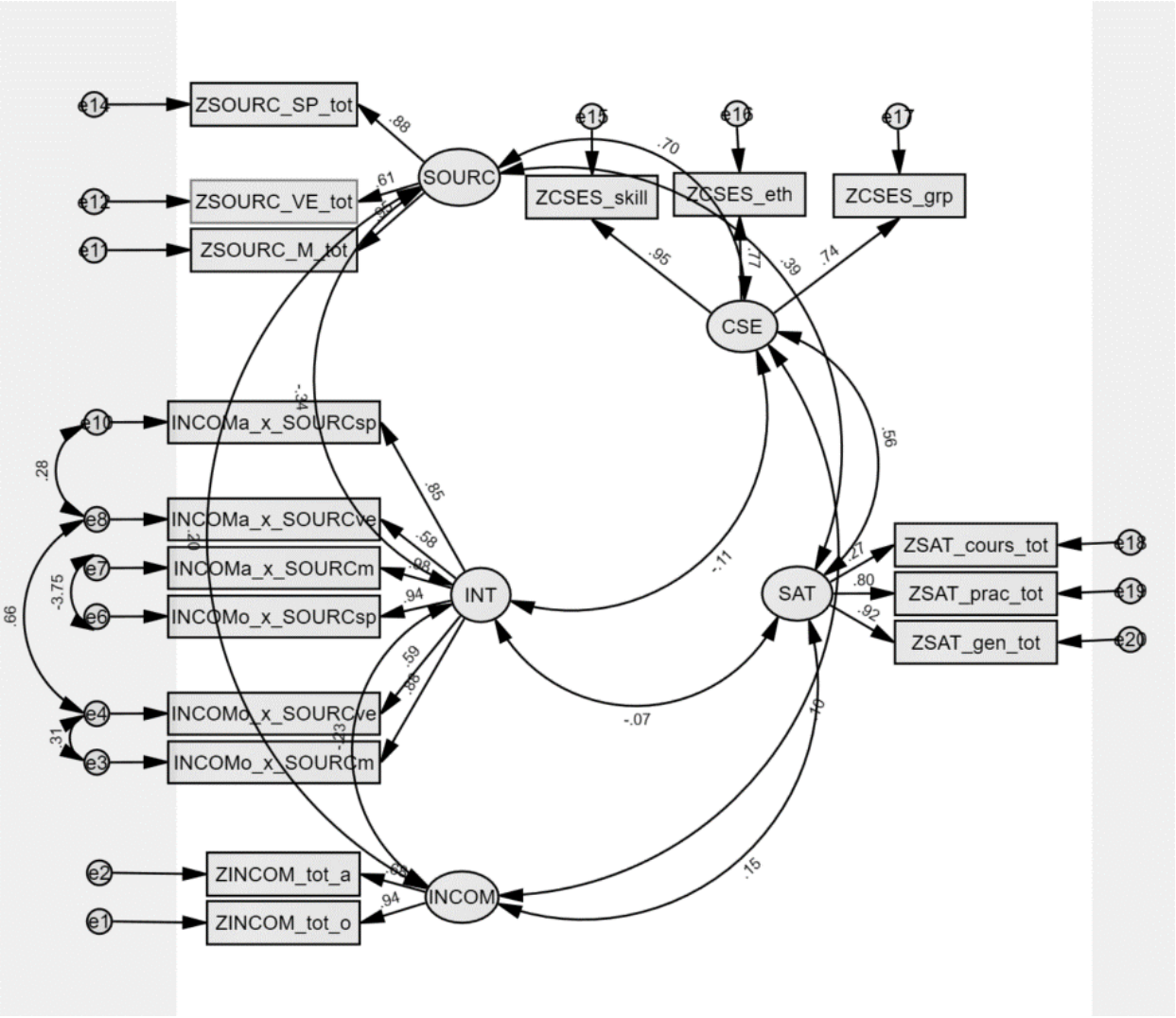
In order to revise the measurement model, I analyzed the regression weights of the parceled subscales as they load onto the latent variables. The regression weight for SOURC_af to SCSES-M did not meet the .4 threshold with a loading of -.09. Therefore, this subscale and its corresponding interaction variables (INCOMa_x_SOURCaf and INCOMo_x_SOURCaf) were removed (See Figure 10). The variable of ZSAT_cours_tot also failed to meet the .4 threshold with a loading of .27 but was retained to bolster theoretical structure. A review of the modification estimates of the revised model revealed that four error terms (e3->e4, e4->e8, e6->e7, and e8 ->e10) had high covariances.

After covarying the estimates, the model demonstrated overall good fit. The initial measurement model had a significant Chi-square ($\chi 2 = 240.86$), $df = 105$, $p < .001$). However, CMIN/DF value was 2.30, indicating good fit. The CFI and TLI were above the cutoff value of .90 (.95 and .94 respectively). RMSEA was .07 (LO = .06, HI = .09) which was within the acceptable range. The SRMSR was .06, which is below the accepted .08 threshold. The Bollen-Stine bootstrapping procedure produced a *p*-value of .082, indicating good fit. Because the modifications to the measurement model produced a model of good fit, the revised model will be used as the structural model to test the research hypothesis.

Table 9. *Fit Indicators for the Initial and Final Measurement Models*								
	$\chi 2$	Df	CMIN/DF	CFI	TLI	RMSEA/ hi-lo		SRMSR
Initial Model	853.46	160	5.33**	.78	.74	.13	.13 – 1.14	.08
Final Model	240.86	105	2.30	.95	.94	.07	.06-.09	.06

Note: ** = p < .001 CMIN/DF = Chi-square Fit Statistic/Degrees of Freedom, CFI = Comparative Fit Index, TLI= Tucker-Lewis Index, RMSEA = Root Mean Square Error of Approximation, SRMR = Standardized Root Mean-Square Residual

FIGURE 10. *Revised Measurement Model*



Structural Model

In the proposed structural model, sources of self-efficacy (SOURC; exogenous /independent variable) predicted counselor self-efficacy (CSE) (endogenous/dependent variable). Social comparison orientation (SCO; moderator variable) also predicted CSE and correlated with sources of self-efficacy. In addition, CSE predicted program satisfaction (SAT; endogenous variable). I hypothesized that social comparison orientation would moderate the contribution of reported sources of counseling self-efficacy on overall counselor self-efficacy, which would in turn predict program satisfaction. I will present the fit indices of the model then discuss the theory, method, and results of the moderation analysis. Figure 12 displays the initial structural model.

The SEM analysis revealed acceptable fit, $\chi 2 = 286.05$ ($df = 109$, $p < .001$); CMIN/DF = 2.62; CFI = .94; TLI =.92; RMSEA = .08 (90% CI: .07 to .09); GFI = .88. The Bollen-Stine bootstrapping procedure produced a *p*-value of .02, indicating poor fit. Reported sources of counselor self-efficacy predicted counseling self-efficacy (standardized estimate = .76, $p < .001$). Counselor self-efficacy predicted program satisfaction (standardized estimate = .56, $p < .001$).

Moderation. Moderation variables exert effects on specific structural paths between latent variables in a model (Memon et al, 2019). Moderation variable analyses can be particularly useful when investigating "a relation{ship] that holds in one setting but not another, or for one subpopulation but not for another" (Baron & Kenny, 1986, p. 1178). Investigations of moderation variables can also help to explore new theoretical insights, and to explore areas of research that are understudied. Because of theoretical basis for a moderating relationship and on account of relatively little understanding of comparison orientation's effect on self-efficacy, I chose to build and test a moderation model to better understand the phenomenon.

When investigating a moderating variable, Andersson et al. (2014) recommends following a seven-step process: (1) Identify the theory behind the relationship, (2) apply the theory to the research question and explain direction and mechanisms behind it, (3) justify the choice of moderator variable, (4) explain the direct effect of the moderator on the dependent variable and how it varies from the moderating effect, (5) explain how the moderator changes the mechanisms and makes the relationship between the independent and dependent variables stronger or weaker, (6) rule out the reverse interaction, and (7) ground the results in theory.

In regards to the current moderation variable being investigated, social comparison orientation, I established the theoretical basis for its effect on sources of self-efficacy and CSE (attentional processes). Because the latent variables in the moderation relationship are reflective constructs (i.e., the construct causes the indicators rather than indicators entirely forming the construct), I utilized the product-indicator approach to build the moderation model (Memon et al. 2019). To carry out the analysis, I multiplied the indicator with the moderating variables to compute interaction variables for use in the model, resulting in eight interaction terms.

In the initial structural model, the parceled interaction INCOM_x_SOURC *did* significantly impact the strength of the relationship between reported sources of counselor self-efficacy and counseling self-efficacy in that high INCOM increased the positive relationship between SOURC and CSE (standardized estimate = .15, p = .007). See Figure 11 for the graphical explanation of the interaction. No reverse moderation was found, nor was the moderating variable correlated with or a predictor for the dependent variable.

Figure 11. *Initial Structural Model INCOM and SOURC Interaction*

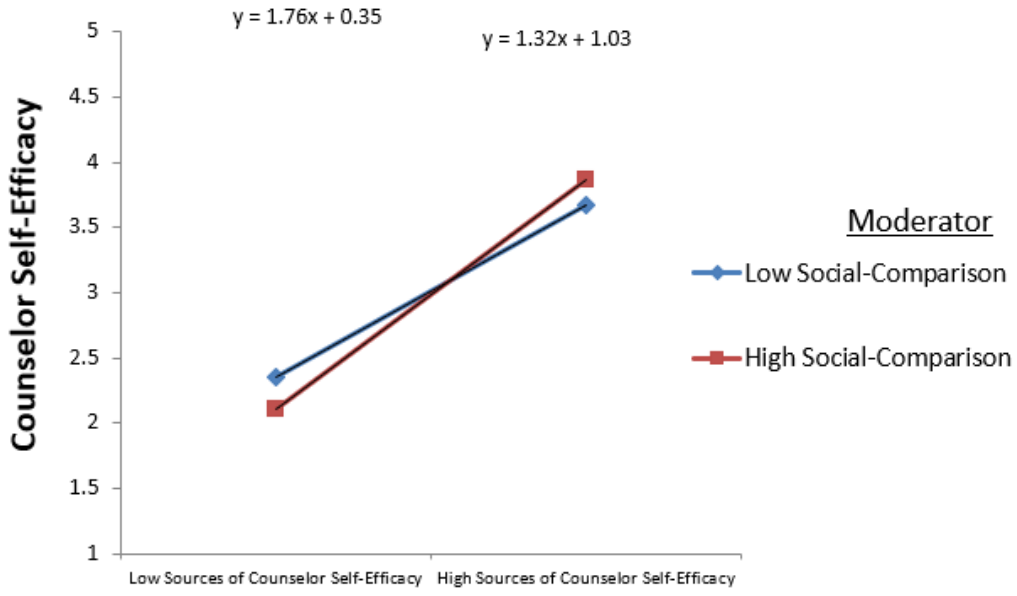
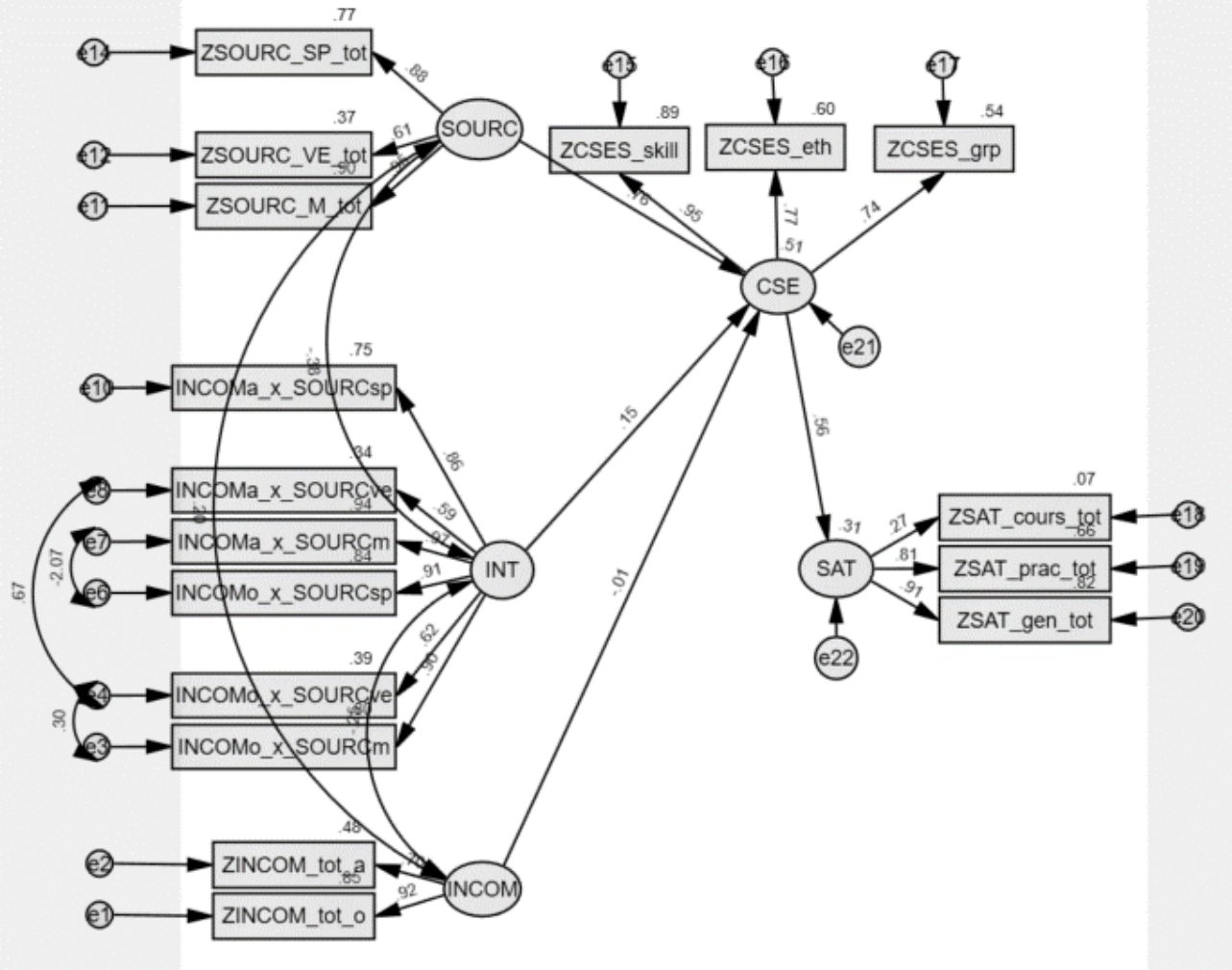


FIGURE 12. *Initial structural model with standardized estimates*.



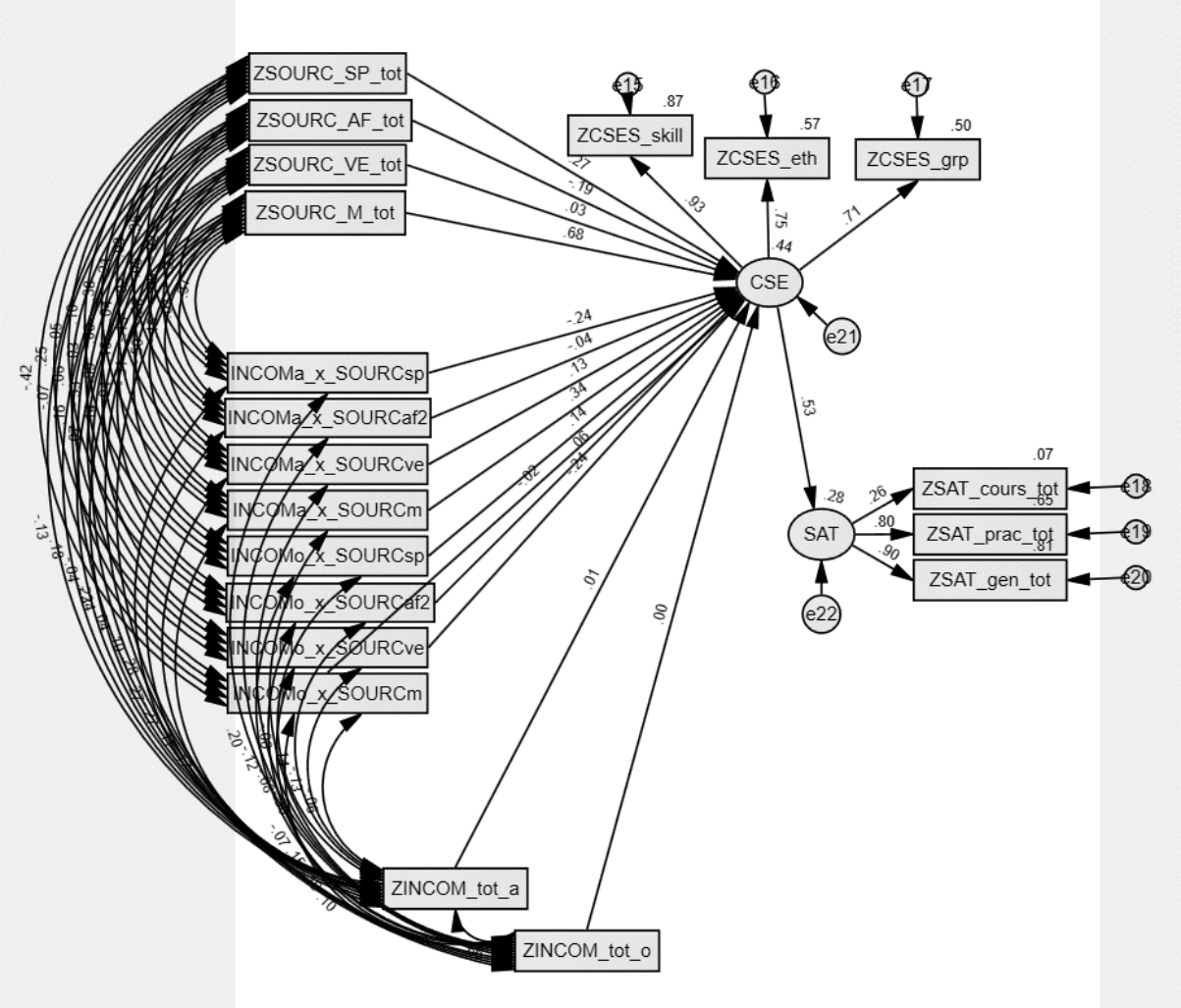
Alternative Model

Previous research suggests that sources of self-efficacy independently predict outcome variables rather than as a singular latent variable (Usher & Pajares, 2008). In order to best understand the nuance of relationships in the structural model, an alternative model was created in which the sources of counseling self-efficacy are independently predicting CSE. The alternative model does not use a latent variable for the construct of sources of self-efficacy (see Figure 13). One additional notable difference between the initial structural model is the alternative model as presented in this section is that the affective state variables utilize the

squared total rather than the raw total of scores. This is because of previous evidence that suggests that *affective states* behave like a logarithmic term. This concept will be further discussed in chapter 5. The alternative model is also different in that the interaction variables do not load into a latent variable; rather, they directly feed into CSE. The final change to the alternative model is that change of INCOM from a latent variable to two observed variables, INCOMa and INCOMo. As a result, we are able to obtain a more specific understanding of the impact of each interaction.

The alternative model produced poor fit for most indices, $\chi 2$ = 1963.63 (*df* = 112, *p* < .001); CMIN/DF =17.53; CFI = .41, TLI = .00; RMSEA = .26 (90% CI: .25 to .27); GFI = .57; SRMR = .25. The Bollen-Stine bootstrapping procedure produced a *p*-value of .005. Each of the reported sources of counselor self-efficacy predicted counseling self-efficacy except for vicarious experience. Counselor self-efficacy predicted program satisfaction (standardized estimate = .53, *p* < .001). In this model, the interactions INCOMa_x_SOURCsp (standard estimate = -.17, *p* = .015), INCOMa_x_SOURCve (standard estimate = .09, *p* = .03), INCOMa_x_SOURCm (standard estimate = .21, *p* = .00), and INCOMo_x_SOURCve (standard estimate = -.17, *p* = <.001) did significantly impact the strength of the relationship between reported sources of counselor self-efficacy and counseling self-efficacy. However, due to poor model fit, the alternative model was trimmed into a re-specified model.

FIGURE 13. *Alternative Structural Model*



Re-Specified Alternative Model

Due to poor model fit of the full model, I analyzed the regression weights for each of the variables in the model and, similarly to the initial model, *physiological/affective states*, failed to significantly predict CSE despite the usage of the squared values. As a result, *physiological/affective states* and its corresponding interactions were trimmed from the model (See Figure 14). In addition, the non-significant interactions were also trimmed. INCOMa_x_SOURCm and INCOMo_x_SOURCve remained in the model as significant predictors.

The respecified alternative model demonstrated overall good fit across the difference indices, $\chi 2$ = 121.54 (*df* = 53, *p* < .001); CMIN/DF = 2.30; CFI = .95; TLI = .93; RMSEA = .07 (90% CI: .06 to .09); GFI = .93; SRMR = .08. The Bollen-Stine bootstrapping procedure produced a *p*-value of .005), indicating poor fit. With most of the fit indices indicating good fit, the model is overall assessed to be a good fit to the data. Social persuasion (standard estimate = .29, *p* =.001). and mastery experiences (standard estimate = .47, *p* < .001) each predicted CSE whereas vicarious experiences did not. CSE predicted program satisfaction (standardized estimate = .56, *p* < .001). In this model, the interactions INCOMa_x_SOURCm, and INCOMo_x_SOURCve did significantly impact the strength of the relationship between reported sources of counselor self-efficacy and counseling self-efficacy in which INCOMa_x_SOURCm strengthens CSE (standard estimate = .22, *p* < .001) and INCOMo_x_SOURCve weakens CSE (standard estimate = -.14, *p* = .019). See Figure 15 and Figure 16 for a graphical interpretation of the interaction.

FIGURE 14. *Re-specified Alternative Model with Standardized Coefficients.*

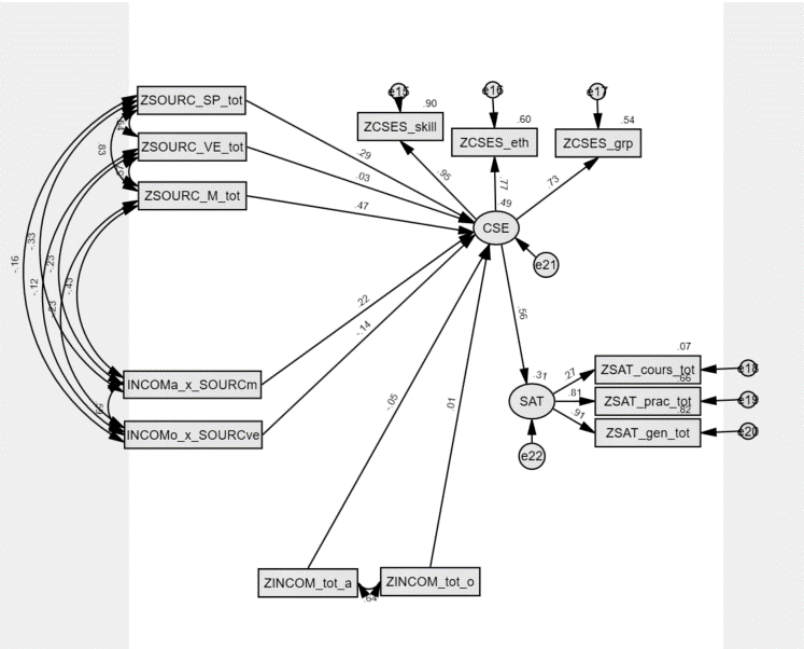


FIGURE 15. *Alternative Structural Model INCOMa and SOURCm Interaction*

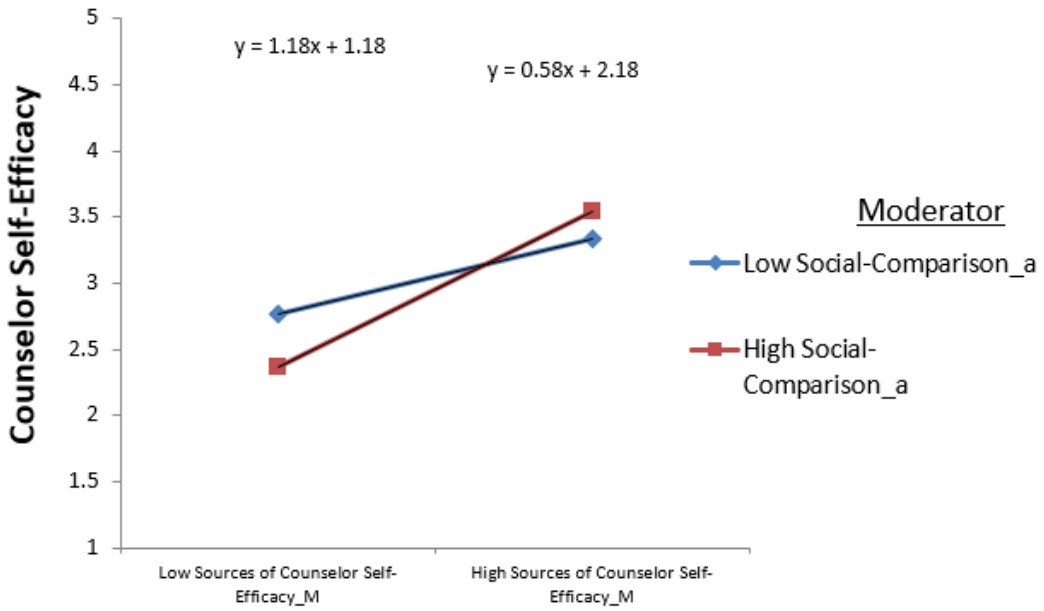
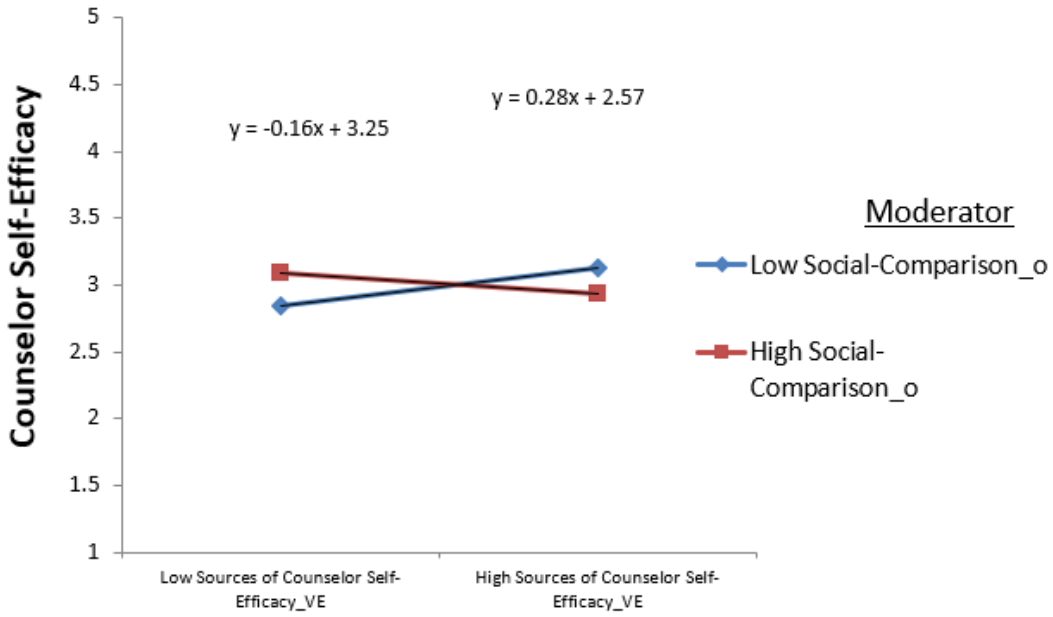


FIGURE 16. *Alternative Structural Model INCOMo and SOURCve Interaction*



Structural Model Summary

After creating the measurement model to determine the fit of the proposed observed variable relationships, I trimmed *physiological/affective state*s and proceeded to estimating the structural model. The initial structural model was found to be a good fit for the data. In the initial structural model, the interaction of INCOM and SOURCE was significant, indicating that INCOM moderates the relationship between SOURC and CSE.

On account of literature which suggests that SOURC should be treated as observed variables and that *physiological/affective state*s may behave logarithmically, an alternative model was presented. In the alternative model, *physiological/affective state*s continued to be non-significant predictors of CSE and were trimmed. The resulting model demonstrated that the interactions of INCOMa_x_SOURCm and INCOMo_x_SOURCve did significantly affect the relationship between SOURC and CSE in which INCOMa_x_SOURCm strengthens CSE and INCOMo_x_SOURCve weakens CSE. The next section will present the findings related to the exploratory research questions.

Exploratory Research Questions

ERQ1

The first exploratory research question to be analyzed, "*Does counselor self-efficacy correlate with their perceived stress*?" was investigated with correlational analysis. A Spearman rank correlation was calculated to determine what strength of relationship, if any, existed between the two variables. First, I ensured that the data did not violate any assumptions of normality, linearity, or homoscedasticity. Then, the scale totals were calculated by summing the participant's responses to each of the scale items. For CSE, 20 items were summed with a mean of 1263.5 (*SD* = 315.6) and a possible range of total scores from 0-2000. The mean confidence

percentage for the sample was 63.16% confidence in the counseling related tasks and dispositions indicating that one average, students were more confident than less confident in their abilities. For Stress, 10 items were summed with a mean of 18.9 (SD = 6.5) with a range of possible scores being 0-40. SPSS was used to calculate the correlation between the totaled variables.

The relationship between stress (as measured by the Perceived Stress Scale [PSS]; Cohen et al. 1983) and counselor self-efficacy (as measured by and adapted version of the Counselor Self Efficacy Scale [CSES]; Melchert et al., 1996) was explored using Spearman's rank correlation. I utilized Spearman rank because the data were found to be potentially non-normal. There was no statistically significant relationship between the two variables (r =.01, p = .890). A 95% confidence interval demonstrated a range from -.12 to .14.

ERQ2

To investigate the question "Do reported sources of counseling self-efficacy predict program satisfaction?" I utilized standard multiple linear regression analysis to identify the relationships between the sources of counseling self-efficacy (as measured by the Sources of Counseling Self-Efficacy Scale [SCSES-M]; Pei-Boon et al., 2020). Data were checked for normality, linearity, multicollinearity, and homoscedasticity. The total variance explained by the model was 17%, F (4, 237) = 12.39, p <.001. Mastery experiences (β = .35, p = .00) and physiological/affective state (β = -.21, p < .001) were the sources of counselor self-efficacy that significantly predicted program satisfaction.

ERQ3

To answer the question "Does INCOM vary across age, race, gender, track, and program status?" I conducted several one-way analysis of variance (ANOVA) analyses as well as correlation analyses. Participants were divided into six groups according to their gender (Female, Male, Transgender or Non-Binary, Gender Expansive or Gender non-conforming, I prefer not to say, I prefer to self-describe). There were no significant differences across genders (F [5, 236] = .75., p = .59).

Participants were divided by race across 8 categories (American Indian or Alaska Native, Asian, Black or African American, Hispanic or Latino, Multiracial, Native Hawaiian or Other Pacific Islander, White, Other). There was a significant difference across race/ethnicity (F *(5, 236)* = 4.04., p = .002). The effect size, calculated using eta squared, was .079, a medium effect size according to Cohen (1988). A post hoc comparison using the Tukey HSD test indicated that INCOM means for White students (M = 47.93, SD = 8.90) were significantly higher than those for Hispanic or Latine student counselors (M = 41.48, SD = 9.56; p = .033, 95% C.I. = [-12.60, -.32]).

Participants were divided into three program modality groups (in-person, online, hybrid) and seven specialization groups (Clinical mental health counseling, marriage and family counseling, school counseling, Other-Military and Veterans, Other CMHC and Addictions, Other, Sex Offender Treatment). There were no significant differences across either program modality (F [2, 239] = .57, p = .57) or specialization (F [6, 235] = .77, p = .59).

The relationship between age and comparison orientation was explored using Spearman's rank correlation. I utilized Spearman rank because the data were found to be potentially non-normal. There was a strong negative relationship between the variables in which INCOM

decreased as age increased (r =-.16, p = .007). Neither of the correlations for years enrolled in program (r =.11, p = .07) or semesters enrolled in program (r =-.10, p = .13) demonstrated significant relationships.

Chapter Four Summary

In this chapter, I discussed the procedures I used to answer my primary research question as well as my exploratory research questions. First, I described my sampling and data screening including recruitment and survey distribution. Then, I reviewed the steps taken to ensure the data were ready to be analyzed including screening, cleaning, and trimming. I then discussed the statistical assumptions required for required the data to meet before performing the individual analyses. I overviewed the concept of performing confirmatory factor analysis as well as the results of the CFAs for the INCOM, the CSES, the SCSES-M, and the SAT. I described the process of estimating the full structural model including the model fit as well as the interpretation of INCOM's moderating effect of the relationship between sources of counseling self-efficacy and counselor self-efficacy. Last, I discussed the results of three separate analysis to investigate my exploratory research questions: a correlational analysis, a multiple regression, and a one-way ANOVA. In the next chapter, I will discuss the statistical findings and provide context of how they relate to existing research. I will also discuss limitations of the study and future directions for the investigation of comparison orientation, self-efficacy, and program satisfaction.

CHAPTER FIVE

DISCUSSION

The purpose of this study was to investigate the relationships between counselor-in-training social comparison orientation, sources of counseling self-efficacy, counseling self-efficacy development, and program satisfaction. Students in counseling programs experience significant stressors related to graduate program status as well as compounding stressors that develop over the course of their academic journey (Lee et al., 2018, Skovholt & Ronnestad, 2003). Students in undergraduate programs experience stressors related to life transitions, isolation, loss of support structures (Kurtovic et al., 2018; Stewart, 1995) and more difficult coursework (Lin & Huang, 2014). Students that pursue further education such as master's degrees are tasked with more advanced academic materials (Lin & Huang, 2014), requirements to enact multiple roles (Furr & Carroll, 2003), or navigating competitive environments (Astin 1984, Christakis & Fowler, 2009; Edwards & Patterson, 2012; Hanna, 1998). Graduate-level stressors not only affect counselors-in-training, but may also compound with unique pressures inherent to the work of counseling., students in counselor education programs experience the stress of graduate education along with specific stressors associated with counseling discipline and training practices.

Performing counseling tasks in practicum and internship can be a significant stressor for new counselors in addition to the rigor of the academic program (Skovholt & Ronnestad, 2003). Students experiencing stress in counselor education programs exhibit a variety of negative outcomes. Mental health struggles, lower satisfaction, stress related to perfectionism, and dropout are among the potential effect of counselor stress and burnout (Furr & Carroll, 2003; Fye et al., 2018; Larson et al., 1992; Puig et al., 2012; Truell, 2001).

Counselor educators have a responsibility to attend to the needs of students to prevent these negative outcomes and problems with development. Current approaches include pedagogical and supervisorial approaches (i.e., wellness-infused supervision, affinity groups, wellness-focused pedagogy, stress-management training; Abel et al., 2011; Blount & Mullen, 2015; Callender & Lenz, 2017; Harrichand et al., 2021; Lenz & Smith, 2010, 2017), and programs are being increasingly encouraged to offer emotional support for their students (Council for the Accreditation of Counseling and Related Educational Programs [CACREP], 2015; Young & Lambie, 2007). Despite efforts to diminish these stressors, academic challenges, personal struggles, and environmental pressures can still affect student wellness (e.g., Dye et al., 2020; Foster & McAdams, 2009; Lambie, 2007), with potential developmental implications that require attention.

One framework to understand influences in counselor development and performance is through self-efficacy. Self-efficacy is defined as one's estimate of their own ability to perform a task or achieve an outcome (Bandura, 1997; Wood & Bandura, 1989). Counseling self-efficacy specifically is defined as a counselor's confidence in their ability to complete a counseling-related task or embody a disposition when required (Larson, 1998). Programmatic efforts to develop counselor self-efficacy (CSE) serve two purposes; improved self-efficacy not only affects counselor performance but also personal wellness.

Counselors with strong self-efficacy beliefs about their ability to do counseling-related tasks are more likely to use more advanced skills in practice, show improved service delivery, have lower anxiety, and maintain wellness (Al Darmaki, 2004; Gallagher et al., 2017; Hish et al., 2019; Ikonomoupolos, 2016; Larson & Daniels, 1998; Mullen & Lambie, 2016; Orlinsky & Howard, 1989). Generally, self-efficacy develops through the contribution of four sources:

mastery experiences, social persuasion, vicarious experience, and physiological/affective states (Bandura, 1997). These four sources contribute to counselor self-efficacy in the classroom, in practicum and internship, and in supervision (Larson, 1998; Pei Boon, 2020). As a result, it is likely that counseling students experience a gradual increase in self-efficacy over the course of their participation in their program with most of the growth occurring during content-based courses when compared to their clinical placement (Mullen et al., 2015). According to self-efficacy theory, an individual's attention to and interpretation of the sources of self-efficacy determines how they internalize the results in their self-efficacy beliefs. Some theorists (e.g., Larson, 1998; Usher & Pajares, 2008) posit that certain traits may affect how much individuals attend to and interpret sources of self efficacy, or that individual traits can interact with self-efficacy beliefs (Bandura, 1997) indicating that counselor educators should pay attention to those potential traits that affect or interact with the student self-efficacy development.

One trait that may affect self-efficacy is social comparison orientation. Social comparison, generally, is the innate drive to compare one's abilities and opinions against comparable others with the intent to obtain information about the self (Festinger, 1954). Generally, comparison behaviors arise when an individual is seeking evaluative information about the self and happen most often when there is not enough objective information available to assess ability or opinion. Comparisons can be both upward, toward a perceived superior, or downward, toward a perceived inferior, with each direction having potential positive and negative effects on the individual (Gibbons & Buunk, 1999). Various motivations such as a need to feel competent, or a need to obtain an adequate model, underlie the comparison direction chosen; yet, motivations are not the only predictors of comparison behaviors. Theorists (i.e., Gibbons Buunk, 1999; Gilbert et al., 1995; Hemphill & Lehman, 1991; Steil & Hay, 1997;

Taylor, Buunk, Collins, & Reed, 1992) suggest the existence of an orientation toward comparison information that prompts an individual to seek our comparison more frequently than those without social comparison orientation (SCO).

Social comparison orientation (SCO) is an attentional disposition that prompts comparison cognitions and behaviors. Gibbons and Buunk (1999) investigated variables related to social comparison orientation and found significant relationships demonstrating the high SCO individuals presented with high achievement orientation, interpersonal orientation, negative affect, neuroticism, perceived stress, and public self-consciousness. Because attentional processes moderate the impact of the sources of self-efficacy on the individual's internalized reaction, attention to social comparison information that informs ability belief may affect self-efficacy development in a similar way.

Because I was interested in studying factors that prediction and moderate self-efficacy in counselors, I also wanted to investigate some of the potential outcomes of self-efficacy development. One observed outcome of self-efficacy development of particular interest to counselor educators is program satisfaction. Program satisfaction is defined generally as the positive feelings related to the amount to which an academic program meets the expectations of the individual (Danielson, 1998). Coffman (2003) further explains program satisfaction because of cognitive evaluation in which the expected and actual circumstances are cognitively compared by an individual. Students with high program satisfaction have better outcomes after graduation, improved motivation and productivity, and increased wellness (Aiken, 1982; Love, 1993). In addition, CACREP (2015) has begun requiring programs to assess students for program satisfaction, indicating that an understanding of how program satisfaction develops would benefit both student and counselor educator.

Civitci and Civitci (2015) found relationships between SCO and life satisfaction, in which individuals high in SCO were less satisfied with their lives in general. In addition, the evaluative process and individual differences underlying social comparison behaviors may leave a comparer vulnerable to negative effect of unfavorable comparisons, such as lowered satisfaction with their own situation (Buunk, 2001; Edillo et al., 2012, White et al, 2007). If social comparison was found to interact with counseling self-efficacy, it may be that SCO also affects program satisfaction.

Through a review of the literature, I found that no studies exist that examine the effects of social comparison orientation on counselor development. Further, the exact factors that affect self-efficacy development in counselors are still uncertain, prompting further study that can identify potential complicating factors. Consequently, I examined the specific relationships between social comparison orientation, reported sources of counseling self-efficacy, global counselor self-efficacy, and program satisfaction. In addition, I included a scale for perceived stress to better understand the relationships between the studied constructs and stress, which can have significant effects on counselor performance and wellness.

Because there are no known studies investigating how students in counseling experience social comparison, I conducted a descriptive cross sectional survey study of counselors-in-training to capture a clear picture of existing counselor experiences. I intentionally limited the sampled population to that of CACREP accredited programs in order to control as much as I could for program experience and curricular content. Before beginning the study, I received approval from the Institutional Review Board at William & Mary. Using non-random convenience sampling, I asked counselor educators for permission to survey their counseling students both in-person and online using a digital survey packet. I was able to obtain a total

sample of 242 students with a mixture of paper (n = 125) and online (n = 117) survey responses. The primary question that guided my research was:

1. Does counselors'-in-training social comparison orientation (as measured by the Iowa-Netherlands Comparison Orientation Measurement(INCOM; Gibbons & Buunk, 1999)) moderate the contribution of sources of self-efficacy (as measured by the Sources of Counselor Self Efficacy – Malaysia (SCSE-M; Pei-Boon et al., 2020)) to counselor self-efficacy (as measured by a modified Counselor Self-Efficacy Scale (CSES; Melchert et al, 1996)) and subsequently program satisfaction (as measured by the adapted Psychology Program Satisfaction Survey; Gealy, 2016)?

Discussion of Primary Research Findings

In this section, I will discuss the primary research question and the findings upon estimating the proposed structural model. To answer RQ1, I utilized Structural Equation Modeling (SEM). SEM is an analysis used to identify and clarify relationships between latent variables (Gay et al., 2019). SEM is conducted in two phases: testing the measurement model (including the confirmatory factor analyses for all measurements used in the study) and then estimating the structural model fit (Joreskog, 1970). The initial model was built after a thorough review of the research indicated expected relationships and regression directions between variables (Kline, 2015). I created the model to test in AMOS, and the initial model was found to be a poor fit, meaning it did not accurately represent the relationships among the captured data. However, upon modifying the initial model, I was able to find an acceptable fit. The modified model resulted in the following findings among the sample of counseling trainees:

1. Social Comparison Orientation:

    a. Moderated the relationship between sources of counseling self-efficacy and overall counseling self-efficacy.
    b. Did not significantly predict levels of counselor self-efficacy.
2. Sources of Counseling Self Efficacy:
    a. Significantly predicted overall counselor self-efficacy.
    b. Significantly predicted program satisfaction.
3. Counseling self-efficacy:
    a. Significantly predicated program satisfaction.

I will now discuss the findings in light of current research and delve into the statistical power of the findings. In addition, I will review the potential limitations of the study design, the measures, and the potential application of the findings to the field of counselor education.

Instrumentation and Measurement Models

This study utilized five instruments and a demographic questionnaire. The instruments used to measure the proposed relationships were the Iowa-Netherlands Comparison Orientation Measure (INCOM; Gibbons & Buunk, 1999), the Counselor Self-Efficacy Scale (CSES; Melchert et al., 1996), the Sources of Counseling Self-Efficacy Scale – Malaysia (SCSES-M; Pei -Boon et al., 20120), the *coursework* and *clinical training* subscales of the Psychology Program Satisfaction Survey (PPSS; Gealy, 2016), and the Perceived Stress Scale (PSS; Cohen et al., 1983). The demographic questionnaire prompted respondents to identify their gender identity, racial/ethnic identity, age, program status (semester and year), program mode (in-person, online, hybrid), and their program track. (The results of the scales and confirmatory factor analyses for each of the instruments are discussed in the following section. The CFA for the PSS was not performed as it was not a factor in the proposed model.

Iowa-Netherlands Comparison Orientation Measure (INCOM)

Responses on the INCOM for the CIT population (M = 46.44, SD = 9.10) demonstrated a higher mean than the general population on which the INCOM was originally tested (M = 39.80, SD = 6.39), indicating that counselors may be more orientated toward comparison information than the general population. This finding is in line with research that indicates that individuals in occupational and academic contexts are prone to comparison behaviors (Buunk et al., 2005, Dijkstra et al., 2008). Because this construct has not yet been explored with CITs, there is no existing research with which to compare the CIT means from this particular sample. The original scale was found to have a two-factor structure with distinct subscales of *comparison of attitudes* and *comparison of opinions.* The original two-factor structure and factor loading of items presented clearly in the CFA conducted for the INCOM and the Cronbach's alphas for each of the subscales were found to be good and acceptable. This is a significant finding since the INCOM has not yet been utilized with CITs in an empirical study, demonstrating its appropriateness for use with this population.

Adapted Counselor Self-Efficacy Scale (CSES-A)

The CSES (Melchert et al., 1996) measures the confidence that a counselor respondent has in enacting various counseling tasks and dispositions. I modified the initial CSES to align with Bandura's (2005) recommendations (i.e., removing stems from items, changing the Likert response scale to percent confidence out of 100%) for self-efficacy measurement, which was a significant enough change to warrant performing an EFA to identify the scale factorial structure. The EFA demonstrated a clear three-factor structure, in which *skills self-efficacy, ethics self-efficacy*, and *groups self-efficacy* emerged as unique factors, whereas the initial CSES was found to be unidimensional (1996). This is a significant finding, because a multi-factor scale structure

will allow for more nuanced understanding of the construct of counselor self-efficacy. Cronbach's alpha for each of the subscales was good and acceptable, indicating the scale reliably reported the experiences of the counselor respondents.

The CFA demonstrated good evidence for a three-factor model as all of the items loaded strongly onto their respective subscales. Because the initial model demonstrated poor fit, I made minor modifications by correlating three error terms, which is acceptable given theory that these concepts should be highly correlated (Melchert et al., 1996). However, despite the modifications, the model fit was only acceptable in one of the fit indices, which indicates that the instrument may have poor construct validity. The changes to the scale, specifically the major changes to the item stems and the answer matrix, may have significantly impacted the validity of the item in measuring counselor self-efficacy. The poor fit indicates that, though there may be significant relationships found in the structural model analysis, these findings should be interpreted with caution. More research on the adapted scale will be necessary to continue to refine the scale to ensure that it is measuring the intended construct of self-efficacy in counseling.

Sources of Counseling Self-Efficacy Scale - Malaysia

Pei-Boon et al developed the Sources of Counseling Self-Efficacy (SCSE-M; 2020) by modifying Usher and Pajares's (2009) Sources of Math Self Efficacy scale to be in line with counseling contexts. The scale is theorized to break down into fours factors that directly reflect the sources of self-efficacy *mastery experiences, vicarious experiences, social persuasion,* and *physiological/affective states.* The CFA for this scale reflected the four-factor model well with all but two of the items loading onto their respective factors. The two items with low loadings were kept to maintain theoretical stability. These findings indicate that the experiences of students in

counseling programs experience and differentiation between sources of self-efficacy, which is significant in informing how educators and supervisors attend to those sources intentionally.

Despite demonstrating good fit in previous studies, the SCSES-M showed minimal acceptable fit, which indicates that the instrument may have poor construct validity. The changes to the scale, specifically the major changes to the item stems and the answer matrix, may have significantly impacted the validity of the item in measuring counselor self-efficacy. Poor model fit may be in part attributed to the poor loadings of one item, Item 14 "Even when I work very hard, I do badly in counseling sessions". It is possible that the wording of the items, heterogeneity of the construct, or personal traits and experiences of the respondents may have significantly affected the fit of the model. Future studies should conduct an EFA with the scale in order to make modifications that more accurately reflect the sources of self efficacy. It may also be that measurement of the four sources of self-efficacy, while related, would be better served as separate scales, which may prompt further research.

Psychology Program Satisfaction Survey

The Psychology Program Satisfaction survey (Gealy, 2016) was used to identify specifically the respondents' satisfaction in coursework and clinical training. I used the two subscales of *coursework* and *clinical training* as they were the most pertinent to counselor education. The CFA for the scale was found poorly fit a two-factor model. Therefore, an EFA was required. The EFA revealed an additional third factor that reflected experiences specific to practicum. The CFA of the three-factor model demonstrated good fit. An implication of this finding is that students may perceived the practicum experience to be separate from their general clinical training, meaning that special consideration should be given to the preparation and conducting of practicum experiences.

CFA Discussion

Overall, the scales used in this study performed well with minor revisions with the sampled population of counselors in training. In addition, new discoveries related to the factor structures of the CSES and the PSS were revealed, allowing for potentially more nuanced understandings of counselor in training experiences. The scales were not without their shortcomings. Some items did not load strongly onto their factors, indicating that there may need to be modifications to ensure better model fit in future studies.

Discussion of Findings Related to Social Comparison Orientation

Social Comparison Orientation as Moderator. In both the initial and alternative models, comparison orientation significantly interacted with sources of counselor self-efficacy, affecting the strength of the contribution of sources to overall counseling self-efficacy. In the initial model, sources of self-efficacy and the interaction term were treated as a latent variable, and in this model the interaction term INCOM_x_SOURC significantly impacted the relationship between the SCSES-M and the CSES in that the interaction strengthened CSE. In addition, in the alternative model in which the sources of self-efficacy, comparison orientation, and the interaction terms were treated as observed variables, interaction effects were still observed but more nuance was found. S*ocial comparison of abilities* significantly interacted with *reported mastery experiences*, and *social comparison of opinions* significantly interacted with reported vicarious experiences. This finding coincides with existing research by Mussweiler and colleagues (2006), that social comparisons "may affect self-evaluations because they influence what knowledge is rendered" (p. 41); thus, the effects on self-efficacy (a self- evaluation in this instance) could be explained in part by the social comparison orientation. To be more specific,

comparisons are thought to be enacted by three basic motivations: *evaluation, improvement,* and *enhancement* (Taylor et al., 1995; Wood & Bandura, 1989).

Evaluation motives are prompted by questions such as "how am I doing" and "what should I think and feel". For counselors in training, these are common questions when evaluating their status in their programs related to counseling skills as well as dispositions such as cultural responsiveness and humility. These types of questions may turn counselor attention to sources of self-efficacy such as vicarious experiences, social persuasion or mastery experiences. Counselors who notice a difference in their expected versus actual performance may engage in comparisons to facilitate *self-improvement*. For example, students may attend to or seek out more information such as solicited feedback from supervisors on their own performance in order to identify ways to improve. Lastly, counselors may compare themselves in order to *enhance* their self-concept of self-esteem, potentially seeking out individuals that are doing more poorly in the program to evaluate themselves against (vicarious experience). All in all, the motivational processes of evaluation, improvement, and enhancement seek information input that is found in sources of self-efficacy. In this way, social comparison orientation may affect how the interpretation of self-efficacy sources is carried out, thus affecting the overall internalization of self-efficacy beliefs.

Specifically in academic and occupational contexts, comparison information regarding a person's abilities and opinions is likely to overlap with sources of self-efficacy, especially in relation to *mastery experiences* and *vicarious experiences* (Bandura, 1997; Festinger, 1954). Studies have demonstrated that students high in SCO will attempt to obtain information on peer performance (Dijkstra, 2008). As an example, in interpreting a mastery experience, a student may look at the accomplishments of others to compare abilities and decide if their accomplishment was worthwhile or unimpressive. Similarly, a student highly oriented to obtain

the opinions of others may be more likely to attend to vicarious experiences in which they are putting themselves in the shoes of another to determine likeness. These interactions are reflected in the data, but are also demonstrated in self-efficacy literature (Bandura, 1997, Larson, 1989). This finding expands how the field understands the factors that affect attention to sources of self-efficacy as well as how those attentional processes improve or diminish efficacy beliefs.

Another tie between SCO and CSE development is the role of affective experiences. According to social cognitive theory, affective experiences play a part in the formation of self-efficacy beliefs. Studies of comparison orientation have demonstrated that individuals high in SCO are more prone to having strong affective reactions as a result of obtaining comparison information (Buunk et al., 2001). The combination of these two concepts paints a picture of high SCO individuals having a strong affective reaction to comparison information, which could potentially affect the interpretation of sources of self-efficacy. For instance, a student with high SCO might compare their own mastery experience of obtaining a mid-range grade with a classmate who obtains a high grade, experience shame or disappointment, then fail to internalize the self-efficacy information in a positive way. As stated before, self-efficacy beliefs come from *interpretation* of sources, rather than the mere existence of the source (Bandura, 1997). Because comparison orientation may produce affective results that skew interpretation of self-efficacy experiences, there may be a link between the two constructs.

The findings from this study should be interpreted with caution. First, only two of the SCO interactions moderated the relationship between the SCSES-M and the CSE, which leaves a gap in understanding how the two non-significant interactions might present. Memon et al. (2019) presents a possible explanation for failure to find a moderating effect in which one possible reason for failing to find more significant interaction effect is that moderations are

sensitive to problems with sampling and instrumentation, such that insufficient data points may prevent the detection of a moderating effect (Aguinis, 1995). This study's significant limitations with sampling and instrumentation may be an explanation for the lack of significant interactions with *social persuasion* and *physiological/affective states,* as well as only finding low to medium beta weights of the significant interactions. However, with a more contextualized and targeted investigation into the processes of social comparison and self-efficacy belief development, we may more fully understand the true relationship.

Discussion of Findings Related to Sources of Counselor Self -Efficacy

Sources of Counselor Self -Efficacy as a Predictor of CSE. Sources of counselor self-efficacy produced a statistically significant contribution to CSE, replicating what was demonstrated in the authors' initial scale development studies (Pei Boon et al., 2018, 2020). In the original study, mastery experiences and social persuasion were the strongest predictors of CSE. In the current study, all sources but *vicarious experience* significantly predicted CSE scores by either increasing or decreasing reported self-efficacy. This relationship demonstrates that the more instances of sources of self-efficacy a counselor reports, the higher their counselor self-efficacy climbs, except in the case of physiological/affective states which decreases CSE. *Mastery experiences,* as in most studies of source contribution to SE, had the strongest positive relationship with CSE. *Social persuasion* was the second strongest relationship. This finding replicates studies that found peer and supervisor feedback to be significantly impactful on CSE development (Daniels & Larson, 2001). Physiological/Affective states significantly lowered CSE, which is in line with literature that indicates stress, especially physiological, is associated with lower CSE (Lannin, 2015). In light of the interaction results, it seems that one possible explanation of the non-significant relationship between vicarious experiences and CSE may be

that social comparison orientation affects the relationship significantly. However, the data from this study do not support a predictive relationship between vicarious experience and CSE, which may be explained by previous studies in which vicarious experiences did not predict CSE due to the difficult nature of assessing this particular source effectively (Britner & Pajares, 2006, Pei Boon, et al., 2020, Usher et al., 2019).

For this sample, vicarious experiences did not correlate with comparison orientation, nor did it significantly predict counselor self-efficacy, a surprising result considering previous research validating the ability of the SCSES-M to measure sources of self-efficacy (Pei-Boon 2020). However, in a previous study, Pei-Boon and colleagues (2015) found vicarious experience to fail in predicting CSE in a structural model with a measure of counseling self-efficacy ($\beta = -.017$, C.R. $= -.310$, $p > .05$). A finding by Britner and Pajares (2006) that may explain the lack of prediction is that vicarious experiences are often diminished when mastery experiences are more present. Overall levels of reported mastery experiences were high. In addition, Usher and Pajares reported that vicarious experience is a strongest predictor of learning in students that are self-guided. The counseling student population may not exhibit high orientation toward self-learning, especially if early in their program experiences. More research would need to be conducted to best understand this lack of relationship, but it seems to indicate that for vicarious experiences to be the most effective at building self-efficacy beliefs, individuals must be orientated to vicarious information. Overall, the sources of self-efficacy did significantly predict levels of counselor self-efficacy, which is a finding that emphasizes the importance of intentional integration of information and experiences that contribute to self-efficacy belief development.

Discussion of Findings Related to Counselor Self-Efficacy

CSE as a Predictor of Program Satisfaction. Counselor self-efficacy did significantly predict reported program satisfaction. This finding is similar to research that demonstrates that self-efficacy can predict a person's satisfaction with their job environment (Peng & Mao, 2015) and academic program satisfaction (Letcher & Neves, 2010). It is important to note that previous studies have shown that other factors may affect program satisfaction (Domenech-Betoret et al., 2017; Huebner, 1993) such that peer and faculty support was a major factor in determining satisfaction. In fact, variables such as meaningfulness of study (Azilah-Gbettor et al., 2022) can significantly affect how SE contributes to satisfaction. However, it can be logically inferred from additional research that there is a SE and satisfaction connection. People with strong self-efficacy beliefs also have positive outcome expectations (Chan et al., 2005). Positive outcome expectations may increase a student's satisfaction with their program, in the sense that they feel confident they will succeed in future program-related tasks or in the field as a result of their experiences as a student (Bandura, 1997).

Self-efficacious people take action in their lives to improve their circumstances more frequently than those with lower self-efficacy (Bandura, 1994) and are also more likely to demonstrate skills that improve outcomes such as time management and organizational skills (Chan et al., 2005). Similarly, students with high self-efficacy are likely to be able to adequately handle challenging situations such as practicum, possibly leading to higher satisfaction with their experience after having successfully navigated various difficulties (Bischoff et al., 2002). Overall, it can be reasonably concluded that self-efficacy and related concepts, abilities, and traits can predict satisfaction, an outcome variable that can impact both the student and their program in significant ways.

Discussion of Exploratory Research Questions

Additional analyses were conducted to answer exploratory research questions. The exploratory research questions were formed after a review of the literature indicated that certain relationships may be found between the studies constructs. Because until this point there had been no investigation of how comparison orientation performs in counselor samples, asking additional questions will help to clarify the relationships we can expect as well as inform future research directions. The exploratory questions are listed below:

A. Does counselor self-efficacy correlate with their perceived stress?
B. Do reported sources of counseling self-efficacy predict program satisfaction?
C. Does social comparison orientation vary across age, race, gender, track, and program status?

Using previous research as a guide, I hypothesized that CSE and stress would be negatively correlated in that counselors high in CSE would experience less perceived stress. I also hypothesized that students who reported experiences more sources of counselor self-efficacy would be overall more pleased with their programs. Last, I hypothesized that there would be differences across demographic groups on reported levels of comparison orientation.

Counselor Self -Efficacy and Stress

To analyze the relationship between counselor self-efficacy and perceived stress, I conducted a correlational analysis. In contrast to the initial hypothesis, there was no correlation between CSE and stress. This research question aimed to better understand the experiences of students in regard to their wellness and development. CITs experiences frequent and varied stressors, such as increased academic rigor, difficulty juggling multiple roles, and pressures to obtain and perform novel skills (Hyun et al., 2006; Ledesma & Cobos, 2016; Truell, 2001). Further, stress may lead to poorer performance on counseling tasks and lowered self-esteem.

Previous literature has shown that stress and self-efficacy are well related, especially in physiological stress (Lannin et al., 2018). However, in this sample, no significant relationship was shown. This may be in part due to the nature of the questionnaire used. The PSS asks participants to rate themselves in levels of stress over the past month. Time-bound levels of stress may not be as predictive of CSE as other related constructs such as trait anxiety (Ikonomoupolos, 2016; Larson, 1998). This study also took place at a time when stress may have been unusually high (e.g., all students were surveyed at the very end or the very beginning of the Fall 2021/Spring 2022 semesters; COVID anxiety as a stressor) potentially skewing the relationship.

Other explanations for the lack of relationship are studies that show SE beliefs to be a mediating factor in the experience of stress, such that stronger self-efficacy beliefs can be a protective force against external stressors, rather than a directly correlated construct (Bandura, 1995; Lannin et al., 2018). This is to say that, while the variables may not be significantly correlated, they may have a relationship that necessitates a different level of analysis to discover.

Sources of Counseling Self-Efficacy and Satisfaction

To identify the predictive power of sources of counseling self-efficacy on program satisfaction, I performed a multiple regression. I chose to use multiple regression in order to treat each source of self-efficacy as its own predictor variable in order to better understand the contribution of individual sources to satisfaction. As predicted, reported sources of counselor self-efficacy significantly predicted program satisfaction (Pei Boon et al., 2020). Specifically, higher reported *mastery experiences* improved satisfaction scores whereas higher *physiological/affective states* lowered satisfaction. These findings make sense in light of research that demonstrates that satisfaction is obtained when the expected outcomes match the actual

outcomes of a situation (Coffman, 2003). Students that report more positively interpreted sources of self-efficacy would likely feel that their expected outcomes of positive progress through the program were being met. In addition, satisfaction with programs has been shown to be related to the opportunity to engage in activities that lead to personal growth. Many of the items on the SCSES-M tie into growth-focused activities such as receiving feedback and working through challenges successfully (Pei-Boon et al., 2020), which may explain the connection between sources of counseling self-efficacy and satisfaction (Jensen, 2016).

Mastery experiences are shown by research to be the strongest predictor of self-efficacy belief development. It stands to reason that with a high correlation between CSE and satisfaction, the strongest source of self-efficacy would predict satisfaction in a significant way. The strength of mastery experiences in predicting satisfaction may explain the lack of significance for vicarious experiences and social persuasion, because, according to Bandura, the other sources of counseling self-efficacy grow stronger in the absence of mastery experiences (1997).

Heightened *physiological/affective states* leading to lower satisfaction is in line with research that demonstrates the counselors who are stressed express decreased satisfaction with their work (Larson et al., 1992). With program satisfaction being a correlate with student wellbeing (Neem et al, 2020; Stenstrom et al., 2015), it is unsurprising that negative experiences with *physiological/affective states* would lower satisfaction. In addition, individuals experiencing stress or strain tend to expect poorer outcomes (e.g., Franco et al., 2019), which may be an additional explanation for the lowered satisfaction scores.

Differences Across Groups

Overall, comparison orientation did not differ across groups with the exception of age and one significant difference across race/ethnicity. As predicted, social comparison orientation

diminished over time with older participants reporting lower social comparison than younger participants.

Race and Ethnicity. There were fewer significant differences across race/ethnicity than expected. Literature on social comparison has demonstrated that the view of the self varies across Eastern and Western cultures (Guimond et al., 2006). In fact, comparisons at the individual level are more common than those at the group level, potentially limiting the ability to capture the comparison orientations of participants that do not ascribe to western views of comparison utility (Lorenzi-Cioldi, 2016). The only significant difference across race/ethnicity was that White participants reported significantly higher comparison orientation than Hispanic/Latine individuals. This finding is in line with research that demonstrates that individuals in dominant western cultures may encourage comparisons more frequently than those in minority cultures (Lorenzi-Cioldi, 2016). This finding impacts how student comparison behaviors may be viewed as a factor of cultural expectations or potentially as a factor of perceived power in the environment. Cross-cultural difference in comparison is a relevant finding in light of the positive and negative effects that social comparison can have on students. White students may be experiencing increased effects of high comparison orientation and thus may need increased support or education on the effects of comparison. Hispanic/Latine students may not be taking advantage of the positive effects of comparison such as improved attention to sources of self-efficacy, opportunities to learn about their own performance, and boosts to self-confidence if making favorable comparisons.

Because this study was completed with a sample largely skewed toward white females, a more diverse sample would be needed to better estimate generalizable trends behind these findings. What is known already is that counselors from BIPOC cultures often experience

distress related to the experience of oppression, prejudice, isolation, and other barriers (Vakkai et al., 2020). There is also literature to support the idea that INCOM would vary across groups as a culturally bound trait influenced by values and beliefs (Baldwin & Mussweiler, 2017). If social comparison orientation can affect self-efficacy development, and self-efficacy can be seen as a protective factor, then it is important for counselor educators to understand how comparison behaviors are expressed in diverse student groups.

Age. There was a significant negative correlation with SCO and age, indicating that older adults sought out comparison information at lower rates than their younger classmates. This finding is in line with existing research on social comparison across the lifespan (Callan et al., 2015). Because literature shows that comparisons are generally conducted with similar peers, older adults who may be a minority in their program may feel less prompted to compare as they see themselves as dissimilar to their classmates. Additionally, social comparison is often conducted as a way to diminish anxiety in new or unfamiliar situations, which would be more common among younger students who may not have worked occupationally in counseling or related fields or engaged in graduate school settings (Gerard, 1963; Mills & Mintz, 1972).

Gender Identity. The non-significant findings of this study can also inform our understanding of how students may or may not compare. There were no significant differences across gender, which is in line with research that proposes that male and female individuals both experiences the drive to compare (Guimond, 2006) and other studies using the INCOM that also found no significant differences across gender (e.g., Lee, 2020), though possibly for different motivations and with varying outcomes (Guimond et al, 2007). It should be noted that the sample was largely female, potentially affecting the differences across the group means on SCO.

Program Variables. It was also hypothesized that INCOM would vary across program status, with students in the early stages of their programs being higher in comparison than those late in their studies. However, this was not demonstrated to be the case. Students in the current study demonstrated no significant difference in comparison orientation depending on their program status. Studies of counselor development (Kozina, 2010; Mullen et al., 2015) demonstrated a different effect of counselor program progress in which students gradually increased in CSE over the course of their training. One possible explanation for this is that the novel situations that prompt comparisons are not necessarily encountered only in the beginning of a program, but rather are spread throughout as the student progress to more and more difficult tasks and new challenges arise (Gorreczny et al., 2015). Future research would likely get a clearer picture of student SCO trends if capturing data at multiple stages during their program of studies rather than at only one point.

Last, contrary to hypothesized, there were no significant differences across program track or modality. Program track data was heavily skewed toward CMHC students whereas school counselors, marriage and family students, and other tracks were represented as low rates. On one hand, this indicates there are no tracks that are particularly prone to making comparison, which may mean that students from all tracks are equally affected by drives to compare. Because students from varying tracks engage in unique class and training settings, it may be important to identify the particular ways each group engages in comparisons within the context of their track. In-person, hybrid, and online student demonstrated similar levels of SCO, despite existing research that indicates that online students engage in fewer social settings with lower opportunities of peer comparisons. One rationale for this finding may be that comparison orientation and comparison behaviors are distinct from one another. Even if a person may not

have opportunities to compare, the drive to compare may still exist as measured by the INCOM. I will now discuss the limitations to this study, its implications for counselor education, and future areas of research.

Limitations

Sampling and Data Collection Limitations

As with all research, it is important to consider the limitations of this study in the context of the findings. The a priori power analysis, guidelines for representativeness, and general rules of thumb for structural equation modeling together led me to an ideal minimum sample of 200 individuals. The final participant count was 242, meeting minimum requirements. Some researchers indicate that higher sample sizes will increase the power of analysis (Schumacker & Lomax, 2010) potentially limiting the statistical power of the model results. However, some authors support a smaller sample size threshold for structural equation modeling, such as a slightly smaller sample of 100-200 participants (Boomsma, 1982, 1985) or as few as 5-10 cases per parameter observed (Bollen, 1989, Nunnaly, 1967). Though a smaller sample size reduces the statistical power of the model, a smaller sample does not necessarily indicate the findings are not significant. The types of scales used, the structure of the model itself, and the population sampled may affect fit, regardless of sample size (Wolfe et al., 2013). Though 318 participants started the survey, a significant number dropped out. Certain steps could have been taken to decrease dropout such as: (a) making the survey packet shorter, (b) providing an incentive, and (c) obtaining a larger number of paper responses through personal administration. In addition to improving the power of the analysis, a larger sample size may have contributed to a more normal distribution of data. Non-normal data can skew results in favor of outliers and limit generalizability. The small sample size may have also affected the distribution of the participant

demographics. The sample was highly White and Female, which may indicate that the experiences of male, non-binary, transgender, and otherwise identifying students and those of students of color may be overlooked. Thus, another limitation of the study is the limited diversity of the sample.

COVID-19 Pandemic

One specific influence on the study as a whole was the COVID-19 pandemic. Closures due to social distancing regulations hindered the researcher's ability to gather data in-person, possibly leading to low response rates as well as lower connection with potential participants. There were no checks in place within the study to differentiation between the student experience before or after the effects of COVID-19, so some of the measurements may have been affected by this significant stressor. One possible way that COVID may have affected participant answers were skewing stress responses or dampening program satisfaction and reported sources of self-efficacy. Research during the pandemic demonstrated that students at times felt isolated and unable to take advantage of their programs to the extent desired (e.g., fewer opportunities for peer bonding, difficulties securing practicum sites) which may have diminished their cumulative counseling experiences to a deleterious effect on their self-efficacy (Tang et al., 2011). Future studies should integrate additional checks, such as a scale of COVID-related anxiety, to help control for some of the hidden effects of pandemic stress.

Instrumentation Limitations

The instruments used in this study introduced potential limitations to the findings. First, three of the five scales used had very little pre-existing literature to support their reliability and validity. For instance, the psychology program satisfaction survey had only been used in one pilot study (Gealy, 2016) and was only used in part for the current study. The program

satisfaction survey may have also skewed results in that student who had not yet entered practicum were unable to answer questions from the practicum subscale. The CSES (adapted from Melchert et al) was altered for use in this study to be in line with Bandura's recommendations for measuring self-efficacy. Despite using well-established guidelines, the resulting adapted scale had not yet been tested for validity and reliability, though it did perform relatively well during the CFAs. In addition, it is thought that to best measure self-efficacy, all scales utilized must be on equal level regarding the construct measured (e.g., if measuring CSE, all scales must refer to counseling contexts). INCOM and Perceived Stress scales were not specific to counselor contexts and therefor may have introduced error to the study. Last, none of the scales had checks imbedded to determine if the self-report data was accurate or if it was affected by external concepts such as social desirability, boredom, or other response complications.

Limitations of Latent Variable Modeling

The process of SEM introduces unique threats to the study validity. First, very little research has been done with the specific constructs measured in this study. Estimation of the model requires solid theoretical evidence to assume the strength and nature of relationships between variables. While literature existed for some of the relationships (CSE and SOURC, CSE and SAT, STR and INCOM), other relationships such as counselor-related variables and INCOM have not yet been explored and therefore cannot be assumed off empirical evidence. Also, though SEM can be used to clarify and illuminate relationships between variables, there is no way to ensure causality within the structural model, therefor the results must be interpreted with this fact in mind. However, despite the limitations inherent to the study, there are still takeaways

from the findings that can inform how supervisors and counselor educators address the topic of comparison orientation as well as future directions for more specified research.

Implications for Counselor Educators and Supervisors

The findings from this study offer several implications for counselor educators and clinical supervisors. This study contributes further evidence that students who receive effective feedback, frequently engage in counseling tasks, and experience lowered stress report higher efficacy beliefs. Specifically, the study identified mastery experiences and social persuasion specifically as the sources of self-efficacy that most contribute to CSE development. Counselor educators and supervisors should take this into advisement in planning their sessions, lessons, or trainings (e.g., intentional integration of specific and timely feedback, integrating peer support and encouragement practices, having students reflect on their recent mastery experiences). This implication is in line with the aim of CACREP-accredited counselor education programs to develop students across standard domains of competence through the acquisition of certain skills and dispositions, leading to better practice (Barrio Minton et al., 2013).

A body of literature has demonstrated that improvements in self-efficacy can correlate with improved performance of counseling-related tasks as students are more willing to take risks, persevere, and integrate learning effectively into practice and high SE students are more engaged in supervision (Al Darmaki, 2004; Hish et al., 2019; Friedlander et al., 1986; Ikonomoupolos, 2016; Larson et al, 1992). Self-efficacy development leads to improved service delivery and less likelihood of abandoning challenging tasks (Bandura, 1986; Mullen & Lambie, 2016; Vancouver et al., 2001) and also predicts wellness behaviors (Akpanudo et al., 2009). In light of these positive outcomes of CSE development, this study's findings related to source contributions to CSE are pertinent and important to the goals of counselor educators.

In this study, I provide evidence that CSE development will also predict program satisfaction, a variable with a multitude of positive ramifications for counselors and programs alike. Program satisfaction predicts improved outcomes for student wellness, motivation, and post-graduate success, making it an important focus for counselor ed programs. In this study, I found that reported sources of self-efficacy and overall self-efficacy both predicted improved satisfaction. Counselor educators looking to improve students' satisfaction within their program can thus consider the methods and sources of self-efficacy as an area of intervention. One program evaluation implication is for counseling programs to capture data on self-efficacy at different timepoints during a program to examine trends that may inform areas to improve, which may also lead to improvement in trainees' satisfaction.

Further, it was found that mastery experiences are the strongest predictors of program satisfaction, which serves as a rationale for programs to assess often the opportunities students have with mastery experiences but also to prime students to integrate mastery experiences effectively. Because interpretation of sources of self-efficacy is a vital part of the internalization of the beliefs, students should be encouraged to identify their cognitions regarding mastery experiences and to interpret them in favorable ways that improve self-efficacy belief (e.g., processing exam or assignment results, reflecting on recent tasks in supervision). Alternatively, physiological/affective states, or stress, predicted a decrease in program satisfaction. Though this finding may seem obvious, it further underscores the importance of wellness initiatives in counselor education programs, especially interventions related to decreasing physiological and affective anxiety during counseling tasks.

A third implication of this study is the introduction of SCO as a moderating variable on counselor self-efficacy development. No study has yet investigated the effect of SCO on

counselor development; therefore, this study begins to shed light on a relatively unexplored factor. In the current study, counselors scored higher on average SCO than other populations previously studied, indicating an increased need to address SCO with this population. Further, the results of the current study provide evidence that self-efficacy development may be affected by comparison orientation in that those high in SCO may attend more to the sources of self efficacy present in counseling programs. If so, this would indicate that educators should foster an awareness of comparison orientation with their students. A study by Mussweiler (2001) demonstrated the priming a person toward SCO information may improve their self-assessment after comparison with a superior other, indicating the importance of priming and intent when comparing. Students that highly attend to sources of counseling self-efficacy should be supported through the process of attending to and interpreting the sources in a way that is favorable to their CSE development. Students low in SCO may be encouraged to pay more attention to potential sources of CSE inputs in order to get the most out of the growth opportunities.

Research demonstrates that high SCO individuals may experience affective consequences of comparison behaviors. Supervisors in particular should be aware of the potential impacts that comparison can have on students and be prepared to bring these topics into supervisory sessions, especially with students high in SCO. The study also found evidence for differences in SCO across groups. Though the evidence for differences across groups was limited, this study and others that have investigated the effects of social comparison demonstrate that individual traits and backgrounds may affect the experience of SCO. Minority status or intersecting identities can lead to decreased wellbeing or dropout (Longebeam et al., 2004; Ma, 2020; Shahid et al., 2018, Vakkai, 2020), which leads to a major need to understand what underlying factors can exacerbate preexisting stressors for students of color. Supervisors especially should broach how their

supervisee's gender and racial identities intersect with their drive to compare themselves as well as how those comparison can affect their wellbeing. Recent research indicates that supervision can be a safe space to explore how students, especially students of color, feel pressures to perform and to fit in with expectations of the dominant group (Vitoria, 2020), preventing experiences of shame and burnout.

Counselor education programs must evaluate how effectively a school achieves its program objectives according to CACREP standards (2015, Section 4, B). Results from the current study indicate that high CSE predicts high satisfaction, which may be a key to understanding how evaluate program effectiveness. Though not explicitly stated, program satisfaction may be interpreted as a student "disposition" that can be used to evaluate program effectiveness. Because satisfaction is a compilation of an individual's appraisals of how their reality matches their expectation, it is evaluative in nature and may be helpful to understanding how a program is meeting the needs of the student. An implication for faculty and administrators is to attend to student satisfaction by engaging in more frequent discussions of how their expectations for efficacy development are being met. For example, self-assessment of self-efficacy is an effective way to organize and identify strengths and areas of growth (Bandura, 1991) and could also be used as an opportunity to point out ways the program is effectively supporting the student's growth, or as an invitation to address students' dissatisfaction with opportunities to develop. Self-assessment during supervision sessions or frequent learning self-assessments in classes (Swank, 2014) should be tailored to the idea of increasing student perceptions of their self-efficacy and, as a result, program satisfaction.

Findings related to stress during the course of this study indicate that, while SCO can be helpful in developing self-efficacy beliefs, it is also correlated with high stress. It is important to

note that though this relationship was not investigated as part of the study's research questions, the significant relationship may be of importance for counselor educators. There are varying perspectives regarding the relationship direction between stress and SCO. A study by Buunk et al. (2001) found that SCO increases in stressful situations, which would imply stress prompts SCO. Similarly, Collins (2000) found that social comparisons may be prompted by stressful situations to compare themselves to others who are worse off in order to feel better. However, outcome studies of comparison behaviors also demonstrate significant affective consequences of comparisons (Dijkstra, 2008) including stress and anxiety about being evaluated. Though the direction of this relationship remains unclear, supervisors and instructors should be aware that comparison may come along with or as a result of stress and take steps to address it.

CACREP (2015) requires best practices in maintaining student wellness, prompting counselor education programs to infuse wellness into supervision and teaching (Blount & Mullen, 2015; Callender & Lenz, 2017; Lenz & Smith, 2010; Vitoria, 2020). Supervision is an appropriate place to broach stress in relation to comparison (Vitoria, 2020) especially through integrating psychoeducation on concepts such as imposter phenomena, broaching cultural attitudes toward comparison and competition, and assessing students for comparison orientation. Educators can utilize reflective activities in class to bring awareness to the student's internal experiences during evaluative processes or during peer demonstrations of counseling skills or videos. Overall, there are many ways that the current study can impact how counselor educators' interface with their students. Because many of the findings from this study are novel, further research is needed to better understand the nuanced relationships between SCO, CSE development, satisfaction, and stress.

Recommendations for Future Research

The findings from this study also bring to light implications for future research. Beginning counselors are especially vulnerable to contextual influences on CSE development (Goreczny et al., 2015; Bandura,1997), and the current study makes a case for SCO being one of those contextual influences. However, more information is needed to determine the role SCO plays in CSE development as well as what other factors may be at play. For example, future studies can explore qualitatively how SCO may present in counselors in training, necessitating the creation of assessments that specifically capture counselor experiences of social comparison and social comparison orientation. Researchers may also benefit from conducting qualitative analyses on the specific sources of self-efficacy in order to identify specific ways that comparison orientation may prompt attention to, or away from, each unique source. Usher et al. (2019) conducted a convergent mixed methods study of self-efficacy development in math and science. The researchers combined findings from qualitative and quantitative inquiries into student reported sources of self efficacy. A similar study could be conducted with counselors in training and in the field. As one last consideration, it is best practices in research to use highly specialized instruments to ensure validity with the construct being measured. Comparison assessments specified for counselors could be used to identify more nuances in how SCO predicts comparison behavior, but also how comparison behaviors affect student outcomes like CSE development in peer environments, classrooms, or practicum experiences.

Another effect of SCO that should merit further study is the relationship with stress. The implications of CIT stressor prevalence and the bi-directional relationship between SCO and stress indicates that researchers may want to examine these constructs in greater detail. Further, Buunk et al. (2001) demonstrated that being high or low in SCO can impact how stressors

prompts strong affective reactions. This may indicate that counselors in training that are high in SCO will experience heightened reactions to the multitude of stressors that are demonstrated to affect CITs during their programs.

Future research on the relationship of SCO and stress might inform interventions that alleviate the negative affective results of poor comparisons. For instance, emotional intelligence (EI) practices have been demonstrated to improve resiliency and decrease student burnout. Emotional intelligence development as infused into student supervision or experiential groups could buffer the negative effects of comparison by providing a coping method after making unflattering comparison (Gutierrez & Mullen, 2016). A potential study on the effects of EI could include an investigation of a potential moderating effect of EI on the relationship between comparison orientation and stress. Other studies might investigate student experiences of comparison thoughts along with self-rated stress related to the comparison cognitions in order to better understand the cognitive processes underlying the comparison-stress relationship.

Previous studies have shown that SCO can positively and negatively affect program satisfaction depending on comparison outcomes and the disposition of the comparer (Edillo et al., 2012; White et al., 2007); therefore, future studies should examine how to mitigate the effects of negative comparisons and to bolster those of positive comparisons. One such intervention study might be to engage a focus group of students and discuss their satisfaction with elements of the program, identify ways that student interactions in the group follow patterns of comparison, ask questions related to comparison such as “do you think you are more or less happy in your class than your other classmates?”, and finally ask follow-up reflection questions about their experiences witnessing the opinions of other students. Another such study might be an investigation into how *comparison of opinions* affects program satisfaction, student stress,

identity development, or other related outcomes in classes with heavy debate topics (e.g., ethics, social justice and advocacy, advanced theories).

While CSE was found to have a relationship with satisfaction, its relationship to stress was not substantiated by the data. As previously stated, CSE has been demonstrated to develop curvilinearly over time, indicating that supervisors and instructors need to be attentive to whatever influences may affect CSE belief development (Goreczny et al., 2015). Even though this current study did not find relationships between CSE and stress, future studies should attend to the effects of trait anxiety and possibly related terms like perfectionism and imposter phenomena in the development of CSE. It could also be possible that CSE can mediate stress reactions (e.g., Truell, 2001), prompting a study of how varying levels of CSE can affect students physiological and affective reactions to stressful situations such as having to do a safety assessment, respond to a client in crisis, or attempt a difficult class assignment. While the current study had many limitations, the findings can meaningfully impact research directions for the field and contribute to both counselor wellness and program success.

Chapter Five Summary

In this chapter, I reviewed the findings from the main and exploratory research questions. I compared the findings with previous research, identified similar and dissimilar findings, and offered theoretical explanations for the conclusions. I answered the main research question "Does counselors'-in-training social comparison moderate the contribution of sources of self-efficacy to counselor self-efficacy and subsequently program satisfaction?" through a discussion of the CFA process and findings as well as the initial and alternative structural models. Both models demonstrated a significant moderating effect of SCO on the relationship between sources of counseling self-efficacy and counselor self-efficacy. More specifically, comparison of

attitudes interacted with mastery experiences to increase CSE while comparison of opinions interacted with vicarious experiences to decrease CSE.

I investigated the exploratory questions using correlational analysis, multiple regression, and ANOVAs and revealed an intriguing lack of relationship between stress and counselor self-efficacy, a significant predictive relationship of sources of counseling self-efficacy and program satisfaction, and a small number of differences in SCO across groups. Overall, the findings of the analyses were in line with the hypothesized relationships, shedding light on otherwise un-studies relationships between comparison orientation and counselor development.

Students in counseling programs experiences a multitude of stressors that affect their ability to develop vital skills, competencies, and dispositions. Counselor educators have a duty not only to mitigate those stressors but to also understand the nuances of counselor development, especially that of self-efficacy belief. High self-efficacy beliefs predicate a variety of positive outcomes for counselors from improved practice to increased wellness, however, literature suggests that certain traits and contextual factors may affect CSE beliefs.

Social comparison theory, like social cognitive theory, is a framework for understanding learning and behavior with an additional component of understanding how evaluations of the self can affect development and emotional states (Festinger, 1954). Comparisons are shown to affect those in academic and occupational states, and counselors-in-training are no exceptions. The current study demonstrated that orientation toward comparison information significantly affected the development of counseling self-efficacy by moderating reported sources of self-efficacy in counseling contexts. Further, higher CSE predicted more satisfaction with the student's program, which can have positive impacts on the future of the clinician as well as the program itself. Though these findings should be considered preliminary especially in light of limitations to the

study validity, there is now a solid rationale to address social comparison as a factor in counselor development on a programmatic level.

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APPENDICES

Appendix A: William & Mary IRB Approval

Click here<https://linktr.ee/WMCounselorEd> for counselor education program websites

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From: GOEFRSS Compliance <compli@wm.edu>
Sent: Monday, November 15, 2021 8:34 AM
To: Jones, Kaitlin C <kcjones@wm.edu>; Mullen, Patrick <prmullen@wm.edu>; [sympa]edirc-l <edirc-l@lists.wm.edu>
Cc: Kaitlin Jones <kcjones@email.wm.edu>; Mullen, Patrick <prmullen@wm.edu>
Subject: STATUS OF PROTOCOL EDIRC-2021-11-09-15288-kcjones set to active

This is to notify you on behalf of the Education Internal Review Committee (EDIRC) that protocol EDIRC-2021-11-09-15288-kcjones titled Social Comparison as an Unexplored Factor in Counselor Development has been EXEMPTED from formal review because it falls under the following category(ies) defined by DHHS Federal Regulations: .

Work on this protocol may begin on 2021-11-15 .

This protocol must be submitted for annual renewal on 2022-11-15, at which time the PI will be asked to indicate whether the protocol will continue as active, will continue with changes, or should be set to inactive.

Should there be any changes to this protocol, please submit these changes to the committee for determination of continuing exemption using the Protocol and Compliance Management application (https://compliance.wm.edu).

Please add the following statement to the footer of all consent forms, cover letters, etc.:

THIS PROJECT WAS FOUND TO COMPLY WITH APPROPRIATE ETHICAL STANDARDS AND WAS EXEMPTED FROM THE NEED FOR FORMAL REVIEW BY THE W&M PROTECTION OF HUMAN SUBJECTS COMMITTEE (Phone 757-221-3966) ON 2021-11-15 AND EXPIRES ON 2022-11-15.

You are required to notify Dr. Ward, chair of the EDIRC, at 757-221-2358 (EDIRC-L@wm.edu) and Dr. Jennifer Stevens, Chair of the PHSC at 757-221-3862 (jastev@wm.edu) if any issues arise during this study.

Good luck with your study.

Appendix B: Informed Consent

Informed Consent

You have been invited to participate in a research study titled *Social Comparison as an Unexplored Factor in Counselor Development* being conducted by Kaitlin Hinchey from William & Mary in Williamsburg, Virginia.

Purpose: The goal is to have at least 250 counselors-in-training complete this study. The purpose of this study is to discover information that will assist in better understanding counselor social comparison and factors associated with this construct.

Duration of Participation: The survey will take approximately 10-15 minutes to complete.

Procedures: As a participant in this study, you will complete several short questionnaires and a demographics forms created by the researcher.

Confidentiality: Your participation is confidential. Please do not put your name anywhere on this survey. Your data will not be associated with your name.

Voluntary Participation: Your participation in the research is **voluntary**. You may choose not to answer any or all questions, and you may stop at any time. There is no penalty for not taking part in this research study.

Incentive for Participation: There is no incentive to participate in this study other than that you may take satisfaction in knowing that you are contributing to the growing literature on counselor development.

Discomforts and Risks: There are no known risks associated with this study. You will be simply asked to respond to several survey items.

If you have any questions regarding this study, you can contact me, Kaitlin Hinchey at kcjones@email.wm.edu, or (757) 613-5570. You may report dissatisfaction with any aspect of this study to Dr. Thomas Ward, the Chair of the Protection of Human Subjects Committee by telephone (757-221-2358) or email (tjward@wm.edu).

THIS PROJECT WAS FOUND TO COMPLY WITH APPROPRIATE ETHICAL STANDARDS AND WAS EXEMPTED FROM THE NEED FOR FORMAL REVIEW BY THE W&M PROTECTION OF HUMAN SUBJECTS COMMITTEE (Phone 757-221-3966) ON 2021-11-15 AND EXPIRES ON 2022-11-15.

Appendix C: INCOM (Gibbons & Buunk, 1999)

SCALE FOR SOCIAL COMPARISON ORIENTATION (INCOM, Iowa-Netherlands Comparison Orientation Scale; Gibbons & Buunk, 1999)
English version

Most people compare themselves from time to time with others. For example, they may compare the way they feel, their opinions, their abilities, and/or their situation with those of other people. There is nothing particularly 'good' or 'bad' about this type of comparison, and some people do it more than others. We would like to find out how often you compare yourself with other people. To do that we would like to ask you to indicate how much you agree with each statement below.

Items	Response scale for all items:					
	I disagree strongly	***I disagree***	***I slightly disagree***	***I slightly agree***	***I agree***	***I agree strongly***
1. I often compare myself with others with respect to what I have accomplished in life	1	2	3	4	5	6
2. If I want to learn more about something, I try to find out what others think about it	1	2	3	4	5	6
3. I always pay a lot of attention to how I do things compared with how others do things	1	2	3	4	5	6
4. I often compare how my loved ones (boy or girlfriend, family members, etc.) are doing with how others are doing	1	2	3	4	5	6
5. I always like to know what others in a similar situation would do	1	2	3	4	5	6
6. I am not the type of person who compares often with others	1	2	3	4	5	6
7. If I want to find out how well I have done something, I compare what I have done with how others have done	1	2	3	4	5	6
8. I often try to find out what others think who face similar problems as I face	1	2	3	4	5	6
9. I often like to talk with others about mutual opinions and experiences	1	2	3	4	5	6
10. I never consider my situation in life relative to that of other people	1	2	3	4	5	6
11. I often compare how I am doing socially (e.g., social skills, popularity) with other people	1	2	3	4	5	6

Appendix D: CSES-A (adapted from Melchert et al. 1996)

Adapted Counseling Self-Efficacy Scale (adapted from Melchert et al., 1996)

The scale below lists different counseling activities. If you had to do the following tasks **right now**, how confident are you that you **can** do them? Rate your degree of confidence by recording a number from 0 to 100 using the scale given below:

	Confidence										
Counseling Activity	***Cannot do at all***				***Moderately certain can do***						***Highly certain can do***
1. Use knowledge of personality development in counseling	0	10	20	30	40	50	60	70	80	90	100
2. Use knowledge of ethical issues in counseling	0	10	20	30	40	50	60	70	80	90	100
3. Apply principals of behavior change in counseling	0	10	20	30	40	50	60	70	80	90	100
4. Utilize assessment techniques in counseling	0	10	20	30	40	50	60	70	80	90	100
5. Recognize major psychiatric conditions	0	10	20	30	40	50	60	70	80	90	100
6. Perform crisis interventions	0	10	20	30	40	50	60	70	80	90	100
7. Develop therapeutic relationship with clients	0	10	20	30	40	50	60	70	80	90	100
8. Facilitate client self-exploration	0	10	20	30	40	50	60	70	80	90	100
9. Accurately identify client affect.	0	10	20	30	40	50	60	70	80	90	100
10. Discriminate between meaningful and irrelevant client data	0	10	20	30	40	50	60	70	80	90	100
11. Identify my own emotional reactions to clients	0	10	20	30	40	50	60	70	80	90	100
12. Conceptualize client cases to form clinical hypothesis	0	10	20	30	40	50	60	70	80	90	100
13. Facilitate goal development with clients	0	10	20	30	40	50	60	70	80	90	100
14. Apply behavior change skills	0	10	20	30	40	50	60	70	80	90	100
15. Keep my personal issues from negatively affecting my counseling	0	10	20	30	40	50	60	70	80	90	100
16. Use knowledge about group counseling to conduct a group	0	10	20	30	40	50	60	70	80	90	100
17. Integrate knowledge of group dynamics into counseling	0	10	20	30	40	50	60	70	80	90	100
18. Recognize the facilitative and debilitative behaviors of group members	0	10	20	30	40	50	60	70	80	90	100
19. Understand ethical and professional issues specific to group	0	10	20	30	40	50	60	70	80	90	100
20. Function effectively as a group leader/facilitator	0	10	20	30	40	50	60	70	80	90	100

Appendix E: SCSE-M (Pei Boon et al., 2018)

Sources of Counselor Self-Efficacy Scale -Malaysia (SCSE-M; Ooi Pei Boon et al., 2018)

Page 1

Below are some statements about counseling and you. Tell us how false or true each statement is for you by selecting the score that best describes you.

Items	Response scale for all items:					
	Definitely False	*Mostly False*	*A little bit false*	*A little bit true*	*Mostly true*	*Definitely true*
1. My counseling supervisor has told me that I am good at conducting counseling sessions.	1	2	3	4	5	6
2. Just being in counseling sessions makes me feel stressed and nervous.	1	2	3	4	5	6
3. Seeing colleagues do well in counseling helps me do better in counseling.	1	2	3	4	5	6
4. I do well even on the most difficult counseling sessions.	1	2	3	4	5	6
5. Seeing colleagues do better than me in counseling helps me do better in counseling.	1	2	3	4	5	6
6. My family members have told me what a good counselor I am.	1	2	3	4	5	6
7. Doing counseling work takes all of my energy.	1	2	3	4	5	6
8. Other colleagues have told me that I'm good at counseling.	1	2	3	4	5	6
9. I do well in counseling sessions.	1	2	3	4	5	6
10. When I see how colleagues handle counseling sessions, I can see myself handling the session in the same way.	1	2	3	4	5	6
11. People have told me that I am good at performing counseling sessions.	1	2	3	4	5	6
12. I received good feedback on my performance on my last performance appraisal.	1	2	3	4	5	6
13. I have been complimented for my ability in performing counseling sessions.	1	2	3	4	5	6
14. Even when I work very hard, I do badly in counseling sessions.	1	2	3	4	5	6
15. I start to feel stressed-out as soon as I begin my counseling sessions.	1	2	3	4	5	6
16. When I see how my supervisor handles challenging counseling sessions, I can see myself handling the session in the same way.	1	2	3	4	5	6
17. My mind goes blank and I am unable to think clearly when doing counseling sessions.	1	2	3	4	5	6
18. My colleagues like to consult with me regarding counseling matters because they think I'm good at it.	1	2	3	4	5	6
19. I get sad when I think about doing counseling tasks.	1	2	3	4	5	6
20. I have always been successful with counseling tasks.	1	2	3	4	5	6

Sources of Counselor Self-Efficacy Scale -Malaysia (SCSE-M)
Ooi Pei Boon et al., 2018
Page 2

Below are some statements about counseling and you. Tell us how false or true each statement is for you by selecting the score that best describes you.

Items	Response scale for all items:					
	Definitely False	*Mostly False*	*A little bit false*	*A little bit true*	*Mostly true*	*Definitely true*
21. I imagine myself working through challenging counseling sessions successfully.	1	2	3	4	5	6
22. I watch my previous counseling sessions to improve my future counseling sessions.	1	2	3	4	5	6
23. My whole body becomes tense when I have to do counseling.	1	2	3	4	5	6
24. I perform excellently in counseling sessions.	1	2	3	4	5	6
25. In counseling sessions, I always try to do better than I have before.	1	2	3	4	5	6

Appendix F: PPSS (adapted from Gealy, 2016)

Program Satisfaction Survey (adapted from Gealy, 2016)

Page 1

*How satisfied are you with the following aspects of your <u>current</u> counseling program? Your rating should be an **OVERALL** rating for that category. For example, when rating your practicum experience you should consider of all of your practicum experiences to date, not just one particular site.*

Items	Response scale for all items:					
	Did not meet my expectations	***Met some expectations, but most are not met***	***About half of my expectations are met***	***Most of my expectations are met***	***Met or exceeded my expectations in most ways***	***Not applicable / not offered in my program***
Coursework						
1. Quality of instruction in my courses.	1	2	3	4	5	N/A
2. Ordering of coursework as outlined by degree plan.	1	2	3	4	5	N/A
3. Frequency of course offerings.	1	2	3	4	5	N/A
4. Appropriateness of grading/evaluation procedures.	1	2	3	4	5	N/A
5. Use of didactics (e.g., role play) in training.	1	2	3	4	5	N/A
6. Breadth of coursework in relevant areas (e.g., assessment, ethics, intervention).	1	2	3	4	5	N/A
Clinical Training						
7. Variety of practicum sites available to students in my program.	1	2	3	4	5	N/A
8. Quality of training experiences at my practicum sites.	1	2	3	4	5	N/A
9. Quality of practicum supervision.	1	2	3	4	5	N/A

Program Satisfaction Survey (adapted from Gealy, 2016)
Page 2

*How satisfied are you with the following aspects of your current counseling program? Your rating should be an **OVERALL** rating for that category. For example, when rating your practicum experience you should consider of all of your practicum experiences to date, not just one particular site.*

Items	Response scale for all items:					
	Did not meet my expectations	*Met some expectations, but most are not met*	*About half of my expectations are met*	*Most of my expectations are met*	*Met or exceeded my expectations in most ways*	*Not applicable / not offered in my program*
10. Emphasis on client confidentiality and respect for clients at the practicum sites.	1	2	3	4	5	N/A
11. Experience working on multidisciplinary teams at practicum.	1	2	3	4	5	N/A
12. Experience conducting risk or threat assessments (i.e., suicidality, self-injurious behavior, threat of harm to others).	1	2	3	4	5	N/A
13. Experience in conducting behavioral observations.	1	2	3	4	5	N/A
14. Experience completing mental status exams.	1	2	3	4	5	N/A
15. Experience administering norm-referenced assessments (e.g., cognitive, achievement, neuropsychological, objective personality).	1	2	3	4	5	N/A
16. Experience interpreting assessment results and providing recommendations/feedback to clients.	1	2	3	4	5	N/A

Program Satisfaction Survey (adapted from Gealy, 2016)
Page 3

*How satisfied are you with the following aspects of your <u>current</u> counseling program? Your rating should be an **OVERALL** rating for that category. For example, when rating your practicum experience you should consider of all of your practicum experiences to date, not just one particular site.*

Items	Response scale for all items:					
	Did not meet my expectations	***Met some expectations, but most are not met***	***About half of my expectations are met***	***Most of my expectations are met***	***Met or exceeded my expectations in most ways***	***Not applicable / not offered in my program***
17. Creating treatment plans including case conceptualizations.	1	2	3	4	5	N/A
18. Conducting intake interviews.	1	2	3	4	5	N/A
19. Providing therapy in a variety of forms (i.e., individual, group, family, couples).	1	2	3	4	5	N/A
20. Engagement in preventative services (e.g., outreach events, screenings, working with individuals without mental health diagnoses).	1	2	3	4	5	N/A
21. Experience in consulting with other agents of the client (e.g., parents, teachers, doctors).	1	2	3	4	5	N/A
22. Intervening in crisis situations.	1	2	3	4	5	N/A

Appendix G: PSS (Cohen et al., 1983)

Perceived Stress Scale (PSS)
(Cohen et al., 1983)

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate by circling the number that represents how often you felt or thought a certain way.

Items	Response scale for all items:				
	Never	*Almost Never*	*Sometimes*	*Fairly Often*	*Very Often*
1. In the last month, how often have you been upset because of something that happened unexpectedly?	0	1	2	3	4
2. In the last month, how often have you felt that you were unable to control the important things in your life?	0	1	2	3	4
3. In the last month, how often have you felt nervous and "stressed"?	0	1	2	3	4
4. In the last month, how often have you felt confident about your ability to handle your personal problems?	0	1	2	3	4
5. In the last month, how often have you found that things were going your way?	0	1	2	3	4
6. In the last month, how often have you found that you could not cope with all the things that you had to do?	0	1	2	3	4
7. In the last month, how often have you been able to control irritations in your life?	0	1	2	3	4
8. In the last month, how often have you felt that you were on top of things?	0	1	2	3	4
9. In the last month, how often have you been angered because of things that were outside of your control?	0	1	2	3	4
10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	0	1	2	3	4

Appendix H: Demographics Questionnaire

Demographics Questionnaire

Directions: Please complete the following demographics questionnaire (***all responses are anonymous***)

1. **What is your age?** _____

2. **What is your gender identity?**
   - ☐ Female
   - ☐ Male
   - ☐ Transgender/Non-binary
   - ☐ Gender Expansive/Gender non-confirming
   - ☐ I prefer not to say
   - ☐ I prefer to self-describe (Please specify): _____

3. **What is your race/ethnicity?**
   - ☐ American Indian or Alaska Native
   - ☐ Asian
   - ☐ Black or African American
   - ☐ Hispanic or Latino
   - ☐ Multiracial
   - ☐ Native Hawaiian or Other Pacific Islander
   - ☐ White
   - ☐ Other: (please specify) _____

4. **How many years of graduate study in counseling have you completed?** _____

5. **How many semesters have you completed in your counseling program?** _____

6. **What is your primary program modality (select one)**: In-Person ___ Online ___ Hybrid ___

7. **Which counseling specialization are you working toward?**
   - ☐ Clinical Mental Health Counseling
   - ☐ Marriage and Family Therapist
   - ☐ School Counseling
   - ☐ Other (Please specify): _____

8. **Please provide any additional comments you have regarding this study:**

Appendix I: Response Rates and Totals

Appendix I: *Response Rates and Totals*

Data Category *(by ACES region)*	Total *(n)*	% Response
Paper Surveys		
Southern	73	94
North Atlantic	35	64
Digital Surveys		
Southern	37	24
North Atlantic	35	38
Online	62	2

Kaitlin Jones Hinchey

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EDUCATION

Ph.D. in Counselor Education, **May 2022**
William & Mary, Williamsburg, VA
CACREP-Accredited Program

M.Ed. in Counseling - Family Counseling, May 2016
William & Mary, Williamsburg, VA
CACREP-Accredited Program

Bachelor of Arts in Psychology and Hispanic Studies, **May 2013**
William & Mary, Williamsburg, VA

Study abroad certificate program in Spanish culture and grammar, 2012
The University of Cádiz, Cádiz, Spain

LANGUAGES

English (Fluent), Spanish (Proficient)

LICENSES AND CERTIFICATIONS

Licensed Professional Counselor (LPC) July 2019 – Present
#6414680

Licensed Marriage and Family Counselor (LMFT) June 2020 - Present

National Certified Counselor (NCC) May 2016 - Present

EMPLOYMENT

Doctoral Co-Director, The Flanagan Counselor Education Center
(May 2020-Present)

- Directs day-to-day clinic functions such as:
  - Assignment of referred clients
  - Supervision of clinical interns (8 students)
  - Maintenance of privacy and documentation procedures
  - Email, Fax, and Phone correspondence
- Collaborates with director on maintaining grant-funding qualifications
- Directs community outreach initiatives
- Oversees transition to digital clinical management software
- Maintains a clinical caseload of referred families
- Established new offsite partnerships including the W&M Immigration Clinic and the Landing Retirement Community

Graduate Assistant, William & Mary (August 2019 - Present) 10-hour GA as family counselor for New Horizons Family Counseling Team at the Flanagan Counselor Education Center

- Maintained clinical notes and contacts
- Met with caseload of 2-5 families weekly
- Engaged in weekly clinical supervision

Functional Family Therapy Program Supervisor, Family Focus, Inc., (June 2017 - August 2019)

- Conducts supervision with FFT clinicians twice a week
- Manages outreach efforts and referrals from external agencies and Court Services Units
- Reports on service delivery trends and clinical outcomes
- Complies with all FFT regulations, assessments, and requirements
- Maintains active caseload of 3-5 families

Sex offender Treatment Provider (Certification Eligible) Family Focus, Inc. (April 2017-August 2019)

- Co-Lead weekly psychotherapy groups for adult sexual offenders
- Track progress of group members through notes and reports
- Engage with parole officers to ensure continuation of services

Virtual Residential Team Leader, Family Focus, Inc. (Feb. 2017-June 2017)

- Organizes weekly team and family meetings
- Coordinates treatment plan and weekly sessions up to 40 hours a week
- Meets with case manager and referral source weekly to coordinate services
- Attends FAPT meetings, court hearings, and other appointments

Intensive in-Home and Mental Health Skill Building Counselor, Family Focus, Inc., (May 2016-August 2019)

- Conducts family therapy with at-risk children and adults in their homes
- Assesses children and families for mental health needs
- Uses behavioral interventions to address mental health concerns in the community with adults and children

Legislative Intern Supervisor, Virginia General Assembly (January - April 2016-2017)

- Trained and supervised legislative interns
- Managed constituent requests and responses
- Conducted community outreach and campaign events
- Maintained official website

Intern*,* Voices for Kids Court Appointed Special Advocates**,** (May 2013-October 2013)

- Edited and reviewed monthly court reports
- Created and analyzed profiles of information from ongoing cases
- Acted as advocate and court employee liaison
- Coordinated and implemented continuing education training sessions

- Formatted and distributed monthly newsletters
- Planned fundraising events, donation efforts and social events for volunteers

RESEARCH EXPERIENCE

Research Assistant, Dr. Jason Chen at William & Mary (August 2019- 2022)

- Reviewed and coded data for ongoing quantitative research project in Educational Psychology
- Collaborated on research development tasks including literature reviews and logic model creation
- Developed learning materials for school-based intervention on gun violence and legislation

Lab Assistant and Technician, Child Socio-Emotional Regulation Study - Dr. Janice Zeman, Chair of the Psychology Department at William & Mary (2012-2013)

- Reviewed and edited academic papers for publishing
- Entered and analyzed data obtained in studies
- Transcribed and coded audio and visual data
- Assisted with family involvement in the study and administered materials to participants

Research Assistant, Personality Psychology for Dr. Todd Thrash (Summer 2013)

- Coded data for ongoing projects

TEACHING (* = Online, ** = Online due to COVID-19)

Guest Lecturer, William & Mary (Fall 2021)
Taught one class of EDUC 630: *Family Development** (20 students)

- Lectured on chronic illness, alcohol usage, and violence in family systems

Instructor of Record, William & Mary (Spring 2021)
Taught EDUC 627: *Marriage and Family Therapy** (22 students)

- Led synchronous and asynchronous student discussions of course content
- Graded reflections, subjective exams, and class projects
- Ensured completion of student learning outcomes

Co-Instructor, William & Mary (Spring 2021)
Taught EDUC 260*: Truthiness in Education** (16 students)*
Taught EDUC 301: *Educational Psychology ** (2 sections, 38 students)*

Doctoral Teaching Intern, William & Mary (Spring 2020)
Member of a teaching team for P*racticum in Clinical Mental Health Counseling* (23 students)

- Developed curriculum to address CACREP learning standards
- Led group supervision for clinical mental health counseling students

- Delivered weekly lectures on issues in practicum counseling
- Reviewed student progress during individual supervision

Teaching Assistant, William & Mary
Educational Psychology (Fall 2019, Spring 2020**, Fall 2020**, Spring 2021**)
Truthiness in Education (Fall 2020**, Spring 2021**)
Marriage and Family Counseling ** (Spring, 2020; 26 students)

- Led student family counseling role plays weekly
- Conducted feedback sessions and aided in counselor development
- Reviewed and graded class experiential papers

Guest Lecturer (Summer 2017, Summer 2018) Contemporary Issues in Mental Health Counseling, *William & Mary, Williamsburg, VA*

- Taught graduate class on transitioning from study of counseling to professional practice as community counselors; worked with students on identifying necessary qualities in community counselors and discussed general overviews and expectations of modern practice; overviewed treatment modalities, Medicaid standards, safety protocol, and documentation procedures

AWARDS & GRANT EXPERIENCE

Pete Warren Fellows Scholarship (2021-2022) – Virginia Counselor Association Foundation

Helen C. Hopper Memorial Scholarship (2014-2015)
School of Education student pursuing a Master's degree in counseling that has demonstrated a special interest and commitment to family counseling and family life education ($1,800)

Grant Writer, William & Mary
Translation of the Attitudes Toward Family Counseling Scale (ATFCS), IAMFC
Amount requested - $500

Grant Writer, William & Mary
Translation of the Attitudes Toward Family Counseling Scale (ATFCS), VCAF
(Grant not awarded) - $1,000

Grant Writer, William & Mary

Counseling Support for Latinx Asylum Seekers
(Grant not awarded) - $1,500

Grant Writer, Family Focus, Inc.
Functional Family Therapy, Virginia Department of Juvenile Justice - AmiKids
Amount awarded - $349,725.00

REFEREED
PRESENTATIONS

International

- **Hinchey, K.** (Accepted- December, 2022) *Spanish Translation and Analysis of the Attitudes Toward Family Counseling Scale (ATFCS).* NBCC International Conference, Online.
- Hinchey, K. (November, 2021) *Counselor Social Justice Identity Development Through the Lens of Social Comparison Processes*, AME Annual Conference, Online.
- Haynes, V., **Jones, K.**, Poe, K. & Skeete, M. (November, 2018). *Hashing Out the Hashtag: A Discussion of Moral Development and Criticisms of Modern Social Activists.* AME Annual Conference, Barcelona, Spain
- Dawson, K., Hazelgrove, A. & **Jones, K**. (March, 2016) *Big Problems on Little Shoulders: Addressing Substance Use in Family Therapy with Young Children.* IAMFC Conference, New Orleans, Louisiana.

National

- Warraich, L. & **Hinchey, K.** (February, 2022). *Multi-aged group counseling in a family systems context: A grant funded program.* ASGW National Conference, Atlantic Beach, Florida.
- Warraich, L., Lee, A., & **Hinchey, K.** (February, 2022). *The Experiences of Parents and Caregivers during the COVID-19 pandemic: Parenting in the Pandemic Psychoeducation and Support Group.* ASGW National Conference, Atlantic Beach, Florida.
- Mullen, P.R., **Hinchey, K**. & Walker, M. (September, 2021). *Assessment of Professional Counseling Depositions: A Content Validity Study.* AARC National Conference, Cincinnati, OH.
- **Hinchey, K**. & Walker, M. (Accepted – September, 2021). *Development of the Attitudes Toward Family Counseling Scale (ATFCS).* AARC National Conference, Cincinnati, OH.
- **Hinchey, K**. & Walker, U. (October, 2021). *Counseling Master's Student Experiences with Doctoral Students in a Shared Programmatic Setting.* ACES, Atlanta, Georgia.
- Kooyman, B., Javaheri, A. & **Jones, K**. (July, 2017). *The Role of Religion and Religious Resources in Shaping the Experiences of Muslim Students in the U.S.* ASERVIC Annual Conference, Richmond, Virginia.
- Kooyman, B., Haynes, V. & **Jones, K**. (September 2016). *Redefining Deficits: The use of Positive Psychology with Families of Transgender Children.* ALGBTIC Annual Conference, San Antonio, Texas.

Local

- Gutierrez, D., Kern-Scheerer, S. & **Hinchey, K.** (March, 2022) *Working Across Disciplines: Best Practices for Attorneys and Mental Health Professionals in Asylum Seeker Evaluations.* Roundtable panel, Fourth Circuit Asylum Law Conference. Williamsburg, Virginia.
- **Hinchey, K.** & Hoyos, M. (April 2021). *Establishment of a Counselor and Lawyer Partnership to Support Latinx Asylum Seekers.* Racial and Social Justice Graduate Research Symposium. William & Mary.

NON-REFEREED
PRESENTATIONS

- **Hinchey, K.** (January – April 2021). *Family Counseling Support Services for Parents, "*Take 5", Newport News Public Schools.
- **Hinchey, K.** (November, 2017) *Functional Family Therapy.* "Coffee & Collaboration" DJJ and AMIKids, Richmond, VA.
- Grunhaus, C., Haynes, V., **Jones, K**, & Shield, K (October 2015). *Navigating Teen Social Media Use.* New Kent Public Schools Parent Academy, New Kent, Virginia.

PUBLICATIONS

- Moore, M., Mullen, P.R., Hinchey, K. J., & Lambie, G. W. (*in development*). Differential item functioning study of Counselor Competency Scale-Revised scores
- Hinchey, K. & Walker, M. (*In progress*). The Development of the Attitudes Toward Family Counseling Scale.
- Hinchey, K. (*In progress*). Social Comparison as an Unexplored Factor in Counselor Education
- **Hinchey, K**. & Walker, U. (*in development).* Counseling Master's Student Experiences with Doctoral Students in a Shared Programmatic Setting.
- Mullen, P. R., Niles, J., **Hinchey, K.,** Leger, R. & Dorais, S. (*Under Review*). School counselors' career-sustaining behavior preference. *Journal of Professional Counseling.*

PRACTICUM/
INTERNSHIP

Doctoral Intern – New Horizons Family Counseling Center – (July 2020-Present)

- Provided family-based psychotherapeutic interventions to referred families
- Led Clinical Supervision for Master's Student Interns
- Administered a variety of assessments for clinical and research purposes
- Took part in the in the administrative responsibilities of the clinic, including case-management duties and client record maintenance.
- Participated in weekly group supervision

Doctoral Intern in Supervision – William & Mary (January-May 2020)

- Provided weekly clinical supervision to four master's students
- Assessed student counselors for ethical, clinical and professional skills
- Collaborated with student site-supervisors

Counseling Intern / Play Therapy Coordinator - New Horizons Family Counseling Center – (May 2015 – Present)

- Provided family-based psychotherapeutic interventions to referred families
- Administered a variety of assessments for clinical and research purposes
- Took part in the in the administrative responsibilities of the clinic, including case-management duties and client record maintenance.

Clinical Intern, Newport News Juvenile Drug Court – (January 2015 – May 2015)

- Provided individual and group-based psychotherapeutic intervention
- Created and maintained therapeutic programs
- Attended court hearings weekly
- Created and maintained clinical records
- Conducted fundraising letter campaigns

SERVICE & LEADERSHIP

Virginia Counselors Association Advocacy Committee (August 2021 - Present)
Committee Volunteer

Session Applicant Reviewer (June 2021-August 2021) *AERA Annual Conference*

Virginia Counselors Association Leadership Academy (August, 2021)

Support Group Facilitator (April, 2021) *AAPI Solidarity,* William & Mary Business School
Led support group discussion for members of the AAPI community and allies to discuss student experiences, needs, and to facilitate open sharing and support

Group Facilitator and Coordinator (January 2021 – Present) *"Parenting in the Pandemic*" Flanagan Counselor Education Clinic

- Coordinates service provision of a thrice-yearly support and skill-building group
- Supervises and oversees clinical staff

Search Committee Member (March-July 2021)
Served as student representative on a search committee for two Online counseling program faculty

Communications Coordinator - Graduate Education Association Executive Board at William & Mary School of Education (2015-2016)

- Recorded weekly meeting minutes
- Disseminated weekly school newsletters
- Facilitated Communications between faculty, staff, and students
- Maintained school building information resources

Student Representative, Academic Affairs Committee - William & Mary School of Education (2015-2016)

- Attended Monthly meetings
- Reported on Graduate Education Association activities to the committee

Volunteer, NAMI Annual Fundraiser, 2015

- Engaged in media outreach to promote event
- Planned logistics for event coordination
- Set up and managed event space

Child Advocate, Voices for Kids Court Appointed Special Advocates – (October 2013 - Present)

- Trained in trauma informed practices, privacy law, child abuse and neglect law, social services practices, foster care practices
- Engaged in interview training for both children and adults
- Sworn in as a certified advocate for the Commonwealth of Virginia, October 2013

PROFESSIONAL DEVELOPMENT

- **PwC Inclusive Leadership Workshop** – Mason School of Business, William & Mary
- **Titanium Schedule EMR Software** - Dr. Rebecca Sheffield, The Flanagan Counselor Education Clinic
- **Telehealth 101 Webinar** – Dr. LoriAnn Stretch, William & Mary
- **Trauma-Informed Care Workshop** – Flanagan Counselor Education Clinic
- **Functional Family Therapy Treatment Model -** AmiKids
- **Certified Sex Offender Treatment Provider Training -** VSOTA
- **Gang Member Identification and Treatment Training** - Richmond Department of Probation and Parole
- **Governor's Summit on Human Trafficking -** Department of Criminal Justice Conference
- **Smart Beginnings Coalition for Early Child Education** – Trauma Informed Practice Training
- **The Children's Center** – Grief and Coping Training
- **HIPAA privacy practices training**
- **SPSS training**

PROFESSIONAL AFFILIATIONS

American Counseling Association – Member (2014-Present)
National Board of Certified Counselors – Member (2014-Present)
International Association of Marriage and Family Counselors – Member (2014-Present)
Chi Sigma Iota: Omega Mu Chapter – Inducted Member (2014)
Virginia Counselor Association - Member (2014-Present)
Association of Counselor Education and Supervision (2021)
Southern Association of Counselor Education and Supervision – Member (2020-2021)
American Educational Research Association (2021)