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Continuing Education and Predictors of Self-Reported Professional Competency Among Trauma Counselors

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This is to certify that the doctoral dissertation by

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has been found to be complete and satisfactory in all respects,
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Abstract

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MS, Walden University, 2019

MA, Capella University, 2009

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Counseling Psychology

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Abstract

Currently, there is limited research about outcomes for therapists who choose to engage in professional trainings for ongoing education. Although other professions track this kind of information, there is a dearth of information for mental health counselors. The purpose of this study was to explore the relationship of counselors' motivations, previous trainings, learning self-efficacy, and clinical experience to their self-reported clinical competence. Bandura's theory of self-efficacy and Knowles's adult learning theory predict that these kinds of background factors influence performance. The primary research hypothesis was that higher levels of clinical training and experience, continuing education experience, intrinsic motivation, and learning self-efficacy would predict higher levels of self-reported clinical competence. A nonprobability, self-selecting sample of 113 trauma counselors from a pool who have participated in professional development activities on brainspotting therapy were recruited for this study. The online survey included a demographic questionnaire, the Learning Self-Efficacy Scale, the Situational Motivation Scale, and the Counselor Self-Estimate Inventory. Results of multiple linear regression analyses indicated that learning self-efficacy and situational motivation, rather than professional training and experience, were the primary predictors of self-reported professional competency. This study has implications for positive social change in that results may inform practitioners, professional groups, and oversight boards and agencies regarding the relative self-perceived benefits of ongoing professional development trainings for clinical competency among trauma counselors.

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Dedication

To my husband, Larry, for believing in my ability to complete this undertaking and always supporting me through our life journey. Thanks for making my life better every day we are together. I am happy to know that with you the adventure and rumpus never end. Thank you.

To my family, who have tolerated my ongoing and seemingly never-ending academic journey with encouragement and patience. I realize that at times it seemed it would not come to an end, but this work marks the beginning of a new journey for myself, which I could not have achieved without the encouragement from each of you. Thank you.

And finally, for those of you who have overcome and found success when society gave up on you. Your strength and encouragement have made all the difference. You inspire me to continue to improve. I know that lost dreams awaken, and new possibilities arise. I can now offer others encouragement, love, and support, in the example of my predecessors, and as a friend of Jimmy K. Thank you.

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Chapter 1: Introduction to the Study

Various knowledge, attitudes, and skills are required for clinical competence when therapists work with individuals in psychotherapy. Only through intense and varied types of training can all these possibilities be considered (Pascual-Leone & Andréu, 2013). Development and maintenance of clinical knowledge, attitudes, and skills should extend beyond initial formal training experiences in educational programs. In fact, ongoing licensure status for groups such as psychologists and professional counselors is dependent upon completion of required numbers of hours in continuing education activities (Lawson & Haynes, 2016; Taylor & Neimeyer, 2016). Similar requirements for continuing education credits exist for renewing some forms of certification (Lawson & Haynes, 2016).

There are many ways to approach teaching and updating therapists. Mutchler (2010) argued that following one standardized protocol of teaching and testing helps ensure that consistent information is passed to each participant. Others have suggested that activities for training should be planned and delivered by highly experienced professionals who can adapt to different kinds of training outcomes (Herschell et al., 2010).

Another way to approach the question of effective training is from the perspective of adult learning theory and to look at professionals as lifelong learners. Taylor and Neimeyer (2016) conducted one of the few studies to explore motivations and self-reported competencies among mental health professionals. They found that professional

psychologists' orientations towards lifelong learning were related to their perceived levels of professional competence.

To date, there has been little attention to investigating the processes and outcomes related to continuing education among other trauma counselors. In fact, when compared with other fields, such as among health providers (Babeva & Davison, 2017), there is a stark lack of knowledge on relationships between continuing education activities and counselors' attitudes or skills, and even less among trainings for skills in trauma counseling.

Background

When working in the field of psychotherapy, there are several different options for receiving training for professional development after completing formal education programs (Cox & Grus, 2019). Continuing education courses can be costly, be time-consuming, and may not enhance an already existing set of skills (Holton, 2017). There is limited research to evaluate the value of continuing education in relation to professional competency among mental health workers. As Cox and Grus (2019) argued, an increase in competence must extend beyond a specific event, such as a workshop.

Blanco-Vieira et al.'s (2018) review of 77 original papers about formal mental health educational programs identified several features that were common among effective interventions. In addition to the involvement of experts in developing the training and flexibility and use of e-learning resources, learner-centered features were necessary, such as offering a curriculum that challenged the trainee's usual routines, enrolling experienced participants, and relating the knowledge to skills in actual work

practices. However, much less is known about continuing education trainings and activities for trauma counselors after completion of initial formal training or licensure/certification. The question remains if these activities predict actual or self-reported clinical competency among trauma counselors.

Possible Predictors of Outcomes of Continuing Education for Trauma Counselors

Practitioners who seek ongoing professional training are adult learners. Thus, a learner-centered approach for ongoing, even lifelong, professional training among adults is consistent with adult learning theory. In fact, Minniti et al. (2019), Taylor et al. (2019), Rossen et al. (2019), and Walker et al. (2018) are examples of scholars who have argued that principles of adult learning should guide best practices for training that builds competencies and skills among professionals such as psychologists, school psychologists, and other service providers.

The principles of adult learning are that adults are self-directed, internally motivated, and actively engaged in examining their attitudes and increasing their knowledge and skills (Trotter, 2006). Practical training that builds on past experiences takes account of stages of professional development (novice to expert), learning processes, individual learning modality preferences (auditory, visual, sensory, practical), and learning styles (Kolb & Kolb, 2017).

In this study, I examined characteristics of adult learners as predictors of training outcome, as defined by self-reported clinical competency in applying knowledge and skills to clinical practice. The specific characteristics under study as predictors of self-reported clinical competency were formal education background, experience as a

practitioner, licensure status, prior continuing education training experience, motivation for training, and self-reported learning efficacy, among a sample of trauma counselors who have completed various amounts and types of training with the trauma modality of brainspotting.

Background and Experience

In addition to age, practitioners who complete ongoing professional trainings vary in their background training, including both formal education and continuing education activities, licensure/certification status, and years in practice. According to adult learning theory, these kinds of background factors can affect outcomes of training because learners enter the training activity with varying levels and types of relevant knowledge upon which to scaffold the information presented in the training (Kang et al., 2019a).

It bears importance to be aware of the relationships between age, experience, and background training. These factors are important when working with adults who are continuing with learning as the best way to ensure that the training is enough and successful (Kang et al., 2019a). Cox and Grus (2019) reported that competence in continuing education was possible when age, experience, and prior background training were taken into consideration.

Motivation

Adults may be motivated to pursue ongoing training and education for several reasons. According to adult learning theory (Knowles, 1984), adult learners are self-directed. Practitioners may be intrinsically motivated to take courses or trainings that are directly related to their field of study solely to enhance their existing skillset, with no

extrinsic incentive for doing so. On the other hand, professionals who are licensed or certified and have requirements for continuing education units (CEU) to renew their license or certificate may take these same courses to achieve extrinsic rewards. To date, there are no reports of relationships between motivation for continuing professional education and self-reports of clinical competency among those who practice or are seeking professional development as trauma counselors.

Learner Self-Efficacy

Self-efficacy to learn is another learner characteristic that has been proposed as a predictor of learning outcomes among adult learners (Knowles, 1984). By using reported self-efficacy as the measurable trait in this study, it is possible to examine whether learners believe they are benefitting from the training and able to enhance their future. This is an important factor when taking continuing education (Herschell et al., 2010) and was considered for this study. Learner self-efficacy (Bandura, 1986, 1997) is the most critical motivational factor and predictor of performance (Graham & Weiner, 1996).

Clinical Self-Competency

Clinical self-competency reflects self-beliefs about one's ability to apply knowledge and skills to effectively function as a professional. It is important to ensure that individuals can increase their sense of clinical self-efficacy when it is developing or to maintain it over time. There have been studies among nursing students that showed that after completing a training, students reported feeling more confident with their work (Dodson, 2018). There are also studies that show that through overtraining, nurses have reported that they are experiencing some levels of burnout, which causes large turnovers

for professional settings (Chang et al., 2018). Through the examples in literature in the nursing profession, it can be argued that keeping self-reported self-efficacy high is a valuable item to track.

Problem Statement

The competence, confidence, and well-being of trauma counselors may be enhanced through ongoing professional development. Various models and theories, for example, Knowles's adult learning theory (Kang et al., 2019a) and Bandura's theory of self-efficacy (Bandura, 1986), typically identify several factors that influence adult learners' choices and approaches to engage in training and the perceived benefit they derive from continuing education activities. Among these factors are the learner's motivation, experience, self-confidence, years in practice, additional trainings, level of education, work related training, and licensure situation. However, adult learning models have not been applied in the study of predictors of outcomes, especially self-reported sense of professional competence, from continuing education among mental health practitioners.

Few researchers have examined possible relationships between learner characteristics and outcomes, such as self-reported clinical competence, of continuing education training in clinical knowledge and skills. In this study, I examined associations between background and experience, motivation, and learner self-efficacy and the self-reported level of professional competence in applying brainspotting theory and techniques for clients with trauma among practitioners engaged in continuing education in brainspotting therapy.

To date, there has been little attention to investigating the processes and outcomes related to continuing education among other mental health providers. In fact, when compared with other fields, such as among health providers (Babeva & Davison, 2017), there is a stark lack of knowledge on relationships between continuing education activities and counselors' attitudes or skills and even less among trainings for skills in trauma counseling.

Purpose of the Study

The purpose of this study was to apply factors that have been proposed to examine learner characteristics as predictors of outcomes of continuing education training among trauma counselors. The study was quantitative. The focus was on adult learners who are practitioners working with clients with trauma and who participate in continuing education activities related to training in the theory and techniques for brainspotting, a treatment regimen for trauma. Specifically, I explored learners' professional backgrounds (education, licensure status, clinical experience, previous continuing education training), motivation, and learner self-efficacy as predictors of self-reported level of professional competence related to brainspotting skills. Professional competency can reflect the information that an individual takes away from training and applies to their field of expertise (Holland et al., 2012).

Research Questions and Hypotheses

The overall research question for this study was as follows:

Research Question 1: Does the prediction model of level of formal education, prior experience as a practitioner, prior continuing education experience, licensure status,

learner motivation, and learner self-efficacy predict self-reported professional competency (as measured by the COSE) among trauma counselors?

$H_0$1: The prediction model of level of formal education, prior experience as a practitioner, prior continuing education experience, licensure status, learner motivation, and learner self-efficacy in a trauma counselor does not predict self-reported professional competency.

H_a1: The prediction model of level of formal education, prior experience as a practitioner, prior continuing education experience, licensure status, learner motivation, and learner self-efficacy in a trauma counselor does predict self-reported professional competency.

Questions regarding individual predictors were as follows:

Research Question 2: When controlling for other predictors, does level of formal education predict self-reported professional competency (as measured by the COSE) among trauma counselors?

$H_0$2: When controlling for other predictors, level of education in a trauma counselor does not predict self-reported professional competency.

H_a2: When controlling for other predictors, level of education in a trauma counselor does predict self-reported professional competency.

Research Question 3: When controlling for other predictors, does prior experience as a practitioner predict self-reported professional competency (as measured by the COSE) among trauma counselors?

$H_0$3: When controlling for other predictors, level of prior experience in a trauma counselor does not predict self-reported professional competency.

H_a3: When controlling for other predictors, level of prior experience in a trauma counselor does predict self-reported professional competency.

Research Question 4: When controlling for other predictors, does prior continuing education experience predict self-reported professional competency among trauma counselors?

$H_0$4: When controlling for other predictors, level of prior continuing education in a trauma counselor does not predict self-reported professional competency.

H_a4: When controlling for other predictors, level of prior continuing education in a trauma counselor does predict self-reported professional competency.

Research Question 5: When controlling for other predictors, does licensure status predict self-reported professional competency (as measured by the COSE) among trauma counselors?

$H_0$5: When controlling for other predictors, licensure status for a trauma counselor does not predict self-reported professional competency.

H_a5: When controlling for other predictors, licensure status for a trauma counselor does predict self-reported professional competency.

Research Question 6: When controlling for other predictors, does learner's intrinsic and extrinsic motivation (as measured by the SIMS subscales) predict self-reported professional competency (as measured by the COSE) among trauma counselors?

$H_0$6: When controlling for other predictors, level of learner's intrinsic and extrinsic predict self-reported professional competency.

H_a6: When controlling for other predictors, level of learner motivation in a trauma counselor does predict self-reported professional competency.

Research Question 7: When controlling for other predictors, does learner self-efficacy (as measured by the LSES) predict self-reported professional competency (as measured by the COSE) among trauma counselors?

$H_0$7: When controlling for other predictors, level of learner self-efficacy in a trauma counselor does not predict self-reported professional competency.

H_a7: When controlling for other predictors, level of learner self-efficacy in a trauma counselor does predict self-reported professional competency.

Theoretical Framework for the Study

The theoretical frameworks for this study included Knowles's adult learning theory (Knowles, 1984) and Bandura's theory of self-efficacy (Bandura, 1986). With adult learners, there is an ability to know what they are capable of and to use their learned experience to enhance their learning ability. It is important to keep these factors in mind when discovering the reported self-efficacy and professional competence of each person. It is also important to remember that adult learners are emotional learners (Walker et al., 2018), which allows them to give a perspective into their own learning levels and comfortability of the information relayed (Hart, 2015). Through use of active measures, it can be assured those adult learners are successful in their endeavors. Please reference Chapter 2 for a more thorough explanation of these theories.

Nature of the Study

This was a cross-sectional, quantitative, correlational study. I used nonprobability sampling of volunteers to explore self-reported clinical competence among 118 adult learners who are trauma counselors and who have participated in professional continuing education activities in brainspotting. Through an online survey, I collected information on demographic predictor variables, learning self-efficacy, learner motivation, and self-reported clinical competence. By use of linear regression analyses, I tested research hypotheses regarding relationships between individual and combined predictors of self-reported clinical competence.

Definitions

Adult learners: A group of learners come together to learn and share in academic or other abilities that are in line with their experience (Fowle, 2018).

Continuing professional development: Completion of training to enhance a career path or interest (Holton, 2017).

Extrinsic motivation: The personal drive to behave or perform in certain ways, such as reactions to external sources, employee evaluations, grading systems, the respect and admiration of others, and an ability to conform to the standards that please others (Ackerman, 2018).

Intrinsic motivation: The personal pursuit that comes from within and inspires the individual to perform and behave in certain ways, including core values, morals, interests, and personal beliefs (Ackerman, 2018).

Professional competence: The ability to feel comfortable using the skills with what has been taught and experienced (Vacha-Haase et al., 2019).

Professional Development: An important mechanism for improving early childhood educators and continuing education language and literacy opportunities (Piasta et al., 2020).

Professional efficacy: The ability to solve problems and set goals within the professional setting (Bandura, 1986).

Professional experience: The number of hours that have been spent in training and individual sessions (Ben-Porat & Itzhaky, 2015).

Professional knowledge: The number of times that an individual has undergone brainspotting training (Grand, 2011).

Professional self-confidence: Part of the overall self-concept of an individual that they can maintain professionalism and job completion within their profession (Holland et al., 2012).

Professional training: Number of previous CEU's that a person has completed (Tsoi et al., 2016).

Professional well-being: The definition of how confident an individual feels based on the measurement of comfort with the topic (Tsoi et al., 2016).

Self-efficacy: The belief that that goals that be effectively reached, whether that is solving a puzzle, successfully preparing, and succeeding in an exam, or dealing with hardships (Bandura, 1986).

Trauma: The cognitive, emotional, physical, and/or social stress and dysfunction experienced by an individual in response to an extremely negative event. Trauma may be characterized by short-term and long-term effects (Corrigan & Grand, 2013).

Assumptions

I assumed that participants understood the questions in the survey and responded honestly. I also assumed that the measures were reliable and valid for evaluating the variables under study. These assumptions were necessary to support the data to be valid.

Scope and Delimitations and Limitations

Scope and Delimitations

Eligibility criteria for participating in this study were that the individual was a trauma counselor who had completed at least one training in brainspotting (see Grand, 2013) through the Brainspotting Institute in a face-to-face format and was active in the brainspotting community.

Limitations

The limitations of this study came from the population who was surveyed. The data were drawn from trauma counselors who had completed various levels and types of training on brainspotting therapy that was applicable to the treatment of trauma and who have shown a desire to remain connected with this community of learners. This population may not reflect other trauma counselors who complete continuing education trainings, and the sample may not represent those among brainspotting trainees who did not volunteer to participate in the study. For example, those who volunteered for the study may have different types of motivation and/or levels of clinical competence than

those who did not volunteer to participate. Further, participants were limited to those who were familiar with the use of social media and could follow instructions for the online survey. Thus, generalization of results is limited.

Significance

Mental health practitioners invest money, time, and effort into ongoing professional development activities. It is important to know whether they experience gain from their investment. There has been limited study of the role of continuing education in self-reported professional competence among mental health professionals. However, Taylor et al. (2019) noted that a national sample of psychologists self-reported high levels of learning and application to practice after completing continuing education training.

The significance of this study is that it is one of the few to examine possible motivations for, and benefits from, continuing education activities among counselors and other mental health professionals who are or are not licensed. Findings may inform professionals and trainers alike about learners' readiness and motivations associated with building professional competency. This information may be useful for those who plan training activities specific to brainspotting or other clinical applications, perhaps helping them to tailor activities to learners' readiness and motivations to maximize outcomes for clinical skill competence.

Summary

This study responded to a need for more information about predictors and outcomes of ongoing professional development activities among trauma counselors, specifically those who are trauma counselors. Consistent with Bandura's theory of self-

efficacy and Knowles's adult learning theory, I examined background, motivational, and self-efficacy factors as predictor variables of self-reported clinical competence among trauma counselors who had completed at least one face-to-face training in brainspotting. This information may be instructive to trainers and learners who seek to support ongoing professional training and clinical competency among mental health professionals. Chapter 2 provides a review of the relevant professional literature and Chapter 3 addresses the research design used to answer the research questions posed for this study. Chapter 4 provides the data collection information, and results of the data testing. Chapter 5 concludes the study with the interpretations of the findings, recommendations for future studies, and conclusions.

Chapter 2: Literature Review

Introduction

To date, there has been little attention to investigating the processes and outcomes related to continuing education among mental health providers, such as trauma counselors. In fact, when compared with other fields, such as among health care providers (Babeva & Davison, 2017), there is a stark lack of knowledge on relationships between continuing education activities and trauma counselors' attitudes or skills. In this study, I examined learner characteristics as predictors of self-reported clinical competence following continuing education training among trauma counselors. Based on Knowles's adult learning theory (as cited in Kang et al., 2019a) and Bandura's theory of self-efficacy (Bandura, 1986), relationships between learner's motivation, training, and professional practice experience and self-reported clinical competence were evaluated among a sample of trauma counselors who have completed at least one training in brainspotting, a theory and technique applied to treatment of trauma.

Literature Search Strategy

I conducted searches using the Walden libraries and the Brainspotting Institute resources. I used the following databases to gather the literature : Thoreau, PsychARTICLES, ProQuest, Academic Search Complete, and PsychINFO. All articles were peer-reviewed literature, apart from a few web pages that were accessed for background data. Key search terms included *adult learning, self-efficacy, continuing education, trauma counselors, professional competence, COSE, LSES,* and *quantitative testing*. The years that were searched initially were 2015 through present. Due to the

limited amount of literature in the areas of adult education, professional competence, and self-efficacy, the search was expanded to previous years (2000-present), and older resources were evaluated for background theories. I also searched for other comparison studies with different modalities across other healthcare fields (e.g., nursing, occupational therapy, and dental). There have been studies of efficacy outside of the healthcare field as well (teachers, students, business leaders, and professionals).

Theoretical Foundation

Adult Learning Theory

Influenced by Rogers's focus on client-centered analyses, Knowles approached learning from the needs of the learner (Mitchell & Courtney, 2005). Knowles (1984) proposed that adults are lifelong learners and differ from younger learners in a number of ways: (a) Adult learners move from being directed to self-directed learners; (b) their accumulated life experience provides an additional resource for learning; (c) they bring a readiness to learn so as to meet the developmental tasks of social roles; (d) they are focused on more immediate, rather than delayed, application of learning for problem-solving; and, (e) their motivation to learn is more intrinsic, that is, derived, for example, from personal interests, quest for knowledge, rather than more practical needs, external pressures, or rewards. Relatedly, outcomes for adult learners, especially application of learning to address problems, are predicted by factors of (a) relevant previous life experience, (b) readiness, self-efficacy beliefs regarding learning, (c) relevance of the information and related skills to an actual application, and (d) level of intrinsic, rather than extrinsic, motivation.

Bandura's Theories of Self-Efficacy and Perceived Self-Competence

Bandura's (1997) general social cognitive theory included constructs of self-efficacy, confidence, and competency. As Bandura explained, "Perceived self-efficacy refers to belief in one's agentive capabilities, that one can produce given levels of attainment" (p. 382). Self-efficacy can be generalized, concerning control over one's life and circumstances or specific to focused activities, such as learning a skill. Although related, confidence is not the same as self-efficacy: "Confidence is a nondescript term that refers to strength of belief but does not necessarily specify what the certainty is about. I can be supremely confident that I will fail at an endeavor" (Bandura, 1997, p. 382). Finally, perceived self-competence is another component of self that "refers to beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p. 3). These concepts are relevant to my study because I was interested in predictors of perceived self-competence among professionals who engage in continuing education activities. Like Bandura's theory, adult learning theory includes self-efficacy is a predictor of outcomes of learning, which may include perceived self-competence.

In comparing variables used for the predictors of outcomes of learning, it has been found that self-efficacy and self-competence have relationships between one another. A study conducted with music therapists showed that job satisfaction led to a measurable trait when looking at collective self-esteem, but it that without high self-efficacy, individuals in this field could face higher than average burnout (Youngshin, 2012). Another researcher realized that having an ability to ignore emotions, such as shame or

fear, could lead to less satisfaction, and lower reportable self-efficacy (Walker, 2017). These studies revealed that when an individual does not take the time to increase their own self-efficacy or self-competence, their job performance and overall satisfaction will decrease. These studies measured the comparison between self-efficacy and self-confidence in terms of not being able to find fulfillment with the job.

Continuing education models that concentrate on self-care and improving self-confidence have shown that there is a correlation between these factors. When an adult learner is given the opportunity to learn within their environment of work, or with their peers, there can be more measurable self-confidence created (O'Toole & Essex, 2012). Another study addressed the impact on not only the individual's day-to-day completion of work, but the impact on the overall goals of the company, when appropriate training is chosen (Silvennoinen & Nori, 2017). Comparison of self-confidence using self-reports proves to be valuable with students such as these. The importance of enhancing an individual's propensity to work in a positive environment is important.

Mental Health Professionals as Adult Learners

Adult learners often are individuals who are completing training within a new field, or they may be those who are seeking to expand or reinforce their current knowledge and skills (Silvennoinen & Nori, 2017). Some are transitioning to a new career path beyond retirement or to service to a new group of clients to meet community needs. For example, Church et al. (2010) noted that an interest in a new field can happen within rural populations where individuals see a need to learn something that will help their community, thus causing a transition or implementation into a new career or career

focus. In all cases, effective training that enhances clinical self-efficacy is important to develop clinical competency.

As Taylor and Neimeyer (2016) noted, among psychologists, once completion of formal degree training is achieved, further training is less structured. This applies to other trauma counselors as well. Continuing education choices become more self-determined. It is the clinician who is left to determine professional needs and interests and then to find and complete training that meets those needs. Except for possible mandated areas of continuing education training (for example, ethics) to meet requirements for renewal of professional licensure or certification (Adekson, 2019), personal and professional motivation and purpose for learning becomes central to lifelong learning decisions and outcomes. This type of motivation is like that of other adult learners who enroll in courses to complete degree programs: Chen and Want (2016) found that self-efficacy, personal development, and involvement were the top reasons for these adult learners to enroll.

A recent survey among licensed psychologists revealed that they reported positive learning from continuing education activities (Taylor et al., 2019). However, Taylor et al. also reported that some methods of continuing education trainings were more common (for example, lectures and PowerPoints), while other methods that were more preferred (for example, demonstrations and videos) were less frequently used. These sentiments are consistent with adult learners' preferences for experiential and discovery methods of learning (Sisselman-Borgia & Torino, 2017). In fact, there are calls for continuing education requirements and activities for psychologists to shift from an emphasis on

continuing education to continuing professional development. Horn et al. (2019) noted, "Adults learn best when engaged in self-directed motivated learning that addresses a real-life problem or need and that involves active involvement and participation that relates to their life experiences" (p. 22)**.**

Clinical Competency

While self-reported clinical self-competence and self-efficacy have been found to increase during the process of formal education, such as among nurses (Morton et al., 2019; Sharma et al., 2019), clinical psychologists (Pakenham, 2015; Wright & Holttum, 2012), and mental health counselors (Merrick et al., 2016; Oordt et al., 2009), little research has addressed the relationship of continuing education to these factors once these professionals are engaged in actual mental health practice. To date, there is a dearth of information on outcomes of continuing education among mental health workers, even though there is a large industry that provides continuing education products and does so at a profit (Lyons et al., 2015). Further, it is viable to study outcomes of such trainings as there is implied clinical competence for those who complete continuing education and receive certificates.

Clinical competency may be defined generally as the knowledge, attitudes, and skills to perform clinical tasks effectively (American Psychological Association [APA], 2015). With respect to treatment of trauma, APA (2015) delineated the following checklist of competencies for trauma-informed counselors:

Trauma awareness

- understands the difference between trauma-informed and trauma-specific services.
- understands the differences among various kinds of abuse and trauma, including physical, emotional, and sexual abuse; domestic violence; experiences of war for both combat veterans and survivors of war; natural disasters; and community violence.
- the different effects that various kinds of trauma have on human development and the development of psychological and substance use issues.
- understands how protective factors, such as strong emotional connections to safe and nonjudgmental people and individual resilience, can prevent and ameliorate the negative impact trauma has on both human development and the development of psychological and substance use issues.
- understands the importance of ensuring the physical and emotional safety of clients.
- understands the importance of not engaging in behaviors, such as confrontation of substance use or other seemingly unhealthy client behaviors, that might activate trauma symptoms or acute stress reactions.
- demonstrates knowledge of how trauma affects diverse people throughout their lifespans and with different mental health problems, cognitive and physical disabilities, and substance use issues.

- demonstrates knowledge of the impact of trauma on diverse cultures with regard to the meanings various cultures attach to trauma and the attitudes they have regarding behavioral health treatment.
- demonstrates knowledge of the variety of ways clients express stress reactions both behaviorally (e.g., avoidance, aggression, passivity) and psychologically/emotionally (e.g., hyperarousal, avoidance, intrusive memories).

Counseling skills

- expedites client-directed choice and demonstrates a willingness to work within a mutually empowering (as opposed to a hierarchical) power structure in the therapeutic relationship.
- maintains clarity of roles and boundaries in the therapeutic relationship.
- demonstrates competence in screening and assessment of trauma history (within the bounds of their licensing and scope of practice), including knowledge of and practice with specific screening tools.
- shows competence in screening and assessment of substance use disorders (within the bounds of their licensing and scope of practice), including knowledge of and practice with specific screening tools.
- demonstrates an ability to identify clients' strengths, coping resources, and resilience.

- facilitates collaborative treatment and recovery planning with an emphasis on personal choice and a focus on clients' goals and knowledge of what has previously worked for them.
- respects clients' ways of managing stress reactions while supporting and facilitating taking risks to acquire different coping skills that are consistent with clients' values and preferred identity and way of being in the world.
- demonstrates knowledge and skill in general trauma-informed counseling strategies, including, but not limited to, grounding techniques that manage dissociative experiences, cognitive behavioral tools that focus on both anxiety reduction and distress tolerance, and stress management and relaxation tools that reduce hyperarousal.
- identifies signs of secondary traumatic stress reactions and takes steps to engage in appropriate self-care activities that lessen the impact of these reactions on clinical work with clients.
- recognizes when the needs of clients are beyond their scope of practice and/or when clients' trauma material activates persistent secondary trauma or countertransference reactions that cannot be resolved in clinical supervision; makes appropriate referrals to other behavioral health professionals.

APA (2015) also defined aspirational guidelines for trauma competencies to be developed or supported through education and training. The following are among those defined as "cross-cutting" competencies for clinical practice with trauma:

1. Demonstrate the ability to appreciate and understand the impact of trauma on health outcomes, the contribution of trauma to increasing health disparities, and the impact of integrated and trauma-informed care as a critical component of care for people who are survivors of trauma.
2. Demonstrate understanding about trauma reactions and tailor trauma interventions and assessments in ways that honor and account for individual, cultural, community, and organizational diversity. This competency includes demonstrating the ability to identify and understand the professionals' and clients' intersecting identities (e.g., gender, age, sexual orientation, disability status, racial/ethnicity, military status, rural/urban, immigration status, religion, national origin, indigenous heritage, gender identification) as related to trauma and articulate the professionals' own biases, assumptions, and problematic reactions emerging from trauma work and cultural differences.
3. Demonstrate understanding of how trauma impacts a survivor, the family system (including parents and caregivers), community, and organizations' sense of safety and trust, and apply the professional demeanor, attitude, and behavior to enhance the survivors' and organizations' sense of physical and psychological safety. This competency includes respecting autonomy of those exposed to trauma and protecting survivors as appropriate.
4. Demonstrate understanding and ability to tailor assessment and interventions to account for developmental lifespan factors at the time(s) and duration of trauma and at the point of current psychotherapeutic contact.

5. Demonstrate the ability to understand, assess, and tailor interventions and assessments that address the complexities of trauma-related exposure including any resultant long- and short-term effects (e.g., comorbidities, housing related issues), and person-environment interactions (e.g., running away from home and being assaulted).
6. Demonstrate the ability to appropriately appreciate, assess, and incorporate trauma survivors' strengths, resilience, and potential for growth. Facilitate shared decision-making between the trauma survivor and psychologist whenever appropriate.
7. Demonstrate the ability to recognize practitioners': (1) Capacity for self-reflection and tolerance for intense affect and content; (2) Ethical responsibility for self-care. and (3) Self-awareness of how one's own history, values, and vulnerabilities impact trauma treatment delivery.8. Demonstrate the ability to critically evaluate and apply up-to-date available science on research-supported therapies and assessment strategies for trauma-related disorders/difficulties.
9. Demonstrate the ability to understand the value and purpose of the various professional, paraprofessional, and lay responders in trauma work and work collaboratively and across systems to enhance positive outcomes (pp. 2-5).

Effective trainings can lead to increases in both self-reported and other-evaluated clinical competency for mental health workers. Although I could not find a study particular to training in trauma-informed counseling, Beale et al. (2020) recently reported

significant correlations (r = .27 to .56) between self-reported and expert-evaluated clinical competency among mental health workers who received structured, multisession training in cognitive behavioral therapy.

Threats to Clinical Competency

There are several studies on education of individuals who are beginning in a career path and not prepared educationally through experience. Ben-Porat and Itzhaky (2015) looked at negative consequences of doing trauma work, as well as the amount of experience and length in the field contributing to higher burnout. Campagne (2012) pointed out that doing the same thing over and over can lead to boredom professionally, which also leads to burnout. Chang et al. (2018) developed a tool to test for burnout in nurses when they are not receiving enough educational support and day to day work support within their career. The general theme is that less education and experience lead to more burnout and dissatisfaction within the job.

Continuing education is required for most mental health professionals who hold a current license. Holton (2017) noted that there is no way to govern or ensure that all continuing education programs are teaching legitimate or even real skills. The APA approves sponsors of CEU credits but does not in general approve the coursework taught. Therefore, if a sponsor is approved and offers the coursework that leads to CEUs there is limited regulation on what is being offered in ways of CEU coursework. Babeva and Davison (2017) discussed the importance of customer satisfaction in the creation of CEU coursework, which in turns makes the offer of purely factual scientific evidence-based coursework not always the most attractive. Even with requirements to complete CEU

credits, it becomes difficult to know that the information being offered is accurate or helpful in many cases.

Trauma-Informed Continuing Education

According to the Substance Abuse and Mental Health Services Administration (SAMHSA, 2014), health care providers who work with clients with trauma-related disorders need to have specific knowledge, skills, and abilities for clinical competency. With respect to continuing education, one-day trainings or workshops lead to immediate, but short-lived, gains in knowledge or skills among counselors (Martino et al., 2011). Hoge et al. (2007) described trainings that have demonstrated more effective outcomes for improving knowledge, skills, and practice. These include trainings with elements such as: interactive activities; trainings that are spread out to allow experience across time; outreach, auditing, and feedback for trainee; solid academic foundations (p. 124).

Continuing Education in Brainspotting

One example of continuing education activities is training in knowledge and clinical skills related to brainspotting as a treatment for trauma. Corrigan and Grand (2013) published one of the first reports on brainspotting as a therapy technique for working with trauma impacted individuals. They reviewed the development of brainspotting as a modality and early research that supported effect of brainspotting on the brain, midbrain, and the overall well-being of the individual who chooses this form of treatment. Corrigan et al. (2015) found that brainspotting techniques also may be useful when there is not a defined trauma, but an individual is not progressing with use of other treatment modalities. These studies show examples of how continuing education is being

used in the brainspotting realm of trauma care training. Using brainspotting therapy, the distress on an individual who is traumatized or has forgotten their trauma can be lowered; the client is able to believe that there is a solution available to help find their healing place.

The Brainspotting Institute offers trainings on brainspotting therapy for trauma counselors. Brainspotting Training is done through a three- or four-day, face-to-face trainings in varying levels of brainspotting. Trainees may have training in some or all the levels: Brainspotting Phase I, Brainspotting Phase II, Brainspotting Phase III, Brainspotting Phase IV, Brainspotting Masters Class, and Brainspotting Intensive (this is a five-day course). In addition to face-to-face training, training also may include video materials. A therapist can also receive certification in brainspotting by completing the training courses, supervised clinical practice, belonging to a group consultation field, and through intensive trainings (Frey, 2019).

This study looks at those mental health care workers who have completed trainings in brainspotting. I will investigate how several person variables, including number of previous continuing education trainings, level of formal educational training, licensure/certification status, clinical experience, and learner self-efficacy, predict self-reported clinical competency. This will be the first study to evaluate predictors of this outcome for trauma-informed training in brainspotting.

Summary

The review of literature has highlighted the use of Knowles Adult Learning Theory (Kang et al., 2019a) and Bandura's theory of self-efficacy (Bandura, 1986) to

identify person factors that may predict self-reported clinical competency among trainees in brain spotting. There is research that follows efficacy and learning among students in formal training activities. However, there only is limited research that follows those who are working in the field of counseling. Although requirements for, and types of, continuing education for trauma counselors vary, it is critical to evaluate for possible indicators of efficacy of such continuing education activities, especially among mental health workers who provide services to individuals with psychological trauma. Findings from this study may serve to inform both trainers and trainees in brainspotting and other trauma-informed methods. The information may be applied for development and evaluation of modifications and extensions in training methods.

I used a quantitative cross-sectional, correlational survey design to evaluate number of continuing education trainings, level of formal training, licensure/certification status, clinical experience, and generalized self-efficacy as predictors of self-reported clinical competency among trainees who are involved in the brainspotting community. Details of the methodology are presented in Chapter 3.

Chapter 3: Research Method

Introduction

This study provides further information on factors that predict perceived self-competence among mental health providers, specifically those interested in trauma counseling, who complete professional development trainings. The key purpose was to examine predictors of perceived self-competence that are based both on adult learning theory (Knowles, 1984) and Bandura's (1997) social cognitive theory. Learner's level of formal education, prior experience as a practitioner, prior continuing education experience, licensure status, motivation (intrinsic/extrinsic) for learning, and self-efficacy for learning were examined as predictors of self-reported clinical competence among a sample of trauma counselors who received training in brainspotting.

Research Design and Rationale

I used a cross-sectional, quantitative, correlational survey design to explore background, motivational, and self-efficacy factors as predictors of self-reported clinical competency. This correlational regression method allowed me to test a prediction model that is consistent with Knowles's adult learning theory and Bandura's social cognitive theory. However, I was not able to assess cause-effect relationships. Cross-sectional designs involve observation at a given point from the population of interest. Unlike longitudinal designs, cross-sectional designs reduce the risk of attrition and lost data. However, they limit possible inferences about cause-effect processes over time. Further, I used an online survey design to enable accessibility to individuals across various locations and flexibility for participants' time of completion.

Population

The population for this study was adult learners who had undergone some level of training in brainspotting theory and techniques for the treatment of trauma and had chosen to be involved with an online forum for support and professional consultation. The requirement to be a part of this community was that at least one professional training in brainspotting had been completed. Members of this group also included those who had completed several types of brainspotting trainings, as well as other types of professional development activities. At the time of the survey, there were 3,150 active members in this group.

Sampling

I employed nonprobability, self-selecting sampling among members of the brainspotting community who met inclusion criteria. I used G*Power software (http://www.psychologie.hhu.de/arbeitsgruppen/allgemeine-psychologie-und-arbeitspsychologie/gpower.html) to estimate minimum sample size for a multiple linear regression (change in R^2) with six tested predictors, alpha = .05, effect size of f^2 = .15, power = .80. The minimum planned sample size was 98 useable, complete surveys to meet these criteria.

Procedures for Recruitment

With permission from the Brainspotting Institute, a recruitment notification was posted on the Brainspotting Practitioners Facebook site. The notification provided an explanation of the purpose of the study and a link to the survey site. Individuals who choose to participate proceeded to the URL for the online survey site. The online survey

was presented on the FreeOnlineSurveys.com platform. FreeOnlineSurveys.com is an online survey tool that offers easy completion, confidentiality, and collection of data.

When a potential participant clicked on the link to go to the survey site, the first page presented the informed consent form. Also included with the informed consent were basic statements to inform the participants of the inclusionary requirements. At the bottom of the form, the participant was given three choices: to agree to participate (confirmed consent), to choose not to participate, or to request more information before deciding about participation. Individuals who chose to participate were forwarded to the first page of the survey materials.

Anyone who chose not to participate was forwarded to an exit page, including a "thank you." Those who request more information were provided with contact information, and an email sent to me with the inquiry. No requests for more information were presented during the survey period. For those who agreed to participate, once they entered the survey materials, the first part of the survey was the demographic questionnaire. If any individuals did not meet eligibility criteria (18 years or older, completed a live brainspotting training session), there were advanced to the "thank you" page and exited from the study. Following the demographic questionnaire, the participant was advanced to new pages that presented instructions and questions for the two survey instruments. Each time a participant got to the end of a survey page, an encouraging quote was provided. The survey was designed so that every question needed to be answered before allowing responses to other questions. This decreased possible incomplete returns. The participant advanced through all pages until completion of the

survey materials. A final “thank you” page appeared when the survey was completed. There were no follow-up procedures with participants once they completed the survey.

Instruments Used for Study

Demographic/Background Characteristics Questionnaire

See Appendix A for the demographic questionnaire to be used in the study. A series of demographic questions was presented to gather information to describe the sample and to provide information for predictor variables.

In addition to the demographic questionnaire, three instruments were employed to measure two predictor variables, learning self-efficacy, and learning motivation, and the dependent variable, self-reported professional competence.

Situational Motivation Scale

The SIMS was developed by Frederic et al. (2000) to measure and assess the makeup of intrinsic motivation, identified regulation, amotivation, and external regulation, when measured in both field and laboratory studies. The SIMS allows for collection of a brief and versatile study of a self-report measure of these four measurement areas. There are four subscales measured with this tool. The four subscales can be further described as two of them, intrinsic motivation and identified regulation, identify factors describing intrinsic motivation, while the other two scales, external and amotivation factors describe extrinsic motivation. Each item is scored on a Likert scale, as follows: 1 = *corresponds not at all*, 2 = *corresponds a very little*, 3 = *corresponds a little*, 4 = *corresponds moderately*, 5 = *corresponds enough*, 6 = *corresponds a lot*, and 7

= *corresponds exactly*. Mean ratings were computed for the scores for each of the subscales relevant to this study.

Rockafellow and Saules (2006) reported a Cronbach's alpha between .76 and .91. ÇetİnkalpÇetİnkalp (2010) reported the internal consistency estimates to be as follows: 0.79 for intrinsic motivation, 0.73 for identified regulation, 0.77 for external regulation, and 0.79 for amotivation. Validity has been reported for several types of activities and across various cultures: for example, predicting physical activity (Standage et al., 2003), situational intrinsic and extrinsic motivation (Guay et al., 2000), and distance learner satisfaction while attending class (Goulimaris, 2015).

Learning Self-Efficacy Scale for Clinical Skills

The Learning Self-Efficacy Scale (LSES) was developed by Kang et al. (2019a) to measure the "learners' confidence in their capability to learn specific subjects" (abstract). Learning self-efficacy is considered an important predictor of learning strategies and outcomes. The scale was developed to measure self-efficacy with learning medical skills among 235 Chinese undergraduate medical students. There are 12 items that were developed by an expert panel and that met content validity index criteria on the scale. Items are said to fall across three domains: cognitive (C), affective (A), and psychomotor (P). Sample items include, "I can recall how to perform the clinical skill" (C), "I tend to actively look for information related to this course" (A), and "I can precisely imitate the instructor's steps and actions of the clinical skill" (P). In the instructions for the current study, I asked participants to consider how well the item described them when they considered using brainspotting skills in their clinical work for

items on the C and P subscales and how well the item described them when they took their most recent brainspotting training when completing items on the A subscale.

Items were presented with the following Likert-type response scale, 1 = *disagree* to 5 = *agree*. Kang et al. (2019b) reported a Cronbach's α coefficient of .931 for the 12 questions, and Cronbach's α coefficients varied between .922 and .928 when each question was deleted. Content validity values of the 12 questions were between .88 and 1.0, indicating high content validity. Moreover, the item analysis indicated that the quality of LSES reached the qualified threshold. Kang et al.'s (2019a) results showed that the LSES scores did not differ by gender of respondent. Again, mean scale ratings were computed for relevant scores for this study.

Counselor Self-Estimate Inventory)

The COSE was developed by Larson et al. (1992). The 37-item COSE consists of five factors: microskills (M, 12 items), process (P, 10 items), difficult client behaviors (D, 7 items), cultural competence (C, 4 items), and awareness of values (A, 4 items). Sample items include the following: "I am confident that the wording of my interpretation and confrontation responses will be clear and easy to understand" (M), "I am worried that my interpretation and confrontation responses may not over time assist the client to be more specific" (P), "I do not feel I possess a large enough repertoire of techniques to deal with the different problems my client may present" (D), "I will be an effective counselor with clients of a different social class" (C), and "I am likely to impose my values on the client during the interview" (A). Selected items are reverse scored so that higher ratings indicate more positive responses. Respondents are instructed to indicate on a Likert-type

scale the degree to which they 1 = *strongly disagree* to 6 = *strongly agree* with each statement to reflect "their actual estimate of how they would perform in a counseling session at the present time." The internal consistencies for the COSE total score and the five factors were as follows: COSE total = .93, microskills = .88, process = .87, difficult client behaviors = .80, cultural competence = .78, and awareness of values = .62. The item-total correlations ranged from .32 to .65, except for three items. Initial validity estimates showed that the instrument was (a) positively related to counselor performance, self-concept, problem-solving appraisal, performance expectations, and class satisfaction; (b) negatively related to state and trait anxiety; (c) minimally related to aptitude, achievement, personality type, and defensiveness; and (d) sensitive to change over the course of master's practicum and across different levels of counselors. Also, trait anxiety and counseling self-efficacy were significant predictors of counselor trainee performance. Kozina et al. (2010) and Cashwell and Dooley (2001) also reported validity of the COSE as a measure of changes in COSE scores across time during training and supervision. Mean ratings were computed for subscales relevant to the current study.

Procedure

Data Analysis

I downloaded data from the survey site in spreadsheet form. I then transferred the data and created a datafile within SPSS (Version 25). My initial analysis was to identify any participants who did not meet eligibility criteria. There were no missing data because the survey required all the answers to be completed. The following steps were completed for all data: delineating characteristics of the sample demographics, cleaning and

screening quantitative data, testing data for assumptions of the planned analyses, and analyzing data to test research hypotheses. Results are presented in Chapter 4. My plans were as follows.

Cleaning Data

Data were visually inspected for data entry errors, and any errors were corrected. As I did not enter data by hand, I did not anticipate any problems with this. I used data from spreadsheets downloaded from freeonlinesurveys.com. I did not anticipate any missing values as I created the online survey so that a response to each item was required before the participant was allowed to answer additional items.

Sample Demographics

Responses to items on the demographic questionnaire were tallied. I ran crosstabs of responses on items where responses fell into categories (e.g., gender) and reported the frequencies and percent of respondents who fell into each category. For items that requested a numerical response (e.g., years of age), I computed and reported the mean, standard deviation, and median value to characterize the sample. For categorical responses, I ran crosstabs to report numbers of participants who fell into each category. I prepared a summary of these results to describe the sample and descriptive statistics to describe the sample, based on the questions completed in the demographic questionnaire. Results of classifications for categorical predictor variables were examined to create viable groups for further analyses. For example, final predictor variables may use combinations of cases across more than one response choice for a question when there are low numbers of respondents in some categories.

Internal Reliability of Scales

I computed Cronbach's alpha estimates of overall reliability and reliability. For relevant subscale scores, the three measures used in this study included the SIMS, LSES, and COSE. Values of .70 or higher were considered acceptable for interpretation (see Tavakol & Dennick, 2011).

Scoring SIMS, LSES, and COSE Responses

Following scoring instructions for the various instruments, overall scores for mean ratings were computed for the LSES and COSE scales. Separate scores (mean ratings) were computed for the intrinsic and extrinsic motivation subscales of the SIMS.

Testing Assumptions for Statistical Tests

The primary analysis for this study was a multiple linear regression. This method was selected because my dependent variable were measured on a continuous scale. Further, linear multiple regression allows for both continuous and categorical forms of predictor variables, similar to those I included. After computing the continuous scores for three SIMS, LSES, and COSE scales, I evaluated related assumptions for use of multiple linear regression (https://www.statisticssolutions.com/assumptions-of-multiple-linear-regression/).

Linear Relationship Between Continuous Predictor and Outcome Variables

I produced separate scatterplots for the relationship between each continuous predictor variable and the outcome variable. If a scatterplot indicated a nonlinear relationship, the predictor variable was transformed to a categorical variable.

Multivariate Normality

Here, I assumed that the errors between the observed and predictive values (that is, the residuals of the regression) were normally distributed. To check this assumption, I inspected histograms and Q-Q plots to evaluate shape of the distributions.

Multicollinearity

I assumed that the continuous predictor variables were not so highly correlated that they introduced redundancy. I evaluated this by examining the bivariate correlations between pairs of predictor scores. To meet this assumption, correlations needed to be less than .80. I also computed the variance inflation factor (VIF) as part of the multiple linear regression analysis. Here, VIF values higher than 10 were indicators of multicollinearity. If multicollinearity was indicated, I considered removing scores for one of the two highly correlated pairs of predictors.

Homoscedasticity

It is assumed that the variances of error terms are similar across all independent variables. In order to evaluate this, I planned to examine plots of standardized residuals versus predicted values to see if points are equally distributed across all values of the independent variables. If heteroscedasticity is indicated, I would attempt to correct this by using a nonlinear data transformation, such as taking the square root of one of the variables (https://stattrek.com/regression/linear-transformation.aspx).

Testing Hypotheses

A multiple linear regression would be used to evaluate RQ1, the prediction model when all predictor variables are considered together to explain the total amount of variance in COSE scores. Each of the following RQs would be evaluated by inspection of

the table of results from the overall multiple linear regression analysis. Specifically, the standardized beta weight, and respective probability outcome, would be employed to assess the null hypothesis for RQs 2 through 7.

The overall research question for this study was:

Research Question 1: Does the prediction model of level of formal education, prior experience as a practitioner, prior continuing education experience, licensure status, learner motivation, and learner self-efficacy predict self-reported professional competency (as measured by the COSE) among trauma counselors?

$H_0$1: The prediction model of level of formal education, prior experience as a practitioner, prior continuing education experience, licensure status, learner motivation, and learner self-efficacy in a trauma counselor does not predict self-reported professional competency.

H_a1: The prediction model of level of formal education, prior experience as a practitioner, prior continuing education experience, licensure status, learner motivation, and learner self-efficacy in a trauma counselor does predict self-reported professional competency.

Questions regarding individual predictors were as follows:

Research Question 2: When controlling for other predictors, does level of formal education predict self-reported professional competency (as measured by the COSE) among trauma counselors?

$H_0$2: When controlling for other predictors, level of education in a trauma counselor does not predict self-reported professional competency.

H_a2: When controlling for other predictors, level of education in a trauma counselor does predict self-reported professional competency.

Research Question 3: When controlling for other predictors, does prior experience as a practitioner predict self-reported professional competency (as measured by the COSE) among trauma counselors?

$H_0 3$: When controlling for other predictors, level of prior experience in a trauma counselor does not predict self-reported professional competency.

H_a3: When controlling for other predictors, level of prior experience in a trauma counselor does predict self-reported professional competency.

Research Question 4: When controlling for other predictors, does prior continuing education experience predict self-reported professional competency among trauma counselors?

$H_0 4$: When controlling for other predictors, level of prior continuing education in a trauma counselor does not predict self-reported professional competency.

H_a4: When controlling for other predictors, level of prior continuing education in a trauma counselor does predict self-reported professional competency.

Research Question 5: When controlling for other predictors, does licensure status predict self-reported professional competency (as measured by the COSE) among trauma counselors?

$H_0 5$: When controlling for other predictors, licensure status for a trauma counselor does not predict self-reported professional competency.

H_a5: When controlling for other predictors, licensure status for a trauma counselor does predict self-reported professional competency.

Research Question 6: When controlling for other predictors, does learner's intrinsic and extrinsic motivation (as measured by the SIMS subscales) predict self-reported professional competency (as measured by the COSE) among trauma counselors?

H_06: When controlling for other predictors, level of learner's intrinsic and extrinsic predict self-reported professional competency.

H_a6: When controlling for other predictors, level of learner motivation in a trauma counselor does predict self-reported professional competency.

Research Question 7: When controlling for other predictors, does learner self-efficacy (as measured by the LSES) predict self-reported professional competency (as measured by the COSE) among trauma counselors?

H_07: When controlling for other predictors, level of learner self-efficacy in a trauma counselor does not predict self-reported professional competency.

H_a7: When controlling for other predictors, level of learner self-efficacy in a trauma counselor does predict self-reported professional competency.

Threats to Validity

External

External threats to validity affect the degree to which results can be generalized to specific samples. Random sampling from this population would mean that every mental health practitioner who took continuing education would have an equal chance to participation in this study, which would support generalization of findings to other

members of this population. However, this study used nonrandomized sampling. Because the participants are volunteers, a convenience sample, generalizability of results cannot be assumed. At best, results may generalize to individuals who are connected to the Internet and have access to the Brainspotting practitioner Facebook Page. With that disclosure, the results still have practical usefulness.

Internal Validity

Internal validity relates to the study's design. One possible threat to validity is that this research used only one method and source of data, self-reports. There are no other sources of information to corroborate the completion of the training or actual clinical competencies. Another possible threat is that the current professional literature lacks measures specifically designed to evaluate factors related to continuing adult professional education among this population of mental health professionals. While these surveys have been chosen because of their intuitive applicability, and their reported reliability and validity with other groups, this represents a possible threat to internal validity and interpretation of results.

Ethical Procedures

All procedures to protect participants were followed for this study. This began with review and approval by the Walden University Institutional Review Board (IRB). Required practices for informed consent, confidentiality, as well as data use, maintenance, and reporting were followed. The data were collected using an online survey system (freeonlinesurveys.com) that does not collect or retain identifiable information about participants. Data can be removed permanently from the site once

downloaded by the researcher. All data that were downloaded were saved on password protected hard drives and/or thumb drives. I planned to store any paper records in private, locked cabinets. The Walden IRB approval for this study was #05-15-20-0138715, and it expired on May 14, 2021.

Summary

This nonexperimental correlational study was planned to examine relationships between several factors that are suggested by adult learning theory and learning outcomes among mental health professionals who attend ongoing professional development trainings. Specifically, I examined predictors of self-reported clinical competency among trauma counselors who have trained in brainspotting theory and techniques for treatment of individuals with psychological trauma. Chapter 3 discussed the research methodology that was planned for the current study. Methods for sampling and recruiting, survey procedures and instruments, planned analyses to test hypotheses, as well as evaluations of design validity and planned ethical procedures, were presented. Chapter 4 presents the actual results and Chapter 5 presents a discussion of these results, as well as recommendations for future research.

Chapter 4: Results

Introduction

The purpose of this study was to gain information regarding predictors of perceived self-competence among a sample of mental health professionals who have been trained in brainspotting. Predictions were based on adult learning theory (Knowles, 1984) and Bandura's (1997) social cognitive theory. I used a quantitative survey design and cross-sectional, correlational analysis to examine individual predictors and a general prediction model. The research questions and hypothesis were as follows:

Research Question 1: Does the prediction model of level of formal education, prior experience as a practitioner, prior continuing education experience, licensure status, learner motivation, and learner self-efficacy predict self-reported professional competency (as measured by the COSE) among trauma counselors?

$H_0$1: The prediction model of level of formal education, prior experience as a practitioner, prior continuing education experience, licensure status, learner motivation, and learner self-efficacy in a trauma counselor does not predict self-reported professional competency.

H_a1: The prediction model of level of formal education, prior experience as a practitioner, prior continuing education experience, licensure status, learner motivation, and learner self-efficacy in a trauma counselor does predict self-reported professional competency.

Questions regarding individual predictors were as follows:

Research Question 2: When controlling for other predictors, does level of formal education predict self-reported professional competency (as measured by the COSE) among trauma counselors?

$H_0$2: When controlling for other predictors, level of education in a trauma counselor does not predict self-reported professional competency.

H_a2: When controlling for other predictors, level of education in a trauma counselor does predict self-reported professional competency.

Research Question 3: When controlling for other predictors, does prior experience as a practitioner predict self-reported professional competency (as measured by the COSE) among trauma counselors?

$H_0$3: When controlling for other predictors, level of prior experience in a trauma counselor does not predict self-reported professional competency.

H_a3: When controlling for other predictors, level of prior experience in a trauma counselor does predict self-reported professional competency.

Research Question 4: When controlling for other predictors, does prior continuing education experience predict self-reported professional competency among trauma counselors?

$H_0$4: When controlling for other predictors, level of prior continuing education in a trauma counselor does not predict self-reported professional competency.

H_a4: When controlling for other predictors, level of prior continuing education in a trauma counselor does predict self-reported professional competency.

Research Question 5: When controlling for other predictors, does licensure status predict self-reported professional competency (as measured by the COSE) among trauma counselors?

$H_0$5: When controlling for other predictors, licensure status for a trauma counselor does not predict self-reported professional competency.

H_a5: When controlling for other predictors, licensure status for a trauma counselor does predict self-reported professional competency.

Research Question 6: When controlling for other predictors, does learner's intrinsic and extrinsic motivation (as measured by the SIMS subscales) predict self-reported professional competency (as measured by the COSE) among trauma counselors?

$H_0$6: When controlling for other predictors, level of learner's intrinsic and extrinsic predict self-reported professional competency.

H_a6: When controlling for other predictors, level of learner motivation in a trauma counselor does predict self-reported professional competency.

Research Question 7: When controlling for other predictors, does learner self-efficacy (as measured by the LSES) predict self-reported professional competency (as measured by the COSE) among trauma counselors?

$H_0$7: When controlling for other predictors, level of learner self-efficacy in a trauma counselor does not predict self-reported professional competency.

H_a7: When controlling for other predictors, level of learner self-efficacy in a trauma counselor does predict self-reported professional competency.

In Chapter 4, I present information about data collection, data evaluation, tests result of the research hypothesis, and the summary of findings.

Data Collection

Data were collected according to the plan described in Chapter 3. Data were collected over a period of 95 days, from June 15 to September 18 of 2020. Respondents were reached through postings in brainspotting user groups. Respondents were mainly from the United States; however, there were 16 from seven other countries. The Facebook user sites that were used were International Brainspotting Practitioners (name recently changed to include International) and Brainspotting Research.

There were no discrepancies in data collection from the plan presented in Chapter 3. Survey responses varied from zero to seven per day. In total, 118 respondents initiated and completed the survey within the allotted time frame. Eligible respondents indicated they were older than 18, agreed that they were a trauma therapist, and agreed that they had taken a face-to-face brainspotting training in the past. There were no names or identification given from the participants, so nothing in the data could connect to them directly. Avoidance of harm to all participants was a top priority in this study.

The treatment and collection of that data went according to plans presented in Chapter 3. There were no adverse events that occurred aside from the occurrence of a global pandemic, which caused a population of therapists who traditionally were not taught virtually to have to be selective to only participate if they were trained prior to the pandemic occurrence.

Characteristics of the Sample

In total, there were 118 participants who completed all parts of the survey. Of the individuals who completed the survey, 111 (94.1%) were female and seven (5.9%) were male. There were 101 (85.6%) participants who reported they were Caucasian, and 17 (14.4%) who reported Asian/Pacific Islander, Black/African American, Hispanic, Native American/Eskimo/Aleutian, or Other. The average age of the participants was 47.64 years, with the average number of years in the mental health profession reported at 15.68 years. The average number of hours reported spent in brainspotting training was 6.93. Details are presented in Appendix D.

External Validity

As the sample was a nonprobability sample of volunteers, it is difficult to know how representative this sample was of all mental health professionals who have completed training in brainspotting, including those who are not active members of the online groups from which I sampled. For a participant to know about the survey, a member would have to be active and participating, as the only prompt was in the group itself. Furthermore, the group only accepts members who have completed a brainspotting training or are certified in brainspotting at some level.

Internal Reliability

One important type of reliability for correlational survey research is the internal reliability of the quantitative survey measures. Cronbach's alpha is a measure to determine internal reliability of a set of test items from which scale scores are computed. Cronbach's alpha examines the correlations and covariances of responses of items of the

scale with the overall average variance of item responses. The formula used to compute Cronbach's alpha is

$$\alpha = \frac{N \cdot \bar{c}}{\bar{v} + (N-1) \cdot \bar{c}}$$

Where

- N = the number of items
- $\bar{c}$ = average covariance between item-pairs
- $\bar{v}$ = average variance

In the social sciences, scales with Cronbach's alpha values of .70 or higher are considered "acceptable," and internal consistency increases to good and excellent as the value of Cronbach's alpha increases (Tavakol & Dennick, 2011).

Table 1 presents a summary of computed Cronbach's alpha values for the subscale of interest for this study. As will be noted, only one subscale (SIMS IM, *a* = .673) had a Cronbach's alpha below .70, falling into the range of "questionable," and results for this subscale are interpreted with caution. However, others were in the "acceptable" and "good" ranges.

Cleaning and Screening of Data

Missing Values

The design of the online survey required participants to answer all questions before being able to move to the next question. They were free to leave at any time if

they no longer wished to provide responses. Thus, no completed surveys had any missing values.

Table 1 Cronbach's Alphas for Research Subscales

Subscale	Number of items	Cronbach's alpha
SIMS IM	4	0.673
SIMS IR	4	0.769
SIMS ER	4	0.763
SIMS AM	4	0.842
LSES cognitive	4	0.843
LSES affective	4	0.843
LSES psych	4	0.729
COSE microskills	12	0.851
COSE process	10	0.863
COSE difficult	7	0.727

Categorical Variables

By using the explore function in SPSS (Version 27), I examined distributions of frequencies across response options among categorical predictor variables. As there were few cases who indicated completed education at levels below the master's degree, I combined across options and created one group for master's degree or less and a second grouping for those with doctoral degrees. Similarly, the distribution of cases in the various possible license status options indicated groupings largely were *yes* (have current license) and *no* (not currently licensed plus those with training licenses). Number of continuing education courses in brainspotting, a continuous variable, was very skewed: Using the median split, those reporting three or fewer brainspotting continuing education courses were included in the lower group, and those with more than three courses were designated as high. Years in mental health, also a continuous variable, was skewed. However, after a transformation was applied for correction, the transformed scores were used for further analyses.

Outliers

After computing the scale scores for each of the dependent variable measures, the scores were first evaluated for outliers. Using the SPSS (Version 27) Explore function, the distribution of values was evaluated for each set of subscale scores. Boxplots may be found in Appendix E. Results indicated that two of the subscale distributions, SIMS ER and SIMS AM, had such a high frequency of outliers that it was impractical to delete them all or to adjust. Further, the distributions were so skewed that I determined that

these scales scores should not be treated as continuous data. Thus, I used a median split to create two categorical groups for each variable, low and high.

The following distributions of scale scores--- SIMS IM, SIMS IR, LSES aff, LSES psych, and COSE microskills--- had relatively few outliers (2-3) and could be considered for adjustment to preserve sample size. I used the Winsor method to adjust all outliers by changing the value of the outlier to the next observed value that was not an outlier on that end of the distribution (Statistics How To, n.d.). The remaining scale scores did not have any outliers.

Evaluation of Statistical Assumptions

Normality

I next evaluated the distributions of continuous subscale scores for the assumption of normality. Again, using SPSS (Version 27) Explore, I examined the histograms (see Appendix E) and skewness and kurtosis values for each distribution (See Table 2). Absolute normality is characterized by skewness = 0 and kurtosis = 0. However, real world distributions rarely are normal. There are various conventions for how to interpret skewness and kurtosis values as relatively normal, moderately skewed, or severely skewed. I decided to use Lei and Lomax's (2005) recommendation: Skewness and kurtosis values with skewness and kurtosis values of less than $\pm$1.0 were interpreted as slightly nonnormal, whereas those between $\pm$1.0 and $\pm$2.3 were to be considered as moderately nonnormal, and those over $\pm$2.3 as severely nonnormal . Using these criteria, my continuous variable data may be considered to meet the assumption of normality.

Assumptions for Multiple Regression

As the research questions related to predictors of three dimensions of clinical self-competency, multiple linear regression was the planned method to test the research hypotheses. Prior to running the planned multiple linear regressions, it was necessary to test the assumptions fo

r each of the three dependent variables. The assumption of linearity was tested by creating scatterplots of each of the continuous predictor variables with each of the dependent variables. No violations of assumptions were observed. Scatterplots can be found in Appendix E.

Table 2 Summary of Skewness and Kurtosis for Continuous Subscale Distributions

Subscale	Skewness (SE)	Kurtosis (SE)
SIMS IM	-.049 (.225)	-.541 (.446)
SIMS IR	-.495 (.226)	-.436 (.447)
LSES cognitive	-.975 (.223)	.582 (.442)
LSES affective	-.065 (.226)	-.811 (.447)
LSES psych	-.190 (.224)	-.797 (.444)
COSE Microskills	.287 (.226)	.033 (.447)
COSE Process	-.122 (.223)	-.620 (.442
COSE Difficult	.226 (.223)	-.805 (.442)

After evaluation, there was no concern for multicollinearity, as all the VIF were not above a 10 (Statistics Solutions, n.d.; see Appendix D -Table 8). Also, homoscedasticity was found to be in line as none of the data measured showed a clear pattern and a cone shaped direction of the data evaluated was shown in the scatterplots found in Appendix E.

Results

Bivariate Correlations Between Variables

Before completing the multiple regression analyses, the bivariate correlations between predictor and dependent variables were computed. Results are shown in Table 3. As may be noted, without consideration of other predictors, scores on the SIMS AM (extrinsic motivation) scale were significantly related to scores on the COSE scale scores for dealing with difficult clients and clinical process. Both cognitive self-efficacy (LSES cognitive) and psychological self-efficacy (LSES psych) were significant predictors of all three of the dimensions of clinical competency (dealing with difficult clients, microskills, and process). Only one demographic predictor, years in mental health, predicted any of the dependent scale scores, and only one, COSE dealing with difficult clients. Thus, there were initial indications that motivation and self-efficacy were stronger than background factors as predictors of clinical self-competency evaluations.

Table 3 Overview of Peraon Correlation

Independent	COSE difficult	COSE microskills	COSE process
SIMS IM	.036	.122	.158
SIMS ER	-.132*	037	-.105
LSES cognitive	.353**	.306**	.398**
LSES affective	-.014	-.072	.115
LSES psych	.289**	.328**	.329**
Years in mental health field	.246**	-.053	.157
# of brainspotting trainings	.150	.144	.171
License status	.119	.023	.194*
Highest education level	.171	.046	.052

Note. * $p < .05$; ** $p < .01$

Regression Analyses to Test Research Hypothesis

RQ1: Overall Regression Analysis to Test General Prediction

The first step was to run a multiple regression analysis for each of the three dependent variables, including all background and motivational variables, to evaluate the overall success of the prediction equation to explain variance in the dependent variable. Results the model summary for each of the three dependent variables are summarized in Table 4. As may be seen, the overall prediction models predicted statistically significant amounts of variance in the dependent variable: COSE Microskills, 19.7% ($p = .010$); COSE Process, 27.1%, $p < .001$; COSE Difficult Clients, 21.3%, $p = .002$.

Table 4 Overall Model Summary for Each Prediction Equation

Dependent variable	R^2	$F(df1, df2)$ FChange	Sig.
COSE microskills	.197	*F(10, 102) = 2.740*	.010
COSE process	.271	$F(9, 106) = 4.386$	.000
COSE difficult clients	.213	$F(9, 107) = 3.209$	.002

Contributions of Individual Predictors

Table 5 presents a summary of the prediction coefficients for each of the predictors for each of the dependent COSE factors. This table provides the information to evaluate RQ2-RQ7, which consider the significance of each predictor when controlling for other predictors' contributions.

Table 5 Standardized Coefficients for Prediction Models

Predictor	COSE difficult client	COSE microskills	COSE process
SIMS IM	.004, n.s.	-.100, n.s.	.114, n.s.
SIMS ER	-.132, n.s.	-.068, n.s.	-.190, p = .048
LSES cognitive	.332, p =006	.182, n.s.	.269, p=.028
LSES affective	-.148, n.s.	-.238, p =.021	-.064, n.s.
LSES psych	.109, n.s.	.238, p =.053	.107, n.s.
Years in mental health field	.150, n.s.	-.122, n.s.	.081, n.s.
# of brainspotting trainings	.048, n.s.	,132, n.s.	.022, n.s.
License status	.019, n.s.	.006, n.s.	.134, n.s.
Highest education level	.200, p =.035	.135, n.s.	.006, n.s.

Results for RQ2-RQ5: Background Predictors

Among the background factors as predictors of clinical self-competency, only one, highest level of education (b = .200, p = .035), s predicted the COSE Difficult Clients scores. None were significant predictors of COSE Microskills and COSE Process self-evaluations.

Research Question 2: When controlling for other predictors, does level of formal education predict self-reported professional competency (as measured by the COSE) among trauma counselors?

Result: Null hypothesis was rejected for one of the three measures of clinical self-competency, COSE (Difficult Clients), but not rejected for the other two indicators.

Research Question 3: When controlling for other predictors, does prior experience as a practitioner predict self-reported professional competency (as measured by the COSE) among trauma counselors?

Result: The null hypothesis was not rejected for prior experience as a practitioner as a predictor of any of the three dimensions of clinical self-competency scores.

Research Question 4: When controlling for other predictors, does prior continuing education experience predict self-reported professional competency among trauma counselors?

Result: The null hypothesis was not rejected for prior continuing education as a predictor of any of the three dimensions of clinical self-competency scores.

Research Question 5: When controlling for other predictors, does licensure status predict self-reported professional competency (as measured by the COSE) among trauma counselors?

Result: The null hypothesis was not rejected for licensure status as a predictor of any of the three dimensions of clinical self-competency scores.

Motivational Factors

Research Question 6: When controlling for other predictors, does learner's intrinsic and extrinsic motivation (as measured by the SIMS subscales) predict self-reported professional competency (as measured by the COSE) among trauma counselors?

Results: The null hypothesis was rejected for extrinsic motivation (SIMS ER) as a predictor of COSE Process as a subdimension of professional competency, b = -.190, p = .048. There was an inverse relationship between extrinsic motivation and self-evaluation regarding professional competency for clinical process. No null hypothesis was rejected for intrinsic motivation (SIMS IM) as a predictor of any of the three subdimensions of clinical self-efficacy. Similarly, the null hypothesis was not rejected for extrinsic motivation as a predictor of either COSE Difficult Clients or COSE Microskills.

Learner Self-Efficacy

Research Question 7: When controlling for other predictors, does learner self-efficacy (as measured by the LSES) predict self-reported professional competency (as measured by the COSE) among trauma counselors?

Results: The null hypothesis was rejected for the following types of learner self-efficacy and dimensions of clinical self-efficacy: LSES cognitive was a positive predictor

of COSE Difficult Client t and COSE Process (b = .269, p =.028), and LSES Affective had an inverse relationship with COSE Microskills scores (b = - .238, p = .021). There was a trend for LSES psych to be a positive predictor of COSE Microskills (b = .238, p = .053) in the LSES psych, when controlling for other predictors.

Summary

This study examined background and person variables as predictors of self-reported clinical competency among a sample of trauma counselors who have completed continuing education training in Brainspotting, a therapeutic technique developed to address trauma and related mental health issues. Results indicated that person variables, specifically, learner self-efficacy and motivation for training, were the primary predictors of self-reported clinical competency. Only one background variable, licensure status, was a statistically significant predictor of self-reported clinical competency when controlling for other predictors. The meaning and implications of these results, as well as limitations of the study and recommendations for further research, will be discussed in Chapter 5.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

In this chapter, I discuss the study's overall results, conclusions, and any recommendations for future studies around this subject matter of continuing education and predictors of self-reported professional competency among trauma counselors. This study addressed trauma counselors who underwent face -o-face training for the brainspotting modality. The research questions were modeled after Knowles's (1984) model for learning outcomes among adult learners and Bandura's (1986, 1997) theory for learner self-efficacy. The focus of this study was predictors of outcomes, specifically self-evaluations of professional clinical competency, following continuing education training among mental health trauma counselors. Both background/experience factors and person variables (motivation, learner self-efficacy) were considered as predictors.

Participants in this study were drawn from mental health professionals who have completed face-to-face training in brainspotting, a clinical procedure specifically designed to address psychological trauma (Grand, 2011). Participants ranged from those who were licensed to those who were not currently licensed. They also ranged from those who were required to complete continuing education courses and those who were not.

Volunteers (119) completed an online survey, which presented a demographics questionnaire, the SIMS, the LSES, and the COSE. Regression analyses were employed to evaluate the prediction model when applied to scores on three dimensions of professional self-competency: difficult clients, microskills, and process. Results generally

indicated that continued research would be helpful in this area of improvement and growth in the counselor community.

Interpretations of the Findings

This research revealed that self-reported clinical competency is not related to the number of trainings completed regarding brainspotting treatment techniques, clinical experience, or previous education. However, those with higher levels of licensure and those who completed the trainings because they were required (that is, due to extrinsic motivation) self-reported higher clinical competency than their counterparts. The areas of clinical competency that were most related to these predictors were cognitive understanding and ability to relate to their clients.

These results suggest that the self-reported clinical skills of trauma counselors who participated in required ongoing continuing education trainings may have benefitted from the trainings. However, the design of this study did not include an objective evaluation of their clinical skills. That remains for a later study. On the other hand, the higher subjective evaluations of their clinical skills may have been related to self-justification for engaging in required trainings to be compliant with requirements for their licensure/practice. Deci and Ryan (2000) described processes where extrinsic motivators become self-determined. This occurs when the individual integrates the regulations into their internal value system. That is, the external motivator becomes a strong internal motivator. Thus, when I asked the questions on internal and external motivation, they may not have been sensitive to the relationship between endorsing statements that they

were following external rules with their own underlying, internalized motivations for doing so. To quote Deci and Ryan (2002),

> Intrinsic motivation relates positively to persistence, creativity, cognitive flexibility, and conceptual understanding, a substantial body of research has examined factors in the social environment that tend to enhance versus undermine this important type of motivation. Beginning with the frequently replicated finding that extrinsic rewards tend to undermine intrinsic motivation, the research has now examined the effects of numerous environmental factors such as positive and negative feedback, threats, deadlines, competition, and interpersonal climates. The findings have been well integrated in terms of how they support versus thwart the underlying needs for competence and self-determination. (p. 7886)

As this was not considered when I chose the operationalization of intrinsic and extrinsic motivation, this also offers an opportunity for future research into outcomes of required versus discretionary professional continuous education among trauma counselors.

Limitations of the Study

There were some limitations to this study. The start of COVID caused the focus of continuing education to move from face-to-face education to virtual solutions. Therefore, when collecting data and asking individuals to reflect on their face-to-face experience, this could have caused some of the focus to be taken from their actual experience during the course. Another limitation was that all of those who replied to the survey were all educated at a higher tier. One of the research questions asked the question of higher education giving a higher range of self-efficacy; therefore, this limitation of

many of the survey participants having a master's degree or higher of education could be a limitation.

Unlike previous studies on efficacy and adult learner theory, and the addition of the pandemic that started in December 2019, I did not do a comparison between individuals who learned in a face-to-face setting compared to those who were taught virtually. This could be a direction for a future study but was a limitation for this study.

Recommendations

In addition to possible research questions for future studies that were presented in the Interpretations of Findings section, I recommend that, if possible, trauma therapists from across a variety of treatment training topics and modalities be surveyed. This may reveal differences in groups who choose different modes and topics for their trainings, as well as resulting self-evaluations of clinical competency in relation to various modes and topics of the trainings. Further, I recommend including trauma counselors who are varying stages of their professional training and experience, including those who are still in formal education programs and those who have varying levels and types of clinical experiences and ongoing continuing education trainings. These comparisons across groups could help to gain a better understanding of the relationships of experience, types of clinical practices, ongoing professional development activities, and similar factors to both objective and self-perceived clinical competencies. These studies can continue the exploration of factors and outcomes relevant to continuing education among trauma counselors, in an area that has not yet been explored in peer-reviewed literature.

Implications

In this study, I examined the self-reported clinical competency among individuals who underwent trauma counseling training in brainspotting. Mental health practitioners invest money, time, and effort into ongoing professional development activities. It is important to know whether they experience gain from their investment. There has been a limited study of the role of continuing education in self-reported professional competence among mental health professionals. However, Taylor et al. (2019) noted that a national sample of psychologists self-reported high levels of learning and application to practice after completing continuing education training.

This study and any other similar studies are important because it is imperative that the research continues to be conducted to ensure that the ability to improve or advance is given to anyone who wants it. No one wants to waste their time taking trainings that are not helpful, and studies like this can help to keep that in the forefront of individual's goal and career planning arenas.

The social impact of this study is that it looks at an area that has not been studied to any depth. This study could be a beginning point for future comparison studies of the potential impact of continuing professional education on a trauma counselor's self-reported clinical competency as well as the possible relationship between this self-perception and the actual ability to relate to their clients and their coworkers. Social impact is important with studies such as this because there is such a limited amount of research that investigates how individuals report their own improvement, beyond their formative years in education. Based on both theories used in this study, it is important

that any changes in factors that may predict and affect clinical competency be clarified. This information then can be applied by trainers, supervisors, and professional organizations for the ongoing development and support of trauma counselors.

Conclusions

This study supports the observation that while there has not been much research in this area of continuous education and self-reported clinical competency among trauma counselors, there is room for more research in the future. The results of this study indicated that some of the more likely predictors, such as amount of education and experience, did not predict the level of self-reported clinical competency among trauma counselors who had participated in continuous education activities. The results also suggest that external requirements for continuous education may be a positive motivator, resulting in high self-perceived clinical competency among trauma counselors who participate in continuing trainings. As noted earlier, it would be beneficial to follow up with this initial attempt to explore benefits of ongoing continuous education for trauma counselors with other studies that can address many of the questions exposed by this research.

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Appendix A: Community Partner Permission Form

Attention Page Moderator

I am seeking permission to post a recruitment notice on your site, the Brainspotting Practitioners Facebook group, to solicit voluntary participation in an online survey that is part of my dissertation study as a doctoral candidate in my Ph.D. program at Walden University.

The title of my study is *Continuing Education and Predictors of Self-Reported Professional Competency Among Trauma Counselors.* This study will collect data from trauma counselors trained in brainspotting therapy to evaluate predictors of self-reported clinical competency, as proposed by Bandura's social learning theory and Knowles' theory of adult learning. The online survey will include an informed consent form and a demographic questionnaire to gather information on background predictor variables. The Learning Self-Efficacy Scale and The Situational Motivation Scale (SIMS) will measure additional predictors, and the Counselor Self-Estimate Inventory will measure the dependent variable, self-reported professional competency. I will use multiple linear regression to evaluate the prediction model with the data collected from this survey.

It is my hope that through the use of this online community I will be able to gain access to competent professionals who meet the criteria of my study requirements. Please let me know if this is acceptable and reply to me via email with your permission.

Kindest Regards,

Desiree L Grin, MS

Appendix B: Post for Recruitment

Research Participants Needed: Continuing Education Among Trauma Counselors

- Are you a brainspotting therapist who works with trauma and has completed at least one brainspotting course offered through the Brainspotting Institute?
- Would you like to help with a doctoral research project?
- Do you have 20 minutes to answer some questions from a survey?

If those three answers were yes, thank you!

As a doctoral candidate completing my dissertation research, I am conducting a survey of trauma counselors who complete continuing education/professional development activities. I need a minimum of 125 participants who complete the full survey.

The survey may be found at SURVEY LINK HERE

The survey includes an informed consent form (more details about the study), a demographic questionnaire, and some survey items related to your professional development activities. You may decide not to participate, to begin and then not complete, or to complete the full survey.

All responses will be anonymous and confidential and will have no effect on your activities with the Brainspotting community. Only overall group results will be reported, and no respondents will be identified. This study has implications for social change

through informing professional groups and agencies about the perceived outcomes of ongoing professional development activities.

Thanks for taking the time to read this today! Your kindness and help are most appreciated.

Desiree Grin

Doctoral Candidate, Walden University

XXX@waldenu.edu

Appendix C: Demographic Questions

1. Gender

    a. Male

    b. Female

2. Age (in years): _____

3. Race

    a. Asian/Pacific Islander

    b. Black/African American

    c. Hispanic

    d. Native American/Eskimo/Aleutian

    e. White/Caucasian

    f. Other

    g. Unknown

    h. I prefer to not answer this question

4. Years in mental health profession: _____

5. How many previous brainspotting trainings have you completed? _____

6. Which courses have you completed? (check all that have completed)

a. Brainspotting Phase 1

b. Brainspotting Phase 2

c. Brainspotting Phase 3

d. Brainspotting Phase 4

e. Brainspotting Master Class

f. Brainspotting Intensive

7. Are you licensed as a mental health therapist?

a. Yes, full license

b. Yes, training license

c. No

8. Are you certified as a mental health therapist? Type of Certification:

_____

9. Do you have to complete Continuing Education Credits (CEUs) in order to renew your professional license or certificate? ____ No ____ Yes ___ Not sure

10. Highest level of formal education you completed?

a. High School Diploma or equivalent

b. Associate Degree

c. Bachelor's Degree

d. Master's Degree

e. Doctorate Level Degree

11. Highest level of formal training as a mental health therapist?

a. High School Diploma or equivalent

b. Certificate Program

c. Associate Degree

d. Bachelor's Degree

e. Master's Degree

f. Doctorate Level Degree

Appendix D: Tables

Table 6 Gender and Race Table

Gender and race		Race		
		Asian/Pacific Islander	Black/African American	Hispanic
What is your gender?	female	2	2	4
		1.8%	1.8%	3.6%
		100.0%	100.0%	100.0%
		1.7%	1.7%	3.4%
	male	0	0	0
		0.0%	0.0%	0.0%
		0.0%	0.0%	0.0%
		0.0%	0.0%	0.0%
Total		2	2	4
		1.7%	1.7%	3.4%
		100.0%	100.0%	100.0%
		1.7%	1.7%	3.4%

Race

			Native American/Eskimo/Aleutian	White/Caucasian	Other
What is your gender?	female	Count	3	95	4
		% within What is your gender?	2.7%	85.6%	3.6%
		% within Race	100.0%	94.1%	80.0%

	% of Total	2.5%	80.5%	3.4%
male	Count	0	6	1
	% within What is your gender?	0.0%	85.7%	14.3%
	% within Race	0.0%	5.9%	20.0%

	% of Total	0.0%	5.1%	0.8%
Total	Count	3	101	5
	% within What is your gender?	2.5%	85.6%	4.2%
	% within Race	100.0%	100.0%	100.0%

	% of Total	2.5%	85.6%	4.2%

			Race	
			I prefer not to answer this question	
What is your gender?	female	Count	1	111
		% within What is your gender?	0.9%	100.0%
		% within Race	100.0%	94.1%
		% of Total	0.8%	94.1%
	male	Count	0	7
		% within What is your gender?	0.0%	100.0%
		% within Race	0.0%	5.9%
		% of Total	0.0%	5.9%
Total		Count	1	118

	% within What is your gender?	0.8%	100.0%
	% within Race	100.0%	100.0%
	% of Total	0.8%	100.0%

Table 7 Age of Participants / Years of Experience

	N	Minimum	Maximum	Mean	Std. Deviation
Please enter your current age	118	27	75	47.64	11.427
Years in the mental health profession	118	.0	47.0	15.669	10.0917
Number of previous face-to-face Brainspotting courses you have completed?	118	0	300	6.93	27.550
Valid N (listwise)	118				

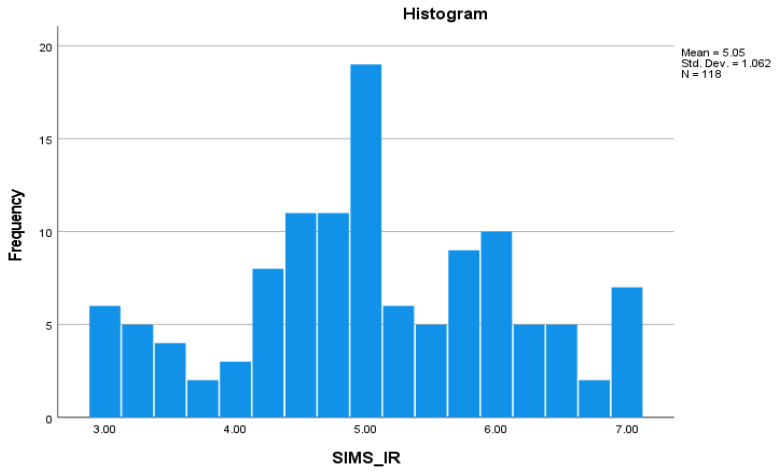
Table 8 Overview of Variance of Inflation Factors (VIF)

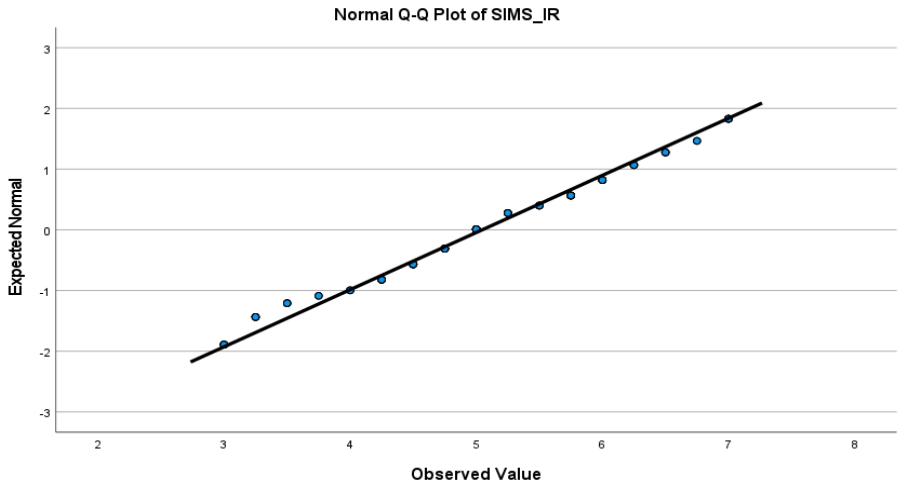
Subscale	Dependent Variable	VIF
SIMS ER Split	COSE Microskills	1.001
SIMS IM	COSE Microskills	1.030
LSES cognitive	COSE Microskills	1.056
LSES affective	COSE Microskills	1.025
LSES psych	COSE Microskills	1.013
Years in Mental Health Field	COSE Microskills	1.131
Number of brainspotting trainings	COSE Microskills	1.557
License Status	COSE Microskills	1.007
Highest Education Level	COSE Microskills	1.000
SIMS ER Split	COSE: Process	1.001
SIMS IM	COSE: Process	1.030
LSES cognitive	COSE: Process	1.056
LSES affective	COSE: Process	1.025

LSES psych	COSE: Process	1.013
Years in Mental Health Field	COSE: Process	1.131
Number of brainspotting trainings	COSE: Process	1.557
License Status	COSE: Process	1.007
Highest Education Level	COSE: Process	1.000
SIMS ER Split	COSE: Difficult	1.037
SIMS IM	COSE: Difficult	1.004
LSES cognitive	COSE: Difficult	1.000
LSES affective	COSE: Difficult	1.000
LSES psych	COSE: Difficult	1.008
Years in Mental Health Field	COSE: Difficult	1.094
Number of brainspotting trainings	COSE: Difficult	1.133
License Status	COSE: Difficult	1.089
Highest Education Level	COSE: Difficult	1.094

Appendix E: Normality Charts Scatterplots

Figure 1 SIMS_IR





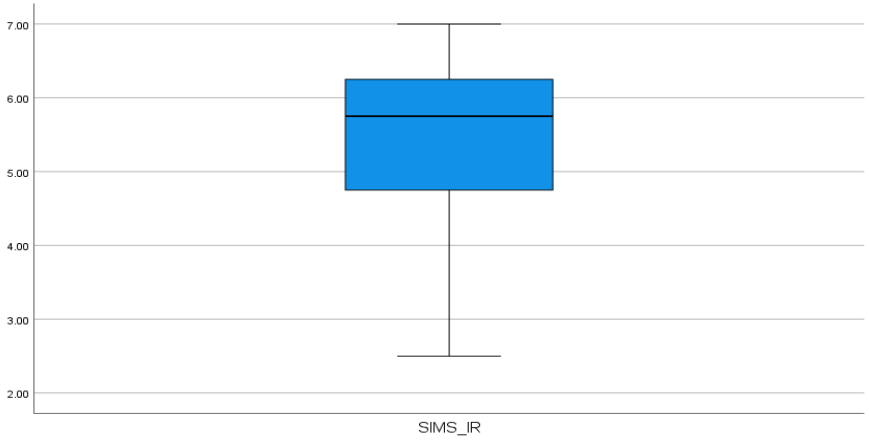
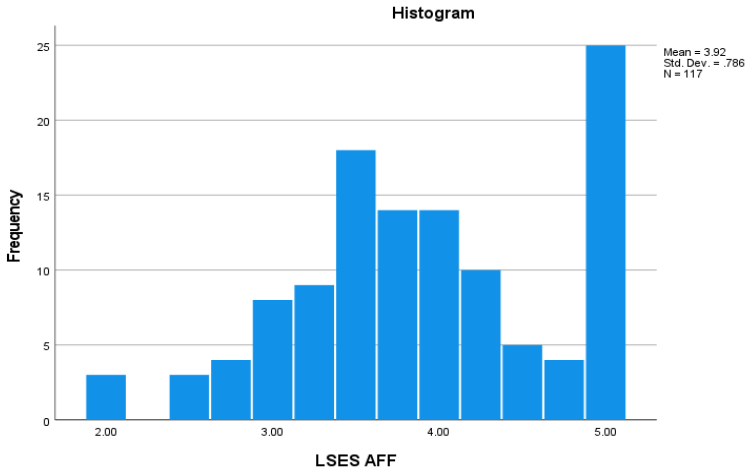
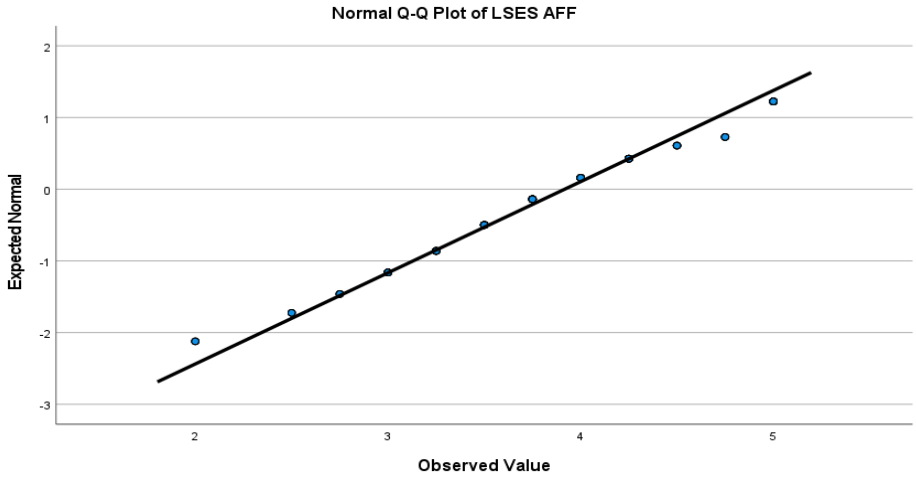
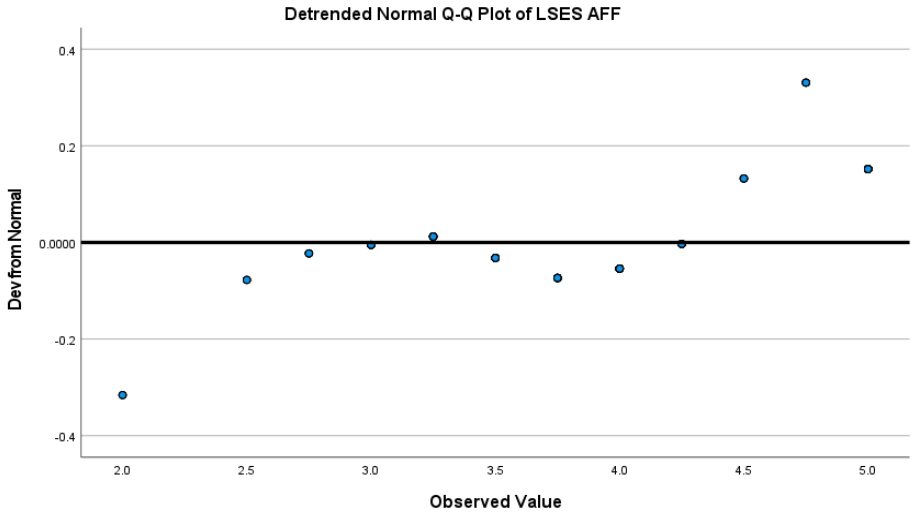


Figure 2 **LSES AFF**




Normal Q-Q Plot of LSES AFF
Expected Normal
2
1
0
-1
-2
-3
2
3
4
5
Observed Value


Detrended Normal Q-Q Plot of LSES AFF
Dev from Normal
0.4
0.2
0.0000
-0.2
-0.4
2.0
2.5
3.0
3.5
4.0
4.5
5.0
Observed Value

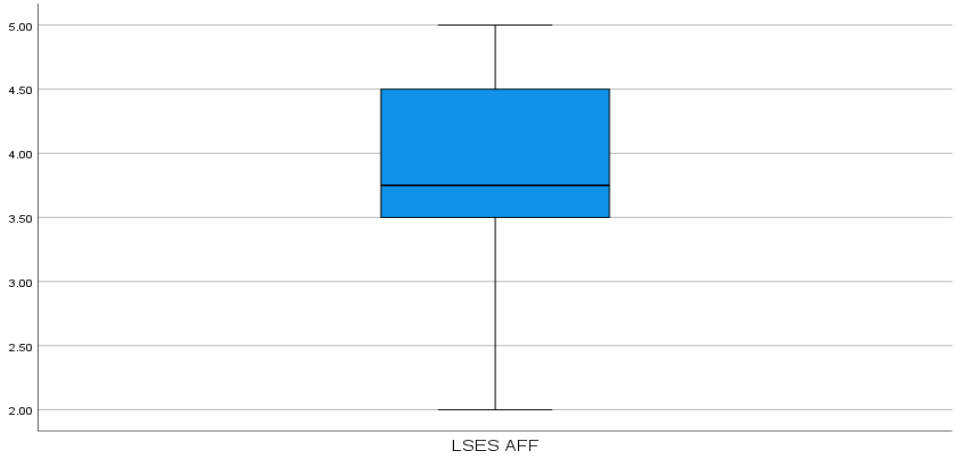
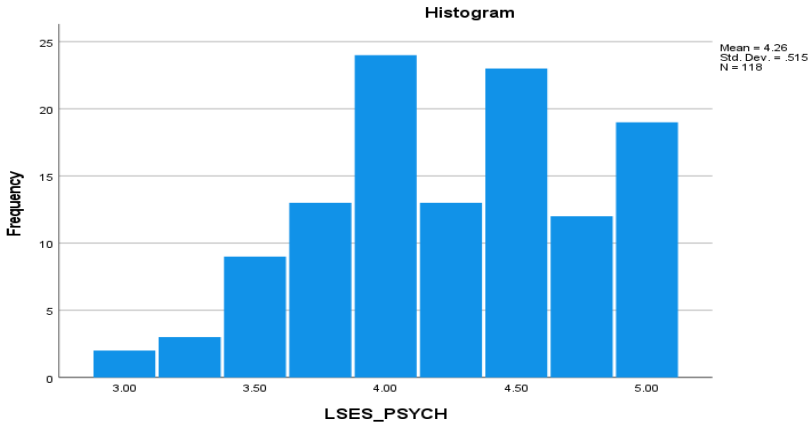
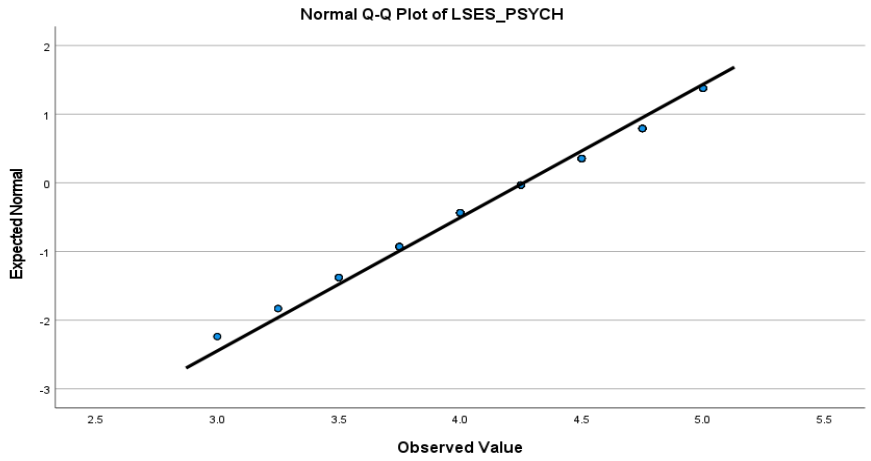
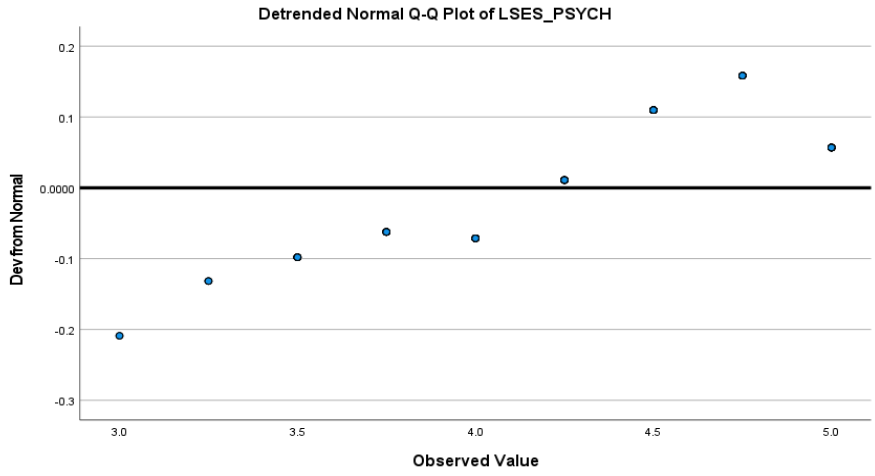


Figure 3 **LSES_PSYCH**




Normal Q-Q Plot of LSES_PSYCH
Expected Normal
2
1
0
-1
-2
-3
2.5
3.0
3.5
4.0
4.5
5.0
5.5
Observed Value


Detrended Normal Q-Q Plot of LSES_PSYCH
Dev from Normal
0.2
0.1
0.0000
-0.1
-0.2
-0.3
3.0
3.5
4.0
4.5
5.0
Observed Value

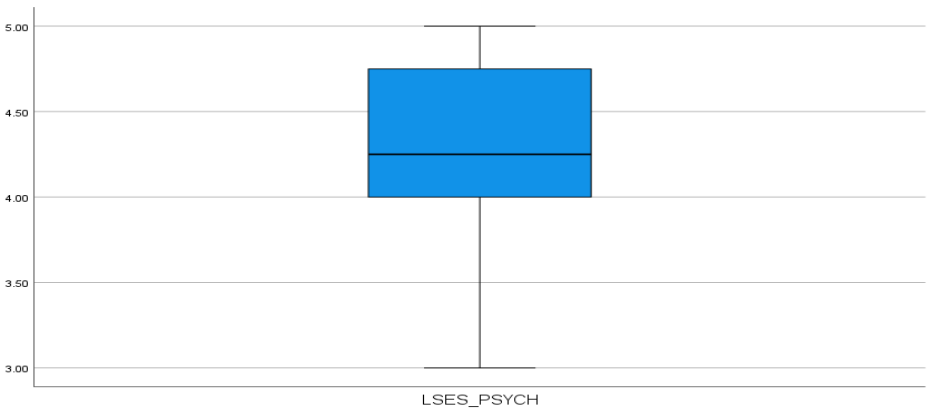
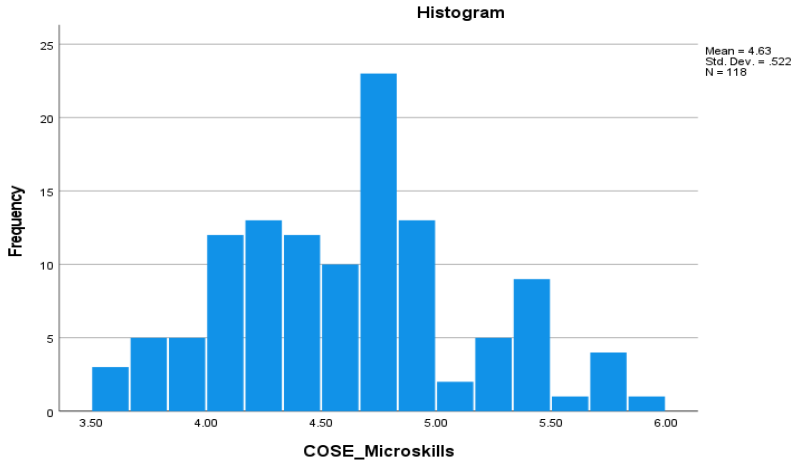
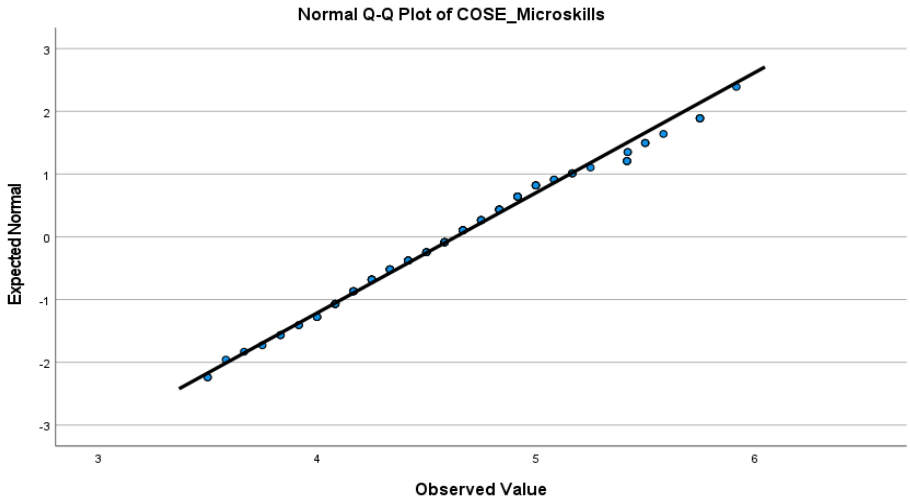
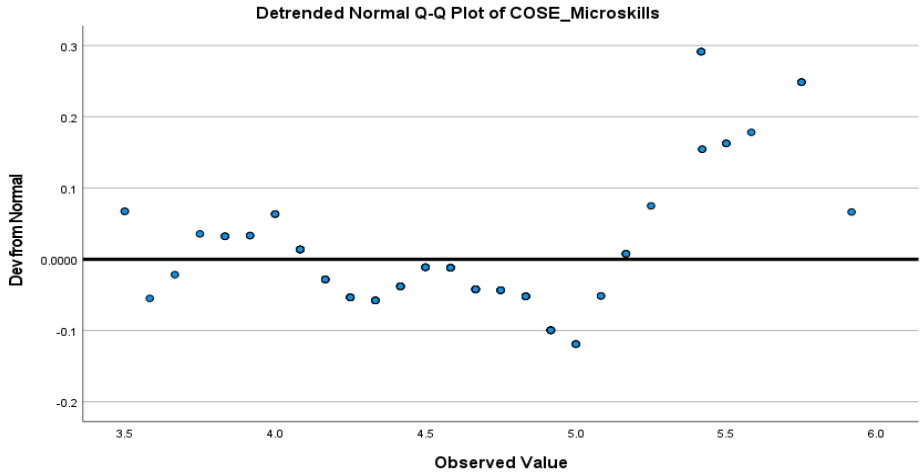

5.00
4.50
4.00
3.50
3.00
LSES_PSYCH

Figure 4 **COSE_Microskills**






Detrended Normal Q-Q Plot of COSE_Microskills
Dev from Normal
0.3
0.2
0.1
0.0000
-0.1
-0.2
3.5
4.0
4.5
5.0
5.5
6.0
Observed Value

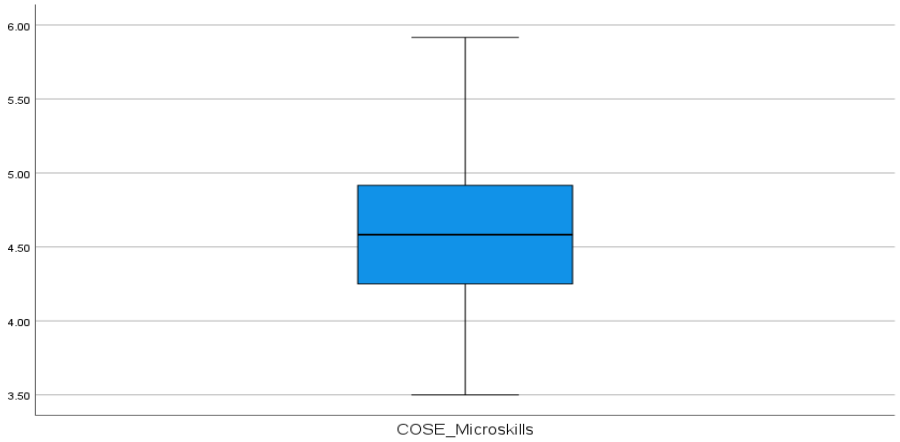
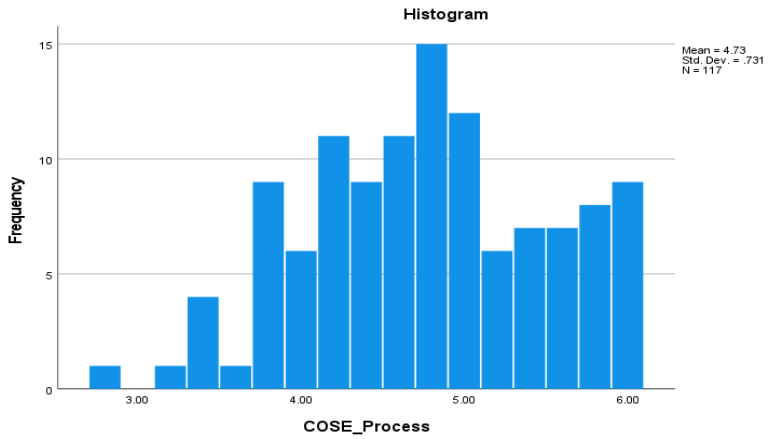
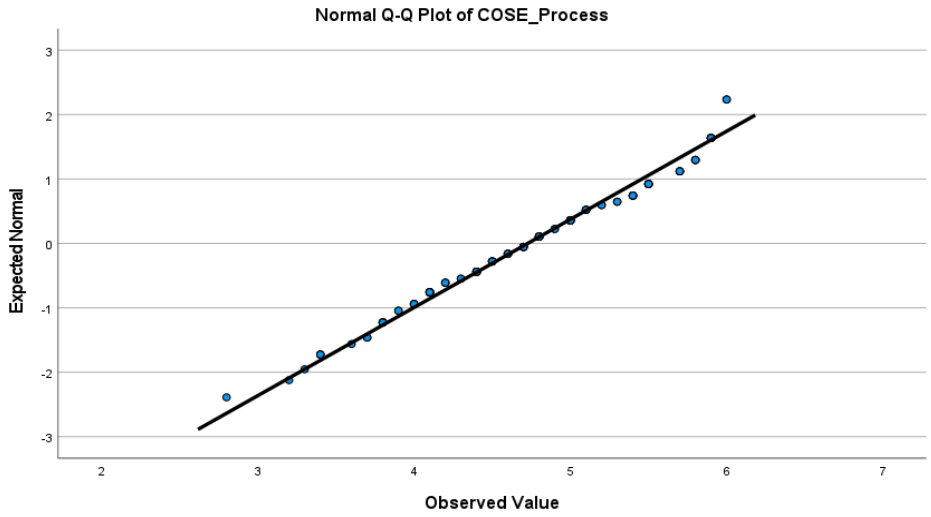
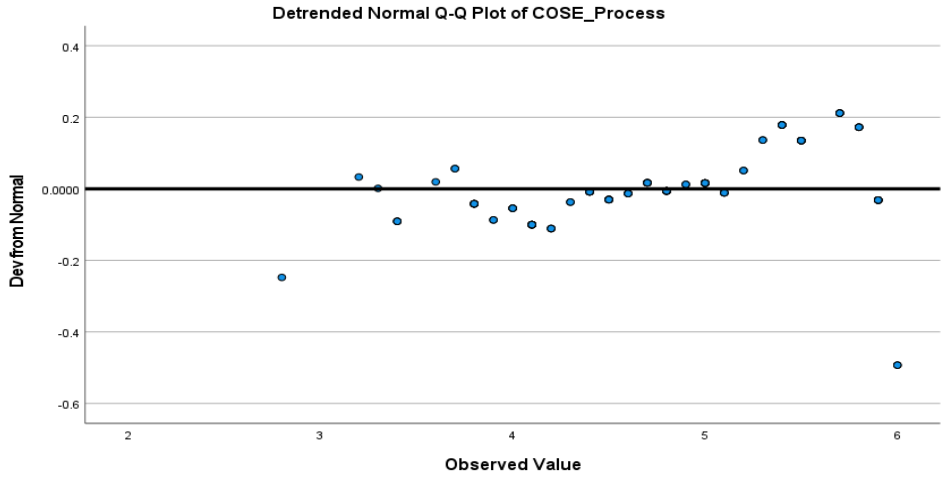

6.00
5.50
5.00
4.50
4.00
3.50
COSE_Microskills

Figure 5 **COSE_Process**






Detrended Normal Q-Q Plot of COSE_Process
Dev from Normal
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0.2
0.0000
-0.2
-0.4
-0.6
2
3
4
5
6
Observed Value

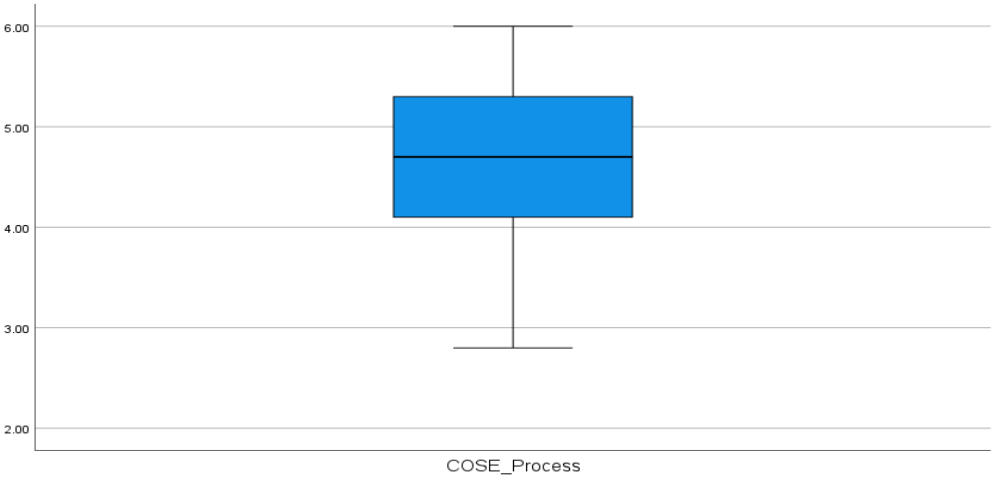
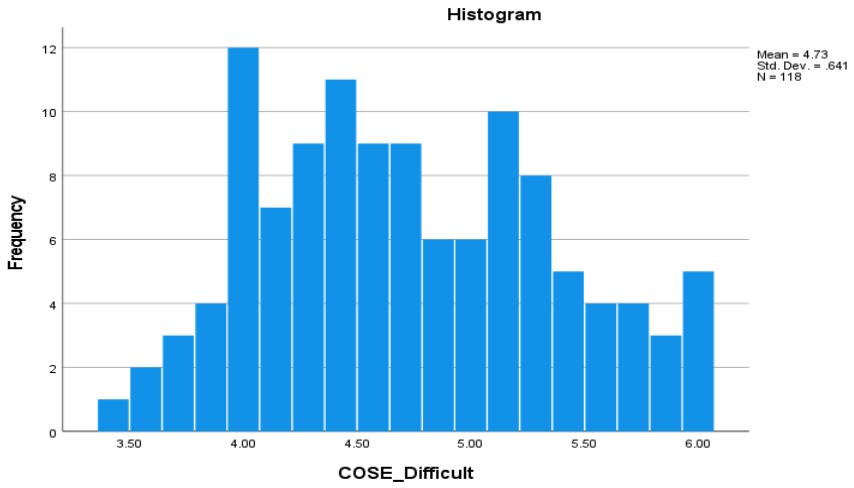
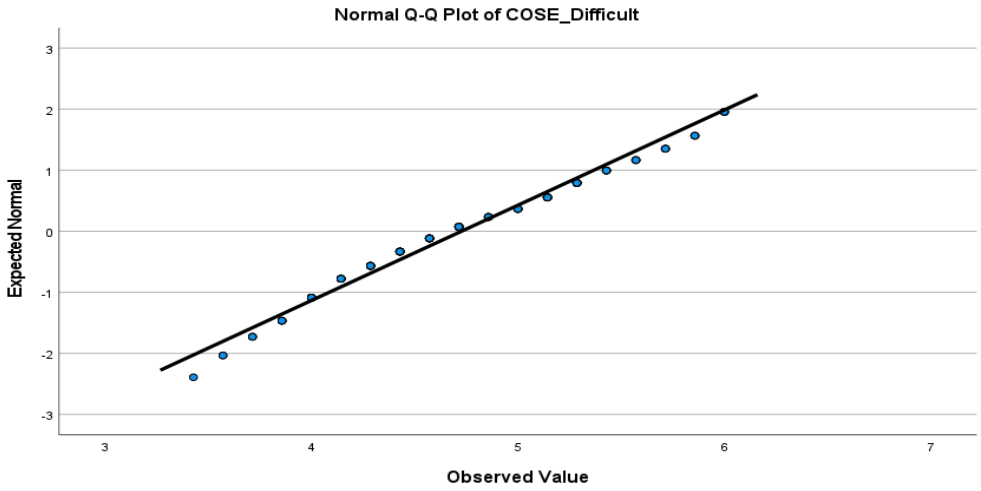

6.00
5.00
4.00
3.00
2.00
COSE_Process

Figure 6 **COSE_Difficult**





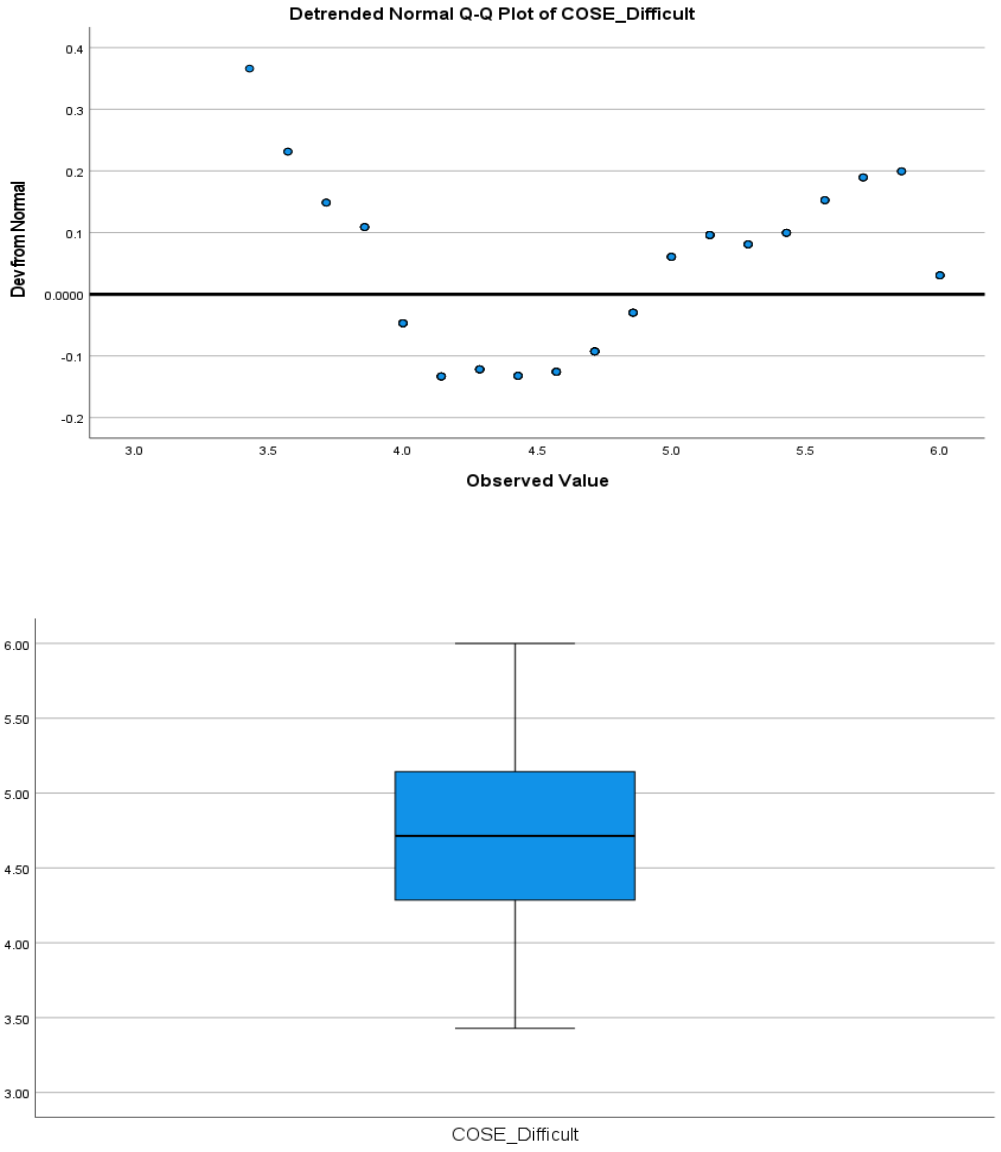
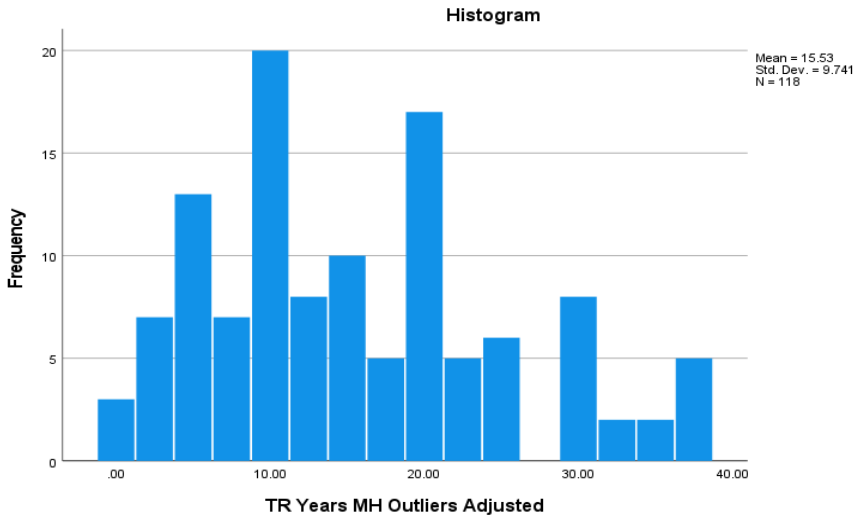
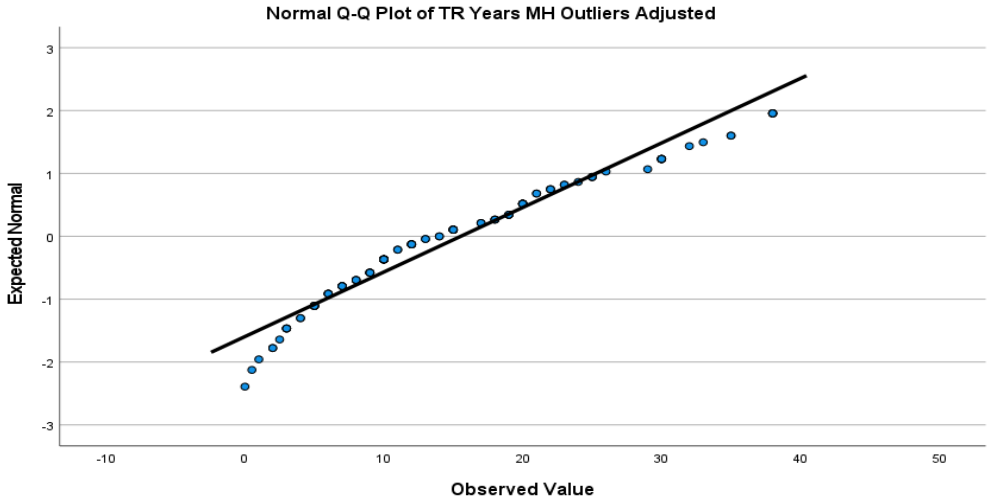


Figure 7 **TR Years MH Outliers Adjusted**


Histogram
Mean = 15.53
Std. Dev. = 9.741
N = 118
Frequency
0
5
10
15
20
.00
10.00
20.00
30.00
40.00
TR Years MH Outliers Adjusted


Normal Q-Q Plot of TR Years MH Outliers Adjusted
Expected Normal
3
2
1
0
-1
-2
-3
-10
0
10
20
30
40
50
Observed Value

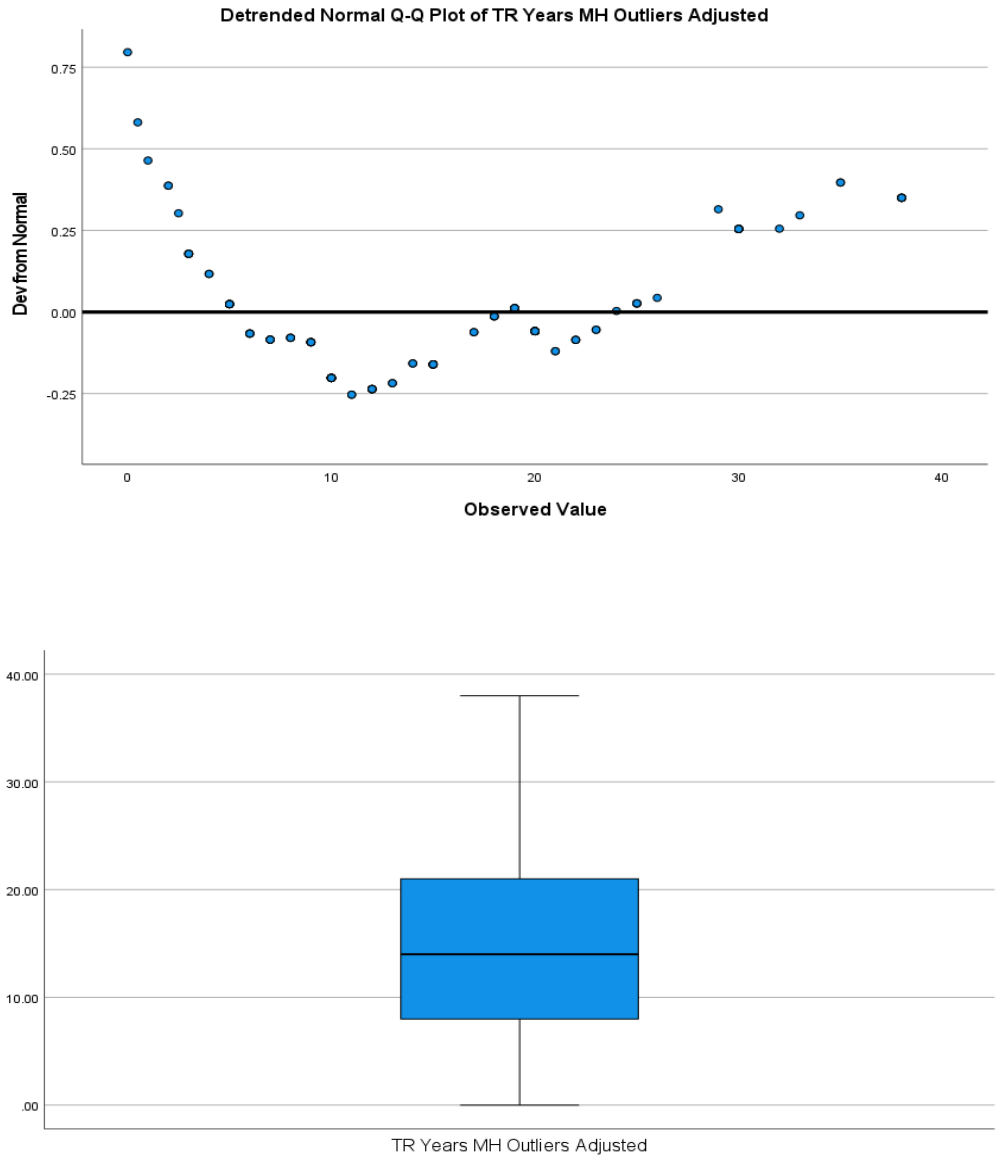
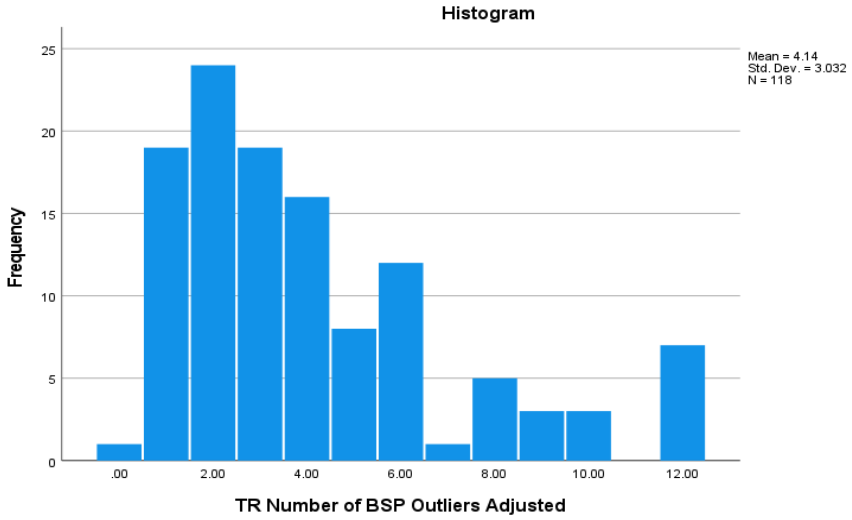
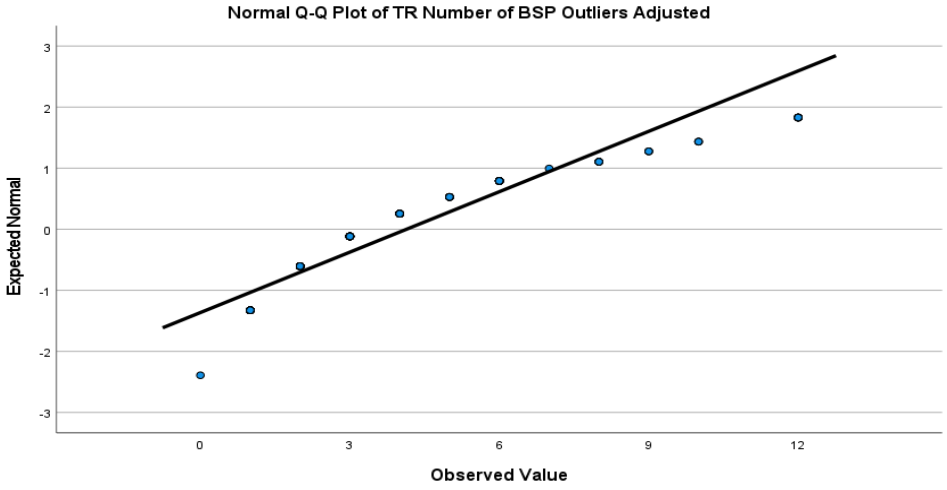


Figure 8 **TR Number of BSP Outliers Adjusted**


Histogram
Mean = 4.14
Std. Dev. = 3.032
N = 118
Frequency
25
20
15
10
5
0
.00
2.00
4.00
6.00
8.00
10.00
12.00
TR Number of BSP Outliers Adjusted


Normal Q-Q Plot of TR Number of BSP Outliers Adjusted
Expected Normal
3
2
1
0
-1
-2
-3
0
3
6
9
12
Observed Value

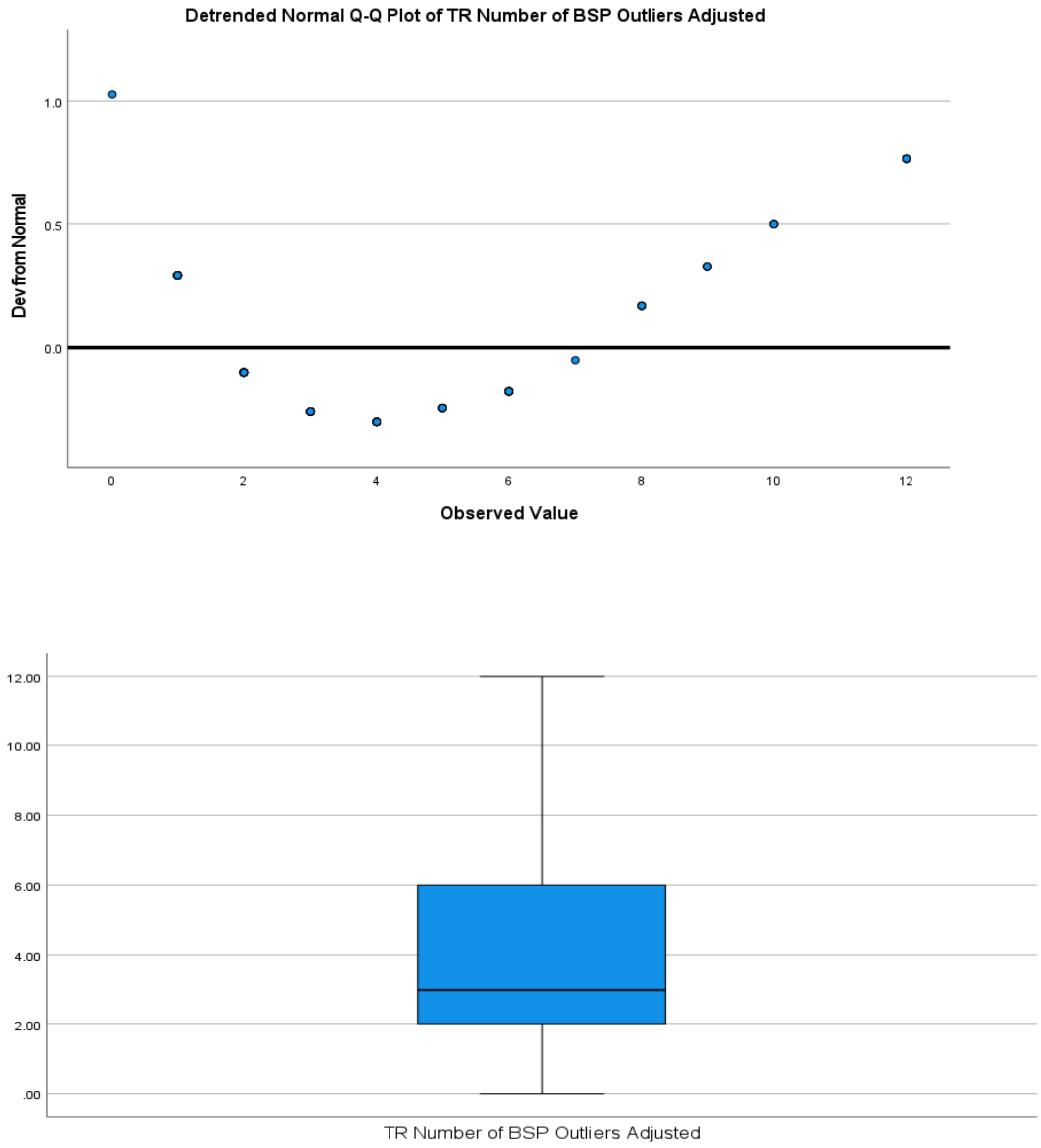
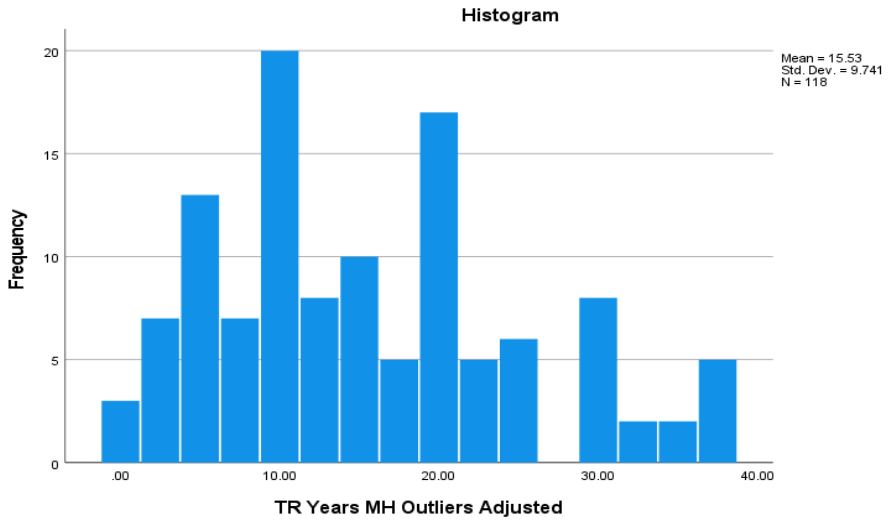
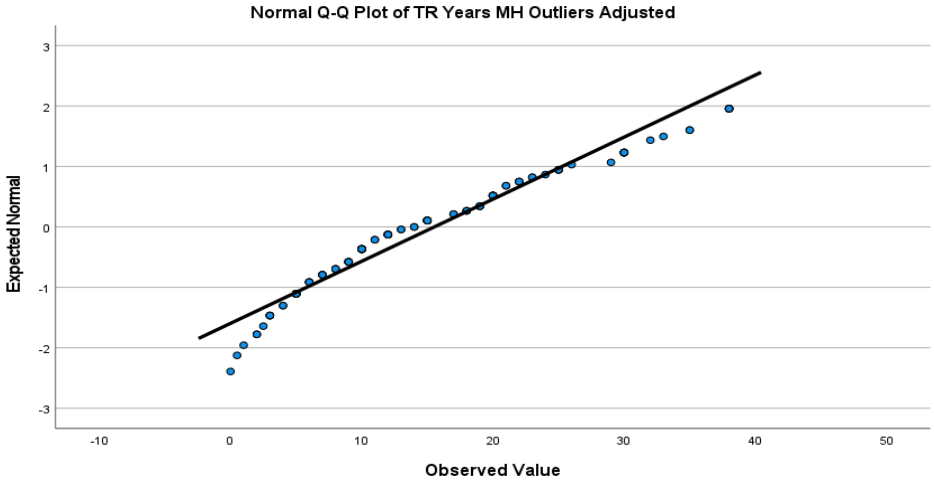


Figure 9 **TR Years MH Outliers Adjusted**


Histogram
Mean = 15.53
Std. Dev. = 9.741
N = 118
Frequency
0
5
10
15
20
.00
10.00
20.00
30.00
40.00
TR Years MH Outliers Adjusted


Normal Q-Q Plot of TR Years MH Outliers Adjusted
Expected Normal
3
2
1
0
-1
-2
-3
-10
0
10
20
30
40
50
Observed Value

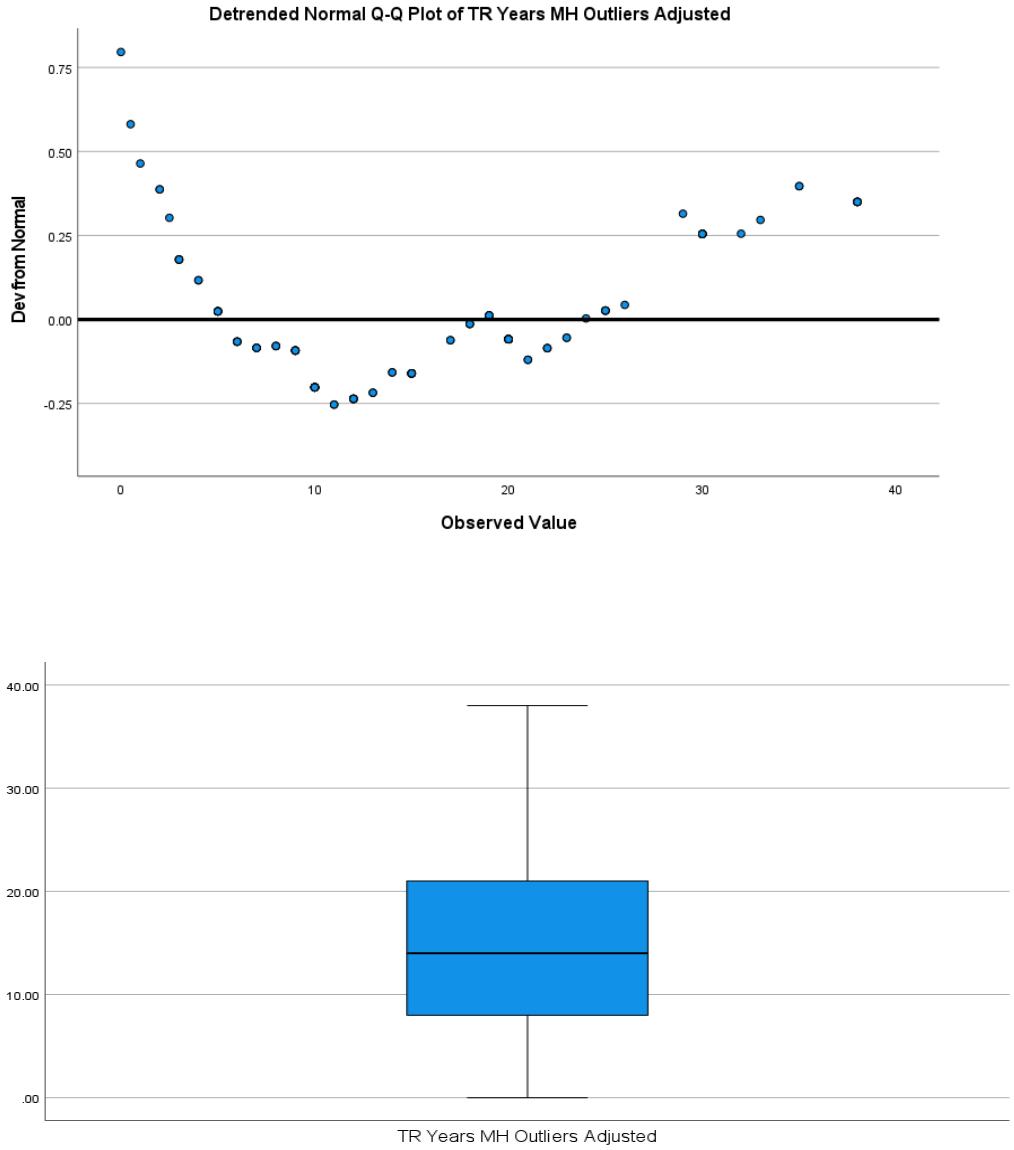
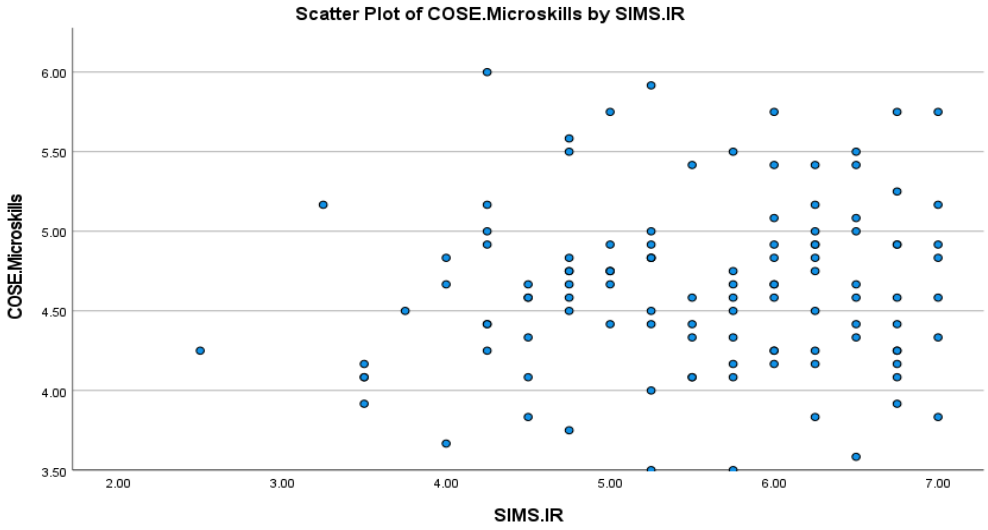
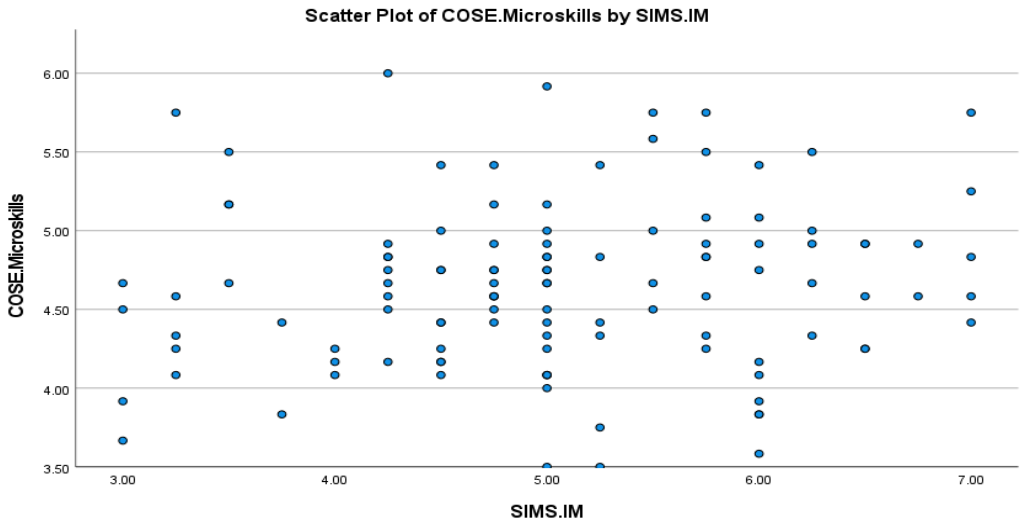
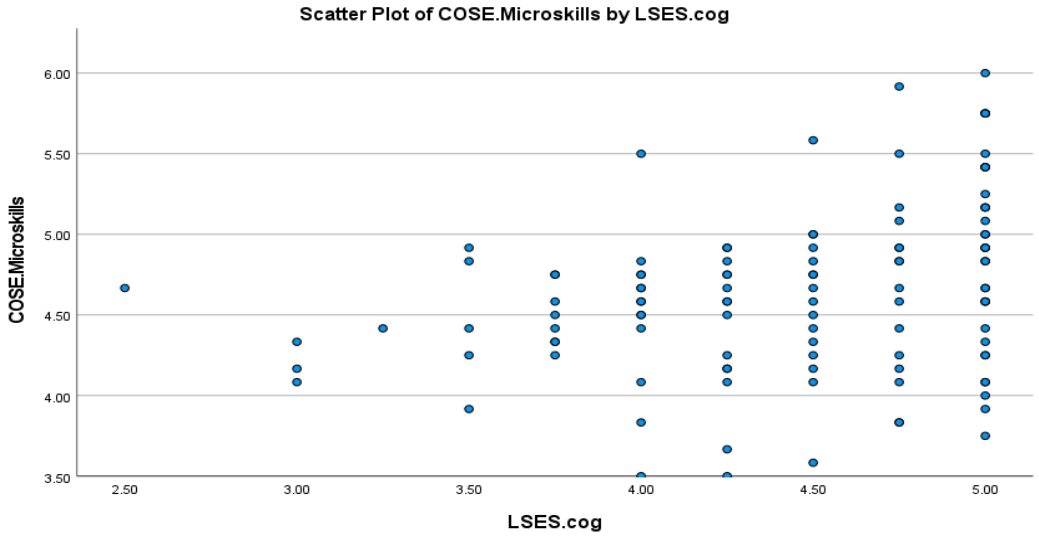
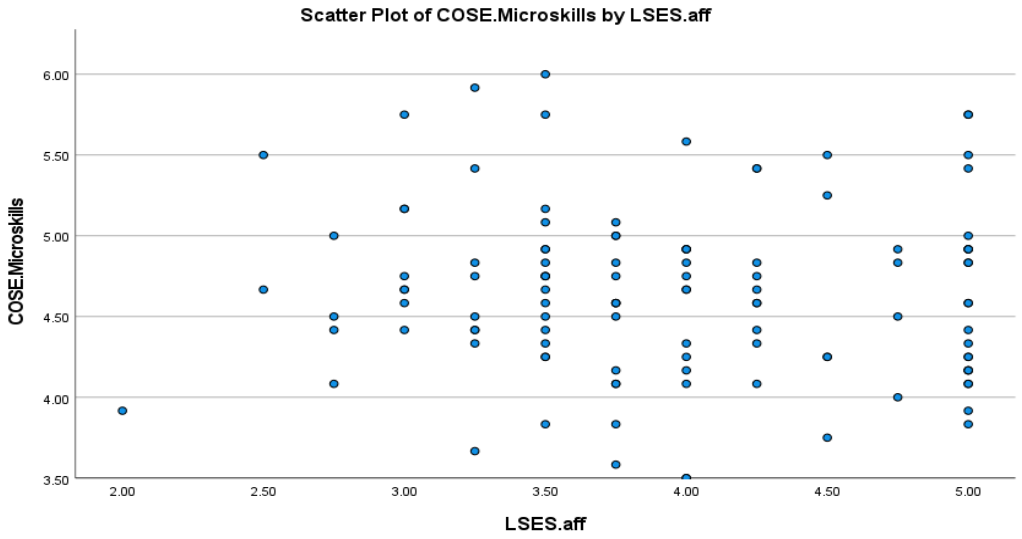


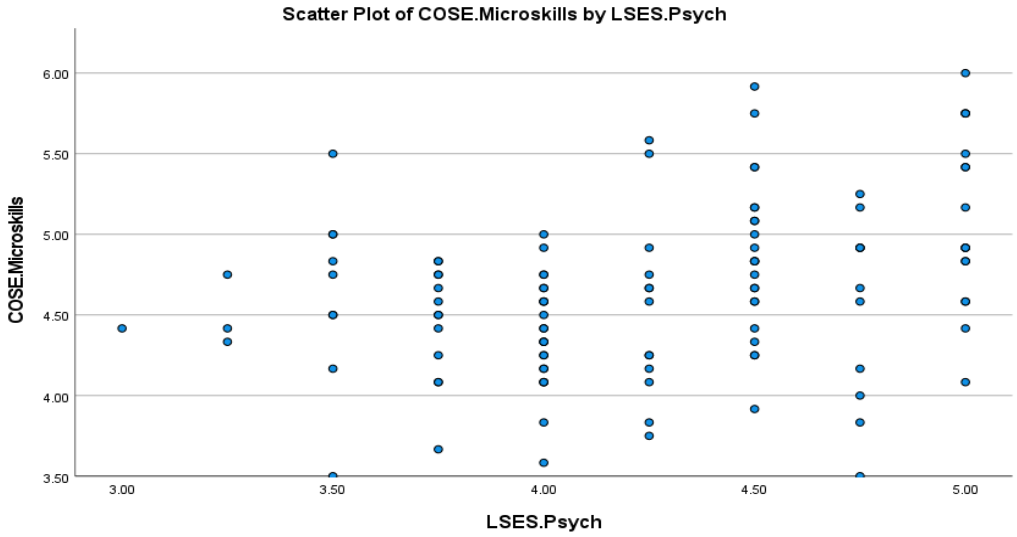
Figure 10 ***Scatterplots***

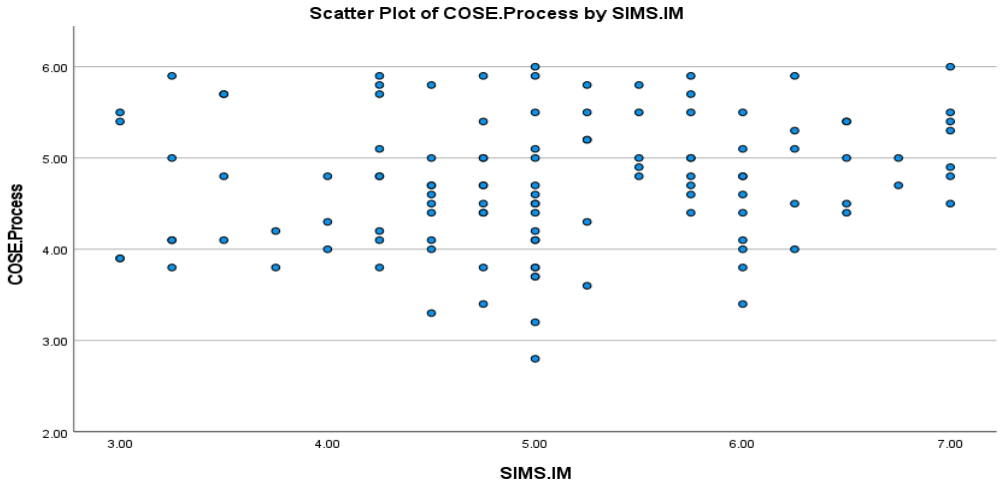

Scatter Plot of COSE.Microskills by SIMS.IR
COSE.Microskills
6.00
5.50
5.00
4.50
4.00
3.50
2.00
3.00
4.00
5.00
6.00
7.00
SIMS.IR

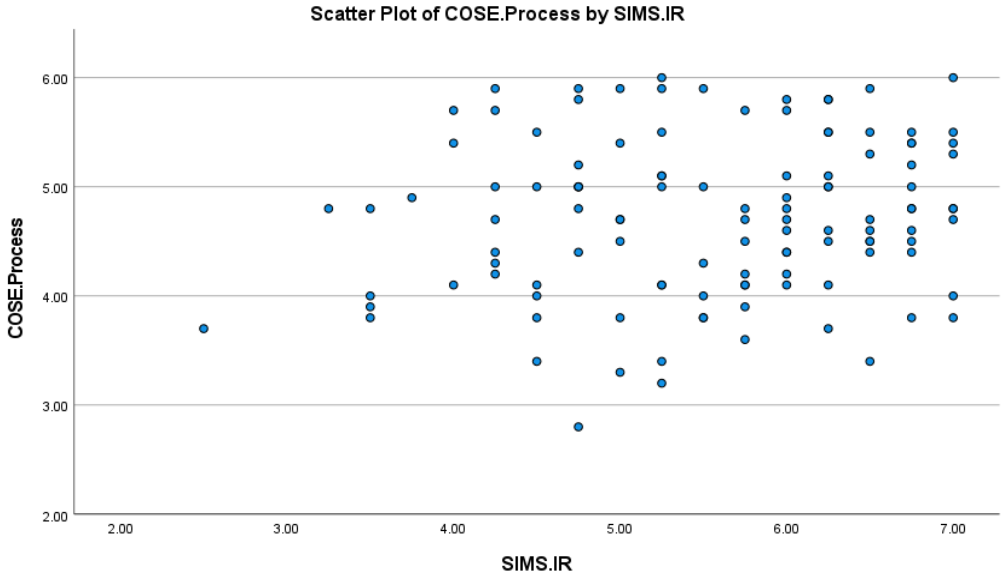

Scatter Plot of COSE.Microskills by SIMS.IM
COSE.Microskills
6.00
5.50
5.00
4.50
4.00
3.50
3.00
4.00
5.00
6.00
7.00
SIMS.IM

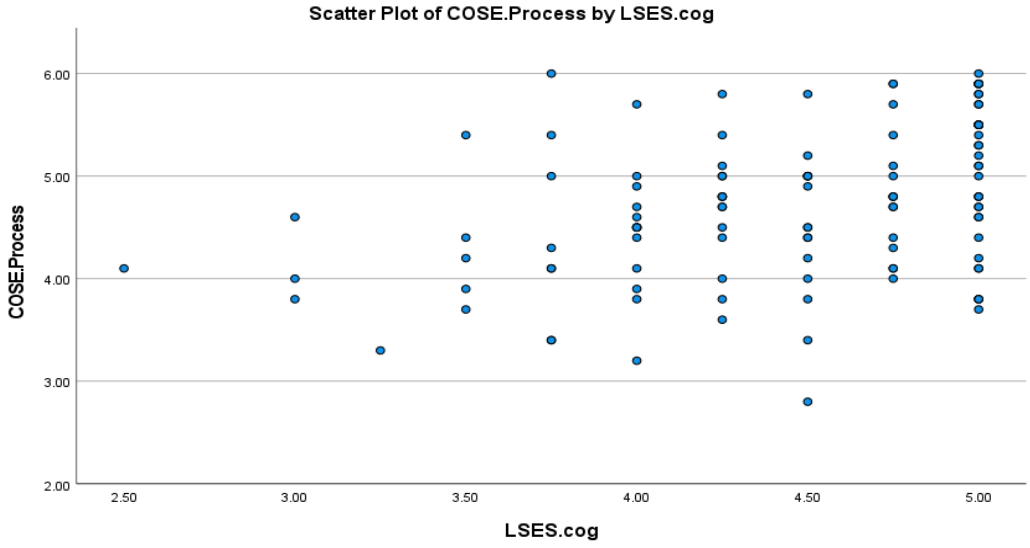

Scatter Plot of COSE.Microskills by LSES.cog
COSE.Microskills
6.00
5.50
5.00
4.50
4.00
3.50
2.50
3.00
3.50
4.00
4.50
5.00
LSES.cog

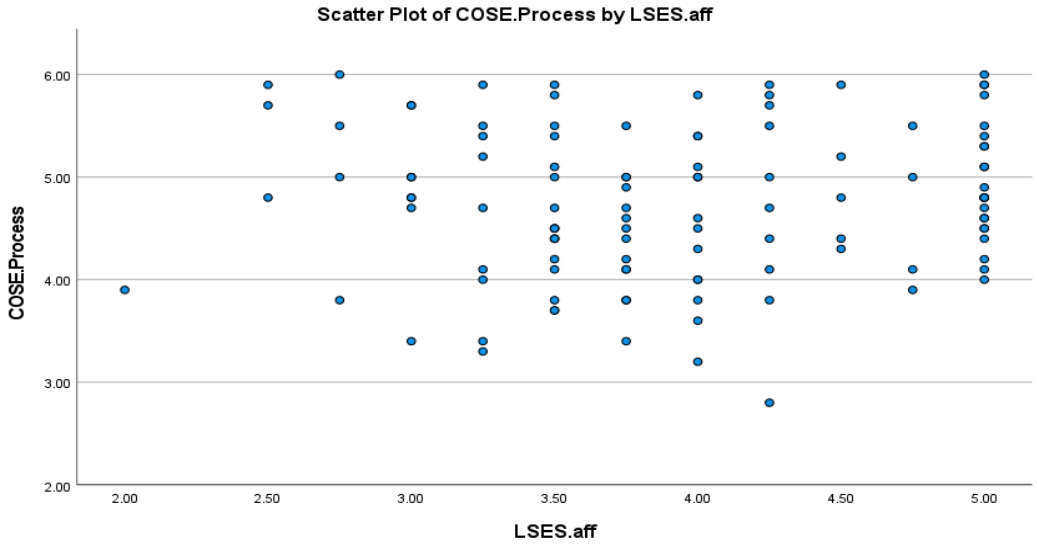

Scatter Plot of COSE.Microskills by LSES.aff
COSE.Microskills
6.00
5.50
5.00
4.50
4.00
3.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
LSES.aff

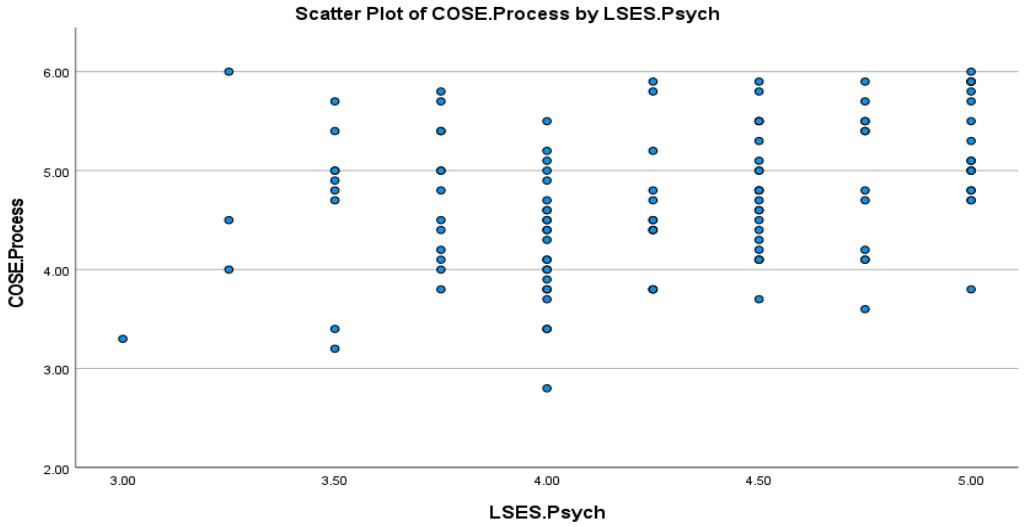

Scatter Plot of COSE.Microskills by LSES.Psych
COSE.Microskills
6.00
5.50
5.00
4.50
4.00
3.50
3.00
3.50
4.00
4.50
5.00
LSES.Psych

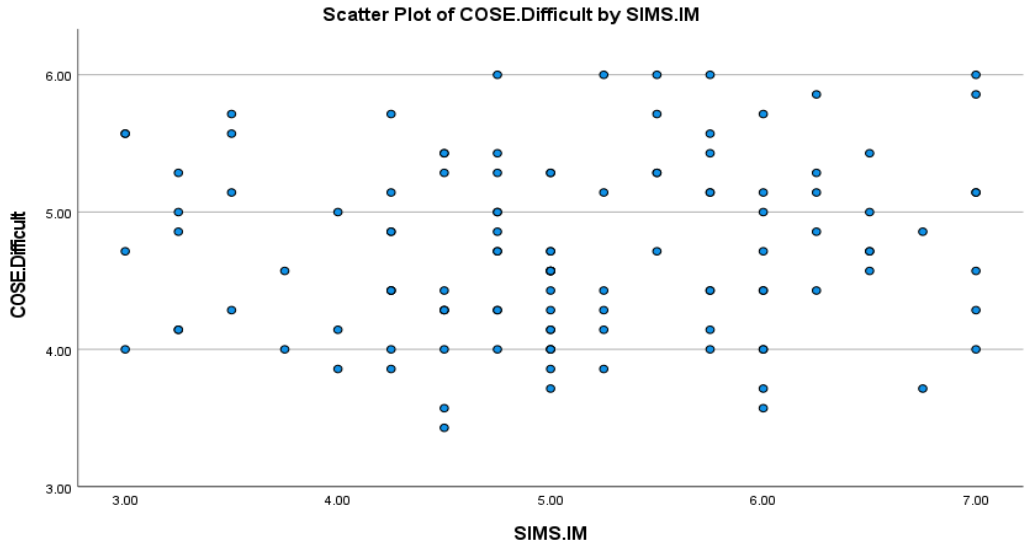

Scatter Plot of COSE.Process by SIMS.IM
COSE.Process
6.00
5.00
4.00
3.00
2.00
3.00
4.00
5.00
6.00
7.00
SIMS.IM

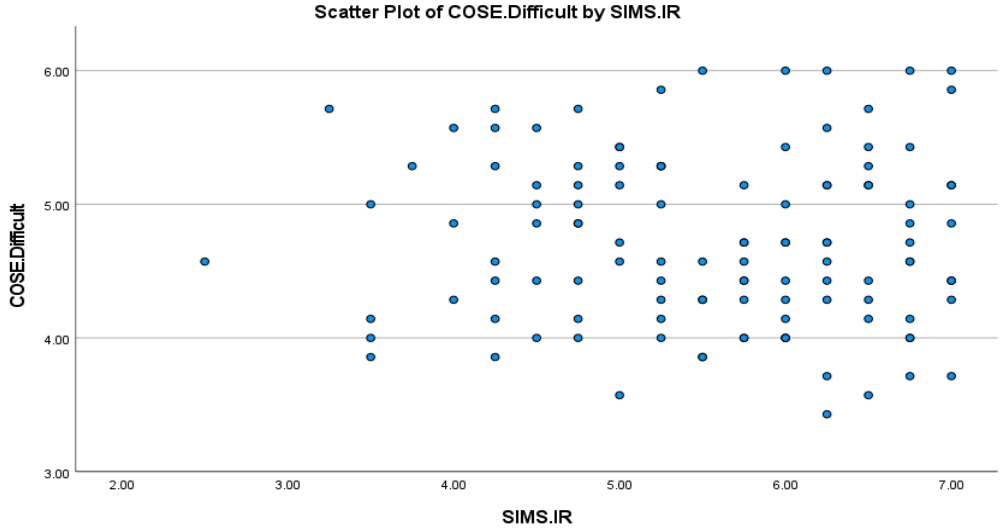

Scatter Plot of COSE.Process by SIMS.IR
COSE.Process
6.00
5.00
4.00
3.00
2.00
2.00
3.00
4.00
5.00
6.00
7.00
SIMS.IR

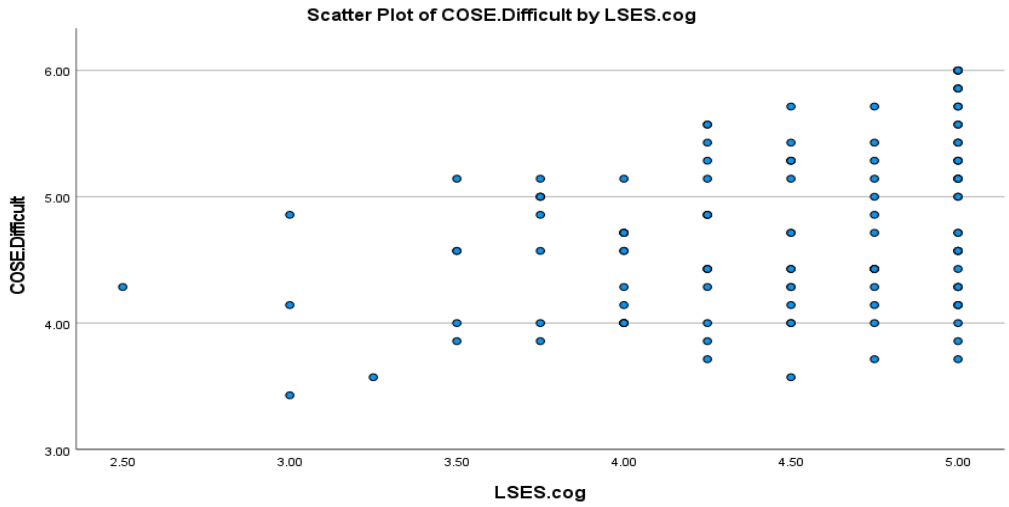

Scatter Plot of COSE.Process by LSES.cog
COSE.Process
6.00
5.00
4.00
3.00
2.00
2.50
3.00
3.50
4.00
4.50
5.00
LSES.cog

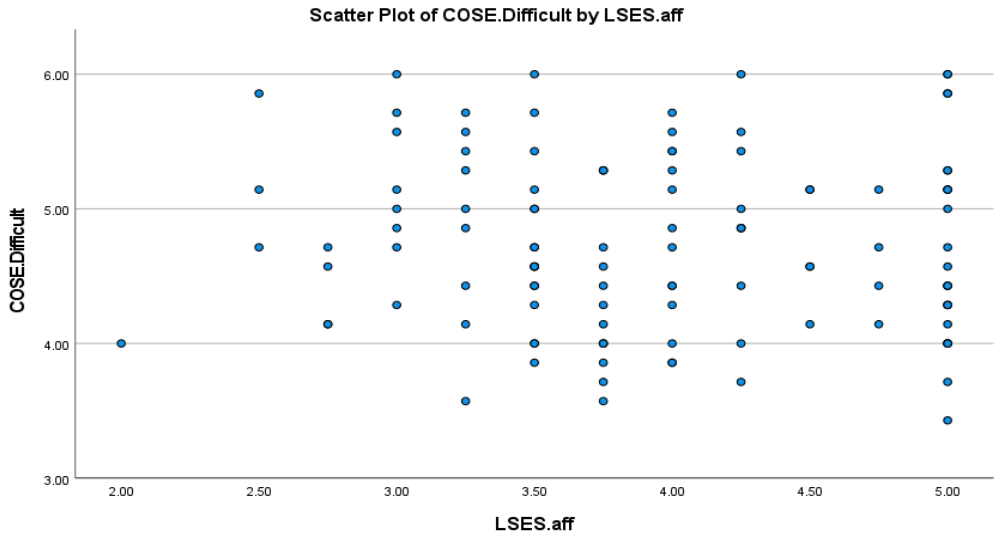

Scatter Plot of COSE.Process by LSES.aff
COSE.Process
6.00
5.00
4.00
3.00
2.00
2.00
2.50
3.00
3.50
4.00
4.50
5.00
LSES.aff

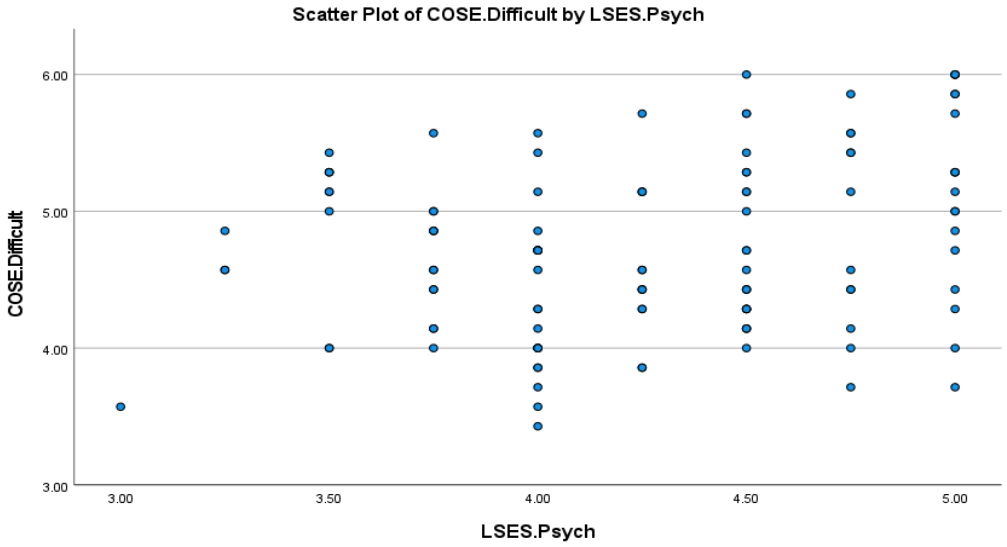

Scatter Plot of COSE.Process by LSES.Psych
COSE.Process
6.00
5.00
4.00
3.00
2.00
3.00
3.50
4.00
4.50
5.00
LSES.Psych

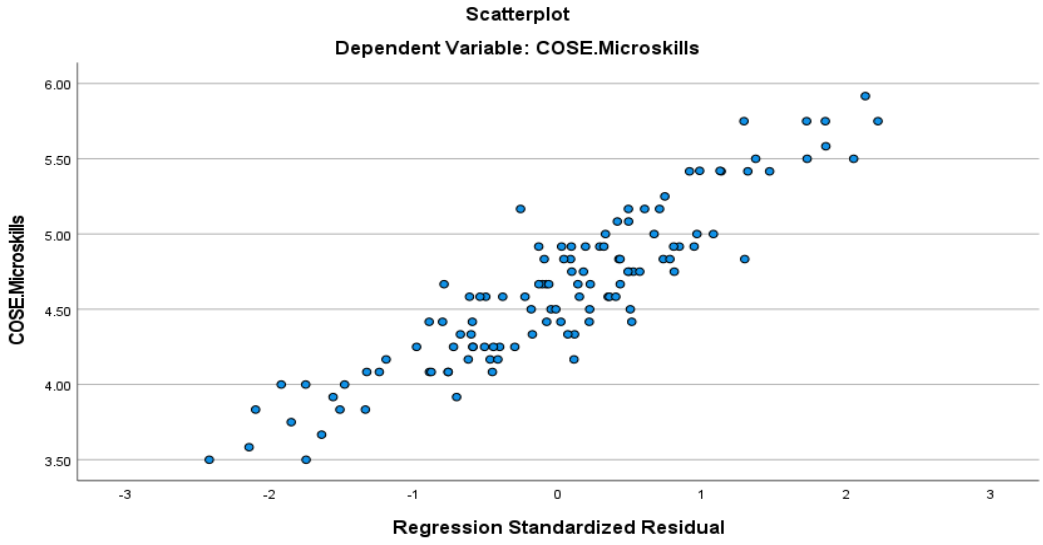

Scatter Plot of COSE.Difficult by SIMS.IM
COSE.Difficult
6.00
5.00
4.00
3.00
3.00
4.00
5.00
6.00
7.00
SIMS.IM

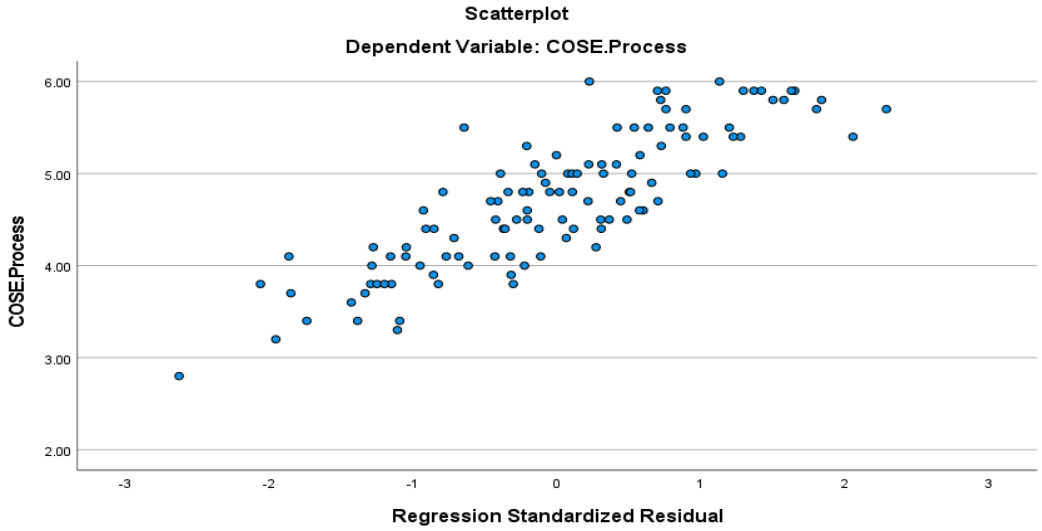

Scatter Plot of COSE.Difficult by SIMS.IR
COSE.Difficult
6.00
5.00
4.00
3.00
2.00
3.00
4.00
5.00
6.00
7.00
SIMS.IR

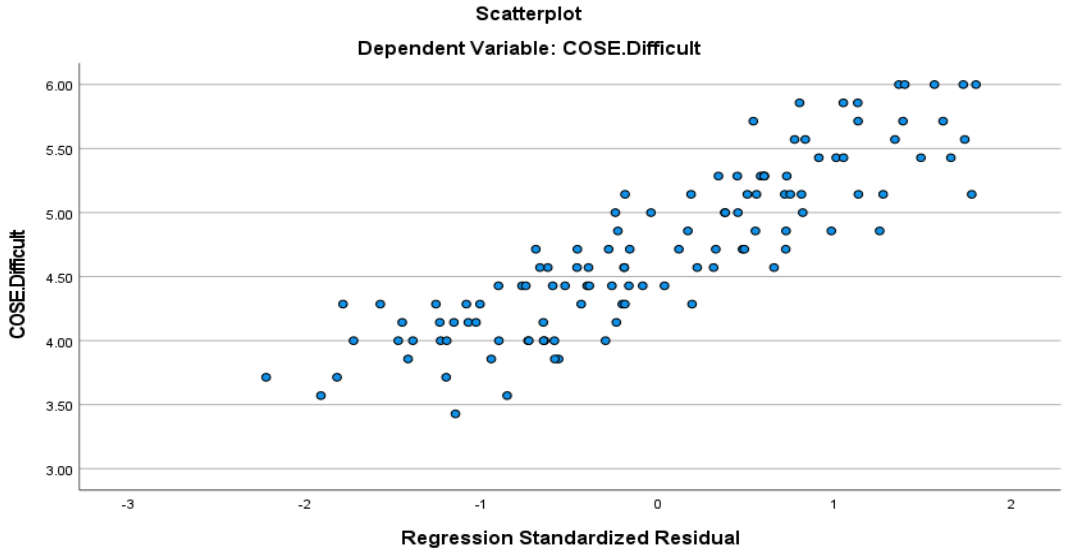

Scatter Plot of COSE.Difficult by LSES.cog
COSE.Difficult
6.00
5.00
4.00
3.00
2.50
3.00
3.50
4.00
4.50
5.00
LSES.cog


Scatter Plot of COSE.Difficult by LSES.aff
COSE.Difficult
6.00
5.00
4.00
3.00
2.00
2.50
3.00
3.50
4.00
4.50
5.00
LSES.aff


Scatter Plot of COSE.Difficult by LSES.Psych
COSE.Difficult
6.00
5.00
4.00
3.00
3.00
3.50
4.00
4.50
5.00
LSES.Psych


Scatterplot
Dependent Variable: COSE.Microskills
COSE.Microskills
6.00
5.50
5.00
4.50
4.00
3.50
-3
-2
-1
0
1
2
3
Regression Standardized Residual


Scatterplot
Dependent Variable: COSE.Process
COSE.Process
6.00
5.00
4.00
3.00
2.00
-3
-2
-1
0
1
2
3
Regression Standardized Residual


Scatterplot
Dependent Variable: COSE.Difficult
COSE.Difficult
6.00
5.50
5.00
4.50
4.00
3.50
3.00
-3
-2
-1
0
1
2
Regression Standardized Residual