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Personality Factors, Self-Care, and Perceived Stress Levels on Counselor Education and Counseling Psychology Doctoral Students

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PERSONALITY FACTORS, SELF-CARE, AND PERCEIVED STRESS LEVELS ON COUNSELOR EDUCATION AND COUNSELING PSYCHOLOGY DOCTORAL STUDENTS

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Doctoral students in Counseling Psychology and Counselor Education training programs are commonly thought to experience high levels of stress due to the nature of graduate school (Badali & Habra, 2003). Many (Blount & Mullen, 2015; Meyers, 2015; Moorhead, Gill, Minton, & Myers, 2012; Sawyer, 2013) argue that self-care is an important and necessary topic to discuss and integrate into graduate training. This study quantitatively explores aspects of personality, self-care, and perceived stress levels of graduate students in American Psychological Association (APA) accredited Counseling Psychology doctoral programs and Counselor Education doctoral programs accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). The rationale for this study is to gain a deeper understanding of doctoral students so that topics such as self-care may be addressed by doctoral programs in the future. It is imperative for doctoral students to create healthy self-care habits during training as those habits are likely to continue into their professional life after graduation. A total of 116 students completed a survey consisting of demographic information, self-care frequency questions, the Big Five Inventory, the Philadelphia Mindfulness Scale, the Emotion Regulation Questionnaire, Semantic Differential Scales, and the Perceived

Stress Scale. The data were analyzed using statistical computations including a hierarchical regression, correlations, independent-samples *t* tests and ANOVA to answer hypotheses.

The major findings in this study include the following: (a) there is an association between mindful acceptance and lower reported perceived stress level; (b) there is an association between higher use of expressive suppression and higher reported perceived stress; (c) there is a positive relationship between the personality factor Agreeableness and self-care frequency; (d) there is a negative relationship between the personality factor Agreeableness and reported perceived stress; and (e) there is a strong correlation between the personality factor Neuroticism and perceived stress. Results indicate there is a negative correlation between perceived stress and mindful acceptance, self-care frequency, and three personality factors, which are agreeableness, openness, and conscientiousness. This means that as mindful acceptance, self-care frequency, agreeableness, openness or conscientiousness increase, the reported perceived stress levels decrease. There are positive correlations with perceived stress and suppression and the personality factor neuroticism indicating that graduate students who report higher levels of neuroticism or expressive suppression also reported higher levels of perceived stress. This topic is important because it is likely that graduate students will continue to practice self-care strategies learned during their training program into their professional lives. Essentially, incorporating self-care into graduate programs could alleviate future impairment, burnout, and compassion fatigue. Based on the results of this study, implications, recommendations, and limitations are discussed.

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by

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TABLE OF CONTENTS

Table of Contents—Continued

Table of Contents—Continued

CHAPTER

Table of Contents—Continued

Table of Contents—Continued

APPENDICES

LIST OF TABLES

List of Tables—Continued

LIST OF FIGURES

CHAPTER I

INTRODUCTION

Statement of the Problem

Limited attention has been given to understanding the perceived stress and self-care of the graduate student population until recently. Counseling Psychology and Counselor Education graduate students commonly experience higher levels of perceived stress during their graduate training programs and often have reported minimal or no discussion addressing self-care throughout their training (Badali & Habra, 2003). Not only is it a professional responsibility, but it is also an ethical imperative for counseling graduate students to be educated and exposed to self-care strategies during their training to decrease the likelihood of impairment (Barnett & Cooper, 2009). Huprich and Rudd (2004) indicated no long-term studies have been conducted assessing how graduate level impairment affects professional level impairment. Impaired professionals likely did not become impaired all of a sudden, but rather were not considered competent during their graduate training (Forrest, Elman, Gizara, & Vacha-Haase, 1999). Stress management and self-care during graduate training is a topic that should be covered throughout the duration of a student's program. Literature (Barnett, Elman, Baker, & Schoener, 2007; Figley, 2002, Guy, 2000; Mahoney, 1997; Norcross & Guy, 2007; Wise, Hersh, & Gibson, 2012) indicates the need and importance of the field to focus on self-care, stress management, and stress prevention. To better understand graduate students and the need to address such topics, the following study has been conducted. This study has been built

off the foundation of a similar study with Clinical Psychology doctoral students conducted by Myers et al. (2012).

Purpose of the Study

The purpose of this current study is to further understand the association of personality factors, self-care strategies, and perceived stress. Graduate students are in an optimal time to learn self-care strategies and see how they can manage their perceived stress prior to entering the professional world. An expansion of the current literature and research on self-care is needed to further inform the fields of psychology and counseling. Recent research by Myers et al. (2012) focused on Clinical Psychology doctoral students to better understand perceived stress levels and self-care. They included variables such as sleep patterns, leisure time, perceived social support, emotion regulation, mindfulness, and perceived stress. Myers at al. suggested that future exploration of mediating variables connected with self-care, such as personality factors, is needed. As an expansion on Myers et al.'s suggestion, the current study used personality characteristics as measured by the Big Five Inventory (BFI). This study also followed suit of Myers et al. and use acceptance, awareness, cognitive reappraisal, and cognitive suppression as predictor variables. The outcome variable is the perceived level of stress. A hierarchical regression allowed for an understanding of the associative relationship between personality factors, self-care strategies, and perceived levels of stress. Results may help psychologists and counselor educators better understand perceived stress levels and the self-care techniques used by their graduate students. The following demographic variables were used: age, race, gender, year in program, annual household income, relationship status, care giving responsibilities, and weekly work hours. The

demographic variables are important because they assist with better understanding of self-care in the context of students' lives. While no research questions address the demographic variables, the data collected were utilized for post-hoc analyses.

Research Questions

1a. Do graduate students with a higher level of mindful awareness report lower levels of perceived stress after controlling for the effects of personality factors?

1b. Do graduate students with a higher level of mindful acceptance report lower levels of perceived stress after controlling for the effects of personality factors?

2. Do graduate students with a higher use of cognitive reappraisal rate mindfulness/meditation as more valuable versus worthless than graduate students with a lower use of cognitive reappraisal?

3. Do graduate students with a higher use of expressive suppression report higher levels of perceived stress after controlling for the effects of personality factors?

4. Do graduate students with a higher use of cognitive reappraisal report lower levels of perceived stress after controlling for the effects of personality factors?

5. Do graduate students who have a higher indication of agreeableness report lower scores of self-care frequency?

6. Do graduate students who have a higher indication of agreeableness report higher perceived stress scores?

Assumptions and Limitations

A major assumption of this research is that graduate students are a highly stressed population who are likely to carry their perceived stress into their professional career. It is assumed that due to a variety of factors, graduate students with higher perceived stress

levels are less likely to practice self-care strategies. Factors that may be associated with graduate student perceived stress levels include their use of emotion regulation techniques such as suppression or cognitive reappraisal. Other factors that may be associated with perceived stress and self-care include personality factors. A graduate student with a higher level of neuroticism (anxiety, excitability) may have a difficult time utilizing self-care strategies (Moorhead et al., 2012). A student who is highly agreeable as measured by the Big Five Inventory (BFI) may take on more work than he or she can manage resulting in less time for self-care.

This research can be very beneficial for the field of mental health; however, it is not without limitations. Some of the limitations of this research include:

- Sample size compared to population size of both Counseling Psychology and Counselor Education programs may limit generalizability.
- Data allows us to make only associations and not causations.
- The Self-Care Frequency created for use in this study was not subjected to psychometric tests of reliability or validity.
- Potential for limited diversity in samples.

Definitions

Agreeableness: Someone who can be described as loving and valuing others, helpful, and affectionate (Karaman, Dogan, & Coban, 2010).

Burnout and *Compassion Fatigue:* Both terms are used in this study to describe a graduate student or mental health professional who has extended beyond a reasonable level of perceived stress resulting in negatively affecting the ability to help clients.

Conscientiousness: Having ambition for success, planning ahead of time, responsibility, and self-discipline (Karaman et al., 2010).

Emotion Regulation: How you control or regulate your emotions with either cognitive reappraisal or expressive suppression (Gross & John, 2003).

Cognitive reappraisal – Refers to your emotional experience, or what you feel like inside (Gross & John, 2003). "Changing the meaning of an emotion-invoking situation" (Myers et al. 2012, p. 58).

Expressive suppression – How you show your emotions on the outside (Gross & John, 2003).

Extraversion: Someone who is energetic, talkative, excitable, and lively (Karaman et al., 2010).

Graduate Students: This study uses the term *graduate students* to include both Counseling Psychology and Counselor Education doctoral students unless otherwise indicated. Research regarding graduate students in a different field or a different degree level are indicated separately.

Incompetence: The inability to perform job duties in a competent manner which essentially negatively affects clients. May be the result of impairment, or lack of training.

Impairment: Defined by Forrest et al. (1999) as "diminished professional functioning attributable to personal distress, burnout, and/or substance abuse, and many authors extended the definition of impairment to include unethical and incompetent professional behavior" (pp. 631-632).

Mental Health Professionals: This study uses the term *mental health professionals* for those in both Counseling Psychology and Counselor Education who have graduated from a doctoral program.

Neuroticism: Someone described as having fear, depression, touchiness, anger, and negative emotions (Karaman et al., 2010).

Openness: Someone who may be considered as a dreamer, adventurous, brave, and curious (Karaman et al., 2010).

Self-care: Defined in a broad sense as well-functioning (Coster & Schwebel, 1997). This study uses the term as any general activity one does purposefully that contributes positively to his or her life. The definition can include anything physical, spiritual, emotional, or mental (Barnett & Cooper, 2009; Barnett, Elman, et al., 2007; Carroll, Gilroy, & Murra, 2008; Case & McMinn, 2001; Wise et al., 2012).

Stress: Defined broadly as what happens to a body when high levels of demands are placed on it repeatedly (Wise et al., 2012). This study uses the term *perceived stress* to include both perceived physical and perceived psychological stress, also referred to as external and internal. Sapolsky (2004) indicates that there are two types of stress. Eustress is considered a healthy form of stress which can be motivating, and distress is an unhealthy form of stress that can cause an influx of the hormone cortisol.

Summary

Further understanding the association between perceived stress, self-care, and personality factors is needed to better prepare graduate students for the field of mental health. Due to high levels of perceived stress commonly experienced by graduate students, having a better understanding of their self-care and perceived stress will allow

academic programs to better meet the needs of students in mental health fields and prepare them for healthy professional careers. Self-care and perceived stress during graduate training is a topic that has received a paucity of attention and this study shows the importance of making it a priority while building on the previous research of Myers et al. (2012).

CHAPTER II

REVIEW OF RELEVANT LITERATURE

As indicated in Chapter I, this study aims to further understand the perceived stress levels and self-care of Counseling Psychology and Counselor Education doctoral students. The overarching goal is to allow training programs to become familiar with the experiences of graduate students in order to facilitate better self-care and stress management. Graduate students are thought to experience high levels of stressors (Badali & Habra, 2003) which increases the importance for this topic to be addressed early in graduate training. Addressing this topic early is beneficial so appropriate self-care strategies can be used in the professional world on a post graduate basis.

To better understand the perceived stress and self-care patterns of Counseling Psychology and counseling education graduate students, a search for scholarly literature was completed using these databases:

- PsycArticles
- PsycBooks
- PsycCritiques
- PsycExtra
- PsycInfo
- ProQuest (searches all ProQuest databases).
- SAGE Journals Online

Key phrases/words included: *psychology, counselor, graduate, counselor-in-training, student, self-care, stress, perceived stress, burnout, graduate students and stress,* and *graduate students and self-care*. The time period reviewed included January 1975 through May 4, 2015. Including only scholarly, peer-reviewed articles, the search phrases brought a total of 346 items.

Counseling psychology and Counselor Education graduate students struggle with unique stressors and are not exempt from the negative effects of minimal self-care (Barnett, Elman, et al., 2007). For consistency purposes in this study, all Counselor Education and Counseling Psychology professionals will be coined *mental health professional* to be inclusive of both fields. The term *graduate students* will be used to include both Counselor Education and Counseling Psychology doctoral students. Recent reviews of literature (Coster & Schwebel, 1997; Mahoney, 1997; Stevanovich & Rupert, 2009) show self-care typically has been researched using samples of licensed professionals as opposed to graduate students. Thus, there exists a gap in the literature. Psychology graduate students who do not routinely engage in self-care may experience burnout as expressed in opinionated articles (Badali & Habra, 2003; Barnett, Elman, et al., 2007; Forrest et al., 1999), may be incompetent (Forrest et al., 1999), and may experience trainee impairment (Barnett, Elman, et al., 2007; Forrest et al., 1999; O'Connor, 2001; Stevanovich & Rupert, 2009). Barnett, Elman, et al. (2007) urge the field of mental health to see the importance of self-care as an ethical duty that should start early in graduate training. Self-care is also considered a moral imperative (Carroll et al., 2008).

As impairment and incompetence can be the result of personal distress and burnout, it is imperative that mental health professionals learn about the importance of self-care early in their graduate training. Self-care has received a paucity of attention in the Counseling Psychology and Counselor Education literature and research, which is why I agree with Wise et al. (2012), who contend that it is time for the profession of psychology to take a close look at well-being and self-care. The purpose of this literature review is to define self-care as used in research; to provide an understanding of ethical standards that pertain to self-care; to summarize previous research regarding self-care for Counseling Psychology professionals, Counselor Education professionals, and graduate students; to explore other work in the field of counseling related to self-care; and to offer future research ideas.

Defining Self-Care and Perceived Stress

Self-care, defined broadly, and in a literal sense, refers to what has been coined as *well-functioning* (Coster & Schwebel, 1997). Well-functioning has been interpreted by some (Barnett & Cooper, 2009; Barnett, Elman, et al., 2007; Carroll et al., 2008; Case & McMinn, 2001; Wise et al., 2012) as taking care of oneself either mentally, physically, emotionally, spiritually, or all of those depending on the individual. Well-functioning may be considered a form of stress prevention and stress management. Wise et al. (2012) broadly define stress as what happens to a body when high levels of demands are placed on it repeatedly, whether those demands are internal or external. Stress is experienced uniquely by each individual; as a result, self-care strategies may also be unique. According to Sapolsky (2004), stress that is considered purely psychological can be the most harmful, which is why this study examines perceived stress. The stress response

causes the body to stay activated in a heightened state of alarm, resulting in high blood pressure, a persistent increase in the hormone cortisol, a drop in the immune system, and the depletion of stored energy (Sapolsky, 2004). The long-term effects of perceived stress can be detrimental for psychologists personally and professionally, which is why Barnett, Elman, et al. (2007) suggest that mental health professionals engage in positive, career sustaining behaviors. Positive, career sustaining behaviors consist of balancing personal and professional aspects of life by taking breaks from work, eating a balanced diet, staying physically active, having diverse caseloads, and attending to emotional and spiritual needs, to name a few (Barnett, Elman, et al., 2007). The variables selected for this study to assess self-care frequency were based on many of the indicated positive career sustaining behaviors and include: (a) therapy, (b) mindfulness/meditation, (c) physical activity, (d) healthy eating, (e) healthy sleep habits, (f) having a support system, (g) religious or spiritual practices, (h) journaling, and (i) using emotion regulation.

Like clients, self-care strategies that may work well for one mental health professional may not be effective for another. In essence, some clients benefit from journaling, while others benefit from meditation, and some just need to talk. Barnett, Elman, et al. (2007) suggest creating a graduate training climate that supports self-care because it would be beneficial to graduate students in training, individual professionals, and the field of mental health as a whole. Barnett and Cooper (2009) contend there is a need to create a culture of self-care with focus beginning at orientation of graduate training and continuing throughout the professional's career. Barnett and Cooper stress the importance of accreditation standards to address self-care and burnout in graduate

programs. This is why only accredited programs were used in this study. Information learned and integrated during graduate training is likely to transfer into professional practice, thus leading to the need to address self-care during graduate training. Doctoral-level graduate students need to understand the physical, emotional, and mental effects of perceived stress. Then they can begin to understand positive ways to cope with perceived stress and to find balance between being a student and an early career professional. Supervision can be an important aspect of graduate training that encourages student self-care through both direct and indirect modeling (Thompson, Frick, & Trice-Black, 2011). A positive supervisory working alliance with graduate students may be a predictor in their help-seeking/self-care behaviors (Dearing, Maddux, & Tagney, 2005).

Ethical Considerations

Counseling psychologists may do a disservice to clients if they take on more work or personal activities than can be handled. Several aspects of the *Ethical Principles of Psychologists and Code of Conduct* (American Psychological Association [APA]; 2002) address the importance of self-care. Principle A urges psychologists to have an awareness of how their own health can affect clients. Barnett, Doll, Younggren, and Rubin (2007) indicate Principle A speaks directly to the emotional competence of a clinician which can be compromised if the clinician is overwhelmed with stress, burnout, depression, substance abuse, or a myriad of other emotional difficulties. In addition, Standard 2.06, Personal Problems and Conflicts, elaborates on the above principle urging psychologists to refrain from engaging in new activities when it could affect their work. The standard also suggests that when psychologists realize their work is affected, they do what is needed and take appropriate measures, such as seeking supervision, personal therapy, or

decreasing their work load (APA, 2002). Barnett and Cooper (2009) indicate it is the responsibility of individual psychologists to make sure they are participating in self-care and are functioning to the best of their ability for their clients. Barnett, Elman, et al., (2007) encourage the profession of psychology to utilize stress management resulting in effective and ethical treatment of clients. They contend that due to the variety of factors practicing psychologists must address, self-care is essential for effective and ethical practice. Barnett, Doll, et al. (2007) agree that individual clinicians must be responsible for finding balance between personal and professional activities, having an awareness of distress signs, and finding a way to focus on self-care. However, research (Barnett, Elman, et al., 2007) indicates that many psychologists do not seek assistance when self-care concerns are affecting clients. The lack of self-care may be due to believing the myths that caregivers must present an image of strength and should not express emotional needs. Furthermore, psychologists may be less likely to confront colleagues when concerns of impairment arise (Barnett, Elman, et al., 2007).

The American Counseling Association (ACA) addressed the concerns of mental health professional self-care in 2003 with the creation of a Task Force on Impaired Counselors (Lawson & Venart, 2003). The ACA code of ethics C.2.d. encourages counselors to monitor their counseling effectiveness and seek consultation or supervision when needed (ACA, 2006). This could also mean to have awareness of stress levels and self-care as those factors may negatively affect counseling effectiveness. Code C.2.g. directly discusses counselor impairment and expectations for counselors with problems of impairment. Code F.5.b. directs both students and post graduate supervisees to seek supervision and guidance when they feel concerns are reaching the level of impairment

due to stress (ACA, 2006). This research encourages all students and early career professionals to seek supervision and guidance prior to impairment and as an ongoing self-care/stress-management skill.

When mental health professionals take on too much, both personally and professionally, it can and does often lead to professional impairment placing clients at risk. O'Connor (2001) notes that in the right circumstances, with heightened levels of vulnerability and a lack of self-care, many psychologists can experience distress. O'Connor discusses that the responsibility lies partly on the individuals to acknowledge and take action when needed. Barnett and Cooper (2009) point out that practicing self-care is an ethical and professional responsibility for psychologists. This risk may be higher for Counseling Psychology graduate students, as opposed to established psychologists, as graduate students are attempting to gain a professional identity while attempting to manage educational responsibilities. Badali and Habra (2003) note there are unique struggles for graduate students regarding self-care because of the demands of graduate school. Students tend to push themselves hard in graduate school which further emphasizes the need to take care of themselves, avoid potential burnout, and remain ethical (Badali & Habra, 2003).

Counseling psychology and Counselor Education graduate students are trained to become competent professionals; thus, graduate programs have an ethical gate-keeping process so that those who are not competent (considered impaired) do not enter the field. The American Psychological Association *Ethical Principles of Psychologists and Code of Conduct* Section 2 addresses practicing within boundaries and ongoing development of competence (APA, 2002). Wise et al. (2012) indicate competence is the connection

between self-care and ethics. According to Forrest et al. (1999), impairment is "diminished professional functioning attributable to personal distress, burnout, and/or substance abuse, and many authors extended the definition of impairment to include unethical and incompetent professional behavior" (pp. 631-632). The authors note that current professionals who are considered impaired, most likely never met the professional standards throughout their graduate training programs. Their impairment likely had not previously been detected. The perspective of Forrest et al. indicates impairment may go unnoticed until an incompetent or unethical decision is made that negatively affects a client.

Guy (2000) indicated hours after hours of seeing clients can leave counseling mental health professionals feeling a lack of confidence and energy or what Figley (2002) may consider compassion fatigue. Guy stated that the longer a mental health professional has been in the profession the greater a chance of feeling worn out. To combat the lack of confidence and energy, Guy contends that professionals search for someone who can fulfill the need for admiration and nurturance, or what Guy labels as mirroring. However, the problem is when mental health professionals may inappropriately use their clients as mirrors to make themselves feel better, resulting in an ethical concern. Using clients as mirrors results in harm to the client and an inappropriate use of the therapeutic relationship (Guy, 2000). Thus, Guy suggests the field of mental health become intentional with healthy mirroring. Just as Figley suggested psychologists become purposeful in discussing compassion fatigue and self-care, Guy (2000) suggests mental health professionals become purposeful in finding appropriate people to fulfill mirroring needs as a form of self-care.

Theoretical Framework

Carroll et al. (2008) explored the concerns surrounding self-care and women psychologists, emphasizing the further need for self-care to be addressed and encouraged in graduate training. Due to the cultural experiences of women, care of others typically precedes self-care (Carroll et al., 2008). Carroll et al. discuss the functions of self-care and main categories of self-care, and propose a classification system of clinicians. The authors indicate the functions of self-care fall into three different categories: "(a) protection of the therapist by reducing occupational hazards such as burnout, (b) enhancement of therapy by modeling healthy behavior, and (c) protection of the client by reducing risks of ethical violations" (pp. 135-136).

Carroll et al. (2008) also defined four main categories of the most used self-care activities which include (a) intrapersonal work, (b) interpersonal support, (c) professional development and support, and (d) recreational/physical activities. Intrapersonal work involves maintaining a balanced lifestyle and increasing awareness through personal therapy, groups, and adhering to values. Interpersonal support refers to maintaining healthy relationships with family, spouse, and colleagues. Professional development can consist of scheduling breaks, maintaining a manageable caseload, continuing education, and case consultation. Lastly, recreational/physical activity includes anything non-work related such as leisure activities, exercise, hobbies, reading, and vacations (Carroll et al., 2008).

Carroll et al. (2008) classify self-care of clinicians with three different positions. First, the aware/committed clinician is aware of his or her own mental health issues and believes in the importance of self-care for both personal and professional reasons such as

protecting client welfare. The aware/committed clinician likely incorporates self-care activities on a regular basis. Second, the aware/uncommitted clinician is aware of mental health issues but is not actively working toward self-care regularly. He or she may believe client care is more important than self-care and may be unwilling to accept the effectiveness of self-care. Cushway (1996) indicates clinicians may develop an unhealthy pattern if they continually put their care last. Lastly, unaware/uncommitted clinicians are oblivious to any mental health issues they may have and are at a high level of risk for ethical concerns (Carroll et al., 2008).

Carroll et al. (2008) conclude with recommendations for commitment to self-care to take place at both an individual and systematic level. Incorporating self-care into graduate training can help to enhance the sensitivity and awareness of clinicians' own mental health concerns and understand detrimental effects to clients. The authors advocate for use of Cushway's 1996 model integrating supervision with self-care (Carroll et al., 2008).

Cushway (1996) proposed a model to alleviate the distress of mental health trainees and teach self-care. The model is comprised of five components: (a) philosophy, (b) awareness, (c) formal teaching, (d) structural, and (e) support systems. Specifically, this model encourages trainers to normalize stress and model appropriate behaviors for their trainees. Cushway encourages trainers to adopt a philosophy of self-care like what the field of mental health preaches as care for clients. Part of the philosophy aspect of this model is raising awareness among supervisors and other professionals. Formal teaching allows trainees to be educated on how they can incorporate self-care into their professional practice. The structural component allows for flexibility in educating

trainees and adjusting to their learning needs. The last component, support, is encouraged to happen through the use of two different delivery means. Individual supervision throughout specific practicum courses as well as a voluntary participation in a personal awareness group remaining consistent throughout the duration of training with facilitators outside of the program (Cushway, 1996). Cushway contends that trainers need to be as compassionate to those in training as to the clients served by the field of mental health. Once a climate of self-care is created within a training program, it is more likely trainees will carry their developed coping skills and stress management for the duration of their career. Implementing self-care during training programs can create a positive chain reaction for the field of mental health.

Figley (2002) addresses the unique nature of burnout (compassion fatigue) for mental health professionals. Figley proposes a Compassion Stress and Fatigue Model to assist psychotherapists in understanding how burnout and compassion fatigue can occur as well as what can be done for prevention. The premise of the model is that empathic ability connected with exposure to clients, empathic concern, empathic response, residual compassion stress, prolonged exposure, and traumatic memories can lead to compassion fatigue. Figley defined compassion fatigue as the inability to be compassionate to others due to chronically bearing the suffering of others. The degree of unexpected life disruptions (e.g., changes in schedule, illness, personal or professional responsibilities) outside of clients can always exacerbate compassion fatigue. Two mitigating factors for prevention of compassion fatigue in the model are disengagement and work satisfaction. Using positive disengagement between client sessions and taking extended breaks (i.e., vacations) from clients are important to prevent compassion fatigue. Professionals with

higher levels of work satisfaction were less likely to suffer from compassion fatigue (Figley, 2002). Figley contends one of the reasons compassion fatigue continues to affect mental health professionals is the lack of discussion with colleagues about compassion fatigue. If mental health professionals begin to openly discuss compassion fatigue and self-care in the field of psychology, there may be a decrease in burnout rates.

Wise et al. (2012) offer an expansion of the functioning of psychologists by focusing on ethics, self-care, and well-being, which complement the work of Guy (2000) and Figley (2002). In an effort to re-conceptualize self-care using the stress-distress continuum, Wise et al. suggest four foundational principles psychologists focus on: (a) flourish instead of survive, (b) be intentional toward self-care, (c) reciprocate, and (d) integrate self-care into mental health professionals' lives as opposed to adding it. To expand the principles, Wise et al. first describe how psychologists should work on flourishing both personally and professionally and not just maintaining a standard of survival. Secondly, psychologists should be purposeful and intentional towards self-care techniques chosen. Third, psychologists should understand helping relationships are reciprocal and expectations for client growth cannot come without psychologist's growth. Lastly, self-care should not feel like a burden; therefore, psychologists should work to integrate into already busy schedules instead of adding extra time on. The authors indicate the four foundational principles are the *what* of self-care while positive psychology is considered the *how*. Wise et al. note that self-care is not always easy, but the benefits outweigh the costs.

Research Review

Mental Health Professional Self-Care

There is limited research on stress and the self-care practices of psychology graduate students. More research has been conducted pertaining to psychologists' impairments such as substance abuse and inappropriate relationships with clients. Mahoney (1997) examined the self-care patterns, through self-report of 155 psychotherapy practitioners attending a professional conference; the response rate was 48%. Of those responses, 84 were women, 70 were men and 1 did not report gender. The majority of participants had a master's degree or a doctorate with approximately 6% of the respondents reporting having only an undergraduate degree. The highest-ranking personal problems were fatigue and emotional exhaustion. Other concerns noted were anxiety, depression, disillusionment about the profession, feelings of isolation, and interpersonal relationships. The least noted problems were substance abuse and somatic concerns. Many of the participants read for pleasure, took vacations, engaged in physical exercise, and attended events. Over half of the practitioners had participated in therapy. Other topics about therapy were explored, such as concerns about the financial investment of personal therapy, concerns with accessibility, value for the practitioner, embarrassment of being a client, and reluctance to enter therapy due to negative experiences in the past. Data showing that mental health professionals may be engaging in self-care practices more often than previously reported are a positive outcome of this study. Limitations of this study are the self-selection of respondents and the self-report nature of the instrument used.

Coster and Schwebel (1997) used both qualitative and quantitative approaches to assess information on psychologists' ability to "function well" (p. 1). The term *well-functioning* was defined as the enduring quality pertaining to personal and professional stress that exists across the period of a professional's functioning. For the first study, six psychologists considered to be well-functioning were referred and interviewed. An equal number of psychologists represented both genders and represented both suburban and urban centers. All completed their post-doctoral training no less than 10 years prior to the study. Ten themes emerged from the interviews that participants believed contributed to their well-functioning: (a) peer support, (b) stable personal relationships, (c) supervision, (d) a balanced life, (e) graduate department of school, (f) personal psychotherapy, (g) continuing education, (h) family of origin, (i) costs of impairment, and (j) coping mechanisms.

The second study used a random survey method to collect data from 339 psychologists from the New Jersey Psychological Association. The measures used were a demographic questionnaire, Impairment Questionnaire, and the Well-Functioning Questionnaire (Coster & Schwebel, 1997). The results of the study indicated seven top ranked items as being important to well-functioning: (a) self-awareness, (b) personal values, (c) balance between personal and professional, (d) relationship with spouse/family, (e) vacations, (f) relationships with friends, and (g) personal therapy. Coster and Schwebel (1997) found in both studies that psychologists were closely in agreement about the need to manage stressors to maintain well-functioning. Self-awareness/monitoring and personal values were found to contribute the most to well-functioning status. Coster and Schwebel contend that impairment is likely not the result

of deficiency in skills but rather a deficiency in coping resources. Gender differences were reported; women rated supervisory and educational experiences higher than men. Coster and Schwebel emphasized four major areas for consideration to negate impairment: (a) interpersonal support, (b) intrapersonal activities, (c) professional and civic activity, and (d) self-care.

The authors suggest future research include a plan for career-long impairment prevention experiences as early intervention is important. Results of the two studies (Coster & Schwebel, 1997) are comparable to the prevalence of distress in a sample of APA members reported by Guy, Poelstra, and Stark (1989). Limitations in the first study were the non-random population sample as the participants were personal referrals. Neither study allowed for geographical considerations.

Schwebel and Coster (1998) surveyed the heads of 107 professional psychology programs accredited by the APA. The goal was to understand what the program heads have done or hope to do programmatically related to well-functioning of graduate students. The Well-Functioning Questionnaire (Coster & Schwebel, 1997) was used. Schwebel and Coster (1998) used data from Coster and Schwebel (1997) to compare the results of the studies. Some of the differences found include the belief that existential and personal factors were most important for well-functioning of psychologists. Program heads gave less weight to supervision and experiential aspects of the graduate program. The professional psychologists gave a higher rating of importance to personal therapy, personal values, vacations, and informal peer support compared to the program heads. Program heads rated graduate education and training higher than practitioners, whereas practitioners rated personal and career related items higher. Four themes emerged from

program heads' responses to important elements of well-functioning: (a) self-awareness, (b) balanced lifestyle, (c) personal values, and (d) relationships. The professional psychologists emphasized personal therapy over self-awareness. Schwebel and Coster suggest that changes to programs be made to achieve both the didactic goals of graduate school but also to work on enhancing personal and existential goals. Limitations of this study were self-report questionnaires and the geographic location of participants.

Case and McMinn (2001) examined the connection between spiritual coping and well-functioning in psychologists. The authors contend that while the majority of psychologists experiencing distress are able to cope effectively, a small percentage do not and therefore are considered impaired. Research had not previously addressed spirituality in the context of well-functioning for psychologists. The sample size of the study consisted of 400 psychologists. The Psychologist Professional Functioning Questionnaire was used specifically for this study which contained sections with demographic questions, well-functioning questions, distress, coping behaviors, and religious coping skills. Results showed no impact of spiritual coping skills with reported distress. Two groups were formed in this study consisting of a less religious group and a more religious group. While the groups had minimal differences on individual items, overall it was found the more religious group experienced more distress related to religious problems. The more religious group indicated greater use of clergy, prayer, and meditation as a coping skill overall.

Case and McMinn (2001) state future research should include a qualitative analysis to understand the connection between how and why religious connections can possibly contribute to well-functioning. The authors suggest students who enter graduate

programs with strong religious beliefs utilize coping skills that emphasize religious practices (Case & McMinn, 2001).

Stevanovich and Rupert (2009) surveyed 485 psychologists looking at the work-family spillover and satisfaction for psychologists. The authors used demographic measures, Maslach Burnout Inventory-Human Services Survey, Family Stressors and Enhances for Psychologists Satisfaction with Life Scale, and Family Support Scale. The findings were contrary to their hypothesis: Stress related to work as a psychologist did not negatively spillover into family life. However, Stevanovich and Rupert found that emotional exhaustion at work did lead to less life satisfaction, less family support, and more family stress. Positive spillover was also found to occur. When positive spillover occurred, psychologists reported having greater life and family satisfaction (Stevanovich & Rupert, 2009). The authors indicated that to maximize the positive spillover, more attention needs to be paid to the stressful aspects of a psychologist's job so emotional reactions can be understood and controlled. The sample size was a strength in this study. The study had similar demographics to the APA member population consisting of 50% female and a mean age of 54.1. The sample is also a limitation as it was composed of primarily White doctoral-level psychologists. Also, the authors used a survey method with a fairly new measure of spillover, making it difficult to generalize or draw conclusions.

Bearse, McMinn, Seegobin, and Free (2013) examined the barriers for psychologists in seeking their own mental health care. Previous studies furthered knowledge in the field of psychology about why psychologists seek mental health care and even more explored the outcome but no previous studies have examined the barriers.

Bearse et al. indicate psychologists may be deterred from seeking their own therapy for a variety of reasons such as the social stigma, risks, fear of emotions, and treatment fears. The authors contend that psychologists are in a unique situation regarding seeking their own therapy. To further explore barriers, Bearse et al. surveyed 260 psychologists who were selected from the APA directory. The survey contained a variety of sections with Likert scales inquiring as to the degree stress has affected the psychologists ability to function in their professional role, the degree to which factors may be considered barriers to seeking personal therapy, and information on whether they have participated in personal therapy or not. Results showed that seeking an acceptable therapist and time were the top barriers when considering personal therapy. Also, contrary to the hypothesis, stigma was not found to be considered a problem for psychologists seeking therapy. The stressor indicated most frequently by the participants was burnout (Bearse et al., 2013). The authors contend that stress management should be addressed during graduate training programs as well as in ongoing trainings throughout psychologists' professional career. Bearse et al. noted limitations of their study due to the nature of survey questionnaires, selection of only APA members, and lack of diversity in the respondents.

Good, Keeley, Leder, Afful, and Stiegler-Balfour (2013) examined the concerns and needs of early career psychologists (ECP) in an academic career. The authors indicate there are resources available for early career psychologists; however, there is no empirical evidence related to the concerns and needs of the psychologists. A nationwide online survey inquired as to the concerns of junior faculty and had them rank order nine specific concerns. The researchers also gathered information on the current job status,

educational background, workload, use of the Society for the Teaching of Psychology (STP) resources, as well as asking what additional resources would be helpful to ECPs. Focusing on the concerns ranked by the sample $N = 85$, the top two concerns included balancing teaching with research and balancing work with family life. The researchers reported 40% of the sample were not members of STP and they indicated joining STP provides resources those ECPs are missing out on. Independent-samples *t* tests were used to compare the ECPs holding membership with STP and the ECPs that were not members. Findings from those analyses indicated that ECPs holding a membership status with STP were more likely to use the resources provided by STP (Good et al., 2013). Limitations of this study were not published by the researchers; however, the small sample size is a concern as well as the limits of having nine specific concerns to rank order.

Graduate Student Self-Care

In a survey of almost 500 graduate students, the APA Advisory Committee on Colleague Assistance (ACCA) found that 82.8% of students reported no written information on the importance of self-care offered by their program. In addition, 63.4% of students indicated their programs did not promote or sponsor self-care programs and 59.3% indicated that an atmosphere of self-care is not promoted in their training program (Munsey, 2006). Not only are these statistics concerning, but the question remains as to whether changes have occurred to improve self-care discussions and importance in graduate programs.

Calicchia and Graham (2006) researched the connection between stress, social support, and spirituality of Counselor Education graduate students. Calicchia and

Graham believed graduate students were at a higher risk of increased stress due to the demands of graduate school and the lack of time to devote to stress management. A total of 56 master's-level graduate students from a counseling education program participated in the study. Specializations for the program included school counseling, mental health counseling, and higher education counseling. The program was geared toward adult students who were likely to be working full-time while earning their education. Of the participants, 50 indicated they were married and 37 reported having children. The participants filled out the Spirituality Well-being Scale (SWB), a 20 item Likert-scale ranging from *strongly agree* (1) to *strongly disagree* (3). The scale uses two subscales as a measurement of spiritual quality of life: (a) religious well-being, and (b) existential well-being. The Life Stress and Social Resources adult form (LISRES-A), which consists of 200 items, was also given to participants. The LISRES-A uses 16 different subscales in eight different life categories. Results indicated that physical health was most influenced by stress. Stress was not significantly correlated with spiritual well-being; however, spiritual well-being was found to be a limited buffer to stress. The authors also found that a spouse or child can both be stress-inducing and a support at the same time. Limitations of the study included the demographics as only one graduate program was used. Future research recommendations include to expand research with other helping professions, and to better understand what interventions decrease student stress (Calicchia & Graham, 2006).

Newsome, Christopher, Dahlen, and Christopher (2006) explored the use of mindfulness-based stress reduction in the education of students in school counseling, marriage and family, and mental health master's-level graduate programs. A four-year

qualitative and quantitative approach was taken to collect data as well as use of a focus group. Newsome et al. addressed the perceived need of self-care for graduate students in order to reduce stress and potential burnout. The basis for the class was formed from the Mindfulness-Based Stress Reduction (MBSR) Program created be Jon Kabat-Zinn in 1979, which emphasizes cultivating awareness. A three-credit course entitled Mind/Body Medicine and the Art of Self-Care was implemented over a 15-week period with twice-a-week classes (Newsome et al., 2006).

Instruction for the course was done by a faculty member from a program accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). The faculty member was also a licensed counselor and psychologist, meditation practitioner, and yoga teacher. The goals of professional and personal growth were addressed during this class with six objectives: (a) teach students skills and techniques for self-care, (b) increase understanding of practice from Eastern and Western cultures, (c) increase awareness of mind/body and holistic practice, (d) increase awareness of holistic research, (e) increase awareness of ethical considerations for holistic practices, and (f) increase awareness of culture on the process of counseling and well-being (Newsome et al., 2006).

Results of the quantitative data indicated consistency of effectiveness in attitude toward the course, method of instruction, reactions to class material, level of interest from the student, and perceptions of the instructor. Qualitative responses indicated the students felt less anxious with clients, and more aware and in control of their bodies and their breath. Students expressed enjoyment of the course and the need for it to be taught to all students (Newsome et al., 2006). Five major themes emerged: (a) physical changes,

(b) emotional changes, (c) attitudinal or mental changes, (d) spiritual awareness, and (e) interpersonal changes. The physical changes noted by participants were improved strength, balance, flexibility, and overall body awareness. Emotional changes described by participants were an increase in being present and dealing with intense emotions. Attitudinal changes noted were increased openness and ability to reflect while the spiritual changes allowed for greater openness of different world views. The interpersonal changes participants noted were increased empathy and compassion, which positively affected their social relationships. The MBSR course had an impact on the view of counseling for the participants by increasing their comfort with silence, increasing their attentiveness during sessions to the therapeutic process, and their views of and ideas about counseling from a holistic perspective (Newsome et al., 2006). Newsome et al. (2006) indicate more research is needed on the topic of self-care but it is clear that trainees would benefit from incorporating MBSR into their personal and professional lives.

A qualitative study by Thompson, Frick, and Trice-Black (2011) examined the perceptions of supervision as it pertains to self-care and burnout of counselors-in-training. The authors indicate that graduate students may experience high levels of stress during their practicum experiences as a result of unrealistic expectations and idealism regarding their roles. This study included 14 students in a master's-level counseling program who had previously completed a practicum. Participants were asked about their perception of burnout and self-care. They were also asked what they had learned about burnout and self-care during supervision experiences. The participants expressed feeling the desire for more empathy from supervisors, especially site supervisors not associated

with their training program. They also indicated they wanted an approach to self-care woven throughout their graduate training that would be developmentally based and comprehensive. The participants expressed the need to practice the actual skills associated with self-care as opposed to just discussing self-care. They also indicated a high level of appreciation for supervisors who did incorporate self-care and burnout discussions into supervision. Overall the participants indicated supervision highly influenced their belief of self-care and believe that self-care needs to be emphasized more (Thompson et al. 2011).

One of the largest-scale studies exploring stress and self-care (Myers et al., 2012) examined the specific behaviors that can be helpful for graduate students in managing stress. They hypothesized that engagement in five specific self-care practices (sleep, exercise, social support, emotion regulation, and mindfulness) would result in lower levels of stress for 488 graduate students enrolled in U.S. clinical psychology programs accredited by APA. The measures used were a demographic questionnaire, a Sleep Hygiene Index, the Godin Leisure Time Exercise Questionnaire, the Multidimensional Scale of Perceived Social Support, the Emotion Regulation Questionnaire (ERQ; Gross & John, 2003), the Philadelphia Mindfulness Scale (PHLMS; Cardaciotto, Herbert, Forman, Moitra, & Farrow, 2008), and the Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983). A hierarchical multiple regression was conducted to see if there was a relationship between self-care practices and perceived stress levels. The findings indicated better sleep hygiene and feelings of a strong social support system were associated with lower levels of perceived stress. Cognitive reappraisal and suppression were both associated with lower levels of perceived stress. Exercise levels were not

related to perceived stress level. Myers et al. (2012) indicated that these results could be used for training programs to develop preventive self-care strategies, such as establishing a self-care committee consisting of faculty and students who host specific events related to self-care and self-care strategies. Their suggestions for future research were to include personality aspects of self-care and students' beliefs about self-care and the impact on stress level (Myers et al., 2012). The large sample size of this study and the representation of students across the nation are strengths. This study could have benefited from including a variety of graduate training psychology programs.

A published dissertation by Heidi Stouffer (2013) utilized a qualitative approach to understand the stress and self-care of psychology graduate students in Doctor of Psychology (Psy.D.) programs. Stouffer indicated the only way to develop training programs that include self-care is to better understand self-care in the context of graduate students (Stouffer, 2013). Stouffer used Myers et al. (2012) as a foundation for her research in better understanding stress and self-care. Stouffer indicated the stress that graduate students experience is expected; however, many students have diminished functioning as a result of high stress and low self-care. To further understand the experience of graduate students, Stouffer interviewed seven graduate students, six of whom were female. Stouffer found a variety of stressors experienced by graduate students including academic stress, financial challenges, expectations, and balancing work with school. Self-care was interpreted differently by the participants and included meanings of mindfulness, support system, power, moments with God, escape, and exercise, to name a few.

The barriers Stouffer (2013) identified as indicated by participants were time constraints, financial issues, lack of energy, limited access, and life stressors. Factors facilitating self-care included a support system, physical activity, mental/emotional care, and spiritual care. After synthesizing the data collected from interviews, Stouffer stated three primary depictions were found: (a) coping skills for stress is influenced by previous experiences; (b) stress management is affected by the current mental, emotional, and physical state the student is in; and (c) resiliency is impacted by the resources that are available to a student (Stouffer, 2013). To answer the question of how graduate psychology students experience self-care and stress, Stouffer found that support and strength were the overwhelmingly collective experiences. Limitations were indicated as: (a) small sample size, (b) personal bias of researcher, (c) researchers relationship as a fellow student with participants, (d) gender representation, and (e) lack of diversity of participants.

Graduate Student Stress

Research regarding the stress levels of Counseling Psychology and Counselor Education doctoral students is sparse. In one study conducted by Hudson and O'Regan (1994) a total of 171 students from the Minnesota School of Professional Psychology was surveyed in regard to their stress levels. A stepwise regression was used to analyze data with the variables consisting of the students' year in program, hours of work, age, relationships status, income level, number of children, and gender (Hudson & O'Regan, 1994). Findings from this study indicate females who work full-time and are not in a committed relationship have the highest levels of stress. Overall, students not in committed relationships had higher levels of stress than those in relationships. Hudson

and O'Regan state the lack of support may be a reason for those not in a committed relationship to have higher stress levels. Other variables were found to be inconsistent, indicating difficulty in drawing conclusions about the stress levels of graduate students based on specific variables (Hudson & O'Regan, 1994). The connection between lack of support and stress is an area for future research. The specific types of support should also be explored, such as intimate relationships, friendships, advisors, etc.

Conclusion

Across the literature a variety of themes have been presented regarding self-care of counseling psychologists and counselor educators. While each study may be unique to either counseling psychology or counselor educators, it is clear that graduate students and professionals in both fields experience commonly high levels of stress. Graduate students experience unique stressors, which is why many mental health professionals are advocating for the emphasis of self-care in graduate training (Barnett & Cooper, 2009; Barnett, Elman, et al., 2007; Wise et al., 2012). Support is a major factor leading to confidence in stress management compared to feeling isolated from support networks. Isolation results in higher stress and lower self-care. In regard to support, supervision may also have an impact on help-seeking behaviors/self-care (Coster & Schwebel, 1997; Dearing et al., 2005); however, more research is needed to understand the connection. Another important theme is the ethical considerations of self-care, which some believe should start early in graduate training (Barnett, Elman, et al., 2007). Future research can further assist the field, specifically Counseling Psychology and Counselor Education graduate training programs, to understand the specific self-care behaviors of graduate students.

CHAPTER III

METHODOLOGY AND DESIGN

Participants

A total of 127 participants started the survey for this study and 118 completed the survey. Demographic information collected is represented in Table 1. Of the participants who started the survey, 61% were from APA-accredited Counseling Psychology Ph.D. or Ed.D. programs and 39% were from CACREP-accredited Counselor Education Ph.D. or Ed.D. programs. Sixty-five percent of respondents indicated their ethnicity as Caucasian. This study showed much more diversity than Myers et al. (2012), as their study received a response rate from participants indicating Caucasian as an ethnicity from 87% of respondents. The remaining respondents indicated ethnicities of African American (6.8%), Asian (11%), Latino/Latina (5.9%), bi-racial (5.9%), and other (6.8%). Responses for "other" included African (.8%), Black (1.6%), European American/Native American (.8%), International Student (.8%), South Asian-American (.8%), Turkish-European-White (.8%), and White (1.6%).

The largest age range for participants was 36.4% for ages 26–30 with the second largest range being 31–35 (29.7%). The third largest range was 20–25 at 16.1%. The age range 36–40 included 5.1% of participants. The ranges making up the smallest number of participants included ages 41–45 (4.2%), 56–60 (3.4%), 46–50 (2.5%), and 51–55 (2.5%). No participants indicated an age in the range of 61 or older.

Table 1

Demographic Characteristics Within Sample (n = 118)

Characteristic	Frequency	Percentage
Counselor Education	46	39%
Counseling Psychology	72	61%
Age		
20-25	19	16.1%
26-30	43	36.4%
31-35	35	29.7%
36-40	6	5.1%
41-45	5	4.2%
46-50	3	2.5%
51-55	3	2.5%
56-60	4	3.4%
Race		
African American	8	6.8%
Asian	11	9.3%
Caucasian	77	65.3%
Latino/Latina	7	5.9%
Biracial	7	5.9%
Other	8	6.8%
Gender		
Male	28	23.7%
Female	90	76.3%
Year in Program		
1st year	29	24.6%
2nd year	32	27.1%
3rd year	23	19.5%
4th year	16	13.6%
5th year	12	10.2%
6th year	1	.8%
7th year	4	3.4%
Other	1	.8%
Household Income		
$0-15,000	31	26.3%
$15,001-30,000	28	23.7%
$30,001-45,000	15	12.7%
$45,001-60,000	14	11.9%
$60,001+	30	25.4%

Table 1—Continued

Characteristic	Frequency	Percentage
Relationship Status		
Single	27	22.9%
Unmarried, in relationship	28	23.7%
Married	58	49.2%
Divorced	5	4.2%
Caregiving Responsibilities		
Only self	80	67.8%
Self + 1-2 others	29	24.6%
Self + 3-4 others	8	6.8%
Other	1	.8%
Weekly work hours		
0-10	10	8.5%
11-20	28	23.7%
21-30	29	24.6%
31-40	23	19.5%
40 +	28	23.7%

The majority of respondents indicated their gender as female (76.3%) and 23.7% indicated their gender as male. This response closely resembled the response of Myers et al. (2012), as their study received a response rate from females at 84%. No participants indicated a gender other than female or male.

The participant standing in program in terms of year were 1st-year students (24.6%), 2nd-year students (27.1%), 3rd-year students (19.5%), 4th-year students (13.6%), 5th-year students (10.2%), 6th-year students (.8%), 7th-year students (3.4%), and other (.8%), which was specified as all but dissertation (ABD).

Household income ranges of participants proved to be variable. The leading range for household income was $0–$15,000 with 26.3% of participants falling in this range. The second largest range was $60,000 and above with 25.4% of participants

falling in this range. For the $15,001 to $30,000 range, 23.7% of participants indicated this to be their household income.

Of the respondents, 49.2% indicated they were married, 23.7% indicated they were unmarried but in a relationship, 22.9% indicated they were single, and 4% indicated they were divorced. The responses of relationship status should be interpreted with caution as some respondents may have answered they were "single" even though they may also have fallen into the "divorced" category. The same caution is true for respondents who may currently be married but also could have previously been divorced.

The respondents indicated that 67.8% of them had caregiving responsibilities only for themselves. A total of 24.6% indicated caregiving for self plus 1–2 others. A total of 6.8% indicated caregiving of self plus 3–4 others, while .8% indicated "other" and specified as self and 5 others. The range of work hours each week including assistantships, associateships, and paid work outside of their program was fairly even with 23.7% indicating working 41 or more hours a week, 19.5% working 31–40 hours per week, 24.6% working 21–30 hours a week, 23.7% working 11–20 hours a week, and 8.5% working 0–10 hours a week. Regarding the question of "please rate the level at which your doctoral program emphasizes or encourages self-care," 43.3% indicated *fairly often* or *very often*. A total of 41% of graduate students indicated *sometimes* and 15.3% indicated *almost never* or *never*.

When asked about the frequency of utilizing therapy as a means for self-care, participants offered a range of responses. The frequency for participants who indicated they had never or almost never utilized therapy for self-care was 37.3%, while 30.5%

indicated using therapy as self-care fairly often or very often. The remaining 32.2% indicated they sometimes use therapy as self-care.

Recruitment

Students were solicited for participation from Counseling Psychology Ph.D. programs accredited by the American Psychological Association accreditation and Counselor Education Ph.D./Ed.D. programs that hold CACREP accreditation. The students must have been enrolled in at least three credit hours in a class, dissertation, or internship hours at the time the survey was completed. A total of seven Counselor Education CACREP-accredited and seven Counseling Psychology APA-accredited Ed.D./Ph.D. doctoral program Training Directors and Program Heads were initially contacted requesting participation invitations to be emailed to their doctoral students. After all 14 programs were contacted following the proposed guidelines of sending an initial email and two follow-up phone calls, it was clear that more programs would need to be contacted to acquire sufficient participants for power in this study. Thus, additional programs were contacted following the same guidelines as the initial 14. An additional 56 programs were contacted in each discipline. A total of 63 Counseling Psychology Ed.D./Ph.D. doctoral programs accredited by the American Psychological Association and 63 Counselor Education Ed.D./Ph.D. programs accredited by CACREP were contacted for participation. These programs were identified through the CACREP directory (CACREP, 2014) and the APA accreditation directory (APA, 2014) between September 5, 2014 and February 18, 2015. Initially, the researcher intended to record the number of students invited for participation; however, due to the lack of response from many of the programs, a number could not be accurately determined

Measures

This study consisted of six measures (Self-Care Frequency, Emotion Regulation Questionnaire, Philadelphia Mindfulness Scale, Perceived Stress Scale, Semantic Differential Scale, and the Big Five Inventory) resulting in a total of 113 survey questions.

Demographics Questionnaire

A demographic questionnaire gathered information from participants on their age, SES, relationship status, race, gender, year in program, caregiving status, and hours of work each week including assistantships, associateships, and paid work outside of their program.

Self-Care Frequency (SCF)

SCF is a scale created by the research investigator utilizing self-care strategies specifically of interest in this study. The SCF provides an SCF score which is derived from the total score on frequency for self-care related items. These items include how often a participant engages in therapy, engages in physical activity, uses mindfulness/meditation, engages in healthy eating, engages in healthy sleep habits, seeks the support of others, participates in religious or spiritual practices, journals for self-care, and uses emotion regulation strategy for self-care. The scale ranges for these questions were *never* (1) to *fairly often* (5). The items used for the self-care frequency scale were used based on the positive career sustaining behaviors endorsed by Barnett, Elman, et al., 2007: balancing personal and professional aspects of life by taking breaks from work, eating a balanced diet, staying physically active, having diverse caseloads, and attending to emotional and spiritual needs.

Emotion Regulation Questionnaire (ERQ)

ERQ (Gross & John, 2003) is a 10-item measure, which is based on two subscales that assess use of (a) cognitive reappraisal consisting of six items, and (b) expressive suppression consisting of four items. The items are rated on a 7-point Likert scale, ranging from *strongly disagree* (1) to *strongly agree* (7). Scores are summed for each subscale, with higher scores interpreted to reflect a greater use of that particular strategy.

The Emotion Regulation Questionnaire was a scale developed as a way to assess the regulation of emotions. Previous research by Gross and John (2003) indicates that reappraisal can change the path of emotions and can reduce the effects of negative emotions. They also indicate that while suppression may have short-term benefits, the long-term benefits may include decreased expression of positive emotions as well as negative emotions. Gross and John also found that suppression was negatively related to the BFI factor Extraversion and reappraisal was negatively related to Neuroticism. Reappraisal was found to have a positive correlation with positive functioning and frequent reappraisers experienced a lower level of depression symptoms. Suppression was found to have negative associations with well-being (Gross & John, 2003). The results of these studies provided support for utilizing both the Emotion Regulation Questionnaire and the Big Five Inventory in the current research.

The ERQ was validated with 1,628 undergraduate students and showed a test-retest reliability of .69 for the scores over three months. Internal consistency estimates, Cronbach's alpha, for the scores of both subscales were reported to be .87 for cognitive reappraisal and .82 for expressive suppression. Exploratory factor analysis was used and found that Reappraisal and Suppression scales were independent in each sample (mean

$r = -.01$). Two factors (Reappraisal items and Suppression items) were found to consistently load with varimax-rotated loadings. Confirmatory factor analysis using LISREL was conducted. Two factors were associated with the best fit and a separate CFA confirmed no gender difference in factor structures. Alpha estimates were .73 for Suppression scores and .79 for Reappraisal scores. A peer-rated suppression index was correlated with the ERQ Suppression scale at .53 ($p < .001$). Suppression and Reappraisal were found to be independent of each other. Positive correlations were found for both Reappraisal and Suppression with perceptions of one's successful emotion regulation efforts (Gross & John, 2003).

Philadelphia Mindfulness Scale (PHLMS)

PHLMS (Cardaciotto et al., 2008) is a 20-item self-report measure, which is based on two subscales that assess mindfulness levels of (a) acceptance and (b) awareness. Acceptance is considered to be a way to non-judgmentally experience the moment with openness. Awareness is considered to be a monitoring process that is continuous with focus in the present moment. Each subscale consists of 10 items. The items are rated on a 5-point Likert scale, ranging from *never* (1) to *very often* (5). Scores are summed for the Awareness subscale with higher scores reflecting higher levels of awareness. Acceptance scale items are reverse scored and summed with higher scores reflecting a higher level of acceptance. Cardaciotto et al. validated this scale on multiple populations including eating disorder patients ($n = 30$), outpatients at a student counseling center ($n = 78$), psychiatric outpatients ($n = 52$), and two non-clinical samples. Internal consistency estimates, Cronbach's alpha, for the scores of both subscales were reported to be .80 for awareness and .91 for acceptance. Cardaciotto et al. found no significant

difference between the subscales of Awareness and Acceptance ($r = –.10$, $p = .025$). Exploratory and confirmatory factor analysis was used to cross-validate the two subscales, which resulted in a Comparative Fit Index of .91 and a RMSEA of .05 which support the two-factor solution. Convergent and discriminant analyses yielded expected results. Significant correlations were found between the PHLMS Awareness subscale and awareness. The Acceptance subscale correlated significantly in a positive way with acceptance and a negative way with suppression (Cardaciotto et al, 2008).

Perceived Stress Scale (PSS)

PSS (Cohen et al., 1983) is a 10-item self-report measure that assesses the degree to which situations in life are deemed stressful. Statements on the PSS use a 5-point Likert scale to assess perceived stress with items ranging from *never* (1) to *very often* (5). The score is obtained by reversing the score on items 4, 5, 6, 7, 9, 10, and 13 and then summing all items. The scale was validated with three samples, two composed of 446 college students and the last consisted of 64 participants who were members of a smoking cessation group. The scale showed adequate reliability of the scores with $r = .84$ for college students and for the smoking cessation group $r = .86$. The test-retest 6-week reliability for smoking cessation group was .55 for the scores. The test-retest reliability for college students ($n = 64$) was separated by two days resulting in a reliability of $r = 85$. Cohen et al. indicated the scale had a Cronbach's alpha of .90. A small to moderate correlation was found between the PSS in all three samples and the number of life events. Correlations between the number of life events varied for young and old participants only in the smoking cessation group, which was .65 ($p < .05$) for the young and .19 for older participants. High correlations were found between the PSS and the

CES-D depressive symptom scale with college students. Physical symptomatology and PSS showed Sample one correlation was .16, $p < .01$ and sample two correlation was .17, $p < .07$ (Cohen et al., 1983).

Semantic Differential Scale (SDS)

Osgood, Suci, and Tannenbaum (1967) developed semantic differential scales as a technique for measuring meaning. This instrument was used to give more depth by analyzing the perception of Counselor Education and Counseling Psychology graduate students. The SDS allows for data to be gathered based on the perceptions of graduate students which allows for comparison to behaviors such as use of mindfulness/meditation and emotion regulation. The use of Semantic Differential Scales (SDS) allowed for a better understanding of the perception of the participant and has high face validity (Osgood et al., 1967). As indicated by Osgood et al., use of SDS is a technique that is highly generalizable with no standard concepts or scales, but instead are chosen specifically for each unique research topic.

The first step in creating an SDS scale was to decide on the concepts to be assessed and then choosing adjective pairs that are relevant to the concept. The pairs must include one favorable and one unfavorable adjective (Osgood et al., 1967). This research used the concepts: (a) mindfulness/meditation, (b) emotion regulation, and (c) social support as they relate to the behavioral scales also utilized in this study. The adjective pairs for the concept mindfulness/meditation chosen were: (a) worthless-valuable, (b) easy-labored, and (c) passive-active. Adjective pairs for emotion regulation included: (a) simple-complex, (b) active-passive, and (e) useful-useless. Adjective pairs for social support included: (a) useful-useless, (b) labored-easy, and (c) active-passive.

The favorable poles (valuable, easy, active, simple, useful) of each scale were given the score of 7, while the unfavorable poles (worthless, labored, passive, complex, useless) were given the score of 1. Each adjective pair is considered a separate scale and yields an independent score.

Big Five Inventory (BFI)

The BFI-44 (John, Donahue, & Kentle, 1991) is a 44-item Likert scale, self-report measure that ranges in answers from *strongly disagree* (1) to *strongly agree* (5). The short-phrase items allow the researcher to gain an understanding of where the participant falls in terms of the Big Five personality factors: extraversion, agreeableness, conscientiousness, neuroticism, openness. Karaman et al. (2010) describe extraversion using the adjectives energetic, talkative, excitable, and lively. They describe agreeableness as loving and valuing others, helpful, and affectionate. Conscientiousness is described as ambition for success, planning ahead of time, responsibility, and self-discipline. Neuroticism is described as having fear, depression, touchiness, being angry, and having negative emotions. Lastly, Karaman et al. describe openness with the terms dreaming, adventurous, braveness, and curiosity. External peer validity ratings for the BFI-44 were included in Rammstedt and John (2007). The test-retest reliability for the BFI-44 scores was found to be .84 over a 6-week period. The BFI-44 showed a mean intercorrelation of .21 for discriminant validity and a convergent validity of .78 with the NEO-PI-R. Convergent validity correlations for the BFI-44 averaged .56 (Rammstedt & John, 2007).

Procedures

Approval for recruitment and process of study was granted from the Institutional Review Board prior to beginning this study. Permission was granted from all authors of measures utilized in this study. A list of accredited nationwide Counseling Psychology and Counselor Education programs was obtained from the American Psychological Association website and the American Counseling Association website. Seven Counseling Psychology and seven Counselor Education Ed.D./Ph.D. programs in the North Central United States were initially invited to participate in this research. The Counseling Psychology programs contacted initially were: (a) The University of Akron, (b) Ball State University, (c) University of Illinois, (d) Purdue University, (e) Western Michigan University, (f) The University of Wisconsin-Madison, and (g) Indiana University-Bloomington. The Counselor Education programs initially contacted were: (a) The University of Akron, (b) Southern Illinois University, (c) University of Toledo, (d) Oakland University, (e) Western Michigan University, (f) Ohio University, and (g) Kent State University. As the sample size was not reached through the initial 14 programs, all accredited Ed.D./Ph.D. Counseling Psychology and Counselor Education programs were contacted in the same way and invited to participate resulting in 126 total programs.

Program training directors or chairs were contacted via email beginning on August 25, 2014 (see Appendix A for communication to directors/chairs). The researcher requested the training directors/chairs to forward an email participation invitation to students in their Counseling Psychology Ed.D./Ph.D. or Counselor Education Ed.D./Ph.D. programs. Communication with the training director/chair included the

options of (a) forwarding the email to students while copying the researchers' email in order to track how many emails were sent, or (b) waiting to send the email until the researcher contacted them by a phone call regarding the study to answer any questions the training director or chair may have. Lack of response from training directors/chairs was considered as declining participation. The email for the students contained information regarding the study as well as a website link to complete the anonymous survey using PsychData, which is a database for psychology research (see Appendix B for student instructions). Participants were required to give consent on the electronic survey for their data to be used. The survey measures were presented to participants as one survey comprised of 113 questions. Estimated time to complete the survey was 17–30 minutes.

PsychData was chosen as the online survey service for this study because it was previously used by Myers et al. (2012) for a similar study which this dissertation used as a foundation. PsychData is a user friendly survey program for both participants and researchers. Data from PsychData can easily be downloaded into SPSS for analysis with eliminating some human error by transfer.

To encourage participation, four drawings were held for Amazon gift cards. As the research survey was anonymous, there was a link at the end for participants to start a separate survey to enter into the drawing for the Amazon gift cards which would not be connected to the research data collected. The first drawing was for a $125 Amazon gift card and all participants who complete surveys and submitted by September 26, 2014 were put in the drawing. The second drawing was for a $75 Amazon gift card and all participants who submitted surveys between September 27 and October 10, 2014 were

put in the drawing. The third drawing was for a $50 Amazon gift card and participants who submitted the survey between October 11 and October 24, 2014 were put into the drawing. A final drawing for a $50 Amazon gift car occurred for all participants who submitted a survey after October 25, 2014.

Analyses

This study used mindful awareness, mindful acceptance, cognitive reappraisal, and five personality factors (neuroticism, openness, conscientiousness, extroversion, and agreeableness), as measured by the Big Five Inventory as predictor variables. The outcome variable was the perceived level of stress. The scales used in this study are all interval scales with multiple variables. A series of analyses called hierarchical regressions were used to analyze data. A hierarchical regression analysis was used by Myers et al. (2012) for the foundation study from which this dissertation was formed. The purpose of choosing hierarchical regression was to determine if self-care variables were related to perceived stress levels while controlling for personality factors as measured by the BFI. The personality variables were entered as the first step in the regression; therefore, they were considered semi-partialed. The second step of the regression involved self-care variables measured, such as suppression, reappraisal, awareness, acceptance, and perceived stress levels. Hypotheses were tested with an alpha of 0.05 unless otherwise indicated.

Semantic Differential Scales (Osgood et al., 1967) were also used as an analysis for this study with three primary SDS questions consisting of nine bipolar adjectives. This method of analysis was chosen to complement the behaviorally based scales and obtain a deeper understanding of participants' beliefs. Semantic Differential Scale scores

are not aggregated, but are quantifiable and looked at individually. Adjective pairs were randomly listed under concepts, and favorable/unfavorable pairs were alternated as a correction for handedness.

CHAPTER IV

RESULTS

Overview

This chapter will begin with a brief review of the purpose of the study. The preliminary analyses will then be discussed. Following the preliminary analyses, the descriptive statistics, including means and standard deviations of each measure, will be discussed. Finally, hypothesis testing will be described and analyzed along with a summary of the findings.

Purpose of the Research

The purpose of this study was to examine the associations of self-care, personality factors, and perceived stress levels of Counselor Education and Counseling Psychology doctoral students. By studying graduate students in Counselor Education and Counseling Psychology, researchers may be able to assist with the prevention of burnout and compassion fatigue by emphasizing the importance of self-care early on in professional training. The overarching research questions indicated in Chapter I of this study of self-care and perceived stress levels of graduate students are based on previous research by Myers et al. (2012). Additional research questions are based on current literature, suggesting there is a connection between perceived stress, self-care, and personality factors.

Preliminary Analyses

Before analyzing the data to answer research questions, the variables of interest were examined through SPSS 22 after being transferred electronically from the online survey program PsychData. As indicated in Chapter III, a total of 127 participants began the survey and gave consent for use of their data. At various points throughout the survey participants chose to discontinue their participation, which resulted in some missing data as can be seen with some questions varying in total of answers. Data were kept to gain information on the self-care frequency of participants. The statistical program used to analyze data, SPSS, did not run analyses on data with missing participants. A total of 116 participants completed the survey with some items ranging from 110–116 responses.

Several variables needed to be recoded based on each specific scale scoring method that required score reversal. The Emotion Regulation Questionnaire did not require reversals for scoring; therefore, items were summed to create separate variables for the subscales Reappraisal and Suppression. The Perceived Stress Scale had four items that required reversal and then all items were summed to create the Total Perceived Stress (TPS) for each participant. The Philadelphia Mindfulness Scale contained two subscales. The Awareness subscale variable was a summation of all odd numbered items and the Acceptance subscale required reversal for all even numbered items and then they were summed. The Big Five Inventory required score reversal for specific items in each subscale of Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness. The final score for each subscale was an average of the item scores. The Self-care Frequency score was compiled by summing the frequency of the total scores of how often

a participant engages in therapy, engages in physical activity, uses mindfulness/meditation, engages in healthy eating, engages in healthy sleep habits, seeks the support of others, participates in religious or spiritual practices, journals for self-care, and uses emotion regulation strategies for self-care. The Semantic Differential Scales were recoded for positively stated adjectives receiving a higher score (7) than the negatively stated adjectives (1).

After recoding was completed and total scores were calculated, preliminary tests were conducted to ensure there were no violations of the assumptions of normality, linearity, multicollinearity, and homoscedasticity. Skewness, which indicates symmetry of the distribution with positive skewness values indicating a positive skew and negative values indicating a negative skew, is indicated in tables following a description of the measure. Kurtosis, which measures the peak of the distribution with a score of 0 indicating a flat graph, is also indicated in the tables with skewness. These were used to test the assumption of normality.

Descriptive Statistics

Self-Care Frequency

The self-care frequency total was derived from summing nine self-care behavior questions. The questions ranged from *never* (1) to *very often* (7) for frequency of a specific self-care behavior. Possible scores on self-care frequency could range from 9–45. The data from this sample ranged from 17–42. This scale was created specifically for this study to assess overall frequency of self-care. The results are indicated in Table 2. Figure 1 displays the self-care frequency as a normal distribution, and Table 3 gives

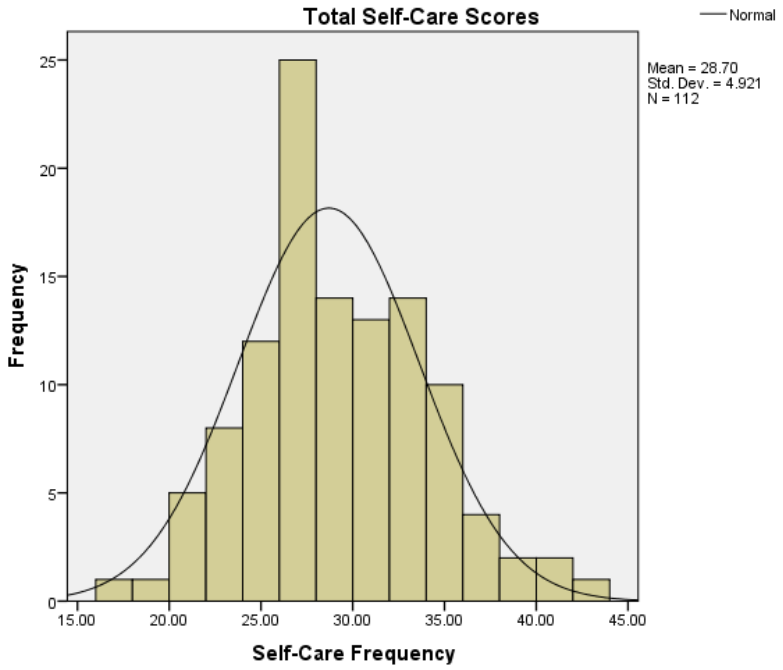
the overall self-care frequency mean, standard deviation, confidence interval, kurtosis, and skewness.

Table 2

Self-Care Frequency

	Never (1)	Almost Never (2)	Sometimes (3)	Fairly Often (4)	Very Often (5)	Total
Level at which your doctoral program emphasizes self-care?	2 (1.7%)	16 (13.6%)	49 (41.5%)	33 (28%)	18 (15.3%)	118
How often do you engage in any type of therapy for self-care?	19 (16.1%)	25 (21.2%)	38 (32.2%)	25 (21.2%)	11 (9.3%)	118
How often do you engage in physical activity for self-care?	3 (2.5%)	13 (11%)	30 (25.4%)	44 (37.3%)	28 (23.7%)	118
How often do you engage in mindfulness/meditation for self-care?	14 (12%)	39 (29.9%)	35 (33.3%)	22 (18.8%)	7 (6%)	117
How often do you engage in healthy eating for self-care?	1 (.8%)	11 (9.3%)	31 (26.3%)	44 (37.3%)	31 (26.3%)	118
How often do you engage in healthy sleep habits for self-care?	0	13 (11%)	28 (23.7%)	45 (38.1%)	32 (27.1%)	118
How often do you seek the support of others for self-care?	2 (1.7%)	7 (6%)	26 (24.4%)	49 (42.2%)	32 (27.6%)	116
How often do you participate in religious or spiritual practices for self-care?	32 (27.6%)	23 (19.8%)	22 (19%)	20 (17.2%)	19 (16.4%)	116
How often do you journal for self-care?	57 (48.7%)	23 (19.7%)	28 (23.9%)	8 (6.8%)	1 (.9%)	117
How often do you use emotion regulation as a self-care strategy?	17 (14.4%)	15 (12.7%)	36 (30.5%)	37 (31.4%)	13 (11%)	118

Note. Totals vary due to some missing data.



Possible range of scores is 9–45
Actual sample range 17–42

Figure 1. Total Self-Care Scores

Table 3

Self-Care Frequency: Means, Standard Deviations, 95% Confidence Interval Range, Skewness, and Kurtosis

Measure *N* = 112	Mean	Std. Deviation	95% Confidence Interval Range	Skewness	Kurtosis
Self-care frequency	28.69	4.92	27.77-29.61	.271	.064

Note. Possible range of scores is 9–45. Actual sample range 17–42.

Emotion Regulation Questionnaire

The Emotion Regulation Questionnaire (ERQ) provided scores on two separate subscales: (a) cognitive reappraisal, and (b) expressive suppression (Gross & John, 2003). These scores were calculated by using a 10-item Likert-type self-report measure to assess

the degree to which participants use cognitive reappraisal and expressive suppression. For the purpose of this study, cognitive reappraisal is defined as the emotion or meaning we make from an experience or situation, and expressive suppression is how we show that emotion affectively (Gross & John, 2003). Statements on the ERQ use a 7-point Likert scale ranging from *strongly disagree* (1) to *strongly agree* (7). Six statements make up the cognitive reappraisal subscale and include these examples:

- When I want to feel more positive emotion (such as joy or amusement), I change what I'm thinking about;
- When I want to feel less negative emotion (such as sadness or anger), I change what I'm thinking about;
- When I'm faced with a stressful situation, I make myself think about it in a way that helps me stay calm.

Scores for cognitive reappraisal can range from 6–42 and the actual range for this sample was 13–42. Four questions make up the expressive suppression subscale and include these examples:

- I keep my emotions to myself;
- When I am feeling positive emotions, I am careful not to express them;
- I control my emotions by not expressing them.

Scores for expressive suppression can range from 4–28 and the actual range for this sample was 4–24. Table 4 shows the Cognitive Reappraisal and Expressive Suppression means, standard deviations, confidence intervals, kurtosis, and skewness. The ERQ was validated with 1,628 undergraduate students and showed a test-retest reliability of .69 for the scores over three months. Internal consistency estimates, Cronbach's alpha, for the

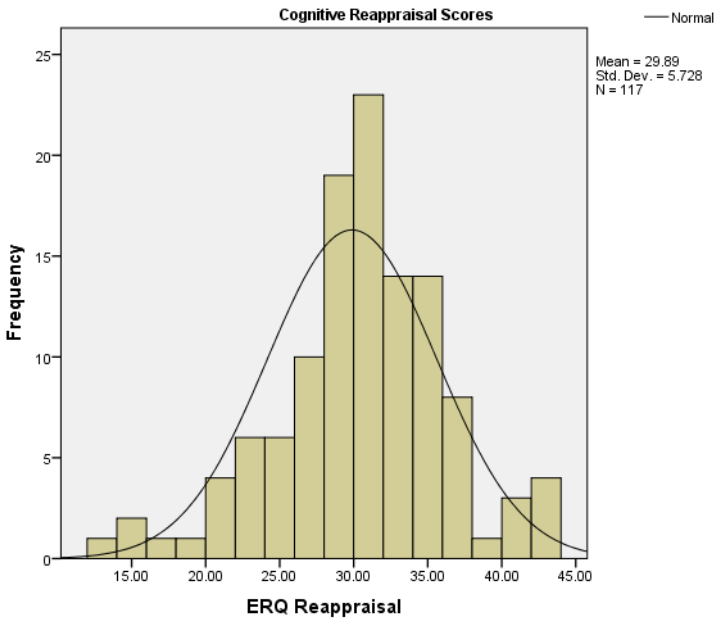
scores of both subscales were reported to be .87 for cognitive reappraisal and .82 for expressive suppression (Gross & John, 2003). The 5% trimmed mean for both variables indicates outliers did not affect mean scores. Both cognitive reappraisal and expressive suppression variables show the expected normality curves, as seen in Figure 2 and Figure 3.

Table 4

Means, Standard Deviations, 95% Confidence Interval Range, Skewness, and Kurtosis for Cognitive Reappraisal and Expressive Suppression Scores

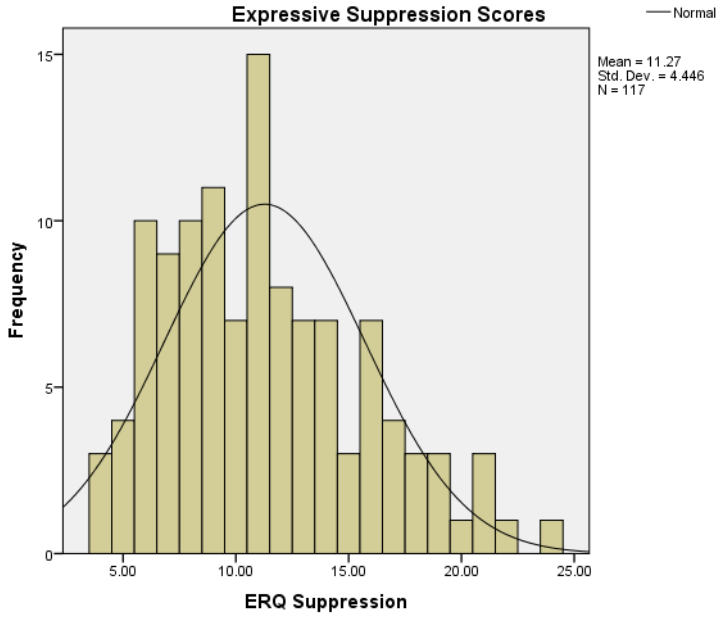
Measure *N* = 117	Mean	Std. Deviation	95% Confidence Interval Range	Skewness	Kurtosis
ERQ Cognitive Reappraisal	29.88	5.72	28.84–30.93	–.456	.815
ERQ Expressive Suppression	11.27	4.44	10.45–12.08	.602	–.186

Note. Possible range of scores: 6–42 for Cognitive Reappraisal; 4–28 for Expressive Suppression. Actual range is 13–42 for Cognitive Reappraisal; 4-24 for Expressive Suppression.



Possible range of scores: 6–42 for Cognitive Reappraisal
Actual range for sample: 13–42

Figure 2. Cognitive Reappraisal Scores



Possible range of scores: 4–28 for Expressive Suppression
Actual range of scores for sample: 4–24

Figure 3. Expressive Suppression Scores

Philadelphia Mindfulness Scale

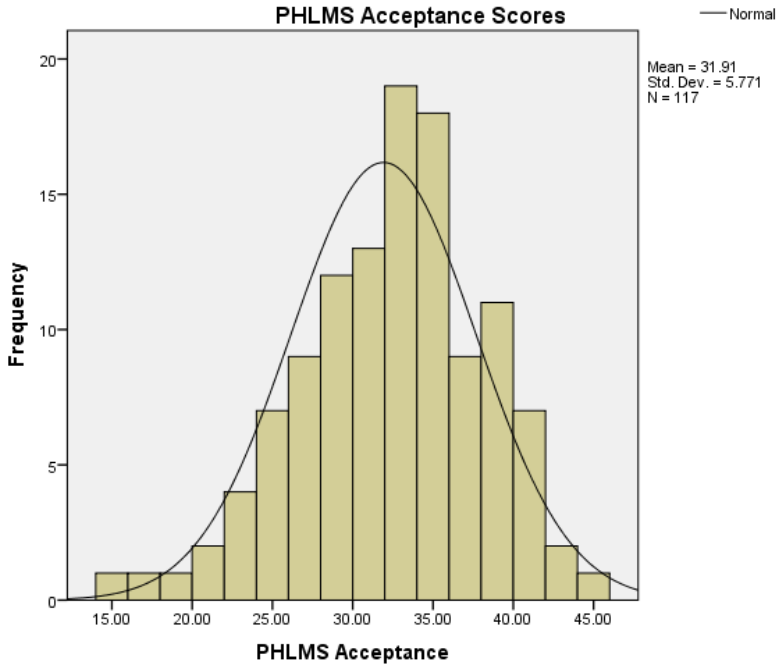
The Philadelphia Mindfulness Scale is a 20-item self-report measure which provides two subscales that include (a) your level of awareness, and (b) your level of acceptance (Cardaciotto et al., 2008). Acceptance is considered to be a way to non-judgmentally experience the moment with openness. Awareness is considered to be a monitoring process that is continuous with focus in the present moment. Each subscale consists of 10 items. The items are rated on a 5-point Likert scale, ranging from *never* (1) to *very often* (5). Table 5 displays both Acceptance and Awareness means, standard deviations, confidence intervals, skewness, and kurtosis. The possible range of scores for awareness are 10–50 with the actual score range for this sample ranging from 23–50. The possible range of scores for acceptance are 10–50 with the actual score range for this sample ranging from 15–45. Cardaciotto et al. validated this scale on multiple populations including eating disorder patients (n = 30), outpatients at a student counseling center (n = 78), psychiatric outpatients (n = 52), and two non-clinical samples. Internal consistency estimates, Cronbach's alpha, for the scores of both subscales were reported to be .8 for awareness and .91 for acceptance. Both awareness and acceptance variables follow a normal distribution, as shown in Figure 4 and Figure 5.

Table 5

PHLMS Acceptance and Awareness: Means, Standard Deviations, 95% Confidence Interval Range, Skewness, and Kurtosis

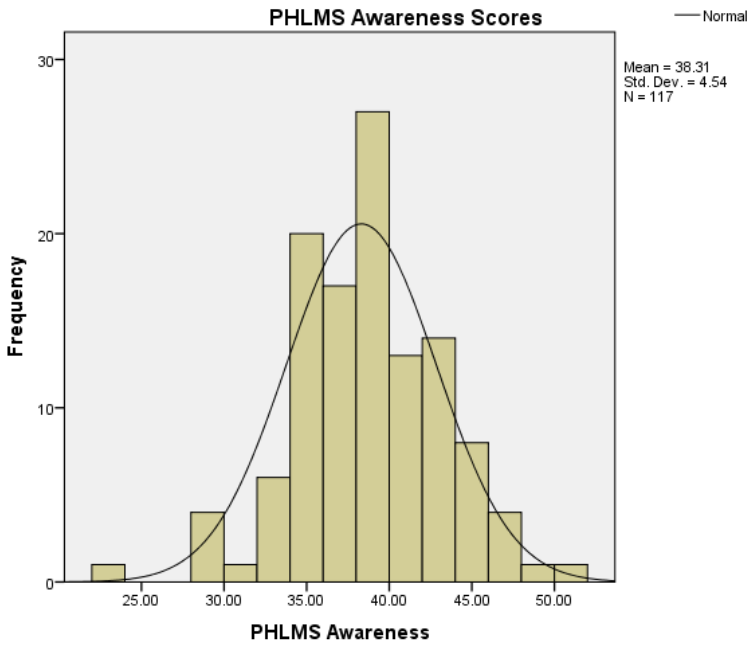
Measure *N* = 117	Mean	Std. Deviation	95% Confidence Interval Range	Skewness	Kurtosis
Acceptance	31.91	5.77	30.85–32.97	–.399	.164
Awareness	38.30	4.53	37.47–39.13	–.178	.714

Note. Possible range of scores: 10–50 for Acceptance; 10–50 for Awareness.



Possible range of scores: 10-50 for Acceptance
Actual range for sample is 15–45

Figure 4. PHLMS Acceptance Scores



Possible range of scores: 10–50 for Awareness
Actual range for sample is 23–50

Figure 5. PHLMS Awareness Scores

Perceived Stress Scale

Graduate students' total perceived stress was calculated by using the 10-item Likert-type Perceived Stress Scale (Cohen et al., 1983). The PSS is a self-report measure that assesses the degree to which situations in life are deemed stressful. Statements on the PSS use a 5-point Likert scale to assess perceived stress with items ranging from *never* (1) to *very often* (5). Four of the items are reverse scored and then summed with the six other questions to comprise a Total Perceived Stress score. Questions on the scale include these examples:

- In the last month, how often have you been upset because of something that happened unexpectedly?
- In the last month how often have you felt that you were unable to control the important things in your life?
- In the last month how often have you felt nervous and "stressed"?

Some of the reverse scored items include:

- In the last month, how often have you felt confident about your ability to handle your personal problems?
- In the last month, how often have you felt that things were going your way?
- In the last month, how often have you felt that you were on top of things?

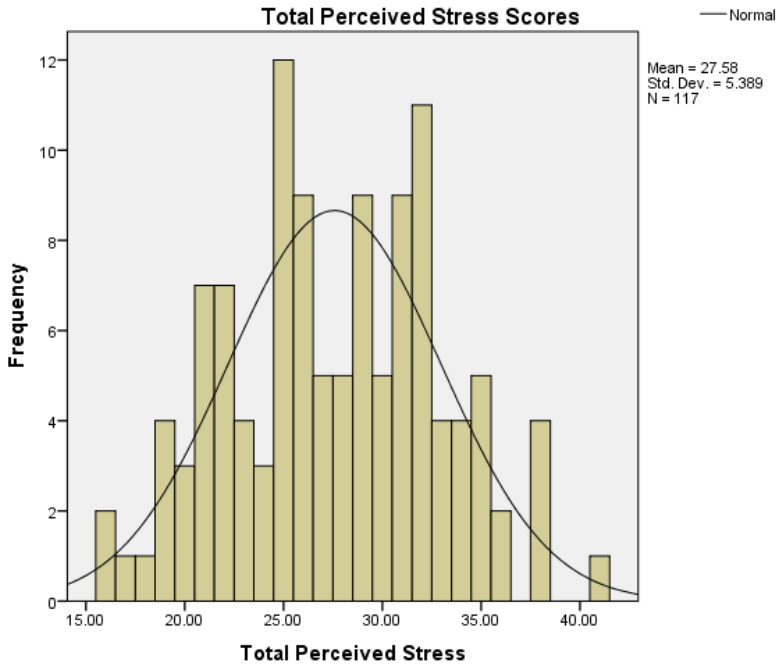
The scale was validated with three samples, two composed of 446 college students and the last consisted of 64 participants who were members of a smoking cessation group. The scale showed adequate reliability of the scores with $r = .84$ for college students and for the smoking cessation group $r = .86$. The test-retest 6-week reliability for smoking cessation group was .55 for the scores. The test-retest reliability for college students ($n = 64$) was separated by two days resulting in a reliability of $r = .85$ (Cohen et al., 1983). Descriptive statistics (i.e., mean, standard deviation, *n*) are presented in Table 6. Scores for total perceived stress followed a normal distribution as expected, which is presented in Figure 6. Actual scores for this sample ranged from 16–41.

Table 6

Perceived Stress Scores: Means, Standard Deviations, 95% Confidence Interval Range, Skewness, and Kurtosis

Measure *N* = 117	Mean	Std. Deviation	95% Confidence Interval Range	Skewness	Kurtosis
Perceived Stress Score	27.58	5.38	26.59-28.56	.016	-.582

Note. Possible range of scores: 10–50 for Perceived Stress. Actual scores ranged from 16–41.



Possible range of scores: 10–50 for Perceived Stress
Actual scores ranged from 16–41

Figure 6. Total Perceived Stress Scores

Semantic Differential Scale

As indicated in Chapter III, the Semantic Differential Scale was used to assess perceptions of graduate students to supplement the behavioral scales. Adjective pairs were used to assess perception. The pairs included one favorable and one unfavorable adjective (Osgood et al., 1967). This research used the concepts: (a) mindfulness/ meditation, (b) emotion regulation, and (c) social support as they relate to the behavioral scales also utilized in this study. The adjective pairs for the concept mindfulness/ meditation chosen were: (a) worthless-valuable (as displayed in Figure 7), (b) easy-labored (Figure 8), and (c) passive-active (Figure 9). Adjective pairs for emotion regulation included: (a) simple-complex (Figure 10), (b) active-passive (Figure 11), and (c) useful-useless (Figure 12). Adjective pairs for social support included: (a) useful-useless (Figure 13), (b) labored-easy (Figure 14), (c) active-passive (Figure 15). The favorable poles (valuable, easy, active, simple, useful) of each scale were given the score of 7, while the unfavorable poles (worthless, labored, passive, complex, useless) were given the score of 1. Each adjective pair is considered a separate scale and yields an independent score. Table 7 displays each topic along with all of the bipolar adjective pairs as well as means, standard deviations, confidence intervals, skewness, and kurtosis for each.

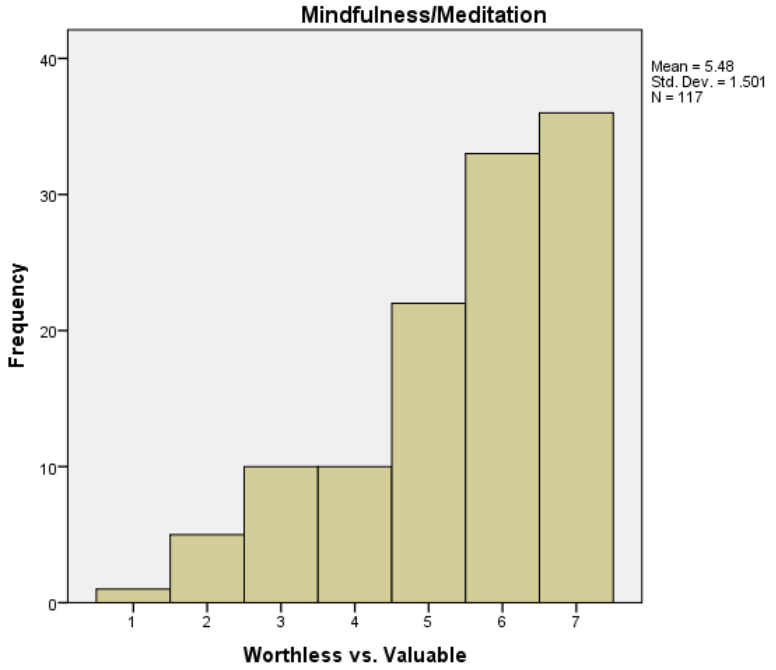


Figure 7. Mindfulness/Meditation: Worthless vs. Valuable

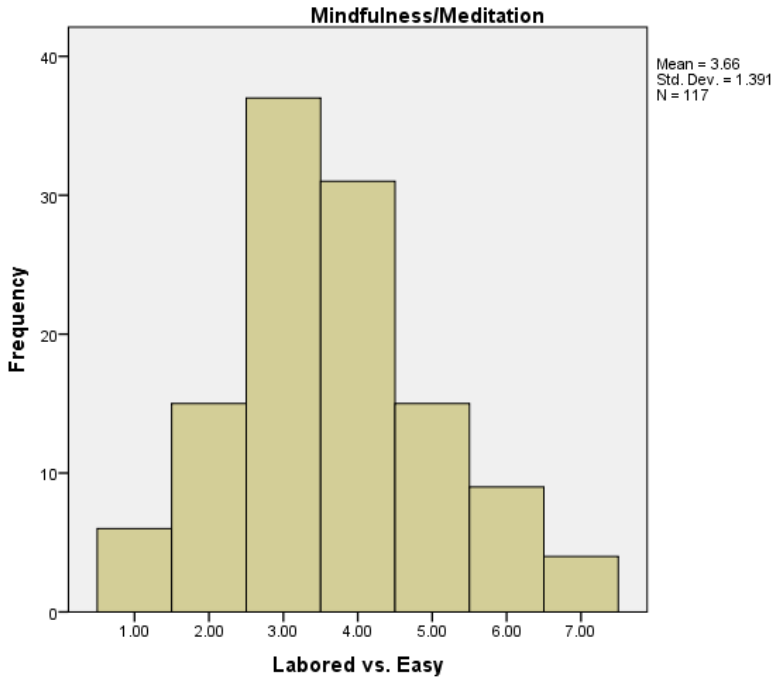


Figure 8. Mindfulness/Meditation: Labored vs. Easy

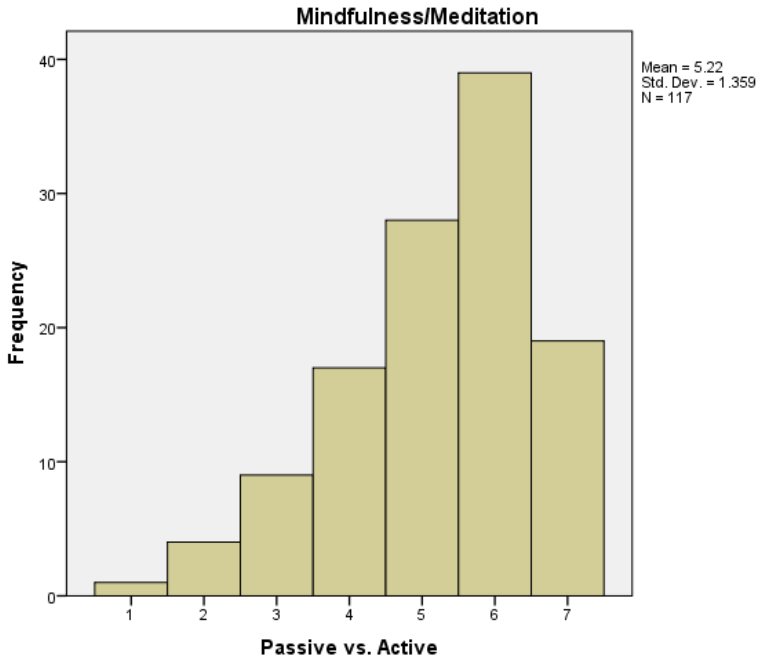


Figure 9. Mindfulness/Meditation: Passive vs. Active

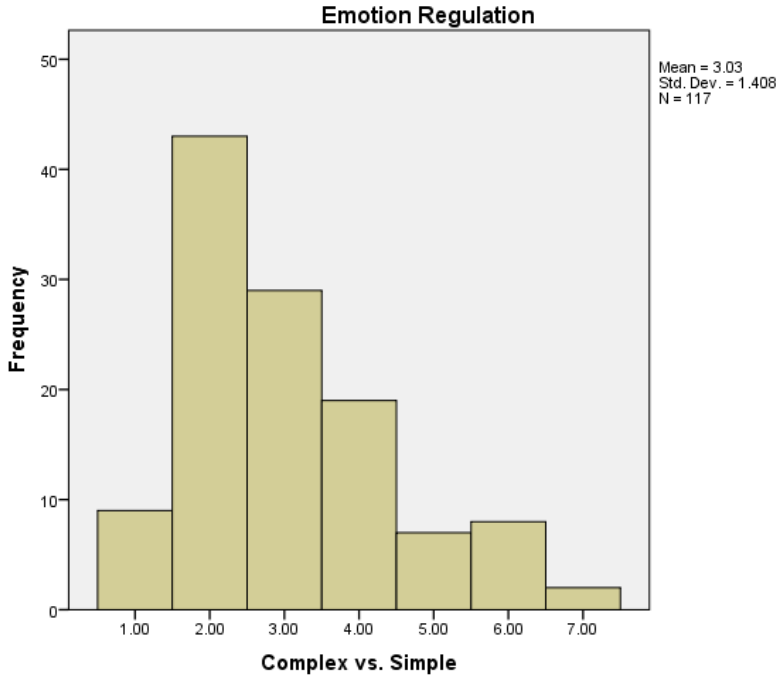


Figure 10. Emotion Regulation: Complex vs. Simple

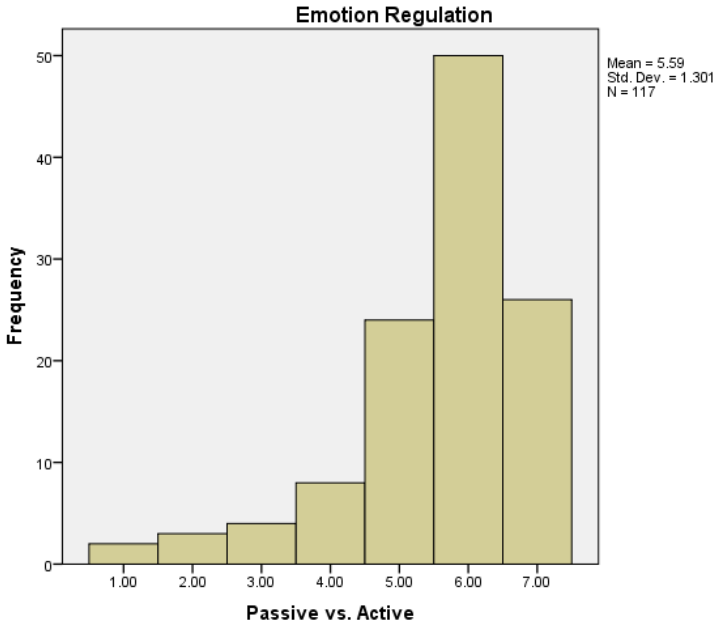


Figure 11. Emotion Regulation: Passive vs. Active

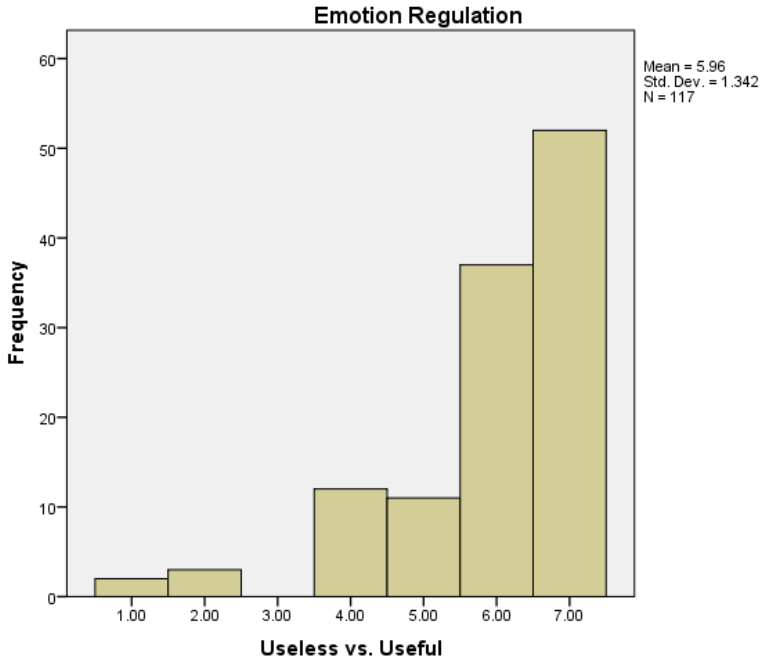


Figure 12. Emotion Regulation: Useless vs. Useful

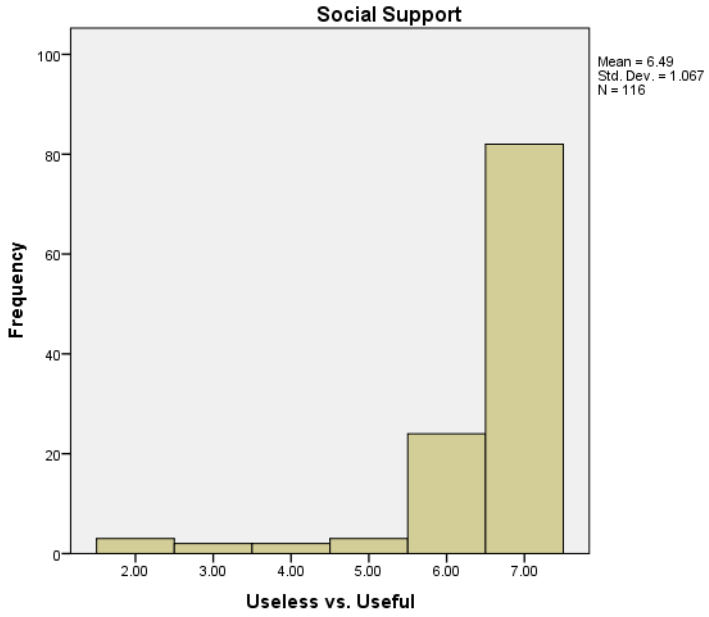


Figure 13. Social Support: Useless vs. Useful

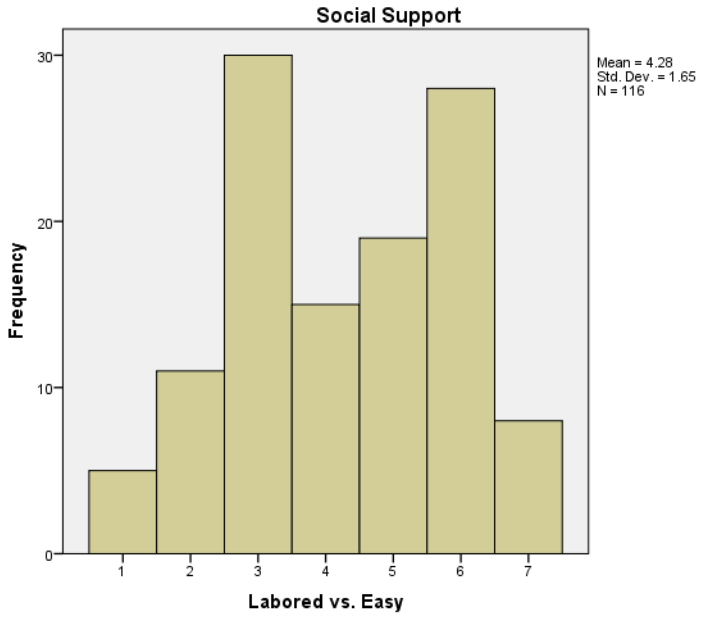


Figure 14. Social Support: Labored vs. Easy

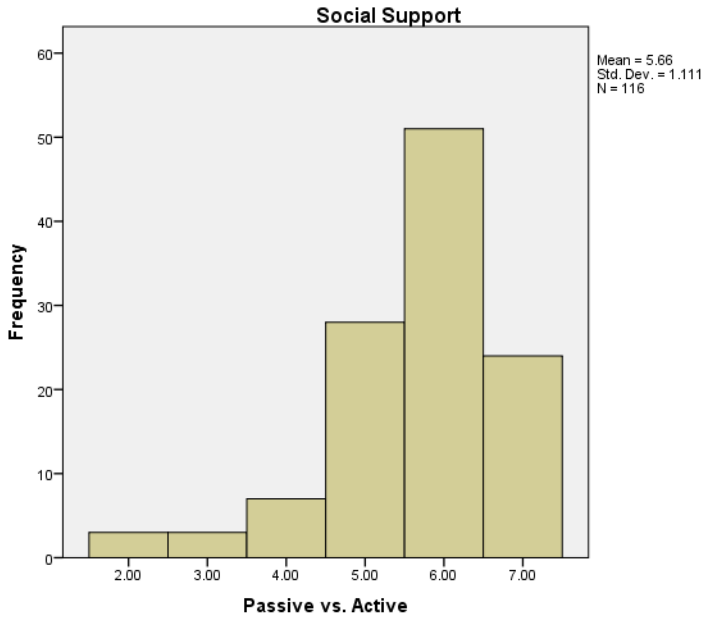


Figure 15. Social Support: Passive vs. Active

Table 7

Semantic Differential Scales: Means, Standard Deviations, 95% Confidence Interval Range, Skewness, and Kurtosis

Measure	Mean	Std. Deviation	95% Confidence Interval Range	Skewness	Kurtosis
Mindfulness/Meditation					
Worthless (1) – Valuable (7)	5.48	1.5	5.20–5.75	–.924	.065
Labored (1) – Easy (7)	3.65	1.39	3.40–3.91	.361	–.073
Passive (1) – Active (7)	5.22	1.35	4.97–5.47	–.748	.143
Emotion Regulation					
Complex (1) – Simple (7)	3.03	1.40	2.77–3.29	.882	.246
Passive (1) – Active (7)	5.58	1.30	5.35–5.82	–1.440	2.380
Useless (1) – Useful (7)	5.95	1.34	5.71–6.20	–1.700	3.050
Social Support					
Useless (1) – Useful (7)	6.49	1.06	6.29–6.68	–2.830	8.330
Labored (1) – Easy (7)	4.28	1.35	4.97–5.47	–.748	.143
Passive (1) – Active (7)	5.66	1.11	5.45–5.86	–1.190	1.900

Big Five Inventory

The BFI-44 (John et al., 1991) is a 44-item Likert scale, self-report measure that ranges in answers from *strongly disagree* (1) to *strongly agree* (5). The short-phrase items allow the researcher to gain an understanding of where the participant falls in terms of the Big Five personality factors: extraversion, agreeableness, conscientiousness, neuroticism, openness. Karaman et al. (2010) describe extraversion using the adjectives energetic, talkative, excitable, and lively. They describe agreeableness as loving and valuing others, helpful, and affectionate. Conscientiousness is described as ambition for success, planning ahead of time, responsibility, and self-discipline. Neuroticism is described as having fear, depression, touchiness, being angry, and having negative emotions. Lastly, Karaman et al. describe openness with the terms dreaming, adventurous, braveness and curiosity. Items for the BFI are stated as characteristics that a participant may or may not agree with regarding oneself. Items for the Extraversion scale included these examples:

- Is talkative;
- Is full of energy;
- Generates a lot of enthusiasm.

Frequencies for the Extraversion scale ratings from this study are displayed in Figure 16.

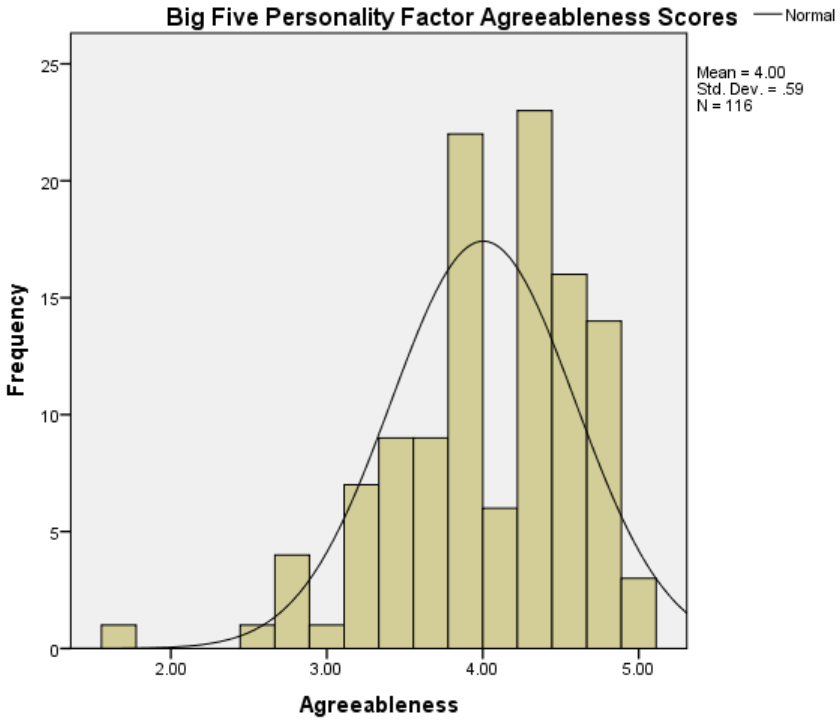
Possible range of scores: 1–5 for Big Five Personality Factors

Figure 16. Big Five Personality Factor Extraversion Scores

Items for the Agreeableness scale include statements such as:

- Is helpful and unselfish with others;
- Has a forgiving nature;
- Is generally trusting.

Frequencies for the Agreeableness scale ratings from this study are displayed in Figure 17.



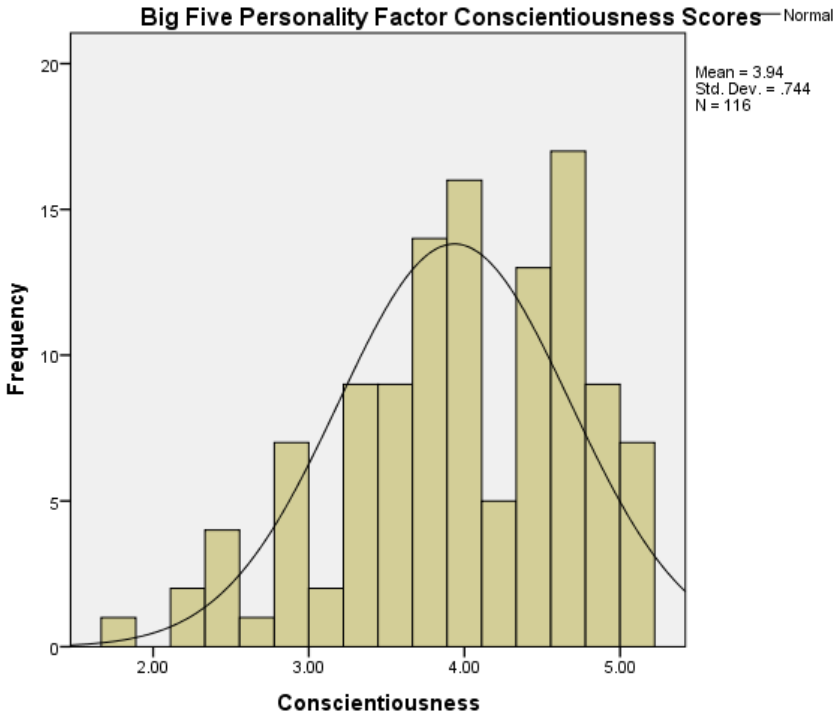
Possible range of scores: 1–5 for Big Five Personality Factors

Figure 17. Big Five Personality Factor Agreeableness Scores

Items for the Conscientiousness scale include examples such as:

- Does a thorough job;
- Does things efficiently;
- Makes plans and follows through with them.

Frequencies for the Conscientiousness scale ratings from this study are displayed in Figure 18.



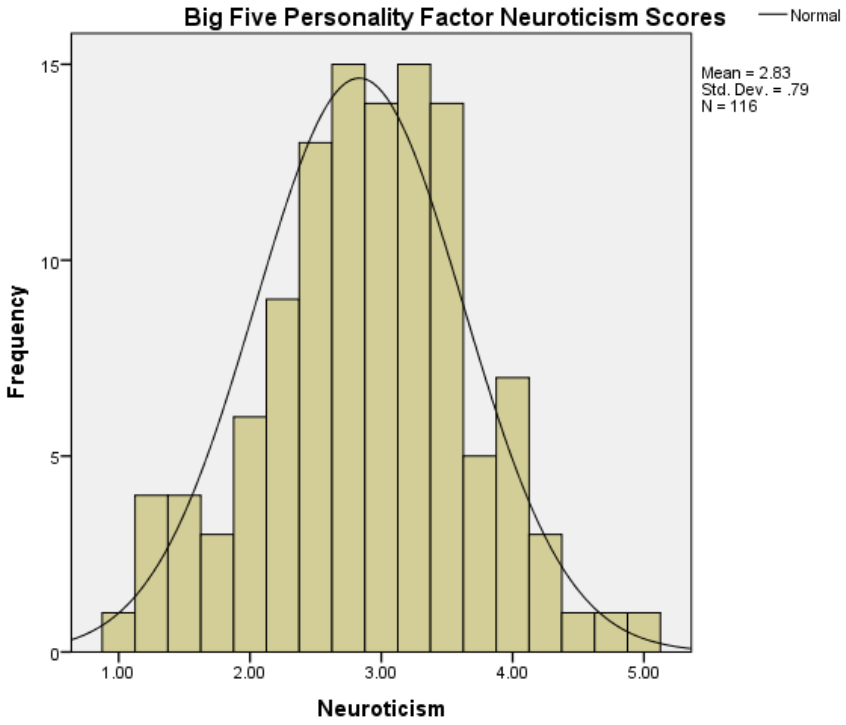
Possible range of scores: 1–5 for Big Five Personality Factors

Figure 18. Big Five Personality Factor Conscientiousness Scores

Items on the Neuroticism scale include:

- Is depressed, blue;
- Can be tense;
- Worries a lot.

Frequencies for the Neuroticism scale ratings from this study are displayed in Figure 19.



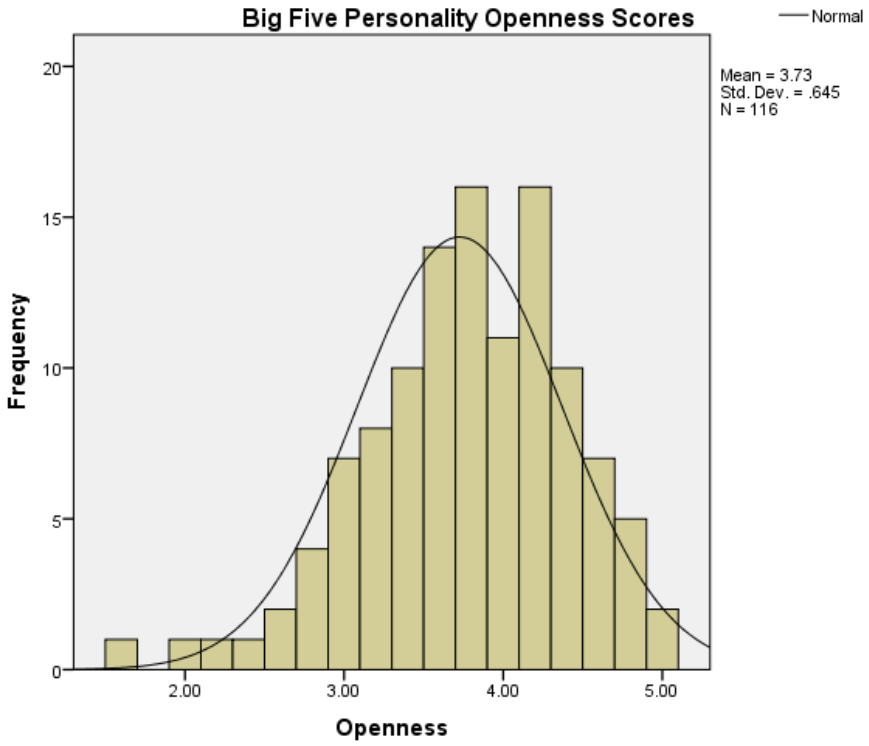
Possible range of scores: 1–5 for Big Five Personality Factors

Figure 19. Big Five Personality Factor Neuroticism Scores

Items for the Openness scale include examples such as:

- Is curious about many things;
- Is ingenious, a deep thinker;
- Likes to reflect, play with ideas.

Frequencies for the Openness scale ratings from this study are displayed in Figure 20.



Possible range of scores: 1–5 for Big Five Personality Factors

Figure 20. Big Five Personality Openness Scores

Scores on each scale are calculated by summing the questions on the specific scale and then calculating the average score. Descriptive statistics including means of each personality factor are indicated in Table 8.

Table 8

Big Five Inventory Personality Factors: Means, Standard Deviations, 95% Confidence Interval Range, Skewness, and Kurtosis

Measure	Mean	Std. Deviation	95% Confidence Interval Range	Skewness	Kurtosis
Extraversion	3.30	.90	3.31–3.25	–.023	–.709
Agreeableness	4.00	.59	3.89–4.11	–.966	1.210
Conscientiousness	3.93	.74	3.79–4.07	–.623	–.200
Neuroticism	2.83	.78	2.68–2.97	–.082	–.071
Openness	3.72	.64	3.60–3.84	–.568	.449

Note. Possible range of scores: 1–5 for Big Five Personality Factors.

Hypothesis Testing

Hypothesis 1a: Mindful Awareness and Perceived Stress

Hypothesis 1a indicated that graduate students who have a higher level of mindful awareness as calculated by awareness subscale on the Philadelphia Mindfulness Scale (PHLMS) are more likely to report lower levels of perceived stress as calculated by the Perceived Stress Scale (PSS) while adjusting for personality factors. A hierarchical regression was used to assess the ability of mindful awareness to predict total perceived stress, after controlling for the Big Five personality factors: extraversion, agreeableness, conscientiousness, neuroticism, and openness. The Big Five personality factors were entered into Step 1 explaining 43.3% of the variance in total perceived stress. After entry of the PHLMS awareness scale at Step 2, the total variance of the model was 44.1%, $F(6, 109) = 14.343$, $p < .000$. The PHLMS awareness explained an additional .9% of the variance of total perceived stress, after controlling for the Big Five personality factors,

R squared change = .009, *F* change (1, 109) = 1.69, $p < .196$. In the final model, Extraversion, Conscientiousness, Neuroticism, and Openness were statistically significant, with Neuroticism having a higher beta value (*beta* = .512, $p < .01$). Conscientiousness had the next highest recorded beta value (*beta* = –.198, $p < .05$), then Openness (*beta* = .178, $p < .05$) followed by Extraversion (*beta* = –.166, $p < .05$). The *beta* values of the variables in this hierarchical regression are displayed in Table 9. This means that PHLMS awareness is not predictive of perceived stress but Extraversion, Conscientiousness, Neuroticism, and Openness were.

Table 9

Total Perceived Stress: Summary of Hierarchical Regression Analysis

Variable	B	SE B	Beta
Step 1			
Extraversion	–.961	.442	–.162*
Agreeableness	–.294	.740	–.032
Conscientiousness	–1.730	.540	–.240**
Neuroticism	3.550	.545	.521**
Openness	1.320	.632	.159*
Step 2			
Extraversion	–.988	.441	–.166*
Agreeableness	–.130	.749	–.014
Conscientiousness	–1.430	.586	–.198*
Neuroticism	3.490	.545	.512**
Openness	1.480	.641	.178*
PHLMS Awareness	–.131	.100	–.110

*$p < .05$. **$p < .01$.

Hypothesis 1b: Mindful Acceptance and Perceived Stress

Hypothesis 1b stated that graduate students who have a higher level of mindful acceptance as calculated by the acceptance subscale on the PHLMS are more likely to report lower levels of perceived stress as calculated by the PSS, while adjusting for personality factors from the Big Five Inventory (BFI). A hierarchical regression was used to assess the ability of mindful acceptance to predict total perceived stress, after controlling for the Big Five personality factors: extraversion, agreeableness, conscientiousness, neuroticism, and openness. The Big Five personality factors were entered into Step 1 explaining 43.3% of the variance in total perceived stress. After entry of the PHLMS acceptance scale at Step 2, the total variance of the model was 48.4%, $F(6, 109) = 17.062$, $p < .000$. The PHLMS acceptance explained an additional 5.2% of the variance of total perceived stress, after controlling for the Big Five personality factors, *R* squared change = .052, *F* change (1, 109) = 10.95, $p < .01$. In the final model Conscientiousness, Neuroticism, Openness, and Acceptance were statistically significant, with Neuroticism having a higher beta value (*beta* = .385, $p < .001$). Acceptance had the next highest recorded beta value (*beta* = -.276, $p < .001$), then Conscientiousness with a recorded beta value (*beta* = .-.176, $p < .05$) and, finally, Openness with a recorded beta value (*beta* = .160, $p < .05$). Table 10 displays the *beta* values from the variables used in this hierarchical regression. In sum, this indicates that PHLMS acceptance is predictive of perceived stress.

Table 10

Summary of Hierarchical Regression Analysis for Variables Predicting Total Perceived Stress

Variable	B	SE B	Beta
Step 1			
Extraversion	–.961	.442	–.162*
Agreeableness	–.294	.740	–.032
Conscientiousness	–1.730	.540	–.240**
Neuroticism	3.550	.545	.521**
Openness	1.320	.632	.159*
Step 2			
Extraversion	–.738	.429	–.124
Agreeableness	–.883	.731	–.097
Conscientiousness	–1.270	.536	–.176*
Neuroticism	2.620	.593	.385**
Openness	1.330	.605	.160*
PHLMS Acceptance	–.258	.078	0.276**

*$p < .05$. **$p < .01$.

Hypothesis 2: Cognitive Reappraisal and Mindfulness/Meditation

Hypothesis 2 states that graduate students with a higher use of Cognitive Reappraisal as measured by the Emotion Regulation Questionnaire Cognitive Reappraisal subscale will rate mindfulness/meditation as measured by the Semantic Differential Scale as more valuable. A correlational analysis indicated that there is a small positive relationship between use of Cognitive Reappraisal and value of Mindfulness/Meditation, which is what was hypothesized. In sum, this means that someone who scored higher on the use of Cognitive Reappraisal is more likely to value Mindfulness/Meditation. Both a

Pearson product-moment correlation and a Spearman Rho were run and the correlation coefficients were $r = .179$, $n = 117$, $p = .054$, and $r_s = .208$, $n = 117$, $p < .05$, respectively (see Table 11). Interpretations of both correlation coefficients indicate a small positive correlation. The Pearson coefficient of determination is .032, which indicates that Cognitive Reappraisal and value of Mindfulness/Meditation share 3.2% of the variance.

Table 11

Cognitive Reappraisal and Value of Mindfulness/Meditation Summary of Intercorrelations

Measure	1	*N*
Pearson Correlation		
Cognitive Reappraisal	–	
Mindfulness/Meditation	.179	117
Spearman Rho		
Measure	1	*N*
Cognitive Reappraisal	–	
Mindfulness/Meditation	.208*	117

*Correlation is significant at the 0.05 level (2-tailed).

Hypothesis 3: Expressive Suppression and Perceived Stress

Hypothesis 3 indicates the greater use of expressive suppression as measured by the Expressive Suppression subscale on the ERQ will be related to higher perceived stress levels as calculated by the PSS while adjusting for personality factors. A hierarchical regression was used to assess the ability of expressive suppression to predict

total perceived stress, after controlling for the Big Five personality factors: extraversion, agreeableness, conscientiousness, neuroticism, and openness. The Big Five personality factors were entered into Step 1 explaining 43.3% of the variance in total perceived stress. After entry of the ERQ Expressive Suppression scale at Step 2, the total variance of the model was 45.6%, $F(6, 109) = 15.249$, $p < .000$. The ERQ Expressive Suppression scale explained an additional 2.4% of the variance of total perceived stress, after controlling for the Big Five personality factors, *R* squared change = .024, *F* change (1, 109) = 4.77, $p < .05$. In the final model, Conscientiousness, Neuroticism, Openness, and Suppression were statistically significant, with Neuroticism having a higher beta value (*beta* = .549, $p < .01$). Conscientiousness had the next highest recorded beta value (*beta* = –.191, $p < .05$) then Suppression with a recorded beta value (*beta* = .177, $p < .05$) and, finally, Openness with a recorded beta value (*beta* = .166, $p < .05$). The *beta* values obtained in this hierarchical regression are displayed in Table 12. This means that Expressive Suppression is predictive of higher perceived stress scores as hypothesized.

Table 12

Total Perceived Stress Summary of Hierarchical Regression Analysis

Variable	B	SE B	Beta
Step 1			
Extraversion	–.961	.442	–.162*
Agreeableness	–.294	.740	–.032
Conscientiousness	–1.730	.540	–.240**
Neuroticism	3.550	.545	.521**
Openness	1.320	.632	.159*
Step 2			
Extraversion	–.538	.476	–.091
Agreeableness	–.112	.733	–.012
Conscientiousness	–1.380	.555	–.191*
Neuroticism	3.740	.542	.549**
Openness	1.380	.622	.166*
Expressive Suppression	.214	.908	.177*

*$p < .05$. **$p < .01$.

Hypothesis 4: Cognitive Reappraisal and Perceived Stress

Hypothesis 4 states the greater use of cognitive reappraisal as measured by the ERQ will be associated with lower reported scores on perceived stress while adjusting for personality factors. A hierarchical regression was used to assess the ability of cognitive reappraisal to predict total perceived stress, after controlling for the Big Five personality factors: extraversion, agreeableness, conscientiousness, neuroticism, and openness. The Big Five personality factors were entered into Step 1 explaining 43.3% of the variance in total perceived stress. After entry of the ERQ Cognitive Reappraisal scale at Step 2, the

total variance of the model was 44.1%, $F(6, 109) = 14.316$, $p < .000$. The ERQ Cognitive Reappraisal scale explained an additional .8% of the variance of total perceived stress, after controlling for the Big Five personality factors, *R* squared change = .008, *F* change (1, 109) = 1.6, $p = .209$. In the final model Conscientiousness, Neuroticism, Openness, and Extraversion were statistically significant, with Neuroticism having a higher beta value (*beta* = .510, $p < .01$). Conscientiousness had the next highest recorded beta value (*beta* = –.224, $p < .01$), then Openness with a recorded beta value (*beta* = .169, $p < .05$) and, finally, Extraversion with a recorded beta value (*beta* = –.165, $p < .05$). The *beta* values obtained in this hierarchical regression are displayed in Table 13. In sum, cognitive reappraisal was not found to be predictive of perceived stress scores.

Table 13

Total Perceived Stress Summary of Hierarchical Regression Analysis

Variable	B	SE B	Beta
Step 1			
Extraversion	–.961	.442	–.162*
Agreeableness	–.294	.740	–.032
Conscientiousness	–1.730	.540	–.240**
Neuroticism	3.550	.545	.521**
Openness	1.320	.632	.159*
Step 2			
Extraversion	–.979	.441	–.165*
Agreeableness	–.133	.749	–.015
Conscientiousness	–1.62	.546	–.224**
Neuroticism	3.47	.547	.510**
Openness	1.41	.634	.169*
Cognitive Reappraisal	–.092	.073	–.098

*$p < .05$. **$p < .01$.

Hypothesis 5: Agreeableness and Self-Care Frequency

Hypothesis 5 indicates participants who score higher on the BFI on the Agreeableness subscale are likely to have a lower score on their overall self-care frequency, which was calculated by adding the total scores of how often a participant engages in therapy, engages in physical activity, uses mindfulness/meditation, engages in healthy eating, engages in healthy sleep habits, seeks the support of others, participates in religious or spiritual practices, journals for self-care, and uses emotion regulation strategy for self-care. A correlational analysis indicated that there is a positive relationship between level of agreeableness and self-care frequency, which is opposite of what was

hypothesized. This means that participants who scored higher in Agreeableness reported using more self-care techniques . Both a Pearson product-moment correlation and a Spearman Rho were run and the correlation coefficients were $r = .292$, $n = 110$, $p < .01$, and $r_s = .230$, $n = 110$, $p < .05$, respectively, and are both shown in Table 14. Interpretation of both correlation coefficients indicate a small correlation. The Pearson coefficient of determination is .085, which indicates Agreeableness and Self-Care Frequency share 8.5% of the variance.

Table 14

Agreeableness and Self-Care Frequency Summary of Intercorrelations

Measure	1	*N*
Pearson Correlation		
Agreeableness	–	
Self-Care Frequency	.292**	110
Spearman Rho		
Measure	1	*N*
Agreeableness	–	
Self-Care Frequency	.230*	110

*Correlation is significant at the 0.05 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed).

Hypothesis 6: Agreeableness and Perceived Stress

Hypothesis 6 indicates that participants who report elevated scores on the BFI on the Agreeableness subscale are likely to report higher total perceived stress as calculated by the PSS. A correlational analysis indicated that there is a negative relationship

between level of agreeableness and perceived stress, which is opposite of what was hypothesized. Both a Pearson product-moment correlation and a Spearman Rho analysis were conducted and the correlation coefficients were $r = –.246$, $n = 116$, $p < .01$, and $r_s = –.245$, $n = 116$, $p < .01$, respectively, and are shown in Table 15. Interpretation of both correlation coefficients indicate a small negative correlation. The Pearson coefficient of determination is .06, which accounts for 6% of shared variance. These results indicate that participants who scores higher on Agreeableness reported lower perceived stress scores.

Table 15

Agreeableness and Total Perceived Stress Summary of Intercorrelations

Measure	1	*N*
Pearson Correlation		
Agreeableness	–	
Total Perceived Stress	–.246**	116
Spearman Rho		
Measure	1	*N*
Agreeableness	–	
Total Perceived Stress	–.245**	116

**Correlation is significant at the 0.01 level (2-tailed).

Post-Hoc Analyses

In addition to the previously indicated hypotheses, post-hoc questions were created based on current literature by Moorhead et al. (2012) suggesting there is a connection between perceived stress, self-care, and personality factors. Post-hoc

analyses were also chosen based on the results of the hypothesis testing indicating significant connections with personality factors and perceived stress. These questions were used to further explore relationships with perceived stress. Questions that were analyzed after data collection include:

1. Do graduate students with lower levels of neuroticism report lower levels of perceived stress?
2. Is there a correlation between personality factor and self-care frequency?
3. Is there a correlation between year in doctoral program and reported perceived stress level?
4. What is the relationship between self-care frequency and reported perceived stress?
5. Do males and females differ in their perception of mindfulness/meditation, emotion regulation, and social support?

Post-hoc Analysis 1: Big Five Inventory and Perceived Stress

Based on previous research by Moorhead et al. (2012) indicating that lower levels of neuroticism were found to predict higher levels of total wellness, a correlational analysis was used to compare all five personality factors (extraversion, agreeableness, conscientiousness, neuroticism, and openness) to total perceived stress. Correlations are reported in Table 16. Neuroticism was found to have a strong correlation to total perceived stress with $r = .590$ indicating that as Neuroticism scores increase, the total perceived stress scores also increased. The next highest correlation was moderate with Conscientiousness and total perceived stress. It was found that as Conscientiousness increases, the total perceived stress scores decreased ($r = –.320$). Both Agreeableness

and Extraversion had small negative correlations (r = –.246 and r = –.203, respectively), which indicates that the more extraverted or agreeable someone is, the less perceived stress they reported. Openness was not found to be statistically significant.

Table 16

BFI Extraversion, Agreeableness, Conscientiousness, Neuroticism, Openness, and Total Perceived Stress: Summary of Intercorrelations, Means, and Standard Deviations

Measure	1	2	3	4	5	6
Extraversion	–					
Agreeableness	.003	–				
Conscientiousness	–.054	.211*	–			
Neuroticism	–.157	–.388**	–.193*	–		
Openness	.175	.247**	.115	–.097	–	
Total Perceived Stress	–.203*	–.246**	–.320**	.590**	.045	–

*Correlation is significant at the 0.05 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed).

Post-hoc Analysis 2: Big Five Inventory and Self-Care Frequency

Based on the same study by Moorhead et al. (2012), a correlational analysis was run to analyze the Big Five personality factors with self-care frequency. The correlations are presented in Table 17. A moderate positive correlation was found (r = .351) with Conscientiousness and self-care frequency indicating that as Conscientiousness increased so did self-care frequency. Small positive correlations were found with Agreeableness (r = .292), Openness (r = .210), and Extraversion (r = .139), while Neuroticism was not found to statistically significant.

Table 17

BFI Extraversion, Agreeableness, Conscientiousness, Neuroticism, Openness, and Self-Care Frequency: Summary of Intercorrelations, Means, and Standard Deviations

Measure	1	2	3	4	5	6
Extraversion	–					
Agreeableness	.003	–				
Conscientiousness	–.054	.211*	–			
Neuroticism	–.157	–.388**	–.193*	–		
Openness	.175	.247**	.115	–.097	–	
Average of Self-Care Frequency	.139	.292**	.351**	–.150	.210*	–

*Correlation is significant at the 0.05 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed).

Post-hoc Analysis 3: Year in Program and Perceived Stress

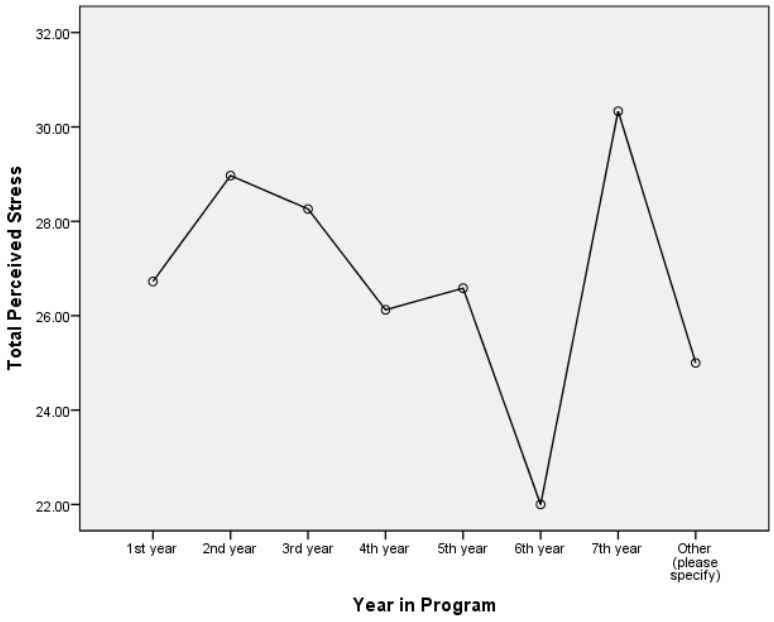
The third post-hoc analysis that was run answered the question: Is there a relationship between year in doctoral program and reported perceived stress level? An ANOVA was used and found no significant differences between perceived stress levels of graduate students based on their program standing year: $F(7, 109) = .983$, $p = .448$. Table 18 indicates the program year, means, and standard deviations, while Figure 21 displays the means in a graph.

Table 18

Year in Program and Perceived Stress: Summary of Means, and Standard Deviations

	N	*M*	*SD*	Min	Max
1st Year	29	26.72	4.84	16	36
2nd Year	32	28.96	5.68	16	41
3rd Year	23	28.26	6.20	19	38
4th Year	16	26.12	4.77	17	34
5th Year	12	26.58	5.03	20	34
6th Year	1	22.00	-	22	22
7th Year	3	30.33	4.50	26	35
Other (ABD)	1	25.00	-	25	25
Total	117	27.58	5.38	16	41

Note. Possible score range: 10–50 for Perceived Stress



Note. Year in Program for 6th year and Other represent only one participant. Use caution in interpreting those data points.

Figure 21. Means of Total Perceived Stress Based on Year in Program

Post-hoc Analysis 4: Self-Care Frequency and Perceived Stress

The relationship between self-care frequency (as measured by total of self-care techniques summed) and perceived stress scores (as measured by the Perceived Stress Scale) was investigated using a Pearson product-moment correlation coefficient. There was a small negative correlation between the two variables (r = – .287) with higher levels of self-care frequency associated with lower levels of perceived stress, as indicated in Table 19.

Table 19

Perceived Stress Scale and Self-Care Frequency: Summary of Intercorrelations, Means, and Standard Deviations

Measure	1	*M*	*SD*	*N*
Total Perceived Stress	–	27.58	5.38	117
Average of Self-Care Frequency	–.287**	28.69	4.92	112

Note. Totals vary due to some missing data.
** Correlation is significant at the 0.01 level (2-tailed).

Post-hoc Analysis 5: Semantic Differential Scales

Semantic differential mindfulness/meditation. An independent-samples *t* test was conducted to compare the semantic differential scores on the factor mindfulness/ meditation on adjective scale worthless-valuable for males and females. There is a significant difference in scores for males (M = 4.96, SD = 1.45) and females (M = 5.64, SD = 1.49; $t(115) = –2.11$, p = .037, two-tailed).). In sum this means that females rated mindfulness/meditation as more valuable than males.

An independent-samples *t* test was conducted to compare the semantic differential scores on the factor mindfulness/meditation on adjective scale labored-easy for males and females. There is not a significant difference in scores for males ($M = 3.78$, $SD = 1.31$) and females ($M = 3.61$, $SD = 1.41$; $t(115) = .555$, $p = .58$, two-tailed).

An independent-samples *t* test was conducted to compare the semantic differential scores on the factor mindfulness/meditation on adjective scale passive-active for males and females. There is a significant difference in scores for males ($M = 4.71$, $SD = 1.24$) and females ($M = 5.38$, $SD = 1.36$; $t(115) = .998$, $p = .023$, two-tailed). These results indicate that females rated mindfulness/meditation as more active compared to males. Table 20 displays the means and standard deviations for all three bipolar adjective pairs.

Table 20

Mindfulness/Meditation Bipolar Adjective Pairs, by Gender

Adjective Pair	Gender	Mean	Std. Deviation	*N*
Worthless (1) – Valuable (7)	Male	4.96*	1.45	28
	Female	5.64*	1.48	89
Labored (1) - Easy (7)	Male	3.78	1.31	28
	Female	3.61	1.41	89
Passive (1) – Active (7)	Male	4.71*	1.23	28
	Female	5.38*	1.36	89

*Indicates significant difference between scores.

Semantic differential emotion regulation. An independent-samples *t* test was conducted to compare the semantic differential scores on the factor emotion regulation adjective scale complex-simple for males and females. There is not a significant

difference in scores for males (M = 3.10, SD = 1.10) and females (M = 3.01, SD = 1.49; $t(115) = .313$, $p = .755$, two-tailed).

An independent-samples t test was conducted to compare the semantic differential scores on the factor emotion regulation on adjective scale passive-active for males and females. There is a significant difference in scores for males (M = 5.03, SD = 1.26) and females (M = 5.76, SD = 1.27; $t(115) = .987$, $p = .009$, two-tailed).). In sum this indicates that females rated emotion regulation as more active than males.

An independent-samples t test was conducted to compare the semantic differential scores on the factor emotion regulation on adjective scale useless-useful for males and females. There is a significant difference in scores for males (M = 5.46, SD = 1.42) and females (M = 6.11, SD = 1.28; $t(115) = .192$, $p = .025$, two-tailed). Table 21 displays the means and standard deviations for all three bipolar adjective pairs. These results show that females rated emotion regulation as more useful than how males rated emotion regulation.

Table 21

Emotion Regulation Bipolar Adjective Pairs, by Gender

Adjective Pair	Gender	Mean	Std. Deviation	*N*
Complex (1) – Simple (7)	Male	3.10	1.10	28
	Female	3.01	1.49	89
Passive (1) - Active (7)	Male	5.03*	1.26	28
	Female	5.76*	1.27	89
Useless (1) – Useful (7)	Male	5.46*	1.42	28
	Female	6.11*	1.28	89

*Indicates significant difference between scores.

Semantic differential social support. An independent-samples *t* test was conducted to compare the semantic differential scores on the factor social support adjective scale useless-useful for males and females. There is not a significant difference in scores for males ($M = 6.07$, $SD = 1.48$) and females ($M = 6.62$, $SD = .86$; $t(32.9) = -1.87$, $p = .070$, two-tailed).

An independent-samples *t* test was conducted to compare the semantic differential scores on the factor social support on adjective scale labored-easy for males and females. There is not a significant difference in scores for males ($M = 4.21$, $SD = 1.57$) and females ($M = 4.30$, $SD = 1.68$; $t(114) = -.226$, $p = .822$, two-tailed).

An independent-samples *t* test was conducted to compare the semantic differential scores on the factor social support on adjective scale passive-active for males and females. There is not a significant difference in scores for males ($M = 5.57$, $SD = 1.06$) and females ($M = 5.69$, $SD = 1.13$; $t(114) = -.504$, $p = .616$, two-tailed). Table 22 displays the means and standard deviations for all three bipolar adjective pairs.

Table 22

Social Support Bipolar Adjective Pairs, by Gender

Adjective Pair	Gender	Mean	Std. Deviation	*N*
Useless (1) – Useful (7)	Male	6.07	1.48	28
	Female	6.62	.86	88
Labored (1) - Easy (7)	Male	4.21	1.57	28
	Female	4.30	1.68	88
Passive (1) – Active (7)	Male	5.57	1.06	28
	Female	5.69	1.13	88

Summary

This chapter presented the results of the statistical analyses that were conducted to answer the hypotheses and post-hoc questions for this current study. Results of hypothesis 1a were not supported by the data. Mindful awareness was not found to be significantly related to lower levels of perceived stress ($B = –110$, $p = .196$). This finding was similar to Myers et al. (2012), who also found that mindful awareness was not related to perceived stress ($B = –.015$, $p = .701$).

Results of a hierarchical regression indicate that hypothesis 1b is supported. Mindful acceptance was found to be related to perceived stress scores ($B = –.276$, $p = .001$), which was similar to Myers et al. (2012), who found acceptance to also be related to perceived stress ($B = –.475$, $p = .000$). The results indicate that graduate students who utilize mindful acceptance may be predicted to report lower perceived stress.

Results of a correlational analysis indicate that hypothesis 2 is supported. A small positive correlation was found between graduate students scoring higher on Cognitive Reappraisal and their value rating of Mindfulness/Meditation.

Results of a hierarchical regression analysis supported hypothesis 3. The results indicate there is an association between suppression and perceived stress for graduate students. Expressive suppression had a recorded beta value (*beta* = .177, $p = .031$) and the significant personality factors were Neuroticism (*beta* = .549, $p = .000$), Conscientiousness (*beta* = –.191, $p = .014$), and Openness (*beta* = .166, $p = .031$).

Hypothesis 4 was not supported by the results of this study. The results of a hierarchical regression analysis indicate that perceived stress is not associated with use of cognitive reappraisal (*beta* = -.098, $p = .209$). Neuroticism, Openness, and Extraversion

were statistically significant, with Neuroticism having a higher beta value (*beta* = .510, $p < .001$).

Hypothesis 5 was not supported by the results of this study. The hypothesis stated that participants who score higher on the BFI on the Agreeableness subscale are likely to report a lower score on their overall self-care frequency. A correlational analysis indicated that there is a positive relationship between level of agreeableness and self-care frequency which is opposite of what was hypothesized.

Hypothesis 6 was not supported by the results of this study. The hypothesis predicted a positive relationship between agreeableness and perceived stress levels. A correlational analysis indicated that there is a negative relationship between level of agreeableness and perceived stress which is opposite of what was hypothesized.

Post-hoc analyses consisted of a correlational analysis of the BFI factors and total perceived stress. It was found that Neuroticism is significantly related to a higher level of perceived stress. Conscientiousness was moderately related to a lower level of perceived stress. Extraversion and Agreeableness both had small correlations to lower levels of perceived stress. Openness was not found to be statistically significant.

A correlational analysis examined the BFI factors and self-care frequency. The results indicate a moderate positive correlation between Conscientiousness and self-care frequency. Agreeableness, Extraversion and Openness had small correlations to lower levels of self-care frequency. Neuroticism was not found to be statistically significant.

An ANOVA answered the question of the correlation between perceived stress and year in program. Results indicate there is no significant difference between total perceived stress for graduate students in different years in their program.

A correlational analysis examined the relationship between self-care frequency and perceived stress which indicated a small negative correlation. These results indicate that higher levels of self-care frequency are associated with lower levels of perceived stress.

Semantic Differential Scales analyzed by independent-samples *t* tests indicate that relating to the variable mindfulness/meditation females rated the adjective pairs worthless-valuable and passive-active higher on the positively stated words than males. Females also rated the variable emotion regulation with adjective pairs passive-active and useless-useful higher on the positively stated words than males.

The results of all hypotheses and post-hoc analyses will be further discussed and connected to previous literature in the next chapter.

CHAPTER V

DISCUSSION

Overview

This chapter begins with a review of the purpose of the study followed by a discussion of the results indicated in Chapter IV as they relate to the current literature on graduate student self-care. Limitations of the study will then be discussed. The discussion and limitations will be used to provide an understanding of the implications for future research and application of the information learned. Lastly, the chapter will be summarized, including highlights of the significance of the study.

Purpose of the Research

The purpose of this study was to examine the associations of self-care, personality factors, and perceived stress levels of Counselor Education and Counseling Psychology doctoral students. By studying graduate students in Counselor Education and Counseling Psychology, researchers may be able to assist with the prevention of future burnout and compassion fatigue by emphasizing the importance of self-care early on in professional training. The overarching research questions of this study are based on previous research by Myers et al. (2012). The relationship between self-care, perceived stress, and personality factors of graduate students were examined in an attempt to broaden the current research.

Variables of Interest

One of the variables of interest in this study is self-care frequency which has been established in this study by summing the participant frequency of the following self-care behaviors: (a) any type of therapy, (b) physical activity, (c) mindfulness/meditation, (d) healthy eating, (e) healthy sleep habits, (f) seeking the support of others, (g) participating in religious or spiritual practices, (h) journaling, and (i) using emotion regulation. These items were picked as they are common self-care/wellness behaviors according to Case and McMinn (2001). The overall sample in this study indicated a low-moderate level of self-care reporting "almost never," "sometimes," or "fairly often" frequency of self-care strategies the most. The possible range of scores was 9–45 with the mean being 28.69 for this sample. Healthy eating, healthy sleep habits, and social support were ranked with the highest frequency, while therapy, mindfulness, religious or spiritual practices, and journaling were ranked with the lowest frequencies.

Another variable of interest in this study is emotion regulation, which was measured by the Emotion Regulation Questionnaire. Emotion regulation is the controlling of or regulating our emotional state. The questionnaire provides two subscale scores which include Cognitive Reappraisal and Expressive Suppression (Gross & John, 2003). Cognitive reappraisal is how we make meaning of our internal feelings. Expressive suppression is how we show our internal feelings on the outside (Gross & John, 2003). The range of scores for cognitive reappraisal are 6–42 with this sample having a mean of 29.88, which indicates a high-moderate use of cognitive reappraisal as an emotion regulation strategy. The range of scores for expressive suppression are 4–28

with this sample having a mean of 11.27 indicating a low use of suppression as an emotion regulation strategy.

The Philadelphia Mindfulness Scale was used to provide two subscale scores which are the variables acceptance and awareness. Acceptance is considered to be a way to non-judgmentally experience the moment with openness. Awareness is considered to be a monitoring process that is continuous with focus in the present moment (Cardaciotto et al., 2008). Higher scores on each subscale indicate higher levels of acceptance and awareness, respectively, but do not gauge the participant's perception of mindfulness. This is why a semantic differential scale was used in addition to a frequency question of mindfulness. The range of scores for the PHLMS acceptance and awareness are 10–50 for each scale. This sample reported a mean of 31.91 for acceptance and 38.30 for awareness, indicating high-moderate uses of each with awareness being slightly higher.

Semantic Differential Scales were used to give a perceptual perspective of participants in addition to the behavioral scales. Using favorable and unfavorable polar adjectives, this scale allows the researcher to gain a deeper understanding of graduate students' thoughts on specific concepts. The graduate student chooses a position on a 7-point continuum to represent one's thought of a specific concept between two adjective pairs. The concepts chosen include mindfulness/meditation and the adjective pairs included worthless versus valuable, easy versus labored, and passive versus active. For example, if a student believes that mindfulness/meditation is very valuable, the student would then select a location on the continuum that is closest to the adjective valuable. If a student feels mindfulness/meditation is not very valuable, he or she would select a location on the continuum closer to worthless. The second concept chosen was emotion

regulation with the adjective pairs simple versus complex, active versus passive, and useful versus useless. The final concept was social support with the adjective pairs useful versus useless, labored versus easy, and active versus passive.

The Perceived Stress Scale was used as one of the foundational variables of this study, total perceived stress. This score is based on the cumulative answers on the perceived stress scale items. The higher the total score the higher perceived stress is reported. This sample reported a mean of 27.58 with possible scores ranging from 10–50. Overall this sample reported a moderate level of perceived stress.

The Big Five Inventory was the scale used to give measures of personality factors which include: (a) extraversion, (b) agreeableness, (c) conscientiousness, (d) neuroticism, and (e) openness. Karaman et al. (2010) describe extraversion using the adjectives energetic, talkative, excitable, and lively. They describe agreeableness as loving and valuing others, helpful, and affectionate. Conscientiousness is described as ambition for success, planning ahead of time, responsibility, and self-discipline. Neuroticism is described as having fear, depression, touchiness, being angry, and having negative emotions. Lastly, Karaman et al. describe openness with the terms dreaming, adventurous, braveness and curiosity. Personality factor scores are averaged from 1–5 with 5 indicating a higher level of that specific factor. This sample reported a mean of 3.3 for extraversion, 4 for agreeableness, 3.94 for conscientiousness, 2.83 for neuroticism, and 3.73 for openness.

Research Questions

Along with understanding the broad relationship between self-care, perceived stress, and personality factors, this research specifically asked the following questions:

1a. Do graduate students with a higher level of mindful awareness report lower levels of perceived stress after controlling for the effects of personality factors?

1b. Do graduate students with a higher level of mindful acceptance report lower levels of perceived stress after controlling for the effects of personality factors?

2. What is the relationship of graduate students who score higher on the Cognitive Reappraisal subscale and their perceived value of Mindfulness/Meditation?

3. Do graduate students with a higher use of expressive suppression report higher levels of perceived stress after controlling for the effects of personality factors?

4. Do graduate students with a higher use of cognitive reappraisal report lower levels perceived stress after controlling for the effects of personality factors?

5. Do graduate students who have a higher indication of agreeableness report lower scores of self-care frequency?

6. Do graduate students who have a higher indication of agreeableness report higher perceived stress scores?

In addition to the aforementioned research questions, post-hoc questions were created based on current literature suggesting there is a connection between perceived stress, self-care, and personality factors. Questions that were analyzed after data collection include the following:

1. Do graduate students with lower levels of Neuroticism report lower levels of perceived stress?
2. Is there a correlation between personality factor and self-care frequency?
3. Is there a correlation between year in doctoral program and reported perceived stress level?
4. What is the relationship between self-care frequency and reported perceived stress?
5. Do males and females differ in their perception of mindfulness/meditation, emotion regulation, and social support?

These post-hoc questions were answered using a variety of quantitative analyses including hierarchical regressions, independent samples *t* tests, correlations, and ANOVA. The variety of research questions asked required an array of statistical approaches which were carefully chosen. Previous research from Myers et al. (2012) was used as a foundation for some of the statistical analyses used in this study. Future research suggestions given by Myers et al. to include personality factors makes this research study a unique contribution to the field.

The Impact of Self-Care on Mental Health Practitioners

Self-care is an important aspect to the field of mental health. Mental health practitioners advocate for client self-care on a daily basis and it needs to be emphasized in their personal life as well. Many (Blount & Mullen, 2015; Meyers, 2015; Moorhead et al., 2012; Sawyer, 2013) agree that self-care is an important and necessary topic to discuss during graduate training. As graduate students are thought to experience high levels of stress, it is imperative for this topic to be addressed.

This topic is important because it is likely that graduate students will continue to practice self-care strategies learned during their training program into their professional lives. Essentially, incorporating self-care into graduate programs could alleviate future impairment, burnout, and compassion fatigue. As noted in a study by Case and McMinn (2001), nearly 34% of psychologists surveyed indicated their therapeutic effectiveness was impaired a great deal or somewhat over a three-year span. A similar finding by Guy et al. (1989) showed 36.7% of practitioners acknowledged impairment of their psychotherapy services. While these two studies are over a decade apart, the data are clear that attention needs to continue to be brought to the issue of impairment.

As indicated in Chapter II, psychology graduate students may experience burnout (Badali & Habra, 2003; Barnett, Elman, et al., 2007; Forrest et al., 1999), may be incompetent (Forrest et al., 1999), and may experience trainee impairment if self-care is not a part of their regular routine (Barnett, Elman, et al., 2007; Forrest et al., 1999; O'Connor, 2001; Stevanovich & Rupert, 2009). Barnett, Elman, et al. (2007) encourage mental health professionals to achieve the goal of stress management. They indicate that stressed out professionals who become impaired may negatively affect clients. However, research (Barnett, Elman, et al., 2007) indicates that many psychologists do not seek assistance when self-care concerns are affecting clients. Starting the discussion of self-care in graduate training programs can prevent future impairment.

Discussion of Results

Hypothesis 1a: Awareness and Perceived Stress

Hypothesis 1a answered the research question: Do graduate students with a higher level of mindful awareness report lower levels of perceived stress after controlling for the

effects of personality factors? In the final model of a hierarchical regression, Extraversion, Conscientiousness, Neuroticism, and Openness were statistically significant, with Neuroticism having a higher beta value (*beta* = .512, $p < .001$). Contrary to the hypothesis, awareness was not found to explain variance in perceived stress levels. This finding is similar to Myers et al. (2012) where the authors also found mindful awareness not to be related to perceived stress.

Although awareness was not found to be statistically significant in this current study, Barnett, Elman, et al. (2007) agree on the importance of finding balance between personal and professional activities, having an awareness of distress, and finding ways to focus on self-care. It is possible that a longitudinal study covering at least one or more years would reveal different results pertaining to awareness and stress reduction. This was the case with research conducted by Newsome et al. (2006). Bringing to light the importance of awareness can be beneficial for graduate students and professionals in the mental health field.

Baker (2003) indicated in her book oriented toward therapists, *Caring for Ourselves*, the benefits of journaling to deepen self-awareness. She also stated that therapists who journal between sessions with clients may be better equipped to process their own emotions. A journal may provide an opportunity to explore responses to professional distress as well. The self-care skill of journaling can be utilized in a graduate program by having students journal during their initial practicum after sessions. This would allow students to explore their first experience with clients and may be a skill they would choose to continue engaging in.

As indicated in Chapter II, another solution to increasing awareness with graduate students in the field of mental health is to incorporate a Mindfulness-Based Stress Reduction (MBSR) course into the graduate training program. Mindfulness-Based Stress-Reduction is a skill that can be beneficial for graduate students to learn. Newsome et al. (2006) agree that teaching graduate students MBSR can have long-lasting effects as a self-care strategy. Newsome et al. researched graduate students over the span of four years in a MBSR Program which emphasizes cultivating awareness. A three-credit course entitled Mind/Body Medicine and the Art of Self-Care was implemented over a 15-week period with twice- a-week class sessions. The MBSR course increased the graduate students' comfort with silence, increased their attentiveness and awareness during sessions, positively influenced their view about counseling from a holistic perspective, and overall increased their well-being (Newsome et al., 2006).

While some graduate programs may be unable to add an entire course, the concepts from MBSR and self-care can be incorporated into classes such as ethics, introduction classes, foundation classes, and even practicums. While it may seem easier to incorporate the topic into classes on ethics or foundations of counseling, it is also necessary to incorporate into more advanced level classes that provide opportunities for self-exploration, require stepping outside the students' comfort zone, and that possibly challenge their beliefs. Self-care is important to address in advanced classes because students will be stretching themselves, which is when self-care becomes most important. Immersing students in self-care during training will increase the likelihood those positive behaviors will transfer into their professional work.

Hypothesis 1b: Acceptance and Perceived Stress

Hypothesis 1b answered the question: Do graduate students with a higher level of mindful acceptance report lower levels of perceived stress after controlling for the effects of personality factors? A hierarchical regression was used to answer this question. In the final model Conscientiousness, Neuroticism, Openness, and Acceptance were statistically significant, with Neuroticism having a higher beta value (*beta* = .385, $p < .001$). Acceptance had the next highest recorded beta value (*beta* = –.276, $p < .001$). This hypothesis was supported as mindful acceptance can predict lower perceived stress levels. As mindful acceptance increased, the reported perceived stress level decreased. Myers et al. (2012) found the same results in their study; acceptance was related to lower perceived stress levels.

Acceptance is a topic that mental health professionals typically discuss with clients. Through graduate training programs in Counselor Education and Counseling Psychology, trainees may begin to practice this skill as they recognize the important value of acceptance of their clients and themselves. The important role acceptance plays with clients can also positively impact students' lives. Accepting and letting go can be a stress reduction strategy because of the freedom associated with it. Graduate students have little control while they are in training; therefore, acceptance can provide a sense of control (Newsome et al. 2006).

Hypothesis 2: Cognitive Reappraisal and Mindfulness/Meditation

Hypothesis 2 answered the question: Do graduate students with a higher use of cognitive reappraisal rate mindfulness/meditation as more valuable versus worthless than graduate students with a lower use of cognitive reappraisal? Results of a correlational

analysis indicate a small positive correlation between Cognitive Reappraisal and perceived value of Mindfulness/Meditation. This hypothesis was chosen based on Myers et al. (2012) indicating prior research suggested a higher use of cognitive reappraisal may be related to greater well-being. With this in mind, the concept of mindfulness/ meditation being valuable was used in place of well-being.

Hypothesis 3: Expressive Suppression and Perceived Stress

Hypothesis 3 answered the question: Do graduate students with a higher use of expressive suppression report higher levels of perceived stress after controlling for the effects of personality factors as measured by the Big Five Inventory? This hypothesis was supported. In the final model three personality factors were found to be statistically significant along with Suppression. Conscientiousness, Neuroticism, Openness, and Suppression were statistically significant, with Neuroticism having a higher beta value (*beta* = .549, $p < .001$). Suppression had a recorded beta value of *beta* = .177, $p < .05$. This finding is opposite of what Myers et al. (2012) found which indicated that the greater use of suppression may result in temporarily lower perceived stress. While Myers et al. noted that there may be a short-term benefit to expressive suppression, they speculated this could result in long-term decreases in well-being. Moorhead et al. (2012) found that Neuroticism "was the most significant negative predictor of wellness" (p. 93). As suppression is related to stress, finding an appropriate outlet for students may be beneficial to them both personally and in their professional training.

Encouraging graduate students to engage in peer support groups can allow students to reflect on their experience. This also allows them to express themselves to others in a similar situation. A peer support group can be beneficial for the

developmental process of counselors-in-training (Skovholt, Grier, & Hanson, 2001) and can encourage continued peer relationships after graduation. Research by Myers et al. (2012) indicated that higher levels of social support are related to lower reported perceived stress levels. Peer groups may be an excellent way for training programs to encourage students to focus on self-care. Peer groups can serve to help students understand their boundaries and limitations (Meyers, 2015). A peer group can also offer suggestions on prevention of burnout and intervention. Ideas for self-care strategies can be shared between students and the group can also serve as a social component for balance (Sawyer, 2013). The Semantic Differential Scale utilized in the current study indicated that the students surveyed perceived social support as being very useful. This finding reinforces the idea that social support may be a useful self-care strategy.

Hypothesis 4: Cognitive Reappraisal and Perceived Stress

Hypothesis 4 answered the question: Do graduate students with a higher use of cognitive reappraisal report lower levels perceived stress after controlling for the effects of personality factors? This hypothesis was rejected as lower levels of perceived stress were not found to be related to cognitive reappraisal. In the final model Conscientiousness, Neuroticism, Openness, and Extraversion were statistically significant. This finding is surprising as Myers et al. 2012 found cognitive reappraisal to be related to lower perceived stress levels.

While not revealed as a statistically significant factor in this study, Gross and John (2003) found that people who use cognitive reappraisal have an overall sense of increased well-being. Cognitive reappraisal can be comparative to the term *reframe* used in the mental health field. The more that someone practices reframing their experience

the more familiar the strategy will become. Incorporating these skills from a personal standpoint can be very beneficial for Counseling Psychology and Counselor Education graduate students.

Hypothesis 5: Agreeableness and Self-Care Frequency

Hypothesis 5 answered the question: Do graduate students who report a higher level of Agreeableness as measured by the Big Five Inventory report lower scores of self-care frequency? This hypothesis was rejected. A correlational analysis indicated that there is a positive relationship between level of agreeableness and self-care frequency which is opposite of what was hypothesized. The rationale for this hypothesis was that people who are highly agreeable may be more likely to put others first and self last, which could mean less time for self-care activities.

Hypothesis 6: Agreeableness and Perceived Stress

A second hypothesis related to Agreeableness (hypothesis 6) answered the question: Do graduate students who report a higher level of Agreeableness also report higher perceived stress scores? Similar to hypothesis 5, this hypothesis was also rejected. A correlational analysis indicated a positive relationship between perceived stress and the personality factor Agreeableness.

The rejection of both hypotheses 5 and 6 is supported by previous research. Moorhead et al. (2012) found that Agreeableness as a personality factor contributed to overall wellness as measured by the 5F-Wel which includes five factors: (1) essential self, (2) social self, (3) creative self, (4) coping self, and (5) physical self. Moorhead at al. (2012) also indicated that programs that admit students displaying higher levels of

agreeableness and openness as personality traits may be more likely to experience a greater level of wellness throughout the program.

Post-hoc Analysis 1: Big Five Inventory and Perceived Stress

Post-hoc analyses included the question: Do graduate students with lower levels of Neuroticism as measured by the Big Five Inventory report lower levels of perceived stress? This question was asked as a result of the Moorhead et al. (2012) study indicating Neuroticism was a negative predictor of wellness. The current study supported the post-hoc question as Neuroticism demonstrated a strong correlation with perceived stress. Neuroticism as a personality factor is defined as someone who experiences a high level of negative emotions (Moorhead et al. 2012) including fear, depression, and anger (Karaman et al., 2010). A person who has a higher level of Neuroticism might very well experience higher levels of perceived stress.

Post-hoc Analysis 2: Big Five Inventory and Self-Care Frequency

Given that this study found statistically significant correlations between personality factors and perceived stress levels, a second post-hoc question regarding personality factors answered: Is there a correlation between the Big Five Inventory personality factors (Extraversion, Conscientiousness, Agreeableness, Neuroticism, and Openness) and self-care frequency? There was a moderate positive correlation found for self-care frequency and Conscientiousness as well as a small negative correlation with Neuroticism. The correlation with Conscientiousness and self-care frequency makes sense based on how the personality factor Conscientiousness is defined by Karaman et al. (2010) indicating that a conscientious person has ambition, self-discipline, and plans ahead. A person with a high level of conscientiousness may have an easier time

following Wise and colleagues' (2012) foundations for re-conceptualizing self-care on the stress-distress continuum as discussed in Chapter II. The authors noted that self-care should not feel like a burden; therefore, mental health professionals should work to integrate it into their already busy schedules instead of adding extra time to a full schedule. A conscientious person may have a better skills set for incorporating self-care into his or her schedule. Students in a graduate program may consider incorporating a form of self-care into down time between classes or clients if they are in a practicum course. The self-care may take the form of journaling for a few minutes every day during breaks, using the time to meditate, or any activity the student believes they might benefit from.

Post-hoc Analysis 3: Year in Program and Perceived Stress

The third post-hoc question that was answered was: Is there a correlation between year in doctoral program and reported perceived stress level? This question was chosen because of the various stages in doctoral programs and varying intensity experienced as the student progresses through the program. A correlational analysis indicated no significant change in perceived stress level based on year of participant. This finding supports previous data indicating that wellness does not change among graduate students based on where they are in their training program (Ohrt, Prosek, Ener, & Lindo, 2013).

Post-hoc Analysis 4: Self-Care Frequency and Perceived Stress

The fourth post-hoc analysis answered the question: What is the relationship between self-care frequency and reported perceived stress? The rationale behind this question is that the more someone participates in self-care the lower their reported

perceived stress levels would be. A small negative correlation was found indicating that as self-care frequency increases reported perceived stress levels decreased modestly. While the correlation may be small, it suggests that purposeful self-care can have a positive impact on graduate students, especially those in the mental health field. For example, Myers et al. (2012) found that specific self-care practices such as using a support system and good sleep hygiene were predictors for lower perceived stress scores. Self-care needs to be purposeful because counselors and psychologists are typically the main instrument for their work (Shallcross, 2011).

Post-hoc Analysis 5: Semantic Differential Scales

The last post-hoc analysis utilized the semantic differential scale and looked at gender differences for perceptions of mindfulness/meditation, emotion regulation, and social support. Overall very minor differences were found between males and females in their perceptions of the three factors. The factor mindfulness/meditation had statistically significant scores for the adjective worthless-valuable, with females indicating a higher level of value. The next bipolar adjective pair for the same factor was passive-active, again with females favoring the positive side active. The factor emotion regulation had differences in the adjectives passive-active and useless-useful, both with females favoring the positive side including active and useful. There were no significant differences between the perceptions of social support. It was clear that both males and females perceived social support as being useful and active. As indicated previously, utilizing semantic differentials supplemented the behavioral measures by giving participant perceptions.

Research by Carroll, Gilroy, and Murra (2003) indicate a similar finding in regard to no significant difference between perceptions of self-care behaviors based on gender. Males and females in the study equally believed that if a colleague in the mental health field is struggling, he or she should do one or more of the following regardless of gender: (a) seek therapy; (b) take time off; (c) reduce number of clients; (d) monitor type of clients; (e) investigate possible use of medication; (f) seek supervision/peer consultation; (g) seek a medical exam; (h) incorporate lifestyle changes such as meditation, massage, exercise, sports; and (i) evaluate their work performance. The top two ranked actions of confronting and supporting are the preferred modes of addressing a colleague who may be struggling according to participants in the study (Carroll et al., 2003).

Limitations

The results of this study may be a vehicle for the conversation of self-care during graduate training; however, several aspects of this study limit the conclusions that can be drawn. First of all, the study is correlational, which means that no causation can be implied. The measures used are subjective, and because this study did not have a pretest and posttest, it is difficult to say how participants may have answered differently on another day. The scales used in this study were chosen based on reliability and validity; however, many other scales may have been equally useful. The self-care frequency scale created for this study is not exhaustive of all self-care strategies and has not been tested for psychometrics.

Another area of concern is the uneven response from students in Counselor Education and Counseling Psychology programs. The majority (61%) of participants reported being in a Counseling Psychology program, while 31% reported being in a

Counselor Education program. The skew of gender at 76% female to 23% male reflects the majority of students in mental health training programs. With 116 participants, while enough for this study to have power, the *N* is still limited compared to what was predicted and compared to Myers et al. (2012).

While this study surveyed doctoral programs across the United States, it is very likely that the majority of the participants were from the Midwest due to the placement of the researcher. Furthermore, there are questions as to why some students chose not to participate. It is possible that those who did participate had lower perceived stress levels and those who did not participate had higher perceived stress levels. Another limitation is that the researcher was dependent upon program directors forwarding the participant invitation to students. This limitation could have been eliminated through the use of professional organizations providing lists of student members that could have been contacted.

Implications for Training

The findings in this study have implications for graduate training. Many (Barnett, Elman, et al., 2007; Figley, 2002; Guy, 2000; Mahoney, 1997; Norcross & Guy, 2007; Wise et al., 2012) believe that self-care, stress management and burnout needs to be a regular topic of discussion. Shallcross (2011) believes that counselors and psychologists need to "make it a priority to walk the talk and model wellness for their clients" (p. 31). This idea may be beneficial as a parallel to faculty members also modeling wellness for graduate students in the mental health field. The obvious implication here is that graduate students who value self-care may be more likely to continue self-care patterns into their professional careers.

As indicated throughout Chapter V, some of the ways that self-care topics can be addressed during graduate training include: (a) teaching aspects of Mindfulness-Based Stress-Reduction (MBSR), (b) peer support groups, (c) encourage journaling to deepen awareness, (d) integrate self-care into current schedules, and (e) social support. In addition to those suggestions, the results of the study indicate that an increase in acceptance and a decrease in suppression can have positive impacts on perceived stress. Results also demonstrated that as self-care frequency increased, the reported perceived stress score decreased. These strategies can be incorporated by individuals, emphasized by a graduate training program in various classes, used as a separate class or independent study, as well as infused into graduate students' supervision experiences. Essentially, the goal of the field of mental health should be to encourage graduate students to develop and utilize self-care practices during their graduate training.

Mindfulness-Based Stress-Reduction, the well-known program used at The Stress Reduction Clinic at the University of Massachusetts Medical Center, has been incorporated into classrooms of all types and heavily researched for years. Research on MBSR has shown a reduction of depression and anxiety symptoms, increased awareness, and an improved quality of life (Newsome et al., 2006). MBSR can include different practices such as yoga, body-scan awareness, and meditation; it is adaptable to meet the needs of a variety of participants (Kabat-Zinn, 1990). While the current study is unable to explore the full breadth of the MBSR program, a highlight from the program that can be easily incorporated as a self-care strategy is mindfulness. Kabat-Zinn describes mindfulness, the practice of being and non-doing:

> A way of looking at problems, a way of coming to terms with the full catastrophe that can make life more joyful and rich than it otherwise might, and a sense also

> of being somehow more in control. We call this way of being *the way of awareness* or *the way of mindfulness*. (p. 19)

Mindfulness and *meditation* are words that can be used interchangeably that describe the act of purposeful awareness without judgment. Mindfulness can be done during a set block of time or throughout one's day as a way to feel grounded. Not only is mindfulness a skill that graduate students can practice for themselves, but they can also teach their clients about mindfulness once they feel they have a good grasp of it.

As indicated in the current study, social support is highly valued by graduate students in Counselor Education and Counseling Psychology. Coster and Schwebel (1997) found social support to be a factor in their studies of "well-functioning" psychologists. In another study they completed, the authors found that graduate students rated peer support as more important for their overall wellness than program directors, coordinators, or program heads (Coster & Schwebel, 1997). Knowing that social support is highly valued to students, it may be beneficial for graduate programs to implement or encourage a peer support group.

Journaling as a form of self-care is not a new idea. Baker (2003) indicated the benefits of journaling are many, but one specifically is to deepen self-awareness. She also stated that therapists who journal between sessions with clients may be better equipped to process their own emotions. A journal may provide an opportunity to explore responses to professional distress as well. The self-care skill of journaling can be utilized in a graduate program by having students journal during their initial practicum with clients. In this medium, the journaling can be used as both a way of the counselor in training to express their experiences and to be able to bring the journal to supervision to further discuss those experiences.

Both graduate students in the field of mental health and mental health professionals are very busy. Calicchia and Graham (2006) believed graduate students were at a higher risk of increased stress due to the demands of graduate school and the lack of time to devote to stress management. Sometimes the lack of free time can be a stressor. With that in mind, Wise et al. (2012) indicate it is best to work toward incorporating self-care into one's current schedule without making it feel burdensome and time-consuming. While this may look differently for each student, it could be as simple as using a commute to or from class to practice deep breathing and mindfulness as a way to clear your mind. Another way to incorporate self-care during your already-scheduled time is during breaks in between clients or breaks between classes. A student could find a quiet place to sit and meditate or could use the time to connect with peers for social support. The main point is not to make self-care seem like it needs an extravagant amount of time, but rather a more productive use of current time.

Barnett, Elman, et al. (2007) suggest creating a graduate training climate that supports self-care because it would be beneficial to graduate students in training, individual professionals, and the field of mental health as a whole. The climate of self-care also needs to include social support. Peer support, especially from cohort members who began the program together, can be an excellent self-care strategy to use. The support group can be used to discuss experiences, deepen awareness, and to learn how to reframe difficulties.

Supervision may be a determining factor of how much value is placed on self-care by graduate students. Students may look to their supervisors as models for self-care or lack thereof (Blount & Mullen, 2015). The integrative wellness model (IWM) of

supervision may be key to implementing and reinforcing the importance of self-care to counselors-in-training (Blount & Mullen, 2015). The IWM integrates roles of the discrimination model of supervision with an emphasis on wellness. Supervisors evaluate the counselors-in-training to understand what phase they may be in developmentally and can match their phase to what their needs may be.

This approach supports supervisee functioning and meets supervisees at their developmental level. The IWM encourages wellness for both the supervisee and the client that is receiving services from the supervisee. The overall goal of IWM is increased wellness which is achieved through increasing awareness. This may be done through a variety of ways including open discussion, assessments, and modeling. Supervisors can encourage and assist counselors-in-training to create wellness plans and to examine what their barriers to self-care may be. Supervisors can also educate counselors-in-training about the five wellness domains: creative self, coping self, social self, essential self, and physical self (Blount & Mullen, 2015). Using the IWM can lead to a positive supervisory working alliance because of the deeper understanding between the supervisor and supervisee. A positive supervisory working alliance with a graduate student may be a predictor in their help-seeking/self-care behaviors (Dearing et al., 2005).

Recommendations for Future Research

The topic of self-care is broad and allows for an abundance of future research options. A suggestion for future research would include a longitudinal study to see if graduate students continue self-care practices into their professional careers. This may

include implementation of specific self-care strategies or a specific course. An experimental design would be beneficial in order to do comparisons with control groups.

Surveying current professionals regarding their experiences of self-care during their graduate training may also be helpful. This would allow for a better understanding of the personal development of self-care and whether that began during training or after.

In addition to the recommended quantitative suggestions, the use of a qualitative study would be useful to gain a deeper understanding of the experience of self-care for graduate students. A qualitative study could further examine self-care influences.

Conclusion

This study shed light on some interesting correlations with self-care and perceived stress. Results indicate there is a negative correlation between perceived stress and mindful acceptance, self-care frequency, and three personality factors, which are agreeableness, openness, and conscientiousness. This means that as mindful acceptance, self-care frequency, agreeableness, openness or conscientiousness increase, the reported perceived stress levels decrease. There are positive correlations with perceived stress and suppression and the personality factor neuroticism indicating that graduate students who report higher levels of neuroticism or expressive suppression also reported higher levels of perceived stress. These findings can be further explored with future studies of personality and self-care factors as well as perceived stress.

Self-care is an important topic that needs to be discussed early on in graduate training. Self-care is also considered by some as a moral imperative (Carroll et al., 2008). Regardless of how a graduate student or professional practices self-care, it is clear that it needs to be at the forefront of training and continued education. It can take the

form of seeking personal therapy, purposeful time off, peer consultation, support groups, supervision, meditation, exercise, or any other activity that feels re-energizing. Professionals must be held accountable for their own care because of the effect it can have on clients. Self-care can prevent burnout, compassion fatigue, and personal stress as well. It needs to be infused into graduate training programs and encouraged in the professional realm. Roland (2009) sums it up best, saying, "Stress reduction and self-caring are vital to our own process so that we may be the best counselors, counselor educators, and professionals we can be" (p. 66).

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Appendix A

Script for Initial Contact with Training Directors/Program Chairs

Script for Initial Contact with Training Directors/Program Chairs

This script was used to contact selected training directors/program chairs via e-mail. Two phone contact attempts were made after initial e-mail was sent. Training directors/program chairs who did not respond to contact were assumed to decline participation and no follow up occurred.

Initial Contact Script (E-mail)

Dear Dr. (Training Director/Program Chair),

My name is Jen Bauer, and I am a counseling psychology doctoral student at Western Michigan University. I am contacting you in hopes of recruiting doctoral students in both counseling psychology and counselor education programs to participate in my dissertation study. My research focuses on the association of personality factors, self-care, and perceived stress during graduate training. Information identifying specific training programs will not be collected from participants. The study will consist of collecting data using the Big Five Inventory, the Emotion Regulation Questionnaire, the Perceived Stress Scale, the Philadelphia Mindfulness Scale, and Semantic Differentials Scale. If you choose to share this opportunity with your students, please forward the attached invitation and please copy me to the forwarded message.

The participant invitation includes detailed information about the study as well as potential compensation for participation through drawings. Participation is expected to take 17-25 minutes. I will contact you within a week to answer any questions you may have regarding participation in my study. Feel free to contact me by e-mail or phone (616) 644-0553 if any questions arise before that time.

Kind Regards,
Jennifer Bauer, M.A.

Training Directors/Program Chairs who share participant invitation and copy researcher

Dear Dr. (Training Director/Program Chair),

I want to express my gratitude for sharing my dissertation study invitation with your students. I appreciate the time you have taken in considering this as an opportunity for your students. I will contact you within a week to answer any questions that may come up, unless you feel comfortable without needing that contact in which case you can reply to this e-mail and inform me the phone call is not necessary. Feel free to contact me by e-mail or phone (616) 644-0553 if any questions arise before or after my call to you.

Kind Regards, Jennifer Bauer, M.A.

Follow-up Phone Contact with Training Director/Program Chair
[Director/Chair did not copy me on forwarded invitation to students]

Hello Dr. (Director/Chair). My name is Jennifer Bauer and I am a counseling psychology doctoral student at Western Michigan University. Less than one week ago I contacted you via e-mail asking if you are willing to forward on my invitation to your doctoral students to participate in my dissertation study. I am calling to confirm you have received my e-mail and if you are willing to forward my invitation to your students as only a limited number of programs have been asked to participate. I would also like to answer any follow-up questions you may have regarding my research or the participation of your students. (Directors/Chairs who agree to pass along invitation will be thanked for their time. Directors/Chairs who decline to pass invitation will be thanked for their time).

[Director/Chair copied me on forwarded invitation to students]

Hello Dr. (Director/Chair). My name is Jennifer Bauer and I am a counseling psychology doctoral student at Western Michigan University. Less than one week ago I contacted you via e-mail asking if you are willing to forward my invitation to your doctoral students to participate in my dissertation study. I wanted to extend my appreciation for you forwarding the invitation to your students and answer any questions you may have. (Directors/Chairs will be thanked for their time after any questions are asked).

Appendix B

Participant Invitation

Participant Invitation

This invitation was attached as a document to the e-mail sent to training directors/program chairs to be forwarded to students.

Dear Counseling Psychology/Counselor Education Doctoral Student,

My name is Jennifer Bauer and I am a counseling psychology doctoral student at Western Michigan University. I would like to invite you to participate in my dissertation study. The focus of my research is on graduate student self-care. Specifically, I am interested in the personality factors, self-care, and perceived stress levels of doctoral students in both counseling psychology and counselor education programs.

I, the student investigator, will be conducting this study under the supervision of Dr. Alan Hovestadt, principal investigator and faculty member at Western Michigan University.

Eligibility for this study includes:

(1) Participant must be a current counseling psychology or counselor education doctoral student enrolled in a minimum of three credit hours (class, dissertation, or internship hours).

Participation for this study is expected to take between 17-25 minutes. Data will be collected anonymously through an online survey. No information regarding names of specific programs or participants will be collected. Immediately following completion of the study survey, you will be re-directed to a separate survey to fill out contact information for a drawing. The first drawing will be for a $125 Amazon gift card and all participants who complete surveys and submit them by 9/26/2014 will be put in the drawing. The second drawing will be for a $75 Amazon gift card and all participants who submit surveys between 9/27/2014 and 10/10/2014 will be put in the drawing. The drawing for a $50 Amazon gift card will be for participants who submit the survey between 10/11/2014 and 10/24/2014. All participants who complete the survey after 10/24/2014 will be in a drawing for a $50 Amazon gift card until all participants for this study have been obtained.

If you have any questions, please feel free to contact me by e-mail (jen.bauer@wmich.edu) or by phone (616) 644-0553. Thank you for your time and consideration.

If you are interested in participating in my dissertation study please click on this link or copy and paste into a web browser to begin the survey:
https://www.psychdata.com/s.asp?SID=161436

Kind Regards,

Jennifer Bauer, M.A.
Western Michigan University
(616) 644-0553
Jen.bauer@wmich.edu

Alan Hovestadt
Western Michigan University
(269) 387-5100
alan.hovestadt@wmich.edu

Appendix C

Informed Consent

Western Michigan University Department of Counselor Education/Counseling Psychology
Primary Investigator: Alan Hovestadt, Ed.D.
Student Investigator: Jennifer Bauer, M.A.

The Association of Graduate Student Personality Factors, Self-Care, and Perceived Stress Levels of Counselor Educator and Counseling Psychology Doctoral Students

Dear Counseling Psychology/Counselor Education Doctoral Student,

Graduate students in the field of mental health experience a variety of unique stressors. An important factor in the field of mental health is self-care. There is a paucity of research on graduate student personality, self-care, and perceived stress. I am conducting a nationwide survey of doctoral graduate students in both Counselor Education and Counseling Psychology programs to gain a better understanding of the association between personality, self-care, and stress as a way to positively impact future students. You are invited to help in this research project being conducted as part of a Ph.D. dissertation.

This study is approved for one year by the Western Michigan University Human Subjects Institutional Review Board as of 08/14/2014 as indicated by the stamped date and signature of the board chair. Do not participate in this study if the stamped date is older than one year. This project is neither endorsed not supported by any state or national association. Individual anonymity of respondents will be maintained by the researchers, so please do not enter your name anywhere on the survey. Please answer the following questions to the best of your ability. The 113-question survey has been created for ease of completion and should take 17-30 minutes to complete. While participation has limited risks and is not likely to cause any discomfort, should you have any questions or need additional information, please contact the student investigator, **Jennifer L. Bauer, M.A.**, Western Michigan University, 3833 Pine Meadow Drive, Holland, MI 49424, (616) 644-0553, jen.bauer@wmich.edu, or the primary investigator, **Alan Hovestadt**, Ed.D., Western Michigan University, Department of Counselor Education and Counseling Psychology, 3102 Sangren Hall, Kalamazoo, MI 49008, (269) 387-5100, alan.hovestadt@wmich.edu. You may also contact the Western Michigan University Human Subjects Institutional Review Board Chair at (269) 387-8293 or the Vice President for Research at (269) 387-8298 if questions or problems arise during the course of the study.

Your participation is voluntary and you may refuse to participate or withdraw at any time, or refuse to answer any question without prejudice, penalty, or risk of any loss. Submitting the survey indicates your consent for use of the answers you supply. The results of this study may be published in professional and/or scientific journals, as well as used for educational purposes or for professional presentations. Individual subjects, however, will not be identified. To encourage participation, three drawings will be held for Amazon gift cards. The first drawing will be for a $125 Amazon gift card and all participants who complete surveys and submit by 9/26/2014 will be put in the drawing. The second drawing will be for a $75 Amazon gift card and all participants who submit surveys between 9/27/2014 and 10/10/2014 will be put in the drawing. The drawing for a

$50 Amazon gift card will be for participants who submit the survey between 10/11/2014 and 10/24/2014. All participants who complete the survey after 10/24/2014 will be in a drawing for a $50 Amazon gift card until all participants for this study have been obtained.

Study results will be sent via e-mail to participants upon request.

Appendix D

Online Survey

The Association of Graduate Student Personality, Self-Care, and Perceived Stress Levels of Counselor Educator and Counseling Psychology Doctoral Students

***1)**
Informed Consent
Western Michigan University
Counselor Education/Counseling Psychology

Principal Investigator: Dr. Alan Hovestadt, Ed.D.
Student Investigator: Jennifer Bauer, M.A.
Title of Study: Personality, Self-Care, and Perceived Stress of Counselor Education and Counseling Psychology Doctoral Students

You have been invited to participate in a research project titled "Personality, Self-Care, and Perceived Stress of Counselor Education and Counseling Psychology Doctoral Students". This project will serve as Jennifer Bauer's dissertation study for the requirements of the Doctor of Philosophy degree in Counseling Psychology. This consent document will explain the purpose of this research project and will go over all of the time commitments, the procedures used in the study, and the risks and benefits of participating in this research project. Please read this consent form carefully and completely and please ask any questions if you need more clarification.

What are we trying to find out in this study?
This study aims to further the understanding of the perceived stress doctoral students experience, their self-care, and the association with personality factors.

Who can participate in this study?
Participants are required to meet the following criteria:
(1) Individuals must be in an APA accredited Counseling Psychology or CACREP accredited Counselor Education program.
(2) Students must be pursuing a Ph.D. or Ed.D.
(3) Individuals must be enrolled in a minimum of three credit hours (classes, internship, or dissertation hours).

Where will this study take place?
This study will be conducted solely online utilizing a Psychdata survey to collect data. Psychdata allows for password protection of surveys.

What is the time commitment for participating in this study?
The predicted commitment for this study includes completing an online survey which will take approximately 17-25 minutes.

What will you be asked to do if you choose to participate in this study?
Participants will be asked to fill out an online survey which will take approximately 17-25 minutes to complete. The survey consists of 113 of questions. Once the survey is completed, participants will be given the option to enter into a drawing for one of (4) Amazon gift cards. No further tasks will be asked of participants.

What information is being measured during the study?
This study will consist of 113 questions used to measure the following: demographic data, personality factors, emotion regulation, mindfulness, and perceived stress. The scales used are the Big Five Inventory, the Philadelphia Mindfulness Scale, the Perceived Stress Scale, and the Emotion Regulation Questionnaire.

What are the risks of participating in this study and how will these risks be minimized?
There are minimal risks expected for participation in this study. A potential risk is that participants may

become mildly distressed with the questions on the survey as they may heighten a participants awareness of their perceived level of stress. Participants may also become mildly distress as a result of participation time taking an estimated 17-25 minutes. If a participant becomes distressed they may choose to discontinue participation at any time. To minimize fatigue, more time consuming questions were placed at the beginning of the survey.

At the conclusion of the questionnaire, contact information of primary investigator and student investigator as well as information regarding the assessments used in the questionnaire are presented.

What are the benefits of participating in this study?
The benefit of participating in this study includes learning about the results upon completion of the study. Potential benefits to the discipline include: (1) programs better understanding student needs based on students perceived stress, (2) increased frequency of students regularly engaging in self-care throughout their profession, (3) the potential decrease of future impairment of professionals due to the increase in self-care and stress management as a result of doctoral programs understanding student needs and providing encouragement towards self-care.

Are there any costs associated with participating in this study?
No financial costs to participations are associated with participating in this study.

Is there any compensation for participating in this study?
Upon completion of this study participants have the option of entering a drawing for one of (4) Amazon gift cards.

Who will have access to the information collected during this study?
During this study information collected will only be accessed by the primary investigator and the student investigator. No identifying information will be collected from participants. Results of data collection may be used for publication or conference presentations in the future, however all participant information collected will be anonymous.

What if you want to stop participating in this study?
You can choose to stop participating in the study at any time for any reason. You will not suffer any prejudice or penalty by your decision to stop your participation. You will experience NO consequences either academically or personally if you choose to withdraw from this study.

The investigator can also decide to stop your participation in the study without your consent.

Should you have any questions prior to or during the study, you can contact the primary investigator, Dr. Alan Hovestadt at 269-387-5100 or alan.hovestadt@wmich.edu. The student investigator, Jennifer Bauer, can be contacted at 616-644-0553 or jen.bauer@wmich.edu. You may also contact the Chair, Human Subjects Institutional Review Board at 269-387-8293 or the Vice President for Research at 269-387-8298 if questions arise during the course of the study.

This study was approved by the Western Michigan University Human Subjects Institutional Review Board (HSIRB) on 8/14/2014. Please do not participate in this study after 8/14/2015.

I have read this informed consent document. The risks and benefits have been explained to me. I agree to take part in this study. Please yes if you agree. Please click no if you do not agree.

○ Yes ○ No

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***2)**
Please indicate your degree program

○ Counselor Education Ph.D./Ed.D., CACREP Accredited

○ Counseling Psychology Ph.D./Ed.D., APA Accredited

*3)
Please select your Ethnic Background

African American Asian Caucasian Latino/Latina Bi-racial Other (please specify)
Other:

*4)
Please select your age range

20-25 26-30 31-35 36-40 41-45 46-50 51-55 56-60 61 and older

*5)
Please select your gender

Male Female Other (please specify)
Other:

*6)
Please indicate your program standing based on year

1st year 2nd year 3rd year 4th year 5th year 6th year 7th year Other (please specify)
Other:

*7)
Please indicate your household income

$0-15,000 $15,001-30,000 $30,001-45,000 $45,001-60,000 $60,001 and above

*8)
Relationship Status

Single Unmarried, in relationship Married Divorced Separated Other (please specify)
Other:

*9)
Please indicate your caregiving responsibilities (children, parents, or others)

Only self Self + 1-2 others Self + 3-4 others Other (please specify)
Other:

***10)**
Please indicate weekly work hours (including assistantships, associateships, and paid work outside of your program)

0-10 hours a week | 11-20 hours a week | 21-30 hours a week | 31-40 hours a week | 41 + hours a week

		Never	Almost Never	Sometimes	Fairly Often	Very Often
11)	Please rate the level at which your doctoral program emphasizes or encourages self-care.					
12)	How often do you engage in any type of therapy for self-care?					
13)	How often do you engage in physical activity for self-care?					
14)	How often do you engage in mindfulness/meditation for self-care?					
15)	How often do you engage in healthy eating for self-care?					
16)	How often do you engage in healthy sleep habits for self-care?					
17)	How often do you seek the support of others for self-care?					
18)	How often do you participate in religious or spiritual practices for self-care?					
19)	How often do you journal for self-care?					
20)	How often do you use emotion regulation (purposefully controlling and regulating your emotions) as a self-care strategy?					

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We would like to ask you some questions about your emotional life, in particular, how you control (that is, regulate and manage) your emotions. The questions below involve two distinct aspects of your emotional life. One is your emotional experience, or what you feel like inside. The other is your emotional expression, or how you show your emotions in the way you talk, gesture, or behave. Although some of the following questions may seem similar to one another, they differ in important ways. For each item, please answer using the following scale:

1----------2----------3----------4----------5----------6----------7

strongly disagree | neutral | strongly agree

		1 Strongly Disagree	2	3	4 Neutral	5	6	7 Strongly Agree
***21)**	When I want to feel more positive emotion (such as joy or amusement), I change what I'm thinking about.							
***22)**	I keep my emotions to myself.							

*23)	When I want to feel less negative emotion (such as sadness or anger), I change what I'm thinking about.							
*24)	When I am feeling positive emotions, I am careful not to express them.							
*25)	When I'm faced with a stressful situation, I make myself think about it in a way that helps me stay calm.							
*26)	I control my emotions by not expressing them.							
*27)	When I want to feel more positive emotion, I change the way I'm thinking about the situation.							
*28)	I control my emotions by changing the way I think about the situation I'm in.							
*29)	When I am feeling negative emotions, I make sure not to express them.							
*30)	When I want to feel less negative emotion, I change the way I'm thinking about the situation.							

Page Break

Please circle how often you experienced each of the following statements within the past week.

		Never	Rarely	Sometimes	Often	Very Often
*31)	I am aware of what thoughts are passing through my mind.					
*32)	I try to distract myself when I feel unpleasant emotions.					
*33)	When talking with other people, I am aware of their facial and body expressions.					
*34)	There are aspects of myself I don't want to think about.					
*35)	When I shower, I am aware of how the water is running over my body.					
*36)	I try to stay busy to keep thoughts or feelings from coming to mind.					
*37)	When I am startled, I notice what is going on inside my body.					
*38)	I wish I could control my emotions more easily.					
*39)	When I walk outside, I am aware of smells or how the air feels against my face.					
*40)	I tell myself that I shouldn't have certain thoughts.					
*41)	When someone asks how I am feeling, I can identify my emotions easily.					
*42)	There are things I try not to think about.					
*43)	I am aware of thoughts I'm having when my mood changes.					
*44)	I tell myself that I shouldn't feel sad					
*45)	I notice changes inside my body, like my heart beating faster or my muscles getting tense					

*46)	If there is something I don't want to think about, I'll try many things to get it out of my mind.					
*47)	Whenever my emotions change, I am conscious of them immediately.					
*48)	I try to put my problems out of mind.					
*49)	When talking with other people, I am aware of the emotions I am experiencing.					
*50)	When I have a bad memory, I try to distract myself to make it go away.					

——————————————————Page Break——————————————————

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

		Never	Almost Never	Sometimes	Fairly Often	Very Often
*51)	In the last month, how often have you been upset because of something that happened unexpectedly?					
*52)	In the last month, how often have you felt that you were unable to control the important things in your life?					
*53)	In the last month, how often have you felt nervous and "stressed"?					
*54)	In the last month, how often have you felt confident about your ability to handle your personal problems?					
*55)	In the last month, how often have you felt that things were going your way?					
*56)	In the last month, how often have you found that you could not cope with all the things that you had to do?					
*57)	In the last month, how often have you been able to control irritations in your life?					
*58)	In the last month, how often have you felt that you were on top of things?					
*59)	In the last month, how often have you been angered because of things that were outside of your control?					
*60)	In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?					

——————————————————Page Break——————————————————

The purpose of this instrument is to measure the meanings of certain things by having you judge them against a series of descriptive scales.

Please make your judgment on the basis of what the title concept listed next to each item number means to you.

For example, if the title concept were “Graduation” you could check:

1. Graduation

Useful :_____: :_____: :__X__: :_____: :_____: :_____: :_____: **Useless**

2. Graduation

Slow :__X__: :_____: :_____: :_____: :_____: :_____: :_____: **Fast**

3. Graduation

Weak :_____: :_____: :_____: :_____: :__X__: :_____: :_____: **Strong**

If that were how you felt about it, or check any other scale position to reflect your feelings. One check to a line.

Make each item a separate and independent judgment. It is not necessary to look back and forth trying to remember how you checked similar items previously.

It is your first impression (the immediate reaction to items) that is most useful, so work at a fairly high speed. On the other hand, please do not be careless, as we need your true impressions

Please select bi-polar adjectives in this section regarding mindfulness/meditation

***61)** Mindfulness/Meditation

Worthless **Valuable**

○ :_____: ○ :_____: ○ :_____: ○ :_____: ○ :_____: ○ :_____: ○ :_____: ○ :_____:

***62)** Mindfulness/Meditation

Easy **Labored**

○ :_____: ○ :_____: ○ :_____: ○ :_____: ○ :_____: ○ :_____: ○ :_____: ○ :_____:

***63)** Mindfulness/Meditation

Passive **Active**

○ :_____: ○ :_____: ○ :_____: ○ :_____: ○ :_____: ○ :_____: ○ :_____: ○ :_____:

———————————————————Page Break———————————————————

Please select bi-polar adjectives in this section regarding emotion regulation. Emotional regulation is defined as how you regulate or control your emotions.

***64)** Emotion Regulation

Simple **Complex**

○ :_____: ○ :_____: ○ :_____: ○ :_____: ○ :_____: ○ :_____: ○ :_____: ○ :_____:

65) Emotion Regulation

Active **Passive**

○ :_____: ○ :_____: ○ :_____: ○ :_____: ○ :_____: ○ :_____: ○ :_____: ○ :_____:

*66) Emotion Regulation

Useful **Useless**

:_____: :_____: :_____: :_____: :_____: :_____: :_____: :_____:

Page Break

Please select bi-polar adjectives in this section regarding social support.

67) Social support

Useful **Useless**

:_____: :_____: :_____: :_____: :_____: :_____: :_____: :_____:

68) Social support

Labored **Easy**

:_____: :_____: :_____: :_____: :_____: :_____: :_____: :_____:

69) Social support

Active **Passive**

:_____: :_____: :_____: :_____: :_____: :_____: :_____: :_____:

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who *likes to spend time with others*? Please write a number next to each statement to indicate the extent to which **you agree or disagree with that statement.**

I am someone who.....

		Disagree strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly
*70)	Is talkative					
*71)	Tends to find fault with others					
*72)	Does a thorough job					
*73)	Is depressed, blue					
*74)	Is original, comes up with new ideas					
*75)	Is reserved					
*76)	Is helpful and unselfish with others					
*77)	Can be somewhat careless					
*78)	Is relaxed, handles stress well.					
*79)	Is curious about many different things					

*80)	Is full of energy					
*81)	Starts quarrels with others					
*82)	Is a reliable worker					
*83)	Can be tense					
*84)	Is ingenious, a deep thinker					
*85)	Generates a lot of enthusiasm					
*86)	Has a forgiving nature					
*87)	Tends to be disorganized					
*88)	Worries a lot					
*89)	Has an active imagination					
*90)	Tends to be quiet					
*91)	Is generally trusting					
*92)	Tends to be lazy					
*93)	Is emotionally stable, not easily upset					
*94)	Is inventive					
*95)	Has an assertive personality					
*96)	Can be cold and aloof					
*97)	Perseveres until the task is finished					
*98)	Can be moody					
*99)	Values artistic, aesthetic experiences					
*100)	Is sometimes shy, inhibited					
*101)	Is considerate and kind to almost everyone					
*102)	Does things efficiently					
*103)	Remains calm in tense situations					
*104)	Prefers work that is routine					
*105)	Is outgoing, sociable					
*106)	Is sometimes rude to others					
*107)	Makes plans and follows through with them					
*108)	Gets nervous easily					

*109) Likes to reflect, play with ideas					
*110) Has few artistic interests					
*111) Likes to cooperate with others					
*112) Is easily distracted					
*113) Is sophisticated in art, music, or literature					

[End of Survey]

——————————————————————Automatic Page Break——————————————————————

[Change the "Survey Title" Setting?]

Doctoral Student Experiences

Thank you for your participation!

You will be directly linked to a page for contact information to participate in the raffle for one of (3) Amazon Gift Cards. Please note that incomplete contact information will result in forfeiting participation in raffle. If you choose not to participate in the raffle, you may now exit your screen.

All the information we collected in today's study will be confidential, and there will be no way of identifying your responses in the data archive. We are not interested in any one individual's responses; we want to look at the general patterns that emerge when the data are aggregated together.

You can choose to stop participating in the study at anytime for any reason. You will not suffer any prejudice or penalty by your decision to stop your participation. You will experience NO consequences either academically or personally if you choose to withdraw from this study. The investigator can also decide to stop your participation in the study without your consent.

Should you have any questions during or after the study, you can contact the primary investigator, Dr. Alan Hovestadt at 269-387-5100 or alan.hovestadt@wmich.edu. The student investigator, Jennifer Bauer, can be contacted at 616-644-0553 or jen.bauer@wmich.edu. You may also contact the Chair, Human Subjects Institutional Review Board at 269-387-8293 or the Vice President for Research at 269-387-8298 if questions arise during the course of the study.

The questions utilized in this questionnaire come from: (1) the Big Five Inventory (John, Donahue, & Kentle, 1991), (2) the Emotion Regulation Questionnaire (Gross & John, 2003), (3) the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983), (4) the Philadelphia Mindfulness Scale (Cardaciotto, Herbert, Forman, Moitra & Farrow, 2008), and (5) Semantic Differential Scale (Osgood, Suci, & Tannenbaum, 1967). Results of these scales and the demographic information will be utilized to better understand the personality factors, self-care, and perceived stress of both counseling psychology and counselor education doctoral students.

Survey ID : 161436
Title : Doctoral Student Experiences
Date Downloaded : 2/28/2015 3:43:51 PM
Number of Responses : 127

Appendix E

Scoring Instructions

Scoring Instructions

Big Five Inventory (BFI)

To score the BFI, you'll first need to **reverse-score** all negatively-keyed items:

Extraversion: 6, 21, 31
Agreeableness: 2, 12, 27, 37
Conscientiousness: 8, 18, 23, 43
Neuroticism: 9, 24, 34
Openness: 35, 41

To recode these items, you should subtract your score for all reverse-scored items from 6. For example, if you gave yourself a 5, compute 6 minus 5 and your recoded score is 1. That is, a score of 1 becomes 5, 2 becomes 4, 3 remains 3, 4 becomes 2, and 5 becomes 1.

Next, you will create scale scores by ***averaging*** the following items for each B5 domain (where R indicates using the reverse-scored item).

Extraversion: 1, 6R 11, 16, 21R, 26, 31R, 36
Agreeableness: 2R, 7, 12R, 17, 22, 27R, 32, 37R, 42
Conscientiousness: 3, 8R, 13, 18R, 23R, 28, 33, 38, 43R
Neuroticism: 4, 9R, 14, 19, 24R, 29, 34R, 39
Openness: 5, 10, 15, 20, 25, 30, 35R, 40, 41R, 44

SPSS SYNTAX

***** REVERSED ITEMS**

```
RECODE
  bfi2 bfi6 bfi8 bfi9 bfi12 bfi18 bfi21 bfi23 bfi24 bfi27 bfi31 bfi34 bfi35
  bfi37 bfi41 bfi43
  (1=5)  (2=4)  (3=3)  (4=2)  (5=1)  INTO  bfi2r bfi6r bfi8r bfi9r bfi12r bfi18r bfi21r
bfi23r bfi24r
  bfi27r bfi31r bfi34r bfi35r bfi37r bfi41r bfi43r.
EXECUTE .
```

***** SCALE SCORES**

```
COMPUTE bfie = mean(bfi1,bfi6r,bfi11,bfi16,bfi21r,bfi26,bfi31r,bfi36) .
VARIABLE LABELS bfie 'BFI Extraversion scale score.
EXECUTE .

COMPUTE bfia = mean(bfi2r,bfi7,bfi12r,bfi17,bfi22,bfi27r,bfi32,bfi37r,bfi42) .
VARIABLE LABELS bfia 'BFI Agreeableness scale score' .
EXECUTE .
```

```
COMPUTE bfic = mean(bfi3,bfi8r,bfi13,bfi18r,bfi23r,bfi28,bfi33,bfi38,bfi43r) .
VARIABLE LABELS bfic 'BFI Conscientiousness scale score' .
EXECUTE .

COMPUTE bfin = mean(bfi4,bfi9r,bfi14,bfi19,bfi24r,bfi29,bfi34r,bfi39) .
VARIABLE LABELS bfin 'BFI Neuroticism scale score' .
EXECUTE .

COMPUTE bfio = mean(bfi5,bfi10,bfi15,bfi20,bfi25,bfi30,bfi35r,bfi40,bfi41r,bfi44) .
VARIABLE LABELS bfio 'BFI Openness scale score' .
EXECUTE .
```

Emotion Regulation Questionnaire (ERQ)

The Emotion Regulation Questionnaire is designed to assess individual differences in the habitual use of two emotion regulation strategies: cognitive reappraisal and expressive suppression.

Do not change item order, as items 1 and 3 at the beginning of the questionnaire define the terms “positive emotion” and “negative emotion”.

Scoring (no reversals)

Reappraisal Items: 1, 3, 5, 7, 8, 10; Suppression Items: 2, 4, 6, 9.

Perceived Stress Scale (PSS)

PSS scores are obtained by reversing responses (e.g., 0 = 4, 1 = 3, 2 = 2, 3 = 1 & 4 = 0) to the four positively stated items (items 4, 5, 7, & 8) and then summing across all scale items. A short 4 item scale can be made from questions 2, 4, 5 and 10 of the PSS 10 item scale.

The Philadelphia Mindfulness Scale (PHLMS)

The Philadelphia Mindfulness Scale contains two subscales that measure your level of awareness and acceptance. To obtain your awareness subscale score, add all of the *odd-numbered* items; higher scores reflect higher levels o awareness. To obtain your acceptance subscale score, reverse-score* all of the *even-numbered* items; higher scores reflect higher levels of acceptance.

Awareness Subscale: Items 1, 3, 5,7,9,11,13,15,17,19

Acceptance Subscale: Items 2,4,6,8,10,12,14,16,18,20

*Reverse scoring is a simple procedure to score negatively-keyed questions. To reverse score
a response, a low response value is given a high response value; this process is repeated for
all negatively-keyed questions. Add all of the reverse-scored values to obtain the total scale
(or subscale) score. For example, (on a 5-point scale), all of the 1's become 5's, 2's become
4's, 3's remain the same, 4's become 2's, and 5's become 1's on the acceptance subscale of the
Philadelphia Mindfulness Scale.

Self-Care Frequency

The self-care frequency was derived from adding up all of the self-care frequency items.

Appendix F

Counselor Education and Counseling Psychology Programs Contacted

Counselor Education Programs Contacted

Auburn University
Barry University
College of William and Mary
Duquesne University
Florida Atlantic University
George Washington University
Georgia State University
Governors State University
Idaho State University
Kansas State University
Kent State University
Loyola University Maryland-Columbia
Minnesota State University Mankato
Mississippi State University
North Carolina State University
North Dakota State University
Northern Illinois University
Oakland University
Ohio University
Old Dominion University
Oregon State University
Pennsylvania State University
Regent University
Sam Houston State University
Southern Illinois University
St. Mary's University
Syracuse University
Texas A & M University- Commerce
Texas A & M University- Corpus Christi
The University of Iowa
UNC Charlotte
UNC Greensboro
University of Akron
University of Alabama
University of Arkansas
University of Central Florida
University of Cincinnati
University of Florida

University of Georgia
University of Maryland College Park
University of Memphis
University of Minnesota Dept of Ed & Dept of Psychology
University of Missouri St. Louis
University of Nevada Reno
University of new Mexico
University of New Orleans
University of North Texas
University of Northern Colorado
University of Rochester
University of South Carolina
University of South Dakota
University of Tennessee at Knoxville
University of Texas at San Antonio
University of Toledo
University of Wyoming
Virginia Polytechnical Institute and State University
Walden University
Wayne State University
Western Michigan University

Counseling Psychology Programs Contacted

Arizona State
Auburn University- Alabama
Ball State University
Boston College
Brigham Young University
Cleveland State University
Colorado State University
Fordham University
Georgia State University
Howard University
Indiana State University
Indiana University-Bloomington
Iowa State University
Leigh University
Louisiana Tech University
Loyola University

Marquette University
New Mexico State University
New York University
Northeastern University
Oklahoma State University
Pennsylvania State University
Purdue University
Seton Hall University
Southern Illinois University Carbondale
Teachers College, Columbia University
Tennessee State University - Nashville
Texas A&M University
Texas Tech University
Texas Women's University
University of Akron
University at Albany
University of Denver
University of Denver Colorado
University of Florida
University of Georgia
University of Houston
University of Illinois
University of Iowa
University of Kansas
University of Kentucky
University of Louisville
University of Maryland College Park
University of Memphis
University of Miami
University of Minnesota Dept of Ed & Dept of Psychology
University of Missouri, Columbia
University of Missouri, Kansas City
University of Nebraska
University of North Dakota
University of North Texas
University of Oklahoma
University of Oregon
University of Southern Mississippi
University of Texas at Austin
University of TN- Knoxville
University of Utah
The University of Wisconsin-Madison

University of Wisconsin- Milwaukee
Virginia Commonwealth University
Washington State University
West Virginia University
Western Michigan University

Appendix G

Human Subjects Institutional Review Board
Letter of Approval

WESTERN MICHIGAN UNIVERSITY

Human Subjects Institutional Review Board

Date: August 15, 2014

To: Alan Hovestadt, Principal Investigator
Jennifer Bauer, Student Investigator for dissertation

From: Amy Naugle, Ph.D., Chair Amy Naugle

Re: HSIRB Project Number 14-08-12

This letter will serve as confirmation that your research project titled "Personality Factors, Self-Care, and Perceived Stress Levels of Counselor Education and Counseling Psychology Doctoral Students" has been **approved** under the **exempt** category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note: This research may **only** be conducted exactly in the form it was approved. You must seek specific board approval for any changes in this project (e.g., ***you must request a post approval change to enroll subjects beyond the number stated in your application under "Number of subjects you want to complete the study***)." Failure to obtain approval for changes will result in a protocol deviation. In addition, if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

Reapproval of the project is required if it extends beyond the termination date stated below.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: August 14, 2015

251 W. Walwood Hall, Kalamazoo, MI 49008-5456
PHONE: (269) 387-8293 FAX: (269) 387-8276