

PERCEIVED STRESS, SELF-CARE PRACTICES, AND EMPATHY
IN CLINICAL AND COUNSELING PSYCHOLOGY DOCTORAL STUDENTS

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BY

ASHLEY BUTTERFIELD

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Dissertation Committee

ADLER UNIVERSITY DISSERTATION COMMITTEE MEMBERS

Student's Name: Ashley Butterfield

Dissertation Title: Perceived Stress, Self-Care Practices, and Empathy in Clinical and Counseling Psychology Doctoral Students

This dissertation has been defended and submitted for final submission

Certified by:

Name and Degree

Institution Affiliation

Dr. Georgios Lampropoulos, Ph.D.
Dissertation Chair

Adler University

Dr. Josefina Alvarez, Ph.D.
Dissertation Reader

Adler University

Dr. Lyuba Bobova, Ph.D.
Dissertation Reader

Adler University

Abstract

This study examined the relationship between perceived stress, engagement in self-care behaviors, and perceived empathy expression towards clients among 169 clinical and counseling psychology doctoral students in the United States. Prior research has established connections between lower stress and higher self-care among psychology students, higher stress and decreased empathy among medical students, and higher stress and increased burnout among mental health professionals. In this study, it was hypothesized that psychology doctoral students' perceived stress and engagement in self-care behaviors would predict their perceptions of their expression of empathy towards their clients. Further, it was predicted that engagement in self-care behaviors would moderate the relationship between stress and empathy. The study also aimed to identify common self-care practices used by doctoral students. A national sample of 169 participants completed three self-report measures online: The Perceived Stress Scale (PSS-14; Cohen, Kamarck, & Mermelstein, 1983), The Self-Care Utilization Questionnaire (SCUQ; Goncher, Sherman, Barnett, & Haskins, 2013), and the Empathy subscale from The Barrett-Lennard Relationship Inventory: Form MO-Emp+ (Barrett-Lennard, 2015). Although stress and self-care were moderately and negatively correlated ($r = -.45$), results did not support stress and self-care as statistically significant predictors of empathy. However, data yielded support for the second hypothesis, revealing some moderation effects. Specifically, high engagement with self-care resulted in improved empathy expression for lowly stressed students, but had no effect on highly stressed student's expression of empathy. Study limitations included an unexpectedly modest reliability for the empathy scale. Training and practice implications are discussed, such as the need for interventions beyond self-care to assist students with managing high stress. Recommendations for future research are identified.

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Perceived Stress, Self-Care Practices, and Empathy in Clinical and Counseling Psychology

Doctoral Students

Chapter I: Introduction**General Introductory Summary**

The process of obtaining a doctoral degree in clinical psychology requires a great deal of determination, a steadfast commitment to hard work, and an ability to delay immediate gratification. In addition to possessing such qualities, individuals striving towards achieving this goal tend to derive motivation and fulfillment from helping others to address their mental health needs and improve the quality of their lives. Graduate school not only provides opportunities for students to engage in meaningful clinical work, but it also serves as the foundation for students' future clinical work as mental health professionals. However, although graduate school can be a fulfilling avenue for acquiring skills and knowledge with which to make a difference in the lives of others, it can also be an overwhelming and arduous journey.

Due to the strenuous nature of graduate school and clinical work, it is critical that students enrolled in doctoral clinical psychology programs not only learn how to effectively provide care and support to others, but also, just as importantly, learn how to effectively provide care and support to themselves. Graduate school is known to be a stressful experience, consisting of a multitude of training requirements, deadlines, and expectations (Carter & Barnett, 2014). Therefore, it is of paramount importance that students learn about and consistently implement self-care practices. Since the work of a mental health professional relies so heavily on an effective use of self, self-care must be treated as a priority. In addition to the acquisition of a sound knowledge base and a cultivated finesse in implementing therapeutic interventions, the self can be and often is one of the most effective therapeutic tools a therapist can utilize. It is

often through the therapist's use of self and empathic connection that significant strides can transpire in a client's treatment. However, if the therapist's self is not properly cared for it cannot be successfully utilized to enhance and promote the therapeutic process. In other words, if the therapist's self is not properly cared for, his or her capacity to effectively and empathically care for clients will likely be impaired.

In the following sections, the literature concerning psychology graduate school stress and its consequences for professional functioning is introduced, including the effects of stress on empathy, and the relationship between stress and self-care. The relevant research is discussed in order to identify the statement of the problem as well as the present study's statement of purpose, limitations, and hypotheses.

Stressors Experienced by Psychology Graduate School Students

The existing body of literature regarding the experience of psychology graduate students indicates that these students are susceptible to experiencing a significant degree of stress during their training (Pakenham & Stafford-Brown, 2012). According to Barnett, Baker, Elman, and Schoener (2007), distress is frequently described as "a subjective emotional state experienced by an individual in response to ongoing stressors, challenges, conflicts and demands" (p. 603). Myers et al. (2012) further defined stress as "the perception that the demands of an external situation are beyond one's perceived ability to cope" (p. 55). Throughout the course of graduate school, students are expected to simultaneously juggle a variety of different roles, such as student, researcher, therapist, etcetera. The difficulty of successfully switching between these roles is compounded by other stressors such as time constraints, long hours, and evaluation stress (Pakenham & Stafford-Brown, 2012). Myers et al. (2012) identified additional sources of stress that have been noted within the psychology graduate student population. These sources of stress

include performance anxiety, competition, institutional demands, lack of experience, financial constraints, and interpersonal and professional relationships. Although many of the stressors which psychology students encounter are respective to the demands associated with their academic program, psychology students must also contend with stressors that occur in their personal lives.

McKinzie, Altamura, Burgoon, and Bishop (2006) stated that the process of graduate school interrupts the "normal" progression of adult development and may therefore be linked to social obstacles as well as emotional and psychological distress. Psychology graduate students must be able to maintain a significant degree of commitment to meeting academic demands and fulfilling professional expectations in order to complete their doctoral degree. As previously mentioned, the magnitude of this commitment will necessitate sacrifice in order for students to be able to accommodate time constraints and manage the responsibilities associated with multiple student roles. Consequently, imbalance may occur. Clark, Murdock, and Koetting (2009) identified that many students have difficulty successfully balancing their personal and professional lives. Consequently, they focus on academic demands to the detriment of their personal growth and development. These researchers stated that this imbalanced arrangement can lead students to feel unhappy, stressed out, and overwhelmed. The tendency for psychology graduate students to prioritize academic requirements ahead of and to the detriment of personal needs has been noted in other research. Myers et al. (2012) indicated that consequences such as poor diet, irregular sleep patterns, less exercise, and negative coping styles are related to stress among psychology graduate students. Thus, beneficial activities and habits may be sacrificed unintentionally due to stress or consciously because they detract time and attention away from academic and professional pursuits.

Distressed Psychology Doctoral Students and the Potential Impact on Clinical Work

Practica and externships in doctoral clinical psychology programs typically begin during the second year of the program. Thus, students will begin to see clients after they have completed only one year of graduate school. The pressure and level of anxiety associated with providing mental health services to clients can be significant. Pakenham and Stafford-Brown (2012) reviewed findings that high levels of stress can have negative effects on trainee therapists' well-being and professional functioning, and that younger, novice trainees may be particularly prone to experiencing such adverse stress-related outcomes. Thus, psychology doctoral students may be at a greater risk for experiencing negative personal and professional outcomes resulting from high levels of stress. The degree of stress experienced by students may stem from their status as a novice therapist. As novice therapists, students' perceived skillfulness is generally lacking and their feelings of self-doubt are likely to be elevated. Additional stress may accrue from students' attempts to manage their multiple academic and professional roles and to cope with the stressors that they encounter in their personal lives. As Goncher, Sherman, Barnett, and Haskins (2013) noted, research has demonstrated that some psychology graduate students may suffer from distress and subsequent disruption in professional functioning, which has been reported to negatively affect students' abilities to provide professional services.

Myers et al. (2012) identified that among psychology graduate students, high levels of stress may impact clinical experiences and the overall experience of graduate school. Thus, not only are students negatively affected by mismanaged or unmanaged stress, but the individuals to whom students provide mental health services can also be negatively impacted by the students' distress. Pakenham and Stafford-Brown (2012) reported that excessive stress has been found to impair declarative memory, decrease capacities for attention and concentration, impair decision-

making abilities, and lessen practitioners' skillfulness in building strong rapport and alliances with clients. All of these capacities are directly related to a therapists' ability to provide effective mental health services to clients. Therefore, not only can stress negatively impact a therapist's technical skills (e.g. assessment, conceptualization, treatment planning, and intervention implementation), but it could also negatively influence the therapists' ability to develop empathic connections with clients. Lastly, it is important to consider that the professional habits and patterns developed during the course of graduate school are foundational for, and therefore often permeate into students' professional repertoire and identity. El-Ghoroury, Galper, Sawaqdeh, and Bufka (2012) noted that stress and burnout can make a psychologist susceptible to making poor clinical decisions and to providing ineffective care, and even to behaving in ways that are professionally unethical or dangerous to clients. Therefore, it is critical that psychology graduate students learn how to manage their stress in order to prevent causing potential harm to both their current and future clients.

The Importance of Empathy in Mental Health Services Provision

Individuals who are drawn to working in the mental health field are often assumed to possess high levels of empathy, compassion, and understanding. They are generally believed to be astute observers who are sensitive to others' needs and feelings. Many of these individuals have already identified themselves as helpers long before entering graduate school. The demonstration of such qualities is critical to the development of rapport and a strong therapeutic alliance. According to Gleichgerrcht and Decety (2013), clinical empathy is a necessary ingredient to quality care and it is correlated with improved patient satisfaction, adherence to treatment, and fewer complaints of malpractice. A meta-analysis conducted by Elliott, Bohart, Watson, and Greenberg (2011) demonstrated a robust relationship between therapist empathy

and treatment outcome, particularly for less experienced therapists. Thus, qualities such as empathy can be considered to be essential to the psychotherapeutic process and can greatly influence treatment outcomes. Paro et al. (2014) defined empathy as the ability to "understand and respond with care to the experiences of others." These researchers identified that being empathic "involves cognitive and emotional reactions, such as actively listening to, identifying and understanding the concerns and emotions of others, and conveying this understanding" (p. 1). Michalee (2010) stated that research findings have revealed that clients who perceive their doctor to be empathic report higher levels of satisfaction with their doctor, are more likely to comply with their doctor's suggestions, and experience better health outcomes. In other words, a clinician's demonstration of empathy and a client's perception of that empathy is not only foundational for treatment, but it also has the potential to accelerate the healing process and facilitate better treatment outcomes.

The Importance of Self-Care Practices

Self-care practices can be defined as "engagement in behaviors that maintain and promote physical and emotional well-being" (Myers et al., 2012, p. 56). According to Goncher et al. (2013), the consistent use of self-care practices and development of self-awareness of one's professional and personal functioning has been identified as a core foundational and functional competency required for practicing as a psychologist. In other words, a therapist's level of self-awareness and engagement in self-care behaviors can greatly impact both their personal and professional functioning. In order to be able to effectively assist clients to cope with and manage mental health issues and life problems, the therapist must be able to draw upon his or her own resources to facilitate the therapeutic process. These resources not only include professional skills, but they also include factors such as the therapist's energy level, concentration, creativity,

patience, and management of personal stress. As Barnett et al. (2007) explained, self-care is particularly important for mental health professionals due to the fact that the person of the psychologist is, in large part, the primary instrument of our work. In other words, "the personal is the professional." Therefore, the better the therapist cares for himself or herself, the greater the probability that he or she can effectively utilize personal and professional resources within therapeutic settings.

Self-care for mental health professionals is not just strongly recommended, it is an ethical imperative. The Ethical Principles of Psychologists and Code of Conduct set forth by the American Psychological Association (2002) highlight the necessity and responsibility that mental health professionals have to keep themselves well in order to ensure the provision of a high quality of care and treatment to clients. Principle A. Beneficence and Nonmaleficence states that "Psychologists strive to be aware of the possible effects of their own physical and mental health on their ability to help those with whom they work" (American Psychological Association, 2002, p. 1062). Thus, consistent engagement in self-care practices not only benefits the therapist, but it also benefits his or her clients. Conversely, lack of therapist engagement in self-care practices can be harmful to both the therapist and his or her clients.

As previously stated, one's progression through graduate school forms the foundation for his or her professional career. As a graduate student, it is crucial that self-care habits be developed and maintained as the individual acquires new information and skills and learns to embody new professional roles. Furthermore, the quality and consistency of self-care habits developed in graduate school are likely to continue to be implemented once the individual is a licensed professional. Therefore, as noted by Myers et al. (2012), the fostering of self-care practices during graduate school can be conceptualized from a 'preventative model' that serves as

a basis for a career-long standard of professionalism. Due to the nature of providing psychological services, graduate students and mental health professionals must exert continuous efforts to safeguard against hazards of the profession such as stress, compassion fatigue, burnout, and vicarious traumatization. Thus, as Barnett et al. (2007) stated, for therapists and therapists-in-training as well as for the mental health field to flourish, we must come to terms with the inextricable relationship between professional well-functioning and the necessity of self-care.

The Effects of Stress in Medical and Psychology Students on Expressed Empathy

As previously stated, the healthcare professional's or professional-in-training's ability to empathize with his or her clients greatly contributes to the quality of the treatment process and treatment outcomes. Research has indicated that high levels of stress can weaken professionals' and graduate students' ability to empathize with others, including their clients. For example, Michalee (2010) reported upon studies which have revealed that high levels of stress within medical training can cause notable cognitive dysfunction in medical students, heighten their levels of anxiety and depression, lead to burnout, have harmful effects on personal relationships, and is negatively correlated with students' empathy. Thus, the high levels of stress among graduate students have been found to be correlated with their professional efficacy, including their ability to demonstrate and effectively utilize empathy with clients.

Professionals-in-training may experience a great deal of stress, self-doubt, and anxiety regarding their performance while trying to efficiently cope with the demands and pressures of unfamiliar roles. Winesman, Malik, Morison, and Balkoski (2009) identified that numerous recent studies have detected a gradual and often consistent decline in student and resident empathy as training progresses. However, they also noted that at all stages of training, high personal well-being and functioning and positive quality of life appear to serve as buffers from

empathy declines in students and residents. Thus, if students can find effective ways to manage their stress, it is more probable that they will experience feelings of personal well-being and an enhanced quality of life, which may enable them to be more empathic with clients.

Thompson, Amatea, and Thompson (2014), identified an important connection between empathy and burnout. These researchers stated that there has been a longstanding observation that qualities which make counselors effective with their clients, such as empathy, compassion, and caring, may also leave them susceptible to experiencing negative outcomes such as compassion fatigue and burnout. In other words, individuals who are drawn to working in a helping profession tend to be sensitive and may be more prone to experiencing stress and other negative outcomes. This relationship serves to highlight the paramount importance for this population of professionals and professionals-in-training to employ consistent self-care practices. Such practices will also benefit their clients. Thompson et al. (2014) reported that mental health professionals who strive to sustain relationships and practice consistent self-care tend to be less vulnerable to developing the negative effects associated with professional helping.

Scarcity of Research

The existing literature regarding stress and self-care primarily focuses on professionals who are already working in the mental health field. Many studies have been published concerning stress, burnout, compassion fatigue, and vicarious traumatization among mental health professionals. At present, there is limited research addressing the experience of stress and the utilization of self-care habits among psychology graduate students. El-Ghoroury et al. (2012) stated that the empirical literature exploring stress and coping among psychology graduate students is meager and the results are heterogeneous. Myers et al. (2012) reported that there is

limited research investigating self-care practice and stress among psychology graduate students, but the existent literature has noted a significant relationship between these two variables.

Additionally, there is a scarcity of research regarding stress and empathy in health care. The relevant studies that were located included medical students and professionals, rather than mental health professionals. These studies revealed that stress was negatively correlated with empathy among medical students. Such conclusions cannot be reached about stress and empathy in psychology graduate students due to the lack of such research. As Gerdes, Lietz, and Segal (2011) pointed out, there is a relative scarcity of empirical research related to empathy in the mental health and helping professions literature. Despite the fact that empathy is such a critical cornerstone to mental health provision, this therapeutic element has not been studied in conjunction with stress among mental health professionals or psychology graduate students. Furthermore, the three key variables which were previously discussed (stress, self-care, and empathy) have not been collectively explored among psychology graduate students. Thus, the relationships between these variables and the impacts that these variables have on students and their clients has not been examined. The information derived from a better understanding of these factors could be utilized to improve the well-being of students and their clients as well as the therapeutic process and treatment outcomes. Therefore, it is important that this gap in the literature be addressed through a study that comprehensively examines the concurrent influences of stress, self-care, and empathy on psychology graduate students and those whom they serve.

Statement of the Problem

Although the stress and pressures associated with graduate school and clinical work have been well-documented for this population, few research studies have been geared towards assessing clinical and counseling psychology doctoral students' ability to relieve stress through

the use of self-care behaviors. However, research has identified that regular use of self-care behaviors is essential for mental health professionals who are licensed and currently working in the field. As a whole, there is far less research concerning individuals who are in graduate school working towards a doctoral degree in psychology as compared to those individuals who have already earned their license and are currently practicing in the field.

Research on medical students has consistently found a negative correlation between students' stress and students' empathy towards their patients. In other words, as students' stress increases, their levels of empathy for their patients decline. While empathy is a significant ingredient for any type of effective healthcare, it is particularly essential for psychotherapy. However, despite the fact that empathy is such a critical cornerstone for mental health care, there has not been any research on the effects of stress and self-care on empathy in psychology doctoral students. Thus, no conclusions, similar to those that exist between medical student stress and empathy, can be reached for psychology students. Therefore, this study strives to address an unexplored area of psychology graduate school training and mental health care.

The specific research questions that this study will address are related to the three variables of stress, self-care, and empathy. More specifically, this study will address how the perceived stress of psychology doctoral students predicts their expressed empathy towards their clients. Additionally, the study will examine how the relationship between psychology students' stress and empathy is influenced, or moderated, by their self-care practices. It is hypothesized that the results of this study will reveal an inverse relationship between students' perceived levels of stress and their perceived expressions of empathy. Namely, as students report an increase in stress, they will indicate a reduction in their levels of empathy. It is also hypothesized that students' engagement in self-care practices will have an influence on the relationship between

their perceived levels of stress and their perceived expressions of empathy. More specifically, it is hypothesized that student engagement in self-care practices will moderate the relationship between perceived stress and perception of expressed empathy, so that self-care practices will buffer and mitigate the negative effects of stress on psychology doctoral students' empathy.

Statement of Purpose

The purpose of this study is to contribute to the body of knowledge in the field by expanding upon the current literature related to psychology doctoral student stress, self-care, and clinical empathy. Specifically, the study will explore how psychology doctoral students' perceived stress is related to their perceptions of empathy that they express to clients. This study will also explore the moderating effects of self-care practices on the relationship between stress and empathy in psychology doctoral students.

The results of this study will provide insights into the relationship between stress, self-care, and empathy in psychology doctoral students. Empathy can be considered to be a component of professional competence in mental health professionals. Thus, if contributing factors (i.e. stress) and moderating factors (i.e. self-care practices) to empathy can be better understood, then it is likely that such information could be used to enhance psychology doctoral student training and treatment outcomes. If the proposed hypothesis is correct, engagement in self-care practices will both reduce stress and increase empathy. If this theorized relationship is accurate, it could serve as empirical evidence to support the need for better self-care habits among psychology doctoral students, and related training. Such a finding could have implications that extend beyond graduate and clinical training and into the larger arena of mental health care, as students will carry these habits into their professional practice. Self-care practices will not only benefit psychology doctoral students and mental health professionals in both

personal and professional domains, but these habits will also be likely to enhance the quality of care that these individuals will provide to clients.

Assumptions and Limitations of the Proposed Study

Potential limitations of the proposed study are related to the study's design, data collection methods, participant recruitment, and extraneous variables. Data regarding psychology doctoral students perceived stress, engagement in self-care behaviors, and perceived expression of empathy towards therapy clients will be collected through self-report measures. Self-report methods are limited to the perception of the responder. Specifically, in the proposed study, results obtained might reflect a social desirability bias due to the fact that assessments used in this study will be self-report instruments. Although participant responding will be anonymous, participants could potentially respond in ways that are considered socially and professionally favorable. For example, since empathy can be considered to be a measure of competency in the mental health field, participants may endorse higher levels of empathy than what they actually feel or express towards clients. Additionally, the use of only one measurement perspective (i.e. that of the trainee) for all three measures could potentially inflate the correlations between the measures, resulting in a mono method bias. Furthermore, the use of one measure per variable also includes the construct validity threat of mono operation bias (Heppner, Wampold, & Kivlighan, 2008). However, it should be noted that the measures used in the study were carefully considered among a variety of potential instruments, and were the most researched and appropriate for this population.

Another limitation of the proposed study is its cross-sectional and correlational design. This study design will only assess the designated variables at one time and will not measure changes in these variables over time. Thus, the results of this study will only provide a snapshot

of the relationship between stress, engagement in self-care practices, and empathy during the time at which the data is collected. Further, the correlational nature of the research cannot prove causality in the relationship between these variables. Nevertheless, the results derived from this study may serve as an empirical foundation for further exploration of these variables among psychology doctoral students.

The last limitation of the proposed study is the potential for the online survey and dissemination methods (via training directors) to affect response rates as well as the ability to determine the representativeness of the responders. Adherence to best practices in survey research in the field will be employed in an effort to reduce such limitations.

Study Hypotheses

The proposed study will be conducted with the intention of exploring two specific research hypotheses.

1. Psychology doctoral students' stress and self-care practices will predict their empathy towards clients. Specifically, stress will be a negative predictor of empathy, and self-care will be a positive predictor of empathy.
2. Self-care practices will moderate the relationship between psychology doctoral students' stress and empathy demonstration towards clients. Specifically, self-care practices will act as a buffer, with high levels of engagement in self-care reducing the negative impact of psychology doctoral students' stress on empathy.

Data collected from this study will also permit the exploration of a research question, namely "What are the self-care practices of doctoral psychology students in clinical and counseling psychology?" Limited data currently exists in the literature, and this study will aid in identifying some of the most commonly utilized self-care practices among this population.

Chapter II: Literature Review

The proposed study is intended to address the gap in the literature concerning the relationship between the variables of stress, empathy, and self-care practices amongst psychology graduate students. To set the context for this study, existing research which investigates the variables of interest or subsets of these variables is reviewed regarding the immediate population of interest (psychology graduate students). Due to the limited relevant literature pertaining to psychology graduate students, relevant research that explores these variables among other, related populations, such as mental health professionals and medical students/residents, is also examined.

The review of literature is organized primarily by research population (i.e., psychology graduate students, medical students/residents/physicians, and mental health professionals). Within each population, studies are first grouped by research design (descriptive or correlational). Within correlational designs, the review is further organized according to the specific combinations of the three variables of stress, self-care, and empathy examined in those studies.

In regards to the research on psychology graduate students, two relevant descriptive studies and five correlational studies were reviewed. Three descriptive studies and eight correlational studies with medical students, residents, and physicians were also identified. The literature review concludes with three relevant descriptive studies, one meta-analysis, and seven correlational studies on mental health professionals, followed by a summary critical evaluation of the empirical literature.

Research on Psychology Graduate Students

Descriptive studies. Two descriptive studies examined self-care and coping in psychology graduate students. Turner et al. (2005) explored the frequency of use and perceived effectiveness of a variety of self-care strategies among psychology interns. Utilizing a questionnaire devised for this study, the researchers were able to identify which self-care strategies psychology graduate students endorsed as the most frequently used and most effective. The most frequently used self-care strategies included “active problem-solving strategies, social support from family and friends, exerting control over internship choices, maintaining awareness of the impact of internship, the use of humor, and intern consultation” (p. 676). Self-care practices deemed to be most effective by participants included “social support from family and friends, pleasurable experiences, humor, sleep and exercise, and active problem solving strategies” (p. 677). Turner et al. (2005) also found a strong relationship between the frequency of use and the perceived effectiveness of self-care strategies. El-Ghoroury et al. (2012) investigated stress levels, prominent stressors, common coping strategies, and perceived barriers to wellness and self-care among psychology graduate students. The researchers were able to determine that 70% of participants endorsed experiencing personal and/or professional challenges that impeded their optimal functioning. Additionally, the results derived from the survey allowed for the identification of the primary stressors, coping strategies, and wellness barriers, which were prevalent among the students surveyed. The most common stressors identified by participants included academic responsibilities or pressures, finances or debt, anxiety, and poor balance between work/school and life (p. 127). The coping strategies that were most frequently identified among the participants were friends’ support, family support, talking to a classmate, regular exercise, and engaging in hobbies (p. 127). Lastly, the most prevalent barriers reported to prevent the use of wellness strategies included lack of time, financial

costs/constraints, worry about what could happen, lack of motivation/energy/interest, shame/guilt/embarrassment, privacy and/or confidentiality concerns, not knowing about available resources, inadequate social support, and discouragement or hopelessness (p. 128-129).

Correlational studies. The next section will present results from several relevant correlational studies.

Self-care as a predictor of personal and professional adjustment. Two of the five correlational studies examined outcome variables related to student well-being, such as quality of life (Goncher et al., 2013) and psychological adaptation, which consisted of both personal and professional adjustment (Brooks, Holttum, & Lavender, 2002). These aspects of well-being were predicted by graduate program emphasis on self-care and student engagement in self-care (Goncher et al., 2013) and by personality factors (e.g. motivating aims, cognitive modes, and interpersonal behavior), psychological adaptation (e.g. anxiety, depression, self-esteem), training expectations, and social support (Brooks et al., 2002). Student's perception of graduate program emphasis on self-care was a significant, moderate, and positive predictor of their utilization of self-care behaviors and quality of life. Additionally, engagement in self-care behaviors was found to be a significant, strong, and positive predictor of students' quality of life (Goncher et al., 2013). Brooks et al. (2002) found a positive correlation between poor personality adjustment, poor psychological adaptation, and poor training experiences. Limitations of these studies include utilization of measures that were either created for the study or that lacked information regarding psychometric properties (e.g., validity).

Self-care as a predictor of stress. Two studies (McKinzie et al., 2006; Myers et al., 2012) examined the relationship between self-care and daily habits (e.g. sleeping and eating habits and exercise) and stress in psychology graduate students. Results from these studies revealed that

students who reported greater levels of stress also endorsed greater negative affect and fewer hours of sleep (McKinzie et al., 2006). In addition to better sleep hygiene, other self-care behaviors such as using social support, cognitive reappraisal, and mindfulness were linked to lower levels of perceived stress (Myers et al., 2012). Limitations of these studies include homogeneous participant populations, which were composed primarily of Caucasian females.

Social support as a moderator between stress and career choice satisfaction and burnout. The last study, conducted by Clark et al. (2009) investigated the moderating effect of social support (a form of self-care) between stress and career choice satisfaction and burnout in psychology graduate students. The results derived from this study indicated that the presence of burnout was significantly predicted by students' levels of stress, support from advisors and social support (p. 539). Additionally, social support was found to be a significant, independent, and positively correlated predictor of career choice satisfaction. Social support was also found to moderate the effects of students' stress on their satisfaction with their career choice. Lastly, higher levels of social support were correlated with lower levels of student burnout (p. 600). Limitations of this study included failure to include and assess stressors specifically related to graduate school, such as comprehensive exams and applying for internship.

Research on Medical Students, Residents, and Physicians

Descriptive studies. Three descriptive studies explore different aspects associated with providing empathic and compassionate care within medical settings. Winseman et al. (2009) examined the level of professional experience and identification of perceived factors that affect empathy in medical students. The results of this study revealed that personal connections (e.g. relationships and values), negative feelings and attitudes (e.g. impatience and cynicism), mentoring and clinical experiences (observation and meaningful work) and undermining school

and work experiences (e.g. sleep deprivation and feeling drained, stressed, and overloaded) were all perceived by medical students as components of medical school which affect empathy.

Chang, Eddins-Folensbee, and Coverdale (2012) investigated the prevalence of stress, depression, and burnout (all of which can impact empathy) in medical students. Over half of the students endorsed emotional exhaustion, nearly half reported experiencing depersonalization with patients, and almost 60% of students screened positive for depression. Lastly, Chou, Kellom, and Shea (2014) explored the attitudes and habits of highly humanistic and compassionate physicians. The interviewed physicians reported that their humanistic attitudes were sustained through self-reflection, maintaining a balance between their professional and personal lives, utilizing self-care techniques, and emphasizing connections with their patients.

Correlational studies. The next section will present results from several relevant correlational studies.

Predictors of empathy. Five of the correlational studies investigated similar or overlapping variables as predictors of empathy. Shanafelt et al.'s (2005) study explored well-being in medical school residents as predictive of demonstration of empathy to patients. These researchers found that residents with high mental well-being scores also obtained higher cognitive and emotional empathy scores. Additionally, nine personal wellness promotion strategies were identified as important to all residents, no matter the well-being scores that they obtained. The nine personal wellness promotion strategies were: 1) incorporating a life philosophy stressing balance in personal and professional lives, 2) recreation/hobbies/exercise, 3) protecting time away from work with spouse and family, 4) vacations, 5) trying to have a positive outlook, 6) discussions with family or significant other, 7) finding meaning in work, 8) developing an approach/philosophy to dealing with death/end of life care, and 9) discussing

stressful aspects of work with colleagues (p. 561-562). The primary limitation of this study is the small sample size of participants who completed and returned the self-report instruments.

Two of the five studies (Paro et al., 2014; Thomas et al., 2007) investigated professional distress and burnout as well as perceptions of well-being and quality of life as predictors of empathy levels in medical students. The results of both studies revealed a significant inverse relationship between empathy and burnout in medical students. Additionally, personal accomplishment and psychological quality of life were found to be negatively correlated with personal distress. Limitations of these studies include cross-section design as well as the use of self-report instruments.

The last two of the five studies examined how personal factors such as personality traits and well-being may predict empathy (Michalee, 2010) or how demographic factors may act as moderators between burnout, altruistic behavior, emotional awareness and well-being and clinical empathy (Gleichgerrcht & Decety, 2013) among medical students and medical physicians, respectively. Michalee (2010) found a significant decrease in students' clinical empathy levels as the academic year progressed. The results of this study suggested that students who are high in clinical empathy may be experiencing greater levels of stress. Gleichgerrcht and Decety (2013) found a positive relationship between empathic concern, perspective taking, and altruistic behavior and compassion satisfaction. Additionally, the results of this study indicated that male and female participants tended to report similar levels of both personal distress and ability to take the perspective of their patients. However, female participants displayed significantly higher levels of empathic concern to their patients, as compared to male participants. Michalee's (2010) study was limited by recruiting participants from only one medical school, which limits generalizability of results.

Predictors of burnout. A study conducted by Mazurkiewicz, Korenstein, Fallar, & Ripp (2012) analyzed how various factors, such as sleep deprivation, demographics, social support, work environment, medical school rotations, psychiatric history, and time allocation could be predictive of burnout in pre-clinical medical students. The results of this study revealed that a high prevalence of burnout (71%) existed among participating students prior to entering academic years in which they would work with patients. Additionally, negative correlations between burnout (higher levels) and student beliefs (lower levels) of self-efficacy and lack of management over daily scheduling were found. Limitations of this study include a local small sample size.

Predictors of professional competency. Lastly, two studies explored outcomes related to professional competency in medical students and residents. West et al. (2006) studied how resident quality of life, burnout, symptoms of depression, and empathy could predict the frequency that medical residents perceived that they had made medical errors. These researchers found that perceived medical errors were associated with a decrease in quality of life, higher levels of burnout, increased symptoms of depression, and reductions in empathy levels. Limitations of this study include insufficient identification of what could constitute a medical error and utilization of a local sample. Dyrbye et al. (2010) conducted a study with medical student participants in which professional distress served as a predictor of professional conduct, attitudes regarding appropriate relations with industry, and attitudes regarding physicians' responsibility to society. Results of this study revealed that burnout, emotional exhaustion, and depersonalization were correlated with dishonest clinical behaviors. Burnout was also linked to less altruistic views related to professional responsibilities to consumers. Limitations of this

study included examination of only a limited representation of professional behaviors and attitudes and the probability for response bias due to professional expectations and standards.

Research on Mental Health Professionals

Descriptive studies. Three descriptive studies examined aspects that may impact the professional competence of mental health professionals. Grafanaki et al. (2005) investigated the effects of leisure on counselors and psychologists. These researchers discovered that leisure was reported to not only help with managing work stressors but also to achieve a balance between participants' personal and professional lives. Leisure was identified as necessary for self-care and seemed to help participants to increase their understanding of and empathy for clients. Kramen-Khan and Hansen (1998) explored occupational hazards, rewards, and methods of coping as well as the interrelationships among these variables reported by psychotherapists. The results of this study enabled the researchers to identify which occupational hazards, occupational rewards, and career sustaining behaviors were most common among participants. The last descriptive study, conducted by Miller (2007) examined the characteristics that are present in psychotherapists who are passionately committed to their work. Six common areas were identified between all therapists who were interviewed. These areas were balance between work and non-work passions, being adaptive and open, acknowledging the transcendence within psychotherapy, intentionally learning, possessing a goodness of fit with professional role, and holding positive perspectives about their work, clients, and professional roles.

Meta-analysis. A meta-analysis, conducted by Lee, Lim, Yang, and Lee (2011), examined the antecedents and consequences of three dimensions of burnout (emotional exhaustion, depersonalization, and personal accomplishment) in psychotherapists. Antecedents or precursors of burnout were identified for all three dimensions. Consequences or outcomes of

all three dimensions of burnout were also identified. Some antecedents included overinvolvement, job stress, and control. Consequences stemming from burnout included job satisfaction and intention of turnover. Most relevant to the proposed study, there was a clear link in the meta-analysis between stress and depersonalization (a component of burnout that seems relevant to empathy).

Correlational studies. The next section will present results from several relevant correlational studies.

Predictors of positive professional functioning. Three correlational studies and one qualitative study explored outcomes related to positive professional functioning. In the qualitative study, Dlugos and Friedlander (2001) studied lifestyle and professional factors as predictors of passionately committed psychologists. Four general themes emerged during each participant's interview: balance, adaptiveness and openness, transcendence and humility, and intentional learning. Limitations of this study included the fact that the validity of the definition of passionate commitment used to identify participants has not been established.

The three correlational studies (Lawson & Myers, 2011; Rupert, Miller, Tuminello, & Bryant, 2012; Stevanovic & Rupert, 2004) examined the use of career sustaining behaviors, career stressors, and personal qualities as predictors of wellness and career satisfaction among mental health professionals. Stevanovic and Rupert's (2004) study highlighted the top sources of stress identified by participants (e.g. economic uncertainty, feeling responsible for clients, time pressure, and external constraints on services) as well as the most commonly identified career sustaining behaviors (e.g. socializing, balance, maintaining a sense of humor, self-awareness, and professional identity). Participants who reported higher career satisfaction scored higher on utilization of career sustaining behaviors. The primary limitation of this study was the use of a

local sample of psychologists recruited only from Illinois, which limits the generalizability of the results. Rupert et al. (2012) discovered that participants identified life-balance strategies, control at work, and use of career sustaining behaviors as being important in predicting level of career satisfaction. Although the researchers identified relatively high levels of career satisfaction among participants, participants were grouped based on their responses to career satisfaction questions (e.g. highly satisfied or moderately satisfied). Thus, factors related to low satisfaction were not addressed in this study. Another limitation of this study is the relative homogeneity of participants (participants were primarily Caucasian). Lastly, Lawson and Myers (2011) found that counselors who worked in private practice had higher wellness scores than those working in school or community agency settings. Counselors whose caseloads consisted of larger numbers of trauma cases seemed to be more vulnerable to burnout. The most common career sustaining behaviors utilized by counselors and psychologists were also identified. They included spending time with partner/family, maintaining a balance between professional and personal lives, and maintaining a professional identity (p. 169).

Predictors of burnout and professional impairment. Three correlational studies investigated predictors of fatigue, burnout, level of compassion satisfaction, and professional impairment in mental health professionals. Rupert and Kent (2007) examined gender, work activities and demands, work setting and resources, and career-sustaining behaviors as predictors of burnout among professional psychologists. The results of this study provided insight into factors related to burnout in psychologists (age, type of work setting, years of experience, hours of work, negative client behaviors, and perception of control related to the work setting) and potential advantages and disadvantages of working in private practice versus working in an agency setting. Additionally, the results of this study enabled the researchers to identify

strategies that psychologists utilized to maintain positive functioning at work, such as maintaining a sense of control, maintaining a balance between work and life, reflecting on satisfying work experiences, and self-monitoring. The primary limitation of this study was that participants were overwhelmingly Caucasian and highly experienced, limiting the generalizability of the results. Sherman and Thelen (1998) looked at aspects of work and personal environments as predictors of distress and professional impairment among psychologists. The results of this study revealed that personal and professional satisfaction is lowered when dealing with stressful life events. Additionally, professional impairment may occur in response to life events or stressful work factors. Specific influential stressors and events were identified. Life events that were identified by respondents to cause the most distress and impairment were problems within close relationships (ex: marital problems/divorce) and major personal illnesses/injuries. Stressful work factors linked to causing the most distress and/or impairment among respondents were malpractice claims, changed work situation, inadequate time for obligations, and restrictions imposed by managed care (p. 82-83). The primary limitation of this study is the racial homogeneity of the sample (96% Caucasian), which limits the generalizability of results.

Lastly, Thompson et al. (2014) explored how perceptions of working conditions, gender, length of time in the field, and personal resources (coping and compassion satisfaction) may predict compassion fatigue and burnout in mental health counselors. The researchers discovered that counselors' perceptions of the work environment (coworker support and work atmosphere) and personal resources (compassion satisfaction and mindfulness attitudes) were both significantly associated (inversely) with compassion fatigue and burnout. Additionally, the results of this study revealed a significant inverse relationship between the length of time that

counselors had worked in the field and burnout, with those counselors who had more experience reporting less burnout. Limitations of this study included the unknown response rate, racial homogeneity, and the utilization of a measure that was developed specifically for this study, which lacked psychometric validity and reliability.

Critical Summary of the Literature

There have been limited correlational studies examining the relationship between stress, self-care, and empathy in psychology doctoral students in clinical or counseling psychology. Two studies examined self-care as predictor of personal and professional adjustment, and another two studies examined self-care as predictor of stress. A fifth correlational study examined social support as a moderator between stress and career choice satisfaction and burnout. None of the studies examined stress and self-care as predictors of empathy in doctoral psychology students.

From the related literature, higher stress and lower quality of life have been linked to decreased empathy within medical student populations. In research with mental health professionals, high stress has been linked to burnout, while self-care has been linked to career satisfaction, but their effects on empathy have not been specifically examined. Further, even in those studies that examined empathy in medical providers, generic or medical empathy scales have been used, which were not related to empathic interactions with a specific patient. The proposed study aimed to investigate (for the first time) perceived stress and self-care engagement as predictors of empathy in psychology doctoral students, using client-specific empathy measures on a national sample of clinical and counseling psychology doctoral students. In this design, engagement in self-care was also studied for the first time as a moderator of the relationship between perceived stress and empathy.

Chapter III: Methodology

This study's procedures were approved by the Adler University IRB, protocol # 16-052.

Study Design

The study is correlational in nature, and employed a moderator/multiple regression analysis design. The two predictor variables were psychology doctoral students' (a) perceived stress and (b) engagement in self-care behaviors. The criterion variable was psychology doctoral students' perceptions of their empathy demonstration to practicum clients. In the moderator hypothesis, self-care was examined as a moderator of the relationship between stress and empathy.

Sample Recruitment Procedure

Participants were recruited from all APA-accredited clinical and counseling psychology doctoral programs (Ph.D or Psy.D) in the United States as well as from psychology pre-doctoral internship sites. Participants from nationwide clinical and counseling psychology doctoral programs and internships were recruited through contact with their respective school's training department and/or their internship training director. Directors of Clinical Training (DCTs) were identified via their schools' website, while internship training directors were identified via the Association of Psychology Postdoctoral and Internship Centers' (APPIC) online directory. DCTs and internship training directors were contacted via email with a comprehensive description of the study and a request to disseminate an online link that directed interested students to the informed consent and the self-report instruments that were utilized in this study. The recruitment letter is attached in Appendix A.

Inclusion Criteria

In order to be eligible to participate in this study, participants needed to be actively enrolled in a clinical or counseling psychology doctoral program, either Psy. D or Ph. D.

Additionally, students either had to be participating in a therapy practicum or pre-doctoral internship during the time of the study. Further, they must have been seeing a psychotherapy client for at least three sessions, so they could provide meaningful empathy assessments in reference to that client. Participants were asked to report their empathic perceptions regarding the last psychotherapy client they saw that week, who met the three session criterion.

Power Analysis

The desired sample size was calculated based on power analysis using the statistical power analysis program G*Power 3 (Faul, Erdfelder, Lang, & Buchner, 2007; Faul, Erdfelder, Buchner & Lang, 2009). An a priori power analysis for a multiple regression design with three predictors and Alpha error probability $\alpha = .05$ and power entered as $\beta = .80$, and for an estimated effect size of $f^2 = .08$ (between small and medium), an estimated sample size of 141 participants was needed for this study.

Measures

There were three measures employed in the study that measured the three variables of interest. The Perceived Stress Scale was used to measure psychology doctoral students' perceived stress, and the Self-Care Utilization Questionnaire was used to measure their engagement in self-care behaviors. The Barrett-Lennard Relationship Inventory: Form MO-Emp+ was used to measure participants' empathy towards a current psychotherapy client. A participant demographics form was utilized in order to collect data regarding participants' gender, age, ethnicity, relationship status, educational status, year in the program, major, clinical experience in semesters, etcetera.

Perceived Stress Scale. The Perceived Stress Scale (PSS-14; Cohen, Kamarck, & Mermelstein, 1983) is a 14-item questionnaire that measures the responder's current perceptions

regarding his or her stress levels within the past month. Responders provide ratings for the 14 items along a five-point Likert scale, which ranges from 0 = "never" to 4 = "very often." Scores range from 0 to 56, with higher total scores indicating higher stress. Sample items include "In the last month, how often have you felt that you were unable to control the important things in your life?" and "In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?". The Perceived Stress Scale was developed for use with community populations with at least junior high schooling, and has been utilized in prior research with psychology graduate students. According to Myers et al. (2012), the PSS-14 has "demonstrated adequate coefficient alpha reliability across studies ($r = .84$ and $.86$), adequate two-day and six-week test-retest reliability ($r = .85$ and $.55$, respectively), and demonstrated adequate convergent validity with measures of health related outcomes and divergent validity with measures of depressive symptomatology" (p. 60). Thus, the content and psychometrics of this instrument were deemed to be appropriate to measure the perceptions of stress among clinical psychology doctoral students within the context of this study.

Self-Care Utilization Questionnaire. The Self-Care Utilization Questionnaire (SCUQ) is a self-report instrument that was created for a recent study concerning stress and self-care in doctoral clinical psychology students (Goncher et al., 2013). The SCUQ was specifically designed in order to address the lack of self-care utilization measures within the current body of literature. The content of the questionnaire was developed based on self-care methods identified by Baker (2003), Barnett et al. (2006), Coster and Schwebel (1997), Guy and Norcross (1998), Mahoney (1997), Norcross (2000), and Sherman and Thelen (1998) as well as from research concerning career sustaining behaviors conducted by Kramen-Kahn and Hansen (1998) and Stevanovic and Rupert (2004) (as cited in Goncher et al., 2013).

The SCUQ consists of 30 items which measure the degree to which responders employ various self-care strategies. A variety of self-care practices are included in this instrument, including social support, hobbies, healthy diet, etcetera. Responders endorse their use of each of the thirty strategies along a five-point Likert scale that ranges from 1 = "never" to 5 = "almost always." Sample items include "I talk to someone during stressful periods" and "I engage in personal hobbies outside the realm of psychology". Scores range from 30 to 150 and higher total scores are reflective of increased utilization of self-care strategies. The researchers who developed the SCUQ calculated the Cronbach's alpha to be .89. The researchers conducted a principal component analysis and two meaningful components were identified. The correlation between the two major components (positive coping and personal fulfillment), is .52, $p = .001$. The summing of responses is used to render a total score for the SCUQ, which the investigators identified as an appropriate measure of self-care strategies (Goncher et al., 2013).

Barrett-Lennard Relationship Inventory: Form MO-Emp+. The Barrett-Lennard Relationship Inventory: Form MO-Emp+ (Barrett-Lennard, 2015) is an adapted version of Barrett-Lennard's Relationship Inventory (2012) and consists of 12 empathy items and a mix of 12 items from the other scales (regard, unconditionality, and congruence) of the full Barrett Lennard Relationship Inventory (BLRI). The 24 items are worded in such a way as to elicit the empathic thoughts, feelings, and behaviors of the responder towards another individual. Although no particular dyadic relationship is identified in the inventory itself, Barrett-Lennard (2015) stated that the inventory's instructions could be "slightly amended" to accommodate the therapeutic relationship. Responders rate each of the 24 items along a six-point Likert scale ranging from -3 to +3, "I strongly feel that is not true" to "I strongly feel that is true." Sample

empathy items include “I usually sense and realize how ____ is feeling” and “I can tell what ____ means even when he/she has difficulty saying it”.

The Barrett-Lennard Relationship Inventory: Form MO-Emp+ was selected for utilization in this study because it enables the researcher to elicit the empathic responses of responders to their clients. This inventory was the only available measure in the literature that measured therapist empathy towards a specific individual client. The Barrett-Lennard Relationship Inventory: Form MO-Emp+ permits the exploration of therapeutic empathy with a specific client currently seen by a psychology doctoral student.

In regards to the reliability of the Relationship Inventory (RI), a split-half analysis was applied to the data derived from clients and therapists. The reliability of all coefficients from this data was above .80, and across the four retained scales (regard, empathy, unconditionality, and congruence) mean reliabilities were above .8 in the clients' data and over .9 from the therapists' data (Barrett-Lennard, 2015). Results obtained from revisions of the RI, from groups supplemental to the therapy-relationship majority, as well as from naturalistic and analogue studies are also worth examination in the consideration of the measure's reliability. The Empathy scale was found to have a mean reliability coefficient of Chronbach's alpha = .94 (Barrett-Lennard, 2015).

In regards to the validity of the RI, results from a variety of independent predictive studies, which examined the association between the RI-assessed relationship conditions and outcomes from therapy or other helping situations, provided extensive evidence of construct or predictive validity (Barrett-Lennard, 2015). The measure has been used in contexts beyond counseling and psychotherapy and has extended into appropriate application in other human service contexts as well as within significant personal relationships (Barrett-Lennard, 2015).

Data Collection and Management Procedures

The data for this study were collected via participants' completion of three self-report measures plus a demographics questionnaire. Approvals to use the three measures were obtained from the authors of the measures (see Appendix C), prior to the commencement of the study. After reviewing all information related to informed consent and agreeing to participate in the study, participants were directed to an online link to access and complete the measures. Informed consent, along with the IRB approval letters are available in Appendices B and C. In order to preserve their anonymity, participants were not asked to provide identifying information such as their name, student identification number, birth date, etcetera. Participants also were not asked to provide any identifying or other information about their clients. The study was completely anonymous, and no identifying data of any kind were collected, including IP addresses. The data were collected using the online data collection platform at www.psychdata.com.

Directors of Clinical Training (DCTs) and internship training directors were contacted and asked to forward the solicitation email to eligible students. APA-accredited programs were identified through the American Psychological Association's (APA) listing of accredited academic institutions in the United States. Mental health facilities that were currently training interns were identified through the Association of Psychology Postdoctoral and Internship Centers (APPIC).

On June 1, 2016, a participant solicitation email was sent out to 302 DCTs of APA-accredited psychology doctoral programs (221 Clinical, 71 Counseling, and 10 Combined). After the first mailing, 26 (eight counseling, and 18 clinical) DCTs responded with automatic emails indicating that they were out of the office and/or had limited email access. Six DCTs (three counseling and three clinical) responded and stated that they would forward the email on to

eligible students. Five DCTs (one counseling and four clinical) responded to indicate that they declined to forward the email to students. An additional three DCTs from clinical psychology doctoral programs specified that in order to forward the recruitment email to students, their own school's Institutional Review Board (IRB) committee would need to approve the study. Follow-up emails regarding how to obtain this approval commenced thereafter and information was sent to the respective academic institutions' IRB committee chairperson. No further responses were received after these submissions.

Based on the somewhat limited response rate, possibly due to the summer season, the follow-up solicitation was sent in the new academic year (Fall semester), after students would have been expected to have finished their initial practicum training and had a chance to meet with a client for at least three sessions. On October 17, 2016, a second recruitment email was sent to DCTs of APA-accredited psychology doctoral programs. After the second mailing, one counseling psychology program reported they were closed. Six (one counseling and five clinical) automatic replies indicated email failure. Nine (three counseling, five clinical, and one combined) DCTs responded with automatic emails indicating that they were out of the office and/or had limited email access. Four DCTs (two counseling and two clinical) responded that they forwarded the email to students. One DCT from a clinical psychology program stated that the school's IRB committee would need to approve the study before the recruitment email could be forwarded to students.

After the first mailing of participant solicitation, it was deemed necessary to broaden the scope of recruitment by enlisting the assistance of internship training directors. This amendment to the data collection process was approved by Adler University's IRB committee on June 22, 2016. On October 17, 2016, a recruitment email was also sent to 594 internship training directors

at internship sites across the United States. After this mailing, 13 internship training directors responded with automatic emails indicating that they were out of the office and/or had limited email access. Ten automatic responses were received, indicating email failure. Seven recipients stated that another individual should be contacted or that they have forwarded the recruitment email to the appropriate individual (internship training director). Four internship training directors responded to confirm that they forwarded the email to their current interns and/or practicum students who satisfied the study's inclusion criteria. Two internship training directors declined to forward the recruitment email. The data collection site remained open until January 31, 2017, with the last trainee participating on January 4, 2017.

Sample Demographics

By January 2017, 218 individuals responded. Of these, 208 met the eligibility criteria and consented to participate in the study, nine did not meet the required inclusion criteria, and one individual chose not to participate. Of the 208 individuals who began providing data, 39 did not complete the surveys in their entirety, leaving 169 usable protocols. Of those 39 individuals who did not complete the survey, 34 did not complete any items at all (non-engagers).

From the 169 protocols, 83.4 % were completed by female participants, 12.4 % by males, 0.6 % by transgendered individuals, and 0.6 % individuals who gender identified as other/questioning. The mean age of participants was 29.54 years (SD = 5.4), but participant ages ranged from 22 to 59 years. Approximately 75% of participants identified their ethnicity as European-American/Caucasian. The average amount of years participants had spent in their doctoral program was 4.15 years, but ranged from one to 12 years. For a more detailed breakdown of participant characteristics and demographics, please see Table 1.

To evaluate the representativeness of the responders in this study, participants' characteristics were compared to relevant national statistics, as well as to a similar survey of clinical psychology doctoral students conducted by Goncher et al. (2013). In that study (N=262) 85% of participants were female and 84% Caucasian, with an average age of 28.3. Although Goncher et al.'s (2013) and the current study elicited somewhat different demographic and educational information, the two studies were comparable in terms of participants gender, age, and ethnicity.

The demographic factors of the current study are also reflective of the ethnic and gender demographics within psychology doctoral programs in the United States and Canada. According to the 2010 Annual Report conducted by the American Psychological Association (APA, 2010), students enrolled in Clinical and Counseling Psychology Doctoral Programs were predominantly female and Caucasian. The APA surveyed 289 Clinical and Counseling programs, collecting the ethnic demographics for 23,263 students and gender demographics for 23,942 students. In regards to ethnicity, 68% of students identified as Caucasian, 10% as Hispanic/Latino, 8% as Asian/Pacific Islander, 7% as African American, 3% as Multi-ethnic, 2% of students did not report their ethnicity, 1% of students identified their ethnicity as "Other," and 1% identified as American Indian/Alaska Native. In regards to gender, 77% of students were female and 23% were male (APA, 2010).

Chapter IV: Results

Descriptive Statistics and Checks of Statistical Assumptions

Data were first downloaded to SPSS and scoring procedures respective to the employed instruments were used, such as item reverse scoring, where needed. Descriptive statistics, including means, standard deviations, range, and skewness and kurtosis, were obtained for each of the study's measures. These are reported in Table 2. Further, descriptive statistics (means and standard deviations) for each of the items of the Self-Care Utilization Questionnaire (SCUQ) are presented in Table 3. In addition, checks for data normality and univariate outliers were conducted for each of the study's three variables.

The Perceived Stress Scale (PSS-14) had a total perceived stress mean of 25.13 points (SD = 7.11) and a range of 9 to 42 points. The 5% trimmed mean value was 25.10, indicating that extreme cases are not strongly influencing the mean value. The skew value (.138) for this measure is positive, indicating that scores are slightly clustered to the left at the low values (Pallant, 2013). The kurtosis value (-.330) for this measure provides evidence for a relatively flat distribution of scores. The normality for this measure was assessed through the results of the Kolmogorov-Smirnov statistic, which revealed a non-significant result ($p = .200$), indicating normality. Histograms developed for this measure also reflect that participants' scores are reasonably normally distributed. No outliers were identified for this measure.

The Self-Care Utilization Questionnaire (SCUQ) had a total mean of 103.93 (SD = 11.99) and a range of 67 to 137. The 5% trimmed mean value was 103.74, indicating that extreme cases are not significantly altering the value of the mean. The skew value (.252) for this measure is positive, which means that scores clustered to the left of the distribution at the low values. The kurtosis value (.300) for this measure indicates that the distribution of scores is

peaked, reflecting a cluster of scores in the center, with long thin tails (Pallant, 2013). The Kolmogorov-Smirnov statistic ($p = .200$) is indicative of the normality of this measure's distribution of scores. Three outliers were identified within this measure. However, these outliers are not extreme and the difference between the mean and the trimmed mean is very small. Therefore, the three outlying cases are not anticipated to bias the statistics of this study.

The Barrett-Lennard Relationship Inventory: Form MO-Emp+ (BLRI) had a total perceived empathy mean of 17.83 (SD = 6.19) and a range on 0 to 34. The 5% trimmed mean value was 17.89, thus revealing an insignificant increase from the mean value. The skew value (-.190) for this measure is negative, which indicates that scores are clustered slightly at the high end of the distribution. The kurtosis value (-.317) for this measure is reflective of a relatively flat distribution, indicating that there are too many extreme cases. The Kolmogorov-Smirnov statistic ($p = .003$) demonstrates that the variable of empathy failed the statistical test of normality. Findings indicating violations of the normality assumption are common within larger participant samples. Other indicators of normal distribution (histogram, normal q-q plot, detrended normal q-q plot, and boxplot; see Appendix D) demonstrate reasonable distribution. Greater variability of deviation is revealed in the detrended normal q-q plot. No outliers were identified for this measure. Based on these assessments of normality and outliers for this data, no transformations of any of the variables seemed necessary.

Before conducting the hierarchical multiple regression analysis to test the moderator hypothesis, a check was conducted to determine whether the assumptions for regression analysis were met. Assumptions that were assessed included sample size, multicollinearity, outliers, normality, linearity, homoscedasticity and independence of errors.

In terms of sample size ($N=169$), the target sample based on the results of the power analysis was exceeded. In regards to multicollinearity, the variables of stress and empathy were found to have a weak negative correlation ($r = -.081$). Self-care and empathy were found to have a weak positive correlation ($r = .116$). There was a moderate negative correlation between the predictor and moderator variables of stress and self-care ($r = -.454$) (for correlations and reliabilities of the measures, see also Table 4). Multicollinearity issues include a potentially high correlation between the predictor variables, usually $r > .7$ (Pallant, 2013), which was not the case for these variables. Examination of SPSS output is also not suggestive of the presence of multicollinearity. Tolerance values are large ($> .79$), which is far above the cutoff of $.10$ (values below $.10$ indicate multicollinearity). Therefore, tolerance values are not indicative of high multiple correlation with other variables. Additionally, the Variable Inflation Factor (VIF) values are around 1.26 (all well below the critical value of 10), and therefore provide no evidence for multicollinearity (Pallant, 2013).

The assumption of normality was assessed by examining the Normal Probability Plot (P-P) of the Regression Standardized Residual. The Normal P-P plot demonstrated that data points fell in a reasonably straight diagonal line, which is suggestive of no major deviations from normality (see Appendix D). Further, examination of the residuals scatterplot was used to simultaneously screen for violations in normality, linearity, or homoscedasticity. The scatterplot obtained in SPSS output (see Appendix D) reveals that the majority of scores are concentrated toward the center of the plot, clustering proportionally along the 0 point, and presenting no patterns suggestive of failure of normality, nonlinearity, or heteroscedasticity (Pallant, 2013; Tabachnick & Fidell, 2013). Lastly, the Durbin-Watson statistic was 2.187 , close to the desirable value of 2 , suggesting the independence of errors.

The data were further examined for multivariate outliers. According to Pallant (2013), the presence of outliers can be identified when cases present in the scatterplot that have standardized residuals of more than 3.3 or less than -3.3. There were no cases with such values. Multivariate outliers were also assessed by examining the Mahalanobis Distances, and three cases were identified as exceeding the cut-off value of 16.27 for three predictor variables at the $p = .001$ level. However, the maximum value for Cook's Distances was well below a value of 1 for all cases (.60 and .10 being the two most extreme values), indicating that none of the multivariate outliers likely had any undue influence on the results (Pallant, 2013). However, given that the three multivariate outliers identified by Mahalanobis distances were significantly higher than the cut-off value, the regression analysis was run with and without those three cases to check for their influence on the results. The results of the alternative regression analysis were similar and did not alter the statistical significance of any of the findings. Therefore, all cases were retained for the regression analysis reported in the next section.

Testing of Hypotheses

A hierarchical multiple regression was conducted through SPSS software to assess the study's two hypotheses. To review, the first hypothesis was that the two predictor variables (psychology doctoral students' perceived stress and psychology doctoral students' engagement in self-care behaviors) would predict the criterion variable (psychology doctoral students' perceptions of their empathy demonstration to their latest client meeting the three session minimum requirement). The second hypothesis was that self-care would moderate the relationship between stress and empathy.

Following the procedures recommended by Frazier, Barron, and Tix (2004) for moderator analysis, standardized Z-scores for the variables of perceived stress and self-care engagement were entered in Step 1, producing an R^2 of .014, which was not statistically

significant ($p = .300$). After entering the interaction term of Stress x Self-care (product term of the Z-scores of the two variables) in Step 2, the total variance explained by the model as a whole (including both Step 1 and Step 2) was 4.1%. The R^2 change from step 1 to step 2 was .027, which was statistically significant ($p = .034$), suggesting that the interaction accounted for approximately 3% of the variance in understanding empathy. However, the ANOVA table, which included both blocks, indicated that the model as a whole approached, but did not reach significance, $F(3, 165) = 2.35, p = .074$. In the final model, only the interaction between stress and self-care were statistically significant, recording a standardized beta value of $-.16, (p = .034)$. Results of R squares and regression coefficients are summarized in Table 5.

Prior to the analysis descriptive statistics were obtained to ensure that the stress and self-care variables had means of 0 and standard deviations of 1. Correlations among all variables were also computed to verify that after standardizing the continuous variables that the interaction term (stress x self-care) and its components were not too highly correlated (r s were $-.08$ and $.02$). These correlations revealed an absence of multicollinearity.

Moderation effects were further explored by plotting the two-way interaction effects, as presented by Frazier et al. (2004). This was done by estimating the predicted values of the dependent variable, empathy, for four representative groups, representing the four combinations of those scoring high and low on stress (independent variable) and high and low on self-care (moderator). These scores were obtained by inputting the unstandardized regression coefficient values (for two standardized continuous variables) in the Excel spreadsheet provided online by Dawson (2014, 2017). Figure 1 displays the estimated means on empathy for the four groups (“high stress, high self-care”: 16.77; “high stress, low self-care”: 17.42; “low stress, high self-care”: 19.18, and “low stress, low self-care”: 16.35).

The results suggest that for students who experience high stress, those who engage in low or high levels of self-care do not show any differences in their perceptions of the empathy that they express to clients. In other words, students who endorsed high levels of stress had relatively the same perceptions of their empathy expression no matter whether they reported engaging in high or low levels of self-care practices. More variation in perceptions of empathy expression was seen among students who endorsed low levels of stress. Students who identified that they experience low stress levels and employ a low level of self-care techniques reported lower perceptions of empathy expression to their clients compared to students who reported experiencing low stress and practicing high engagement in self-care behaviors.

Exploratory Question

Descriptive statistics (means, standard deviations, and ranges) were obtained for each of the 30 items of the Self-Care Utilization Questionnaire (SCUQ) (Goncher et al., 2013). These results are presented in Table 3. To review, when completing the SCUQ, participants (N = 169) were asked to identify the frequency in which they engaged in each of the 30 featured self-care practices. Frequency options were organized in a Likert scale format ranging from “Never” (1) to “Almost Always” (5). The top five most frequently used self-care practices identified by participants were: (1) talking to someone during stressful periods, (2) maintaining strong support groups, (3) maintaining self-awareness of the impacts of personal and professional experiences, (4) discussing personal, emotional, physical, and spiritual development with significant others, and (5) actively trying to be in touch with feelings in the moment. The five self-care practices that had the lowest frequency of use were: (1) taking vacations during the year, (2) attending to personal religious and spiritual needs, (3) attending personal psychotherapy sessions to address feelings of distress during my graduate training, (4) volunteering in the community, and (5)

attending workshops that provide instruction on positive stress management techniques (i.e. relaxation methods, meditation, etc.).

Chapter V: Discussion

This study aimed to explore the relationship between psychology doctoral students' perceived stress and their perceptions of the empathy that they express to clients/patients. Additionally, this study sought to examine how self-care practices might moderate the aforementioned relationship. Based upon these goals and review of currently existing studies, two hypotheses were developed. Hypothesis one: Psychology doctoral students who report higher perceived stress levels will also report lower levels of perceived empathy expression. Conversely, students who report lower perceived stress levels will also report higher levels of perceived empathy expression. An additional speculation of this hypothesis was that psychology doctoral students' engagement in self-care behaviors will lower perceived stress levels and increase perceived levels of empathy expression. In other words, greater engagement in self-care behaviors (determined by endorsed frequency of use) will result in lower levels of perceived stress and higher levels of perceived empathy expression. Hypothesis 2: Self-care engagement will moderate the relationship between perceived stress and perceived empathy expression. More specifically, self-care engagement will buffer the hypothesized negative effects of stress on empathy expression. Descriptive data was also collected for participants' demographics and use of self-care practices.

Summary and Integration of Results

Hypothesis 1. Results failed to demonstrate statistically significant correlations or regression coefficients between stress and empathy or between self-care and empathy. The bivariate correlation between perceived stress and empathy was $r = -.08$, reflecting a weak negative correlation. The bivariate correlation between self-care engagement and empathy was $r = .12$, reflecting a weak positive relationship. Thus, although findings were in the right direction,

they did not reach statistical significance. Even though not specifically tested, stress and self-care were, as expected, moderately and negatively associated ($r = -.45$).

Hypothesis 2. Data revealed that this hypothesis was marginally supported. Table 5, which features the moderator effects of self-care on stress and empathy, revealed that the coefficient of determination (R^2) demonstrated a statistically significant increase ($p < .05$) related to the interaction effect of stress and self-care on empathy. The R^2 change representing this interaction was double (.027) the amount of variance explained by stress and self-care as isolated variables (0.14, *ns*). Thus, the results of the interaction term indicated that there is a modest but statistically significant relationship between the interaction of perceived stress and reported self-care engagement on perceptions of empathy expression.

Further testing of this hypothesis was accomplished through plotting the two-way interaction effects of stress and self-care on empathy. Results revealed that students who endorsed the highest perceptions of empathy expression ($M = 19.18$) also reported low levels of stress and high engagement in self-care activities. Conversely, the lowest perceptions of empathy ($M = 16.35$) were found among students who reported both low stress and low self-care. On the other hand, there did not seem to be significant empathy differences between students who reported high stress levels and either low engagement in self-care ($M = 17.42$) or high engagement in self-care ($M = 16.77$).

These findings indicate that greater engagement in self-care seems to make a difference in perceptions of empathy expression (increased empathy) for students who are endorsing low levels of stress. A potential explanation for this result is that, at first glance, it is reasonable that those students who experience the least stress and the most self-care would have the best professional functioning, as expressed by demonstrating the highest empathic ability. Further, for

those low stress students who manage to engage in self-care successfully, their empathic ability results are superior to those low stress students who were not able to do so (low self-care).

Conceivably, lower levels of stress are more manageable for students, and those who can successfully engage in significant self-care are more successfully demonstrating empathy to their clients.

For students who endorsed high levels of stress, their expressed empathy was relatively similar no matter whether they engaged in high or low self-care. This finding may speak to the pervasive stress levels that are present among rigorous doctoral programs. It may also indicate that for students with high stress levels, engagement in self-care does not make a significant difference in their empathic ability. For this group of highly stressed students, additional or more intensive systemic or individual interventions may be needed, beyond self-care, such as reduced workload, additional professional support, and psychotherapy. This interpretation is not to say that self-care is not important for all students. It may be possible that even if self-care does not improve empathy in highly stressed students, it may still be important in maintaining a level of professional functioning. Ultimately, in light of the small effect sized moderator finding in this study, it does seem reasonable to infer that students who endorse lower stress levels and reportedly engage in higher levels of self-care will demonstrate greater levels of empathy to their clients.

Exploratory Question. Descriptive data derived from participants' completion of the SCUQ revealed the frequency of use of a variety of 30 self-care practices. Although it was not directly measured within the current study, frequency of use may be reflective of those self-care practices that participants have experienced to be most accessible. For example, in examining the top five most frequently utilized self-care practices among participants in this study, it was

observed that three of the five practices are related to seeking some type of social support, while the remaining two practices are related to self-awareness and introspection. In some respects, social support and self-awareness may be considered to be among the most conveniently accessible self-care options presented in the SCUQ. Given the fact that psychology doctoral students are contending with a variety of imposed time restraints, their selection of self-care behaviors may be partially contingent upon the types of practices that are most readily available. In exploring the least frequently utilized self-care practices a notable discrepancy was noticed when comparing the bottom five self-care practices to the top five self-care practices: engaging in the bottom five practices would require a great deal more time and energy (e.g., volunteering in the community). Furthermore, the bottom five practices may not be logistically feasible (e.g., taking vacations), given the time pressures and varying demands associated with psychology doctoral programs.

An important possibility to consider is the potential divergence between the most frequently employed self-care practices versus those self-care practices that this population would find to be the most helpful/beneficial. For example, although taking vacations during the year was among the bottom five least frequently used self-care practices, it is certainly possible that taking a vacation may be perceived as more helpful and be more effective in relieving stress than discussing stress with a trusted friend (one of the top five self-care practices). Thus, it is reasonable to consider that perhaps frequency of use does not necessarily equate to perceived helpfulness or actual effectiveness in reducing stress. It is also likely that there are differences in the length of time that various self-care practices are effective in keeping stress at bay, which would then impact the necessitated frequency of their use.

Due to the potential for high rates of stress among students in psychology doctoral programs, it will be important for future research to further explore those self-care practices that are rated as most beneficial among this population. It would also be helpful to determine the optimal frequency of use for those self-care practices that are identified as most helpful in alleviating stress. Previous research has demonstrated that the use of career sustaining behaviors is predictive of positive professional functioning among mental health professionals. It is therefore reasonable to infer that the use of effective self-care behaviors will improve positive academic and clinical functioning among psychology doctoral students. Due to the fact that there is overlap between career-sustaining behaviors and self-care practices, identifying those behaviors/practices that are deemed to be most beneficial may be important, both for managing stress and for increasing the probability of commitment to and satisfaction with working in the mental health field.

Integration of Findings with Past Literature

Stress and self-care. Two correlational studies examined the relationship between self-care and stress in psychology students. Results from McKinzie et al. (2006) revealed that increased stress was correlated with poor self-care, such as less sleep. Myers et al. (2012) found that engagement in self-care behaviors was linked to lower levels of perceived stress. Goncher et al. (2013) also found a relationship between increased self-care and enhanced quality of life, which may conceivably include perceived stress. These findings align with the findings of the current study, which demonstrate that increased stress was linked to decreased self-care. The present study confirmed a robust moderate to large negative correlation between these two constructs.

Stress and self-care as predictors of empathy (and related variables). One study of psychology students and a few studies of psychology professionals and medical students have explored aspects of the relationships between these three variables. Clark et al. (2009) found that stress predicted burnout in psychology graduate students. Additionally, social support was found to not only predict satisfaction with career choice, but also moderated the effect of stress on career choice satisfaction. Thus, this study found that stress is linked to burnout (which likely includes a decrease in empathic expression) and that social support (which can be considered a form of self-care) can reduce perceptions of stress.

Shanafelt et al.'s (2005) study with medical residents revealed that participants who scored higher on mental well-being (which likely encompasses stress level) also scored higher on emotional empathy. Two studies (Paro et al., 2014; Thomas et al., 2007) explored the variables of professional distress and burnout, perceptions of well-being, quality of life, and empathy among medical students. Results of these studies identified a significant negative relationship between burnout and empathy within this population. Lastly, Michalee's (2010) study revealed that as the academic year progressed, the levels of empathy among medical students significantly declined. It is reasonable to consider that the progression of the academic year was associated with increased levels of stress.

Predictors of burnout and professional impairment among mental health professionals have also been widely studied. A meta-analysis conducted by Lee et al. (2011) identified the following antecedents to burnout: overinvolvement, job stress, and control. A correlational study conducted by Sherman and Thelen (1988) identified that both personal and professional satisfaction were observed to be diminished when psychologists were contending with stressful life events, which may also lead to professional impairment.

As evident from the literature referenced above, empathy and related variables of professional functioning (burnout, compassion fatigue) have been previously studied as outcome variables among medical students and professionals as well as mental health professionals. These studies were able to find more direct support of the relationship between high stress and decreased empathy or higher rates of burnout. Although the present study did not find these relationships in psychology doctoral students, results were headed in this direction, but did not reach statistical significance. A possible explanation for this shortcoming is the low reliability of the utilized empathy scale, which is discussed in greater detail below.

The present study was the first one to test the moderation effects of self-care between stress and empathy. Results provided modest support for a small moderation effect. Although the moderation effect accounts for only 3% of the variance in explaining empathy, it potentially holds significant implications for training and practice, if replicated in other studies.

Exploratory Question: Utilization of self-care practices. Measuring the variable of self-care served multiple purposes for this study. Self-care was employed not only as a predictor variable, but also as the moderating variable in the relationship between perceived stress and empathy within the study's multiple regression design. Examining the variable of self-care engagement as a descriptive variable also produced important data, which is relevant to psychology doctoral student training and clinical work. Measuring self-care engagement as a descriptive variable allowed for the identification of self-care practices that were most frequently utilized by the sampled population (Table 3).

Previously reviewed research on psychology graduate students also provided descriptive data regarding the types of self-care behaviors that this population is most likely to utilize and/or find beneficial. Turner et al. (2005) explored the both the frequency of use and perceived

effectiveness of 35 self-care strategies among psychology interns. Interns (N = 363) completed the Intern Self-Care Scale, which was developed for this study. Results indicated that the most frequently used self-care strategies (those with the highest mean ratings) were: (1) active problem solving strategies, (2) social support, (3) exerting control over internship choices, (4) maintaining awareness of internship impacts, (5) use of humor, and (6) intern consultation. The self-care strategies that were least utilized were: (1) taking time to connect with peers and mentors from my home academic program, (2) engaging in activities related to cultures other than my own, (3) spending time with people who are culturally similar to me or share similar cultural values as me, (4) use of faith or spiritual practices (e.g. attending church, praying, meditating, etc.), and (5) seeking personal therapy.

El-Ghoroury et al.'s (2012) study identified common coping strategies employed among psychology graduate (doctoral and masters) students. Twenty coping items related to self-care and wellness were derived from previously validated measures on this topic. Participants (N = 267-271) were asked to identify the level of benefit they obtained from each coping strategy. The strategies that were endorsed as most beneficial were: (1) seeking out friends' support, (2) seeking out family support, (3) talking to a classmate, (4) engaging in regular exercise, and (5) hobbies. The strategies that were endorsed as least beneficial were: (1) leave of absence or break from graduate school, (2) attended self-help group or 12-step program, (3) student assistance program, (4) employee assistance program, and (5) inpatient program.

The participant populations in the two reviewed studies were somewhat different from the current study in regards to geographic location, type of graduate program, and participants' current status in their programs. However, despite the differences in participant inclusion criteria, all three studies included psychology graduate students and reported upon their use of self-care

practices. The current study and comparable studies with similar populations reveal that seeking social support was among the top utilized self-care practices across all three studies. Seeking forms of consultation and practicing self-awareness were among the top utilized self-care practices in the current study and Turner et al.'s study. Personal therapy and engagement in spiritual practices were identified as two of the least utilized self-care practices among participants in the current study and Turner et al.'s study. However, in El-Ghoroury et al.'s study, nearly half of participants (48.3%) utilized psychotherapy as a self-care tool and roughly a third of participants (33.3%) turned to spiritual resources as a coping strategy (although these strategies were not among the top five most commonly used by participants).

Limitations

Limitations of this study are related to the study's design, data collection methods, participant recruitment and representativeness, and extraneous variables. Several of the study's limitations were identified in the introduction of this dissertation.

One of the previously identified limitations is the use of self-report instruments, which pose a risk to inaccurate data collection due to the potential subjectivity and biases of respondents. This may have been particularly important for the variable of empathy, where therapist perception may not necessarily reflect client perception. Further, participants may have responded in socially or professionally desirable ways, such as endorsing higher levels of empathy than what may actually be accurate. However, self-report was the most practical method for measuring empathy and responses were completely anonymous, which likely mitigates the concern of social desirability. Self-report was also the most appropriate source for obtaining information about the variables in the study, particularly perceived stress and engagement in self-care behaviors.

Additionally, as only one measurement perspective (i.e. that of the trainee) was collected for all three variables, this could have potentially inflated the correlations between the study's measures, resulting in a mono method bias. Furthermore, each of the study's variables was measured by a single instrument, which could have limited construct validity and resulted in a mono operation bias (Heppner et al., 2008).

Another previously identified limitation of this study its cross-sectional design, which permits the study's variables to be measured at only one point in time, and does not reflect changes that may occur over time. The variables of perceived stress, engagement in self-care behaviors, and perceived expression of empathy towards therapy clients are fluid in nature and impacted by a variety of extraneous variables, which cannot be accounted for within the scope of the current study. In other words, it is likely that the levels of these variables will fluctuate throughout the course of the academic year and be influenced by a variety of professional and personal factors that were not included within the cross-sectional design of this study. Additionally, the use of a cross-sectional design does not allow for determination of the directionality of the relationship between perceived stress and engagement in self-care behaviors. In other words, since the directionality of this relationship cannot be established, it is unclear whether stress affects self-care, self-care affects stress, or whether the relationship is bidirectional. Thus, due to the study's design, no concrete evidence or causality can be provided regarding the relationship between these variables. As mentioned above, there might also be extraneous variables which are impacting the relationship between the study's variables.

The last limitation that was previously identified is the difficulty of ascertaining how many recruitment emails actually reached potentially eligible students. Due to the fact that dissemination methods required the willingness of Directors of Clinical Training and internship

training directors to forward the recruitment email to students, the number of students who received the email is unknown. Additionally, since the data was collected online, it is not possible to estimate the true number of individuals who may have had access to the surveys. Therefore, the ability to draw inferences from the study's population to the national population of psychology doctoral students is restricted due to the utilized data collection methods. Thus, uncertainty regarding actual response rates is considered to be a limitation of this study.

Additional limitations of the study are related to the representativeness of the participant sample. Of the 169 completed protocols, 84% were female respondents and 75% were Caucasian. These demographics were consistent with comparative data from reviewed studies with similar participant samples and with national data for psychology doctoral students. Although these demographics may be reflective of the demographics of students currently enrolled in these programs, the results of such studies cannot be extended to generalize for individuals who do not belong to the majority groupings. Consequently, a potential for bias exists based on known and unknown differences between responders and nonresponders and the external validity of this study is restricted accordingly.

A related limitation of this study is the attrition rate. Participation in the study was initiated by 208 responders. However, only 169 of these individuals successfully completed all components of the study. The number of dropouts or non-engagers (34 participants who did not respond to any items) in this study is a limitation because it restricts the variability and size of the sample and therefore, is likely to further limit the level of generalizability of results. It is possible that survey dropouts/non-engagers included participants with potentially more extreme scores in any of the study measures who may have felt uncomfortable with the measures' content and discontinued the study, therefore limiting the variance of the measures and variability of

participants. On the other hand, some of these incomplete participations or non-engagers might have been students or DCTs who were simply curious about the study, but had no intent of completing it.

Another limitation related to reduced generalizability of results is the fact that respondents were not asked to identify what type of doctoral program they were currently enrolled in (e.g. Ph.D or Psy.D). Although this specification was originally planned to be included within the demographics survey, it was inadvertently omitted from the final posting of the survey. Making this distinction between the types of doctoral programs would have enabled the attainment of some additional descriptive information about participants. It is hypothesized that differences in participants' endorsement of the study's variables may have been observable between Ph.D students and Psy.D students as the structure and demands of their respective programs are different.

A limitation related to variable measurement is the use of an instrument with limited psychometric information. In this study, the variable of engagement in self-care behaviors was measured through participants' completion of a self-report instrument called the Self-Care Utilization Questionnaire (SCUQ). The SCUQ was created by Goncher et al. (2013) to examine the mediational role of self-care utilization between clinical psychology doctoral students' perceptions of their program's self-care emphasis and their quality of life. This measure was specifically designed in order to address the paucity of self-care utilization measures within the current literature. Although the content of the questionnaire was adapted from self-care methods identified in reputable research and the questionnaire demonstrates adequate reliability, its psychometric information is limited.

Lastly, perhaps the most significant limitation is the unexpectedly low internal consistency for the Empathy scale. Despite mean reliability coefficient (Chronbach's alpha = .94) identified in previous research (Barrett-Lennard, 2015), internal consistency was .65 in this sample. Low reliability for this particular variable (outcome variable) is problematic because it reduces the correlations of empathy with perceived stress and engagement in self-care behaviors (predictor variables). Therefore, the ability to observe interactions and relationships between the study's variables was affected, also leading to a reduced overall R^2 value (Frazier et al., 2004).

Implications and Recommendations for Research, Training, and Practice

Research. There has been very limited research on predictors of empathy among psychology doctoral students. While this variable is significant to the provision of any healthcare service, it is particularly essential to the provision of effective psychotherapy. Although previous research has demonstrated the relationship between level of stress and level of self-care within this population, these variables have not been explored in conjunction with the variable of empathy; nor have their impacts on empathy been examined, until the present study. Thus, additional research beyond this current study is warranted.

The first recommendation is that this study be repeated with a greater number of participants. Although the number of participants estimated by the power analysis ($N=169$) was surpassed, more precise power analyses for the moderator analysis could be employed, which may substantially increase the required sample size, especially for smaller effect sizes (Frazier et al., 2004). Further, generalizability of results was limited. Participants were largely female and Caucasian, and while these demographics are similar to national statistics for this population, it is possible that a larger participant group may possess greater demographic variability, and greater generalizability of results.

Another recommendation for future research is to conduct this study longitudinally. Due to the fact that different times of the academic year may reflect fluctuating levels of perceived stress, self-care engagement, and perceived empathy expression, a study in which students self-reported on separate occasions would be likely to better capture these variations. For example, it is possible that students may report higher levels of stress during final exams or at the beginning of the school year. Students may also report greater levels of self-care during the summer months. Thus, longitudinal exploration (using self-care as a moderator) of these variables would allow for a more accurate representation and comprehensive examination of the ebb and flow of these variables as well as the changes that occur in the relationships between these variables.

A methodological recommendation for future research is to employ multiple instruments to measure each variable. The use of multiple instruments to measure each variable would increase the level of construct validity. Further, it would safeguard against one of the weaknesses encountered in this study: low internal consistency of a key measure. Measures should be carefully selected, especially empathy and self-care measures, to ensure strong psychometric characteristics.

The last recommendation for future studies is to explore differences based on demographic variables such as participants who are currently enrolled in a Ph.D program versus those who are currently enrolled in a Psy.D program. While both types of programs are geared towards the training of future psychologists, the configuration and emphasis of their curriculum is different, which likely produces variations in type and/or intensity of stressors. In regards to further exploration of primary variables, it is suggested that future studies consider measuring the perceived helpfulness of students' engagement in self-care practices, in addition to frequency.

Lastly, further research on the moderating effects of self-care may be promising, especially with larger samples and additional research measures.

Training and practice. The results of this study not only make a modest contribution to a previously understudied area of research, but also have implications for current student training and practice. Although statistically significant correlations between the predictor variables and moderating variable were unable to be reached, results did provide support for the moderate negative relationship between perceived stress and self-care engagement among psychology doctoral students. Although this is not a new finding, this result highlights the fact that high levels of stress are continuing to impact student engagement in self-care within psychology doctoral programs. While most students do not enter such programs with the illusion that these programs will be easy, students often find themselves unprepared for the level of intensity that their stress may reach. Ideally, students will develop healthy and regular self-care practices by which to mitigate their stress and its negative impacts. As this study has demonstrated, higher self-care engagement is associated with reports of lower stress levels. However, results of this study also suggest that sometimes the effects of high stress levels on empathy (and potentially other components of professional functioning) cannot be buffered by high self-care behaviors. This finding highlights the potential need for interventions beyond self-care, and is a need that both students and academic institutions should keep in mind.

Students should be made aware of and encouraged to utilize accessible resources, such as on-campus therapy, as well as viable academic options, such as variations of curriculum sequence and lightening of course load. In much the same way as mental health professionals would not advocate for a one-size-fits-all approach to psychological treatment, academic institutions should not advocate for a one-size-fits-all approach to the completion of a

psychology doctoral program. These recommendations seem particularly relevant to students who experience high stress, where the findings of the present study suggest that self-care is not a sufficient buffer in affecting client care. For highly stressed students, more intensive and systemic interventions are recommended, such as reducing workload and enhancing their academic and personal support systems.

Findings of this study revealed that students who concurrently reported low levels of stress and higher levels of self-care engagement also reported higher expressed empathy, compared to those reporting low levels of both. These findings suggest that the combination of low stress and high self-care may be conducive to students demonstrating high levels of empathy to their clients. As such, it is recommended that students learn to utilize self-care strategies earlier in their program and when their stress levels are still low and more manageable. Academic institutions could have an instrumental role in facilitating the development of effective self-care regimens in their students. A potential avenue for this could be through first-year seminars and/or individual meetings with an advisor. Another avenue could be through group engagement in self-care practices, such as academic support groups, exercise groups, group outings, etcetera. As noted in the results of this study, social support is among the most frequently utilized self-care practices among psychology doctoral students. Thus, feeling supported by academic institutions, professors, mentors, and fellow students is likely to have a significant impact on students' academic and clinical functioning. It is recommended that academic institutions make every effort to implement this resource early on in students' academic careers in order to guide them through the initial adjustment to their programs and to help them to establish sound self-care practices that can be used throughout their academic and professional careers.

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Table 1

Sample Characteristics

Variable	N	Percent %	M	SD	Range
Gender					
Female	141	83.4			
Male	26	15.4			
Transgender	1	0.6			
Other (Questioning)	1	0.6			
Age (in years)			29.54	5.40	22 – 59
Ethnicity					
African-American	10	5.9			
Asian American	10	5.9			
European-American/Caucasian	126	74.6			
Hispanic/Latino	13	7.7			
Native American	1	0.6			
Biracial	5	3.0			
Other (1 Arab American, 1 Hmong, 1 Asian, 1 Palestinian American)	4	2.4			
Type of Masters Degree:					
Clinical Psychology	98	58			
Counseling Psychology	17	10.1			
Mental Health Counseling	3	1.8			
Rehabilitation Counseling	0	0			
Marriage and Family Therapy	3	1.8			
Social Work	0	0			
School Counseling	0	0			
Other Psychology Masters Degree (non-clinical)	13	7.7			
Other Masters Degree (non- psychology or counseling)	7	4.1			
No Masters Degree	28	16.6			
Type of Psychology Doctoral Program					
Clinical Psychology	139	82.2			
Counseling Psychology	26	15.4			
Combined	4	2.4			
Training Model:					
Scholar-Practitioner	66	39.1			
Scientist-Practitioner	68	40.2			
Other (8 Clinical Scientist, 15 Practitioner Scholar, 10 Practitioner Scientist, 1 Local Clinical Scientist)	35	20.7			
Years in Doctoral Program			4.15	1.55	1 - 12
Semesters of Clinical Work			7.14	4.00	1 - 32

Primary Theoretical Orientation:	4	2.4
Behavioral	63	37.3
Cognitive-Behavioral	24	14.2
Existential/Humanistic	30	17.8
Psychodynamic	19	11.2
Interpersonal	5	3.0
Family Systems	24	14.2
Other (3 Third wave (ACT/DBT), 11 Integrative, 2 Eclectic, 2 Adlerian, 2 Multicultural, 3 Gestalt/Emotion-focused/Person- Centered, 1 Evidence-based)		

Note. $N = 169$.

Table 2

Means, Standard Deviations, Skewness and Kurtosis for Total Scores of the Study's Variables

Variable	Mean	SD	Range	Skewness	Skewness SE	Kurtosis	Kurtosis SE
Total Stress (PSS-14)	25.13	7.11	9 – 42	.138	.186	-.330	.370
Total Self-Care (SCUQ)	103.93	11.99	67 – 137	.252	.187	.300	.371
Total Empathy (BLRI)	17.83	6.19	0 – 34	-.190	.184	-.317	.366

Note. $N = 169$. PSS-14 = Perceived Stress Scale. SCUQ = Self-Care Utilization Questionnaire.

BLRI = Barrett-Lennard Relationship Inventory: Form MO-Emp+.

Table 3

Self-Care Utilization Questionnaire Items Means and Standard Deviations

Item	M	SD
I talk to someone during stressful periods	4.15	.86
I maintain a strong support groups including family, friends, and faculty	4.15	.84
I maintain self-awareness of the impact that my personal and professional experiences have on me and my work	4.10	.72
I discuss personal, emotional, physical, and spiritual development with significant others	4.04	1.07
I actively try to be in touch with my feelings in the moment.	3.99	.76
I think back to positive, life transforming, or breakthrough moments with a client as a way to appreciate the rewards of clinical work	3.99	.86
I take part in peer supervision when clinical work becomes difficult	3.96	.93
I choose clinical activities that interest me	3.96	.82
I seek positive solutions to difficulties I encounter.	3.94	.66
I work to create a comfortable work environment for myself	3.91	.78
I attend to feedback from others regarding my stress level and professional functioning	3.85	.80
I make time to engage in leisure activities regardless of my workload	3.76	.96
I engage in personal hobbies outside the realm of psychology	3.60	1.00
I set realistic goals for myself regarding academic and clinical work	3.57	.77
When feeling distressed, I feel it's OK to take a break from what I am doing	3.57	1.00
When feeling stressed about school or clinical work, I seek supervision	3.50	1.06
When overwhelmed, I take time to think about and use positive ways to cope with stress	3.47	.84
I take part in many personally fulfilling activities	3.47	.78
I take inventory of possible warning signs of distress and seek out self care strategies to manage them	3.45	.98
I take time to be aware of my diet and use healthy eating habits	3.42	.92
When stressed, I use positive self-talk to put aside negative thoughts	3.34	.97
I use my sense of humor when feeling overwhelmed or stressed.	3.31	.90
I make time to engage in physical activity	3.27	1.13
I avoid self-blame and self-denigration	3.17	.93
I maintain a balance between work, family, and play.	3.16	.92
I take vacations during the year	2.95	1.2
I attend to my personal religious and spiritual needs.	2.80	1.34
I attend personal psychotherapy sessions to address feelings of distress during my graduate training	2.30	1.49
I take time to volunteer in the community.	2.04	1.01
I attend workshops that provide instruction on positive stress management techniques (i.e. relaxation methods, meditation, etc...)	1.72	.81

Note. $N = 169$. Scale: 1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, 5 = Almost Always.

Table 4

Reliabilities and Intercorrelations Between Study Measures

Variable	Total Stress (PSS-14)	Total Self-Care (SCUQ)	Total Empathy (BLRI)	Cronbach's Alpha
Total Stress (PSS-14)	–			.87
Total Self-Care (SCUQ)	-.454**	–		.84
Total Empathy (BLRI)	-.081	.116	–	.65

Note: $N = 169$. PSS-14 = Perceived Stress Scale. SCUQ = Self-Care Utilization Questionnaire.

BLRI = Barrett-Lennard Relationship Inventory: Form MO-Emp+.

** $p < .01$ (1-tailed).

Table 5

Testing Moderator Effects of Self-Care on Stress and Empathy Using Hierarchical Multiple Regression

Step and Variable	<i>B</i>	<i>SE B</i>	β	<i>R</i> ²
Step 1				
Stress (z score)	-.22	.54	-.04	
Self-care (z score)	.62	.54	.01	.014
Step 2				
Stress x Self-care	-.87	.41	-.16*	.027*

Note: *N* = 169. Dependent variable: Empathy.

* *p* < .05

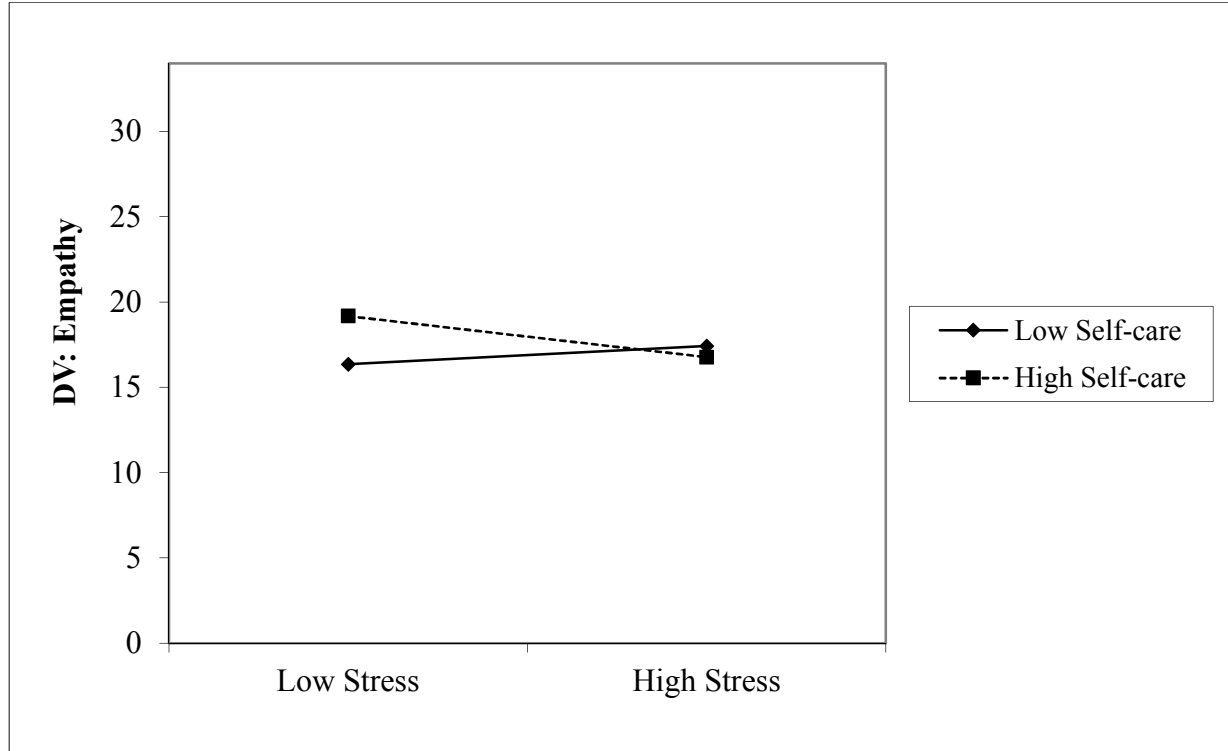


Figure 1. Interaction effects for standardized variables: Plot of Stress X Self-care interaction.

Appendix A: Solicitation Emails to Recruit Participants

Dear Director of Clinical Training,

My name is Ashley Butterfield and I am a Psy.D. student at Adler University in Chicago, IL. I am contacting you to request your assistance in recruiting psychology doctoral students from your program to participate in my doctoral dissertation. I am seeking participants who are currently participating in a clinical practicum or pre-doctoral internship in which they are providing psychotherapy.

The purpose of this study is to contribute to the literature related to psychology doctoral student stress, self-care, and the provision of clinical services. Specifically, the study will investigate how psychology doctoral students' perceived stress and self-care practices are related to their perceptions of their empathy expression to clients.

Participation in this online survey involves completing three brief measures of stress, self-care, and expressed empathy towards a specific client, and requires **approximately 20 minutes** to complete. A link to the survey and the measures utilized in the study is available in the student recruitment letter below. Participation in this study is anonymous. Participants will not provide any identifying information about themselves or their clients. This study has been approved by the Adler University IRB (protocol #16-052). If you have questions about this project, you may contact me at abutterfield@my.adler.edu or my dissertation chair, Dr. Georgios Lampropoulos, at glampropoulos@adler.edu. You may also contact the Adler University Institutional Review Board at irb@adler.edu. The IRB chair is Dr. Peter Ji, pji@adler.edu, 312-662-4354.

I would greatly appreciate the opportunity to recruit participants from your program, as I believe this research could provide valuable data regarding the effects of stress and self-care on the quality of clinical services trainees provide. The results of the study could be used to improve the quality of student experiences in graduate school, as well as the quality of clinical training and the clinical services doctoral trainees provide.

Please see below the recruitment email that I would like to send to students in your program. The recruitment email contains a link, which will direct interested students to the informed consent, demographic form, and the three self-report instruments that will be utilized in this study. **Please forward this email message to all possibly eligible students in your program. Eligible participants for this study are all doctoral students who are currently in a practicum or internship placement where they provide counseling/psychotherapy services.**

I would be happy to also send you the results of this study at the completion of this project, upon request. Thank you for your time and consideration.

Sincerely,

Ashley Butterfield B.A.
Psy.D Graduate Student
Adler University

abutterfield@my.adler.edu

Georgios Lampropoulos, Ph. D
Adler University
17 N. Dearborn Street, Chicago, IL, 60602
glampropoulos@adler.edu

Recruitment E-mail for Potential Participants

Dear Colleague,

My name is Ashley Butterfield and I am a Psy.D. student at Adler University in Chicago, IL. I am contacting you to request that you consider participating in my dissertation study. I am seeking participants who are currently enrolled in a clinical, counseling, or combined psychology doctoral program. **Eligible participants must also: (a) be enrolled in a clinical practicum or pre-doctoral internship in which they are providing counseling or psychotherapy, and (b) have been providing counseling/psychotherapy to a client for at least three sessions.** If you meet these requirements, please continue reading.

The study will examine the relationship between students' perceived stress, self-care practices, and the expression of empathy towards one of their clients. Students who elect to participate in this study will be asked to complete a demographics form and three self-report measures of perceived stress, self-care, and expressed empathy. All data collection will take place online. The survey will be anonymous. Participants will not be asked to disclose any identifying information about themselves or their clients. The results derived from this study will be presented in aggregate form. This study has been approved by the Adler University IRB (protocol #16-052).

I would greatly appreciate your participation in my dissertation study. Participating in this study would require **approximately 20 minutes** of your time. As a doctoral student, I understand that your time is valuable and limited. However, your participation in this study would make a significant contribution to our understanding of student experiences of stress, coping, and their effects on clinical work. Results of this study could be used to improve doctoral student training and enhance student personal and professional development during graduate training.

To gain access to informed consent and the measures of this study, please click on the online survey link below:

<Link to online survey>

Thank you for your time and consideration.

Sincerely,
Ashley Butterfield, B.A.
Psy.D Graduate Student
Adler University

abutterfield@my.adler.edu

Georgios Lampropoulos, Ph. D
Adler University 17 N. Dearborn Street
Chicago, IL, 60602
glampropoulos@adler.edu

Appendix B: Informed Consent

The study “Perceived Stress, Self-Care Practices, and Empathy in Clinical and Counseling Psychology Doctoral Students” is being conducted as partial fulfillment of the requirements for the degree of doctor of psychology from Adler University. You have been recruited for this study due to your current enrollment in an APA-accredited clinical or counseling psychology doctoral program as well as your current participation in a practicum or internship in which you are providing counseling/psychotherapy to clients and have provided at least three counseling/psychotherapy sessions to a client. Your participation in this study will contribute to important areas of psychology doctoral training and the professional development of doctoral students. I hope you will find the survey meaningful and relevant to your graduate school experiences.

Participation in this study requires completing a demographics form and three brief measures regarding student perceived stress, self-care practices, and the expression of empathy towards the last client you saw this week to whom you have provided at least three counseling/psychotherapy sessions. Participation in this online survey will take approximately 20 minutes to complete. Participation in this study may expose you to a minimal risk of emotional distress. The study's measures require participants to reflect on their experience of stress, participation in self-care behaviors, and demonstration of empathy to clients. It is conceivable that participants may experience some distress or anxiety when asked to focus and report upon their subjective and professional experiences. Potential benefits from participating in this study include the opportunity for students to reflect on these important aspects of their personal and professional development.

This online survey is completely anonymous. No identifying information about participants or their clients will be collected. As the primary investigator, only myself and my dissertation chair will have access to survey data, under a password-protected account on Psychdata.com. Upon receipt of the data, the completely anonymous responses will be downloaded to a password-protected SPSS file. Once the data collection is complete, the online survey account will be deleted along with records of participant responses. The results derived from this study will be presented in aggregate form.

Participation in this study is entirely voluntary, and participants may withdraw their participation from the study at any time without consequence. There is no penalty for withdrawing your participation. However, incomplete data cannot be used in the study's results. If you are interested in receiving a summary of the study's results, you may contact the primary investigator with your email address. This contact information will be kept confidential.

This study has been approved by the Adler University Institutional Review Board. The IRB protocol number for this study is 16-052. Any questions about this study can be directed to the primary investigator at abutterfield@my.adler.edu. You may also contact the primary investigator's dissertation chair, Dr. Georgios Lampropoulos, at glampropoulos@adler.edu. Questions or concerns regarding your rights as a research participant may be directed to irb@adler.edu or to Dr. Peter Ji, Chair of Adler University Institutional Review Board, at pji@adler.edu or (312) 662-4354.

Please click on one of the choices below to indicate your agreement to participate in this study and to get access to the survey. Thank you for your contribution to this study.

- (a) I am currently providing counseling/psychotherapy services in a practicum or pre-doctoral internship and I have seen a client for at least three counseling/psychotherapy sessions; and (b) I consent to participate in the study.
- I do not currently meet criterion (a) above.
- I choose not to participate in the study.

Thank you for your time and consideration.

Sincerely,

Ashley Butterfield, B.A.
Psy.D Graduate Student
Adler University
abutterfield@my.adler.edu

Georgios Lampropoulos, Ph. D
Core Faculty
Adler University
17 N. Dearborn Street
Chicago, IL, 60602

Appendix C: Approvals to Use Measures

10/2/1

Ashley Butterfield <abutterfield@my.adler.edu>

5

to msherman, Georgios

Hello Dr. Sherman,

My name is Ashley Butterfield and I am a doctoral student at Adler University in Chicago, Illinois.

I am contacting you in the hopes that you could assist me in obtaining a copy of the Self-Care Utilization Questionnaire (SCUQ). The SCUQ was developed for the 2013 study, Programmatic Perceptions of Self-Care Emphasis and Quality of Life Among Graduate Trainees in Clinical Psychology, for which you are the identified contact person.

My dissertation pertains to perceived stress, self-care practices, and empathy in psychology doctoral students. I would like the SCUQ to be one of the measures used in my dissertation, geared specifically towards addressing the self-care practices of this population. Please let me know at your earliest convenience if you can assist me in obtaining a copy of this measure.

Thank you for your time and consideration.

Sincerely,
Ashley Butterfield

Martin Sherman <MSherman@loyola.edu>

10/3/1

5

to me

Hi Ashley: See attached file which should have everything you need for the SCUQ scale. We do request that you provide us with your data so that we can keep track of the findings using our scale. Regards, Dr. Sherman

Martin F. Sherman, Ph.D.
Professor of Psychology
Director of Master's Education: Thesis Track

Department of Psychology
222 B Beatty Hall
4501 North Charles Street

Baltimore, MD 21210
msherman@loyola.edu
410-617-2417 tel
410-617-5341 fax

Ashley Butterfield <abutterfield@my.adler.edu>

Jan
3

to gt_barrett-len.

Hello Dr. Barrett-Lennard,

My name is Ashley Butterfield and I am a doctoral student at Adler University in Chicago, Illinois.

I am contacting you in order to formally obtain permission to utilize the Barrett-Lennard Relationship Inventory: Form MO-Emp+ in my dissertation research. My dissertation pertains to perceived stress, self-care practices, and empathy in psychology doctoral students. I would like the Barrett-Lennard Relationship Inventory: Form Mo-Emp+ to be one of the measures used in my dissertation, geared specifically towards addressing the empathy of this population. I have purchased a copy of your book *The Relationship Inventory: A Complete Resource and Guide* in order to learn more about empathy measures. I believe that the Barrett-Lennard Relationship Inventory: Form Mo-Emp+ would appropriately measure the empathy of this population, as it is related to their clinical work. Please let me know at your earliest convenience if I may utilize this measure for my dissertation research.

Thank you for your time and consideration.

Sincerely,
Ashley Butterfield



Godfrey Barrett-Lennard <gt_barrett-lennard@iinet.net.au>

Jan
8

to me

Hi Ashley

I am very willing for you to use the empathy form of the BLRI in your research (&/or any other forms in my book which you have).

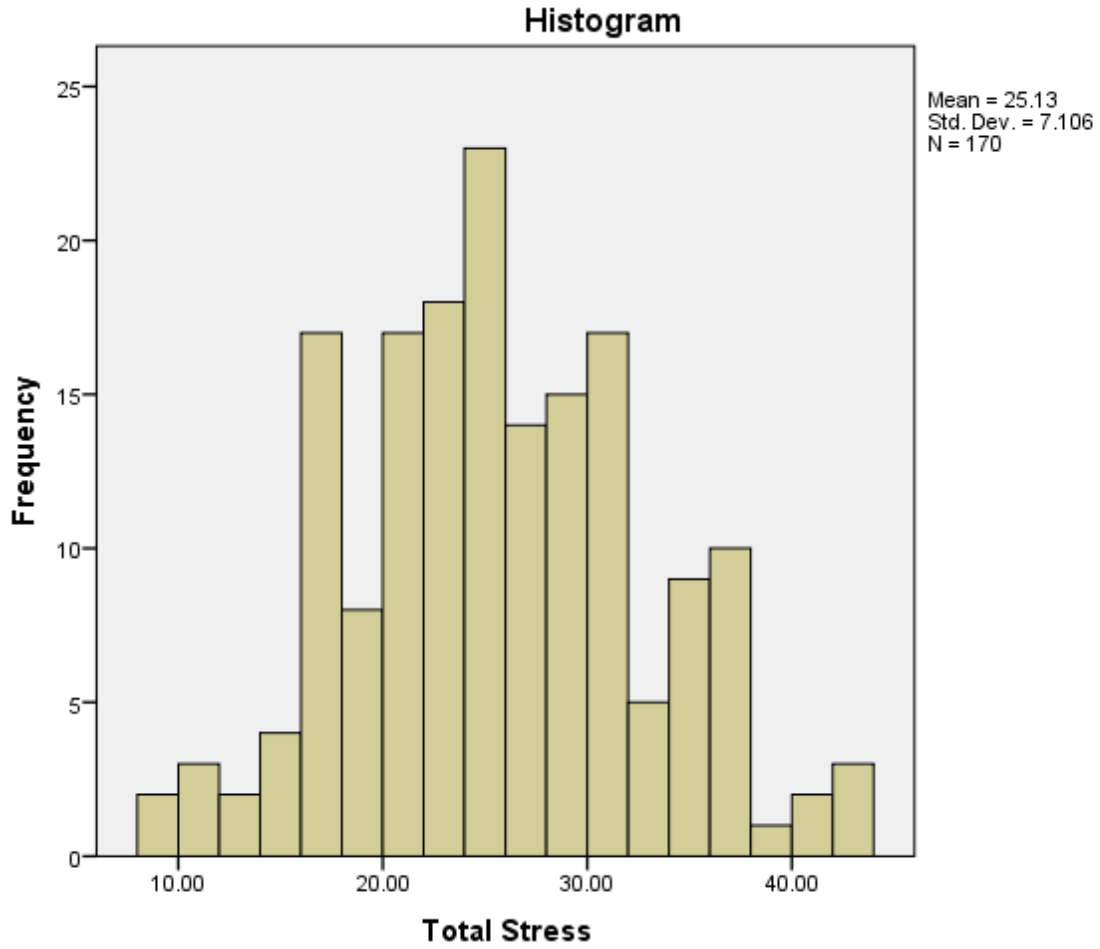
Thanks for the careful information. I'll be back at my home base in a couple of days if you have further queries.

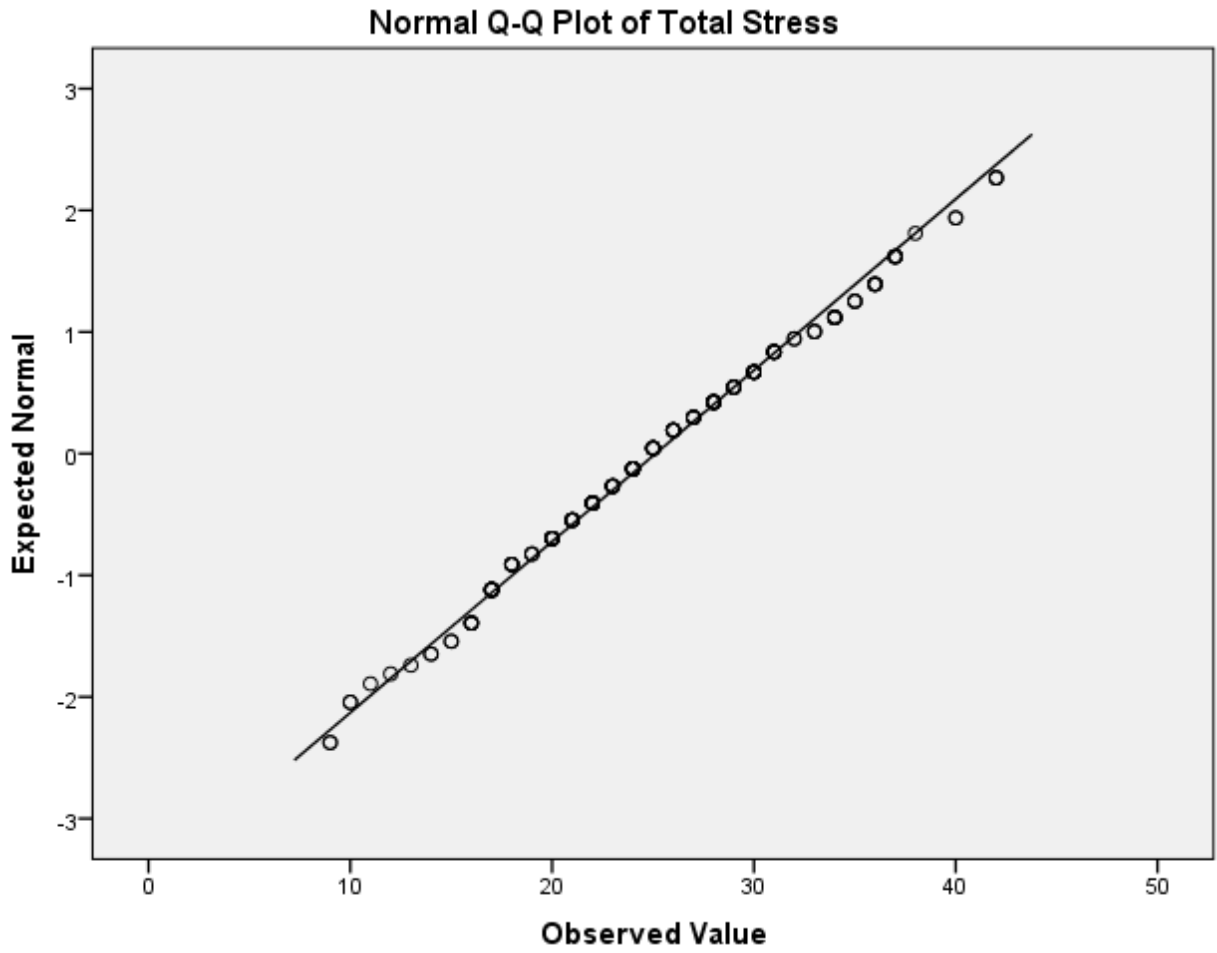
Regards

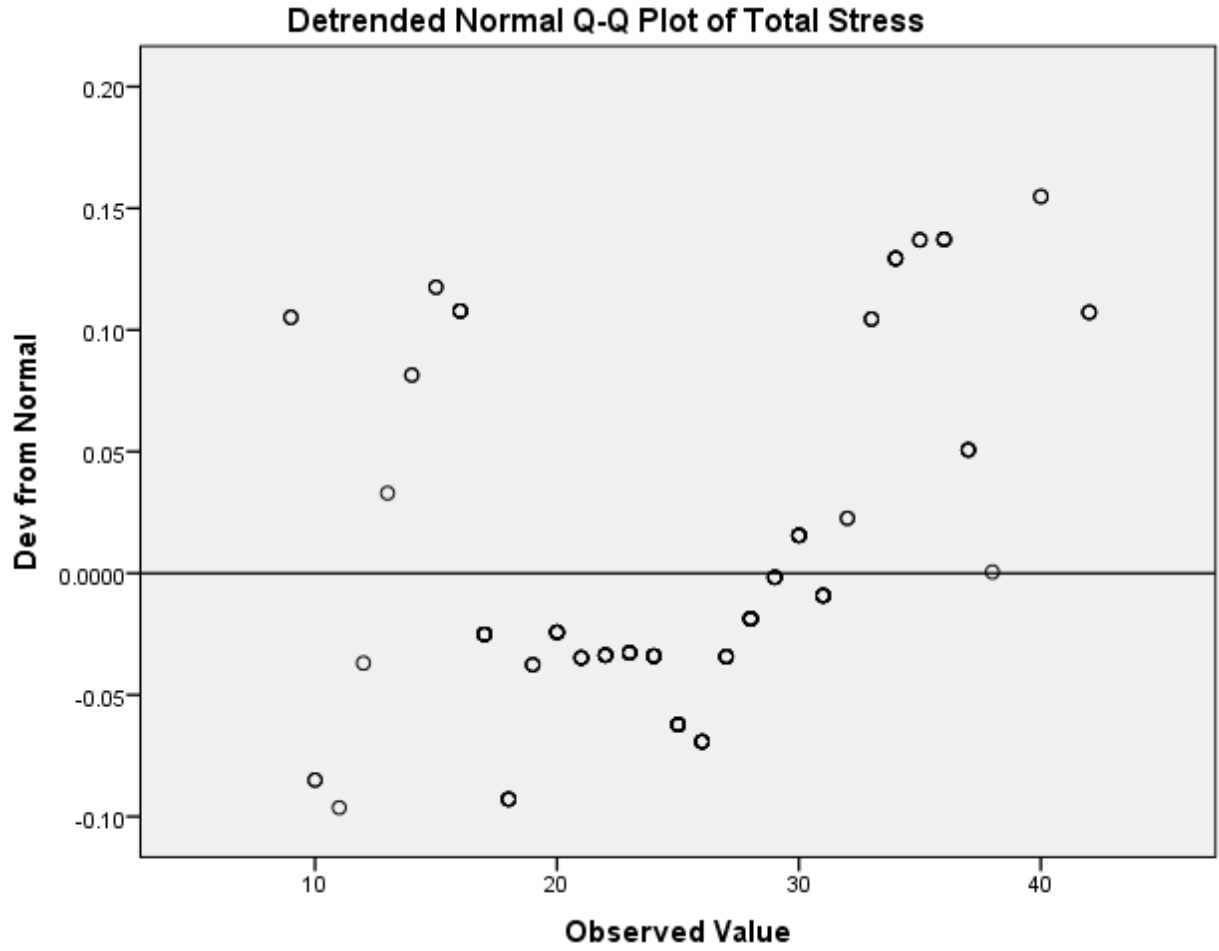
Godfrey
Sent from my iPhone

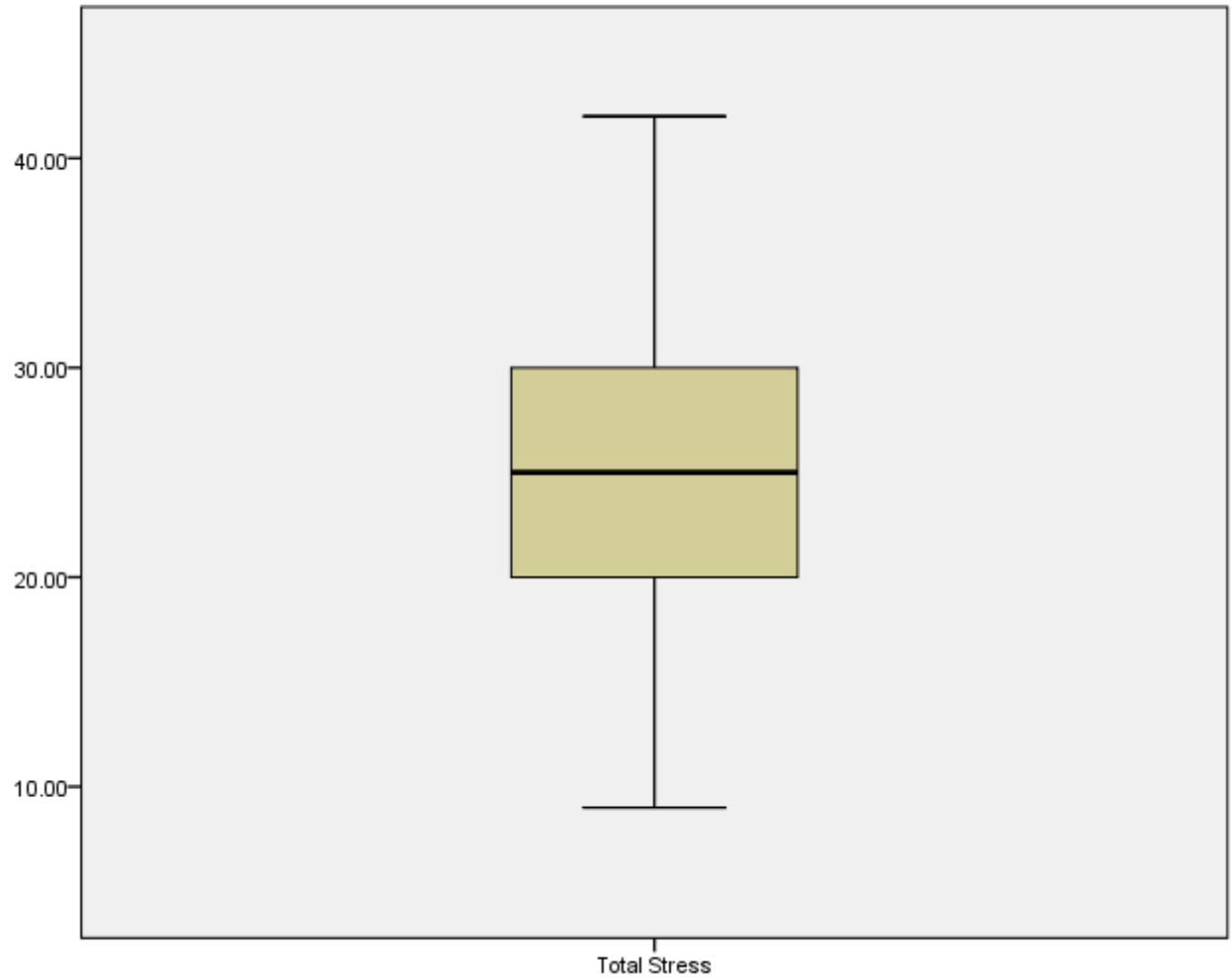
Appendix D: Indicators of Normal Distribution

Total Stress

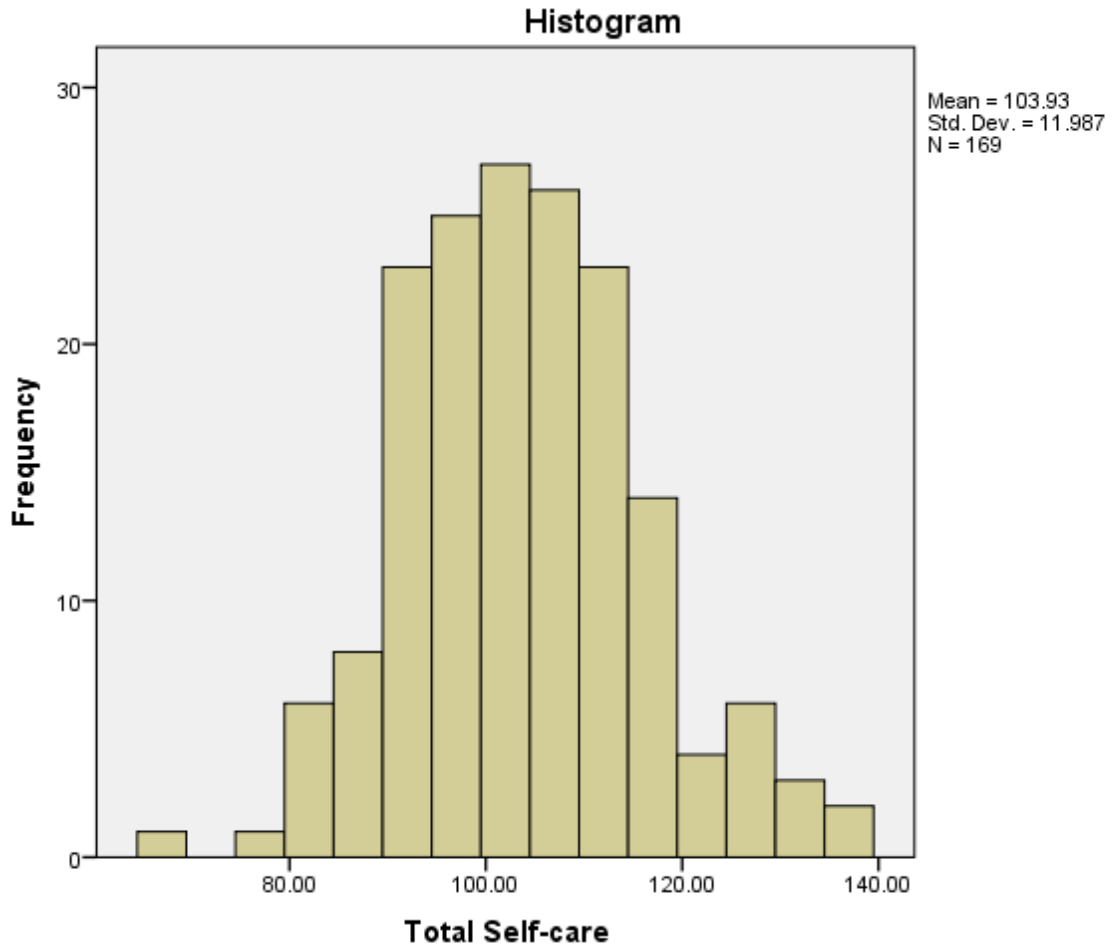


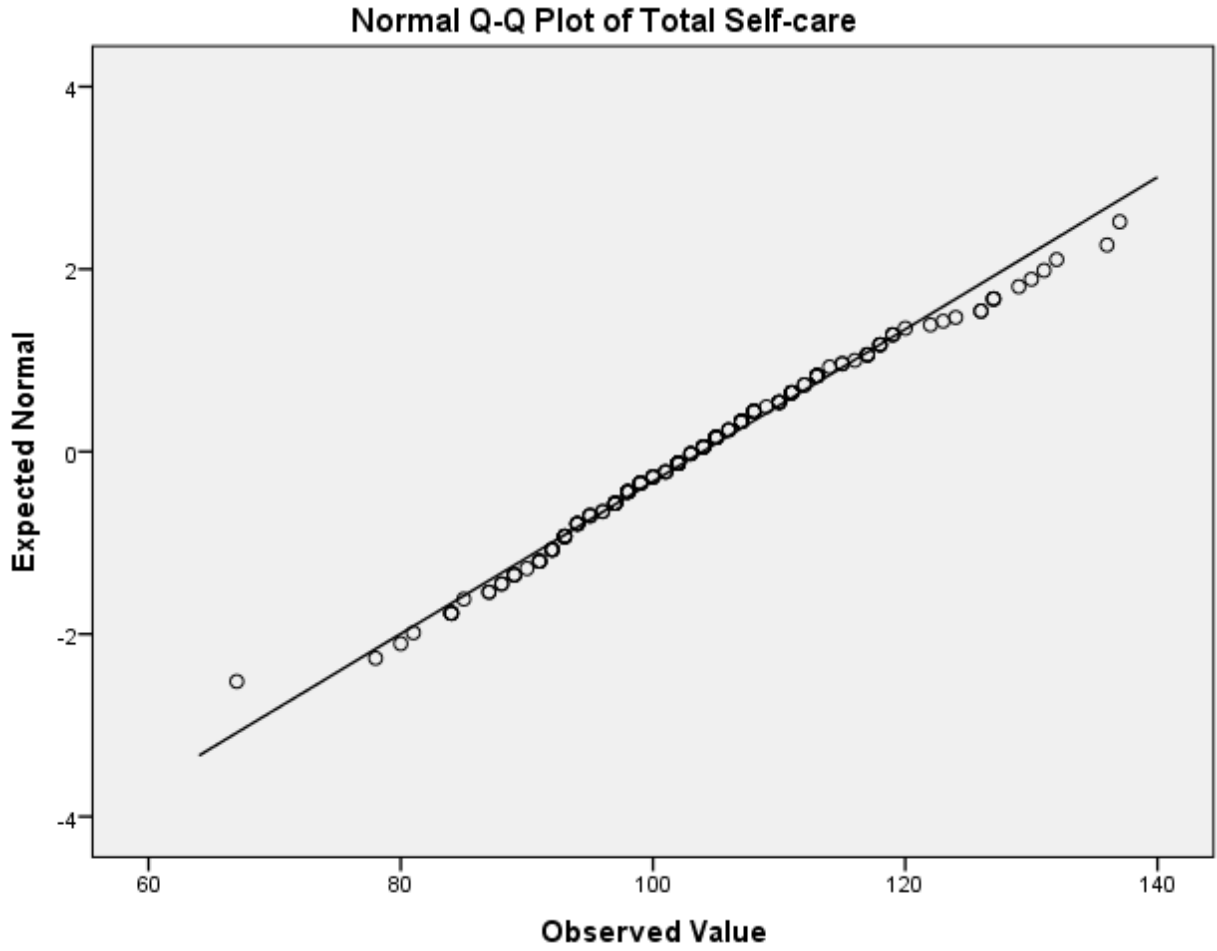


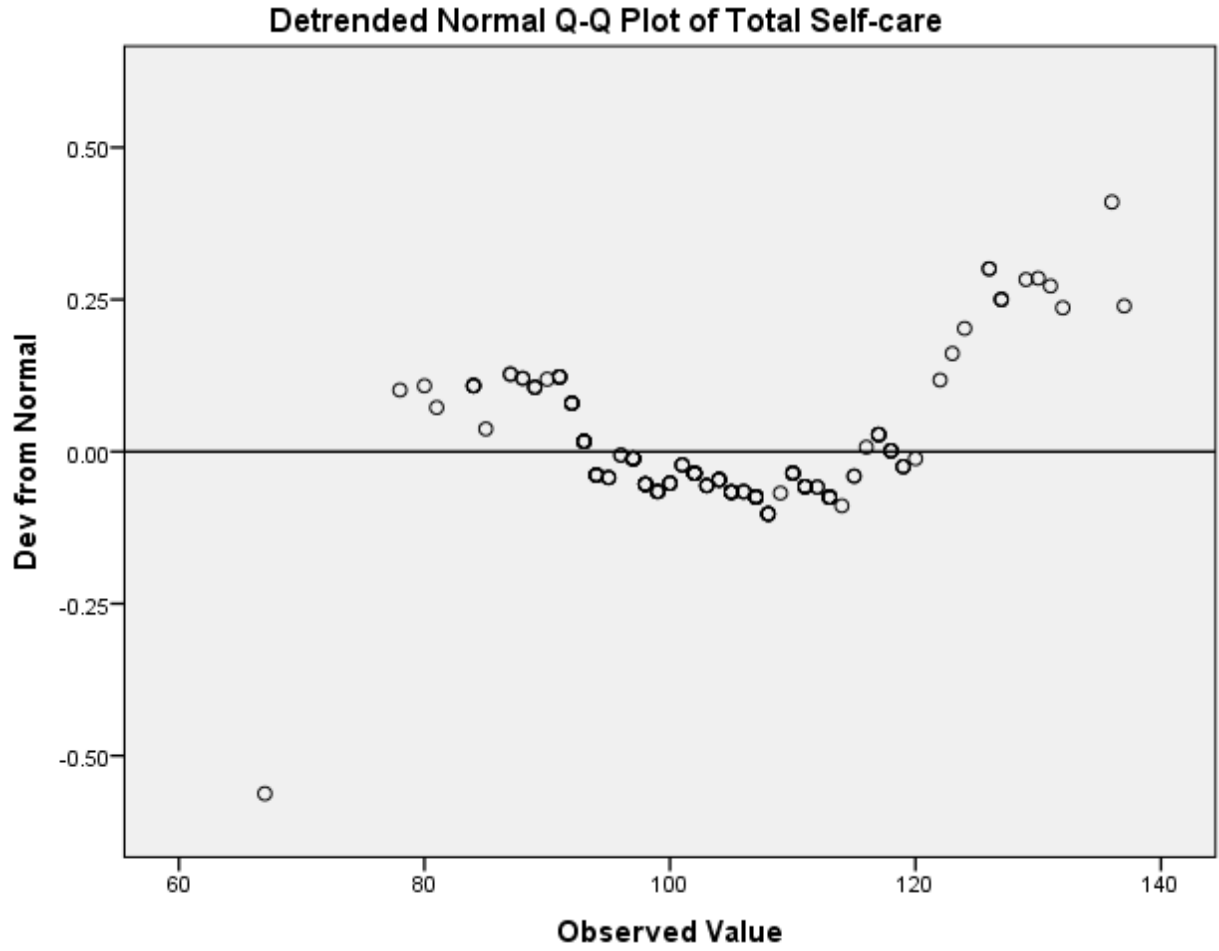


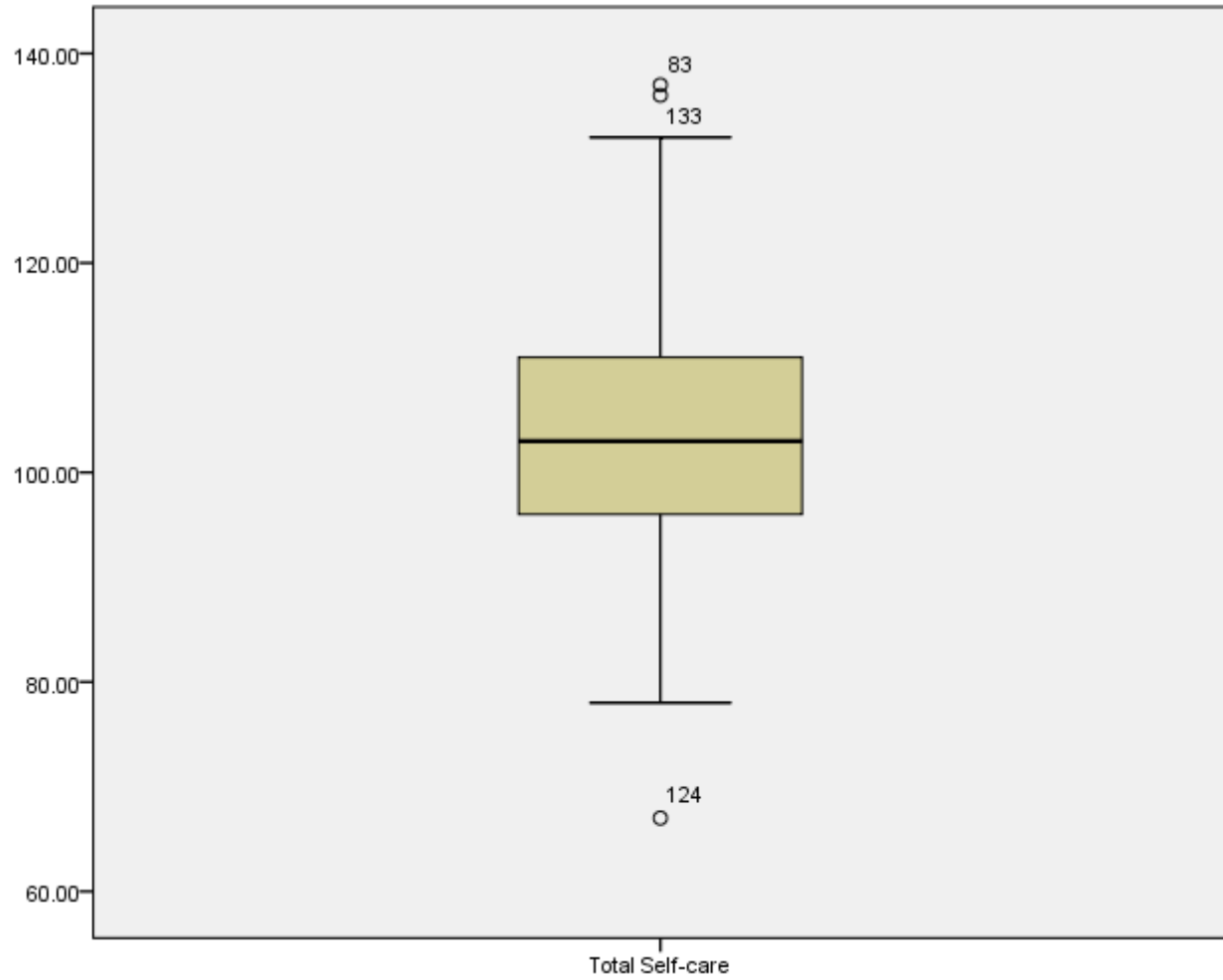


Total Self-Care

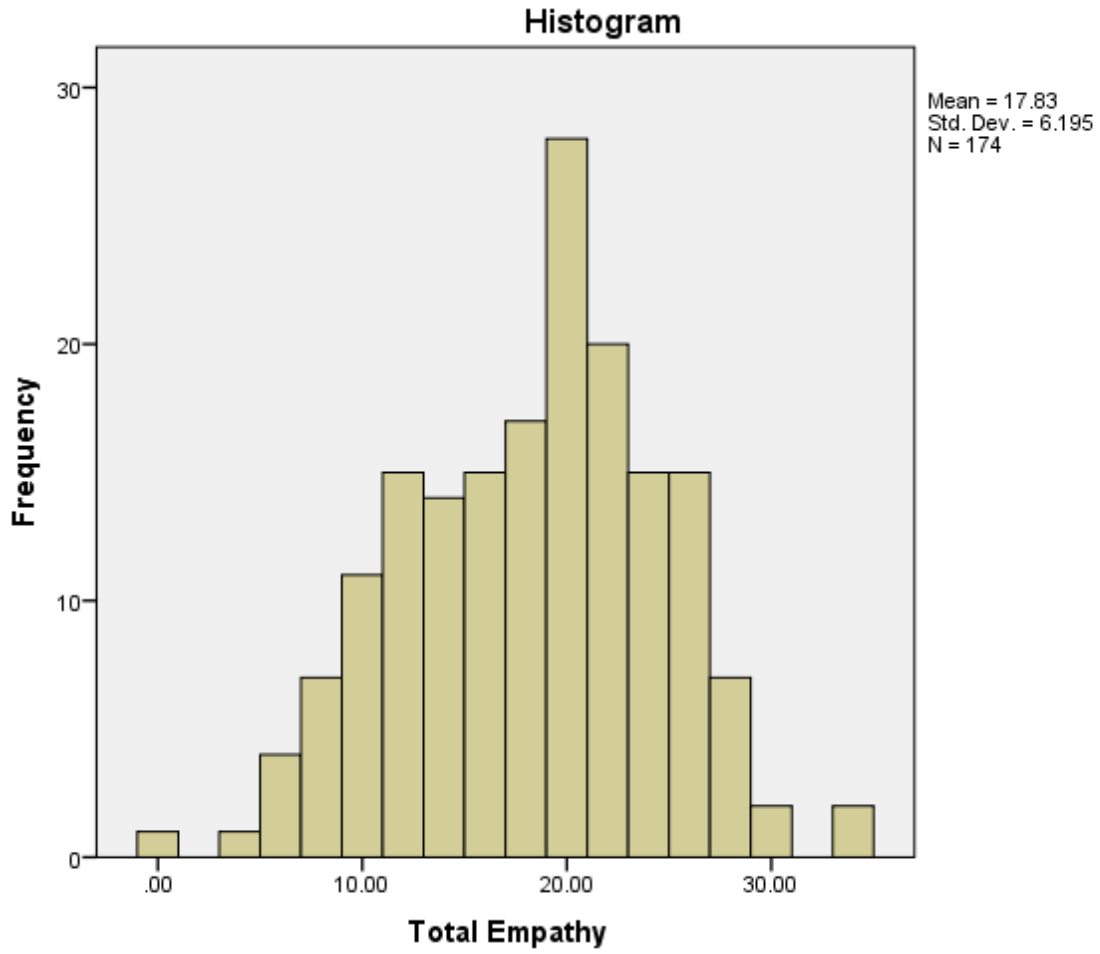


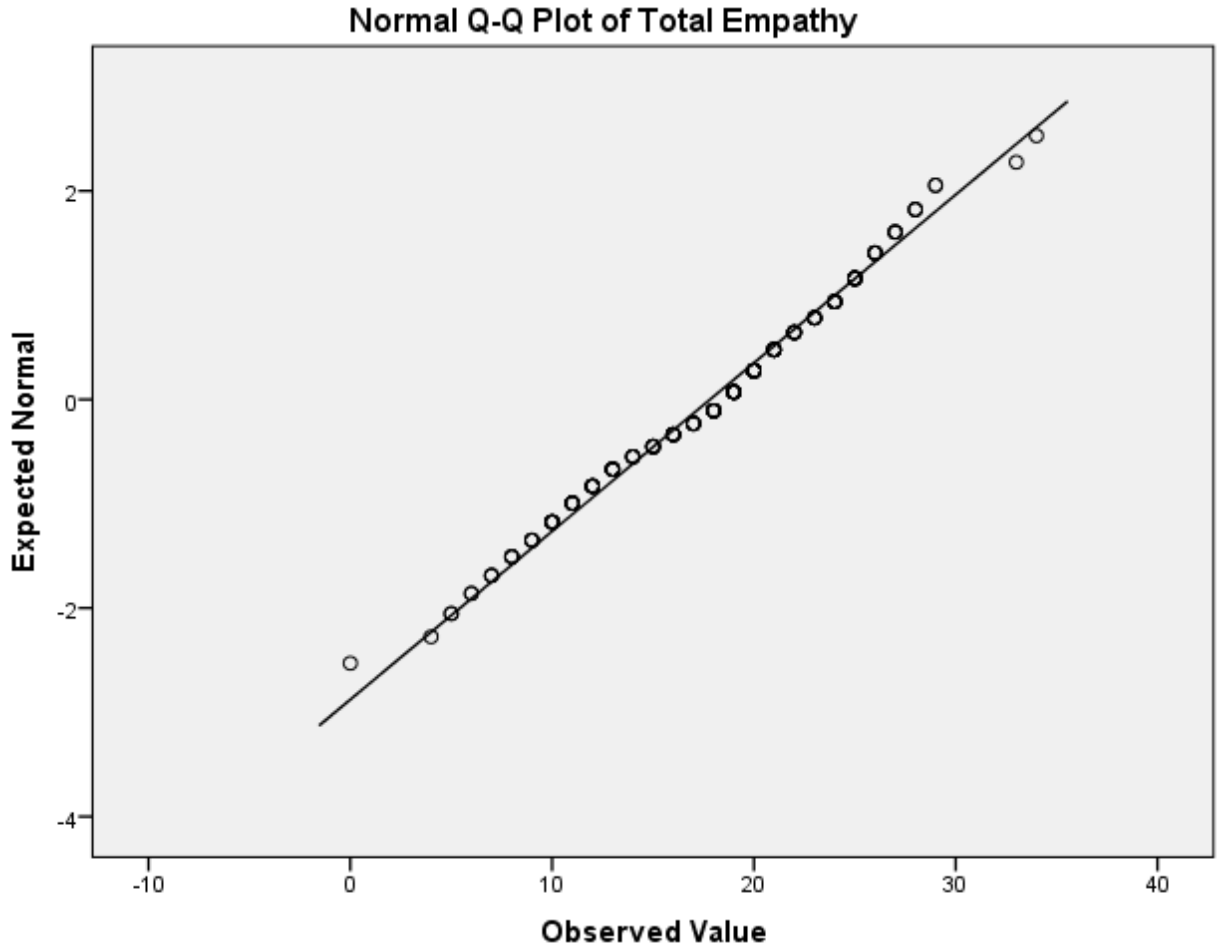


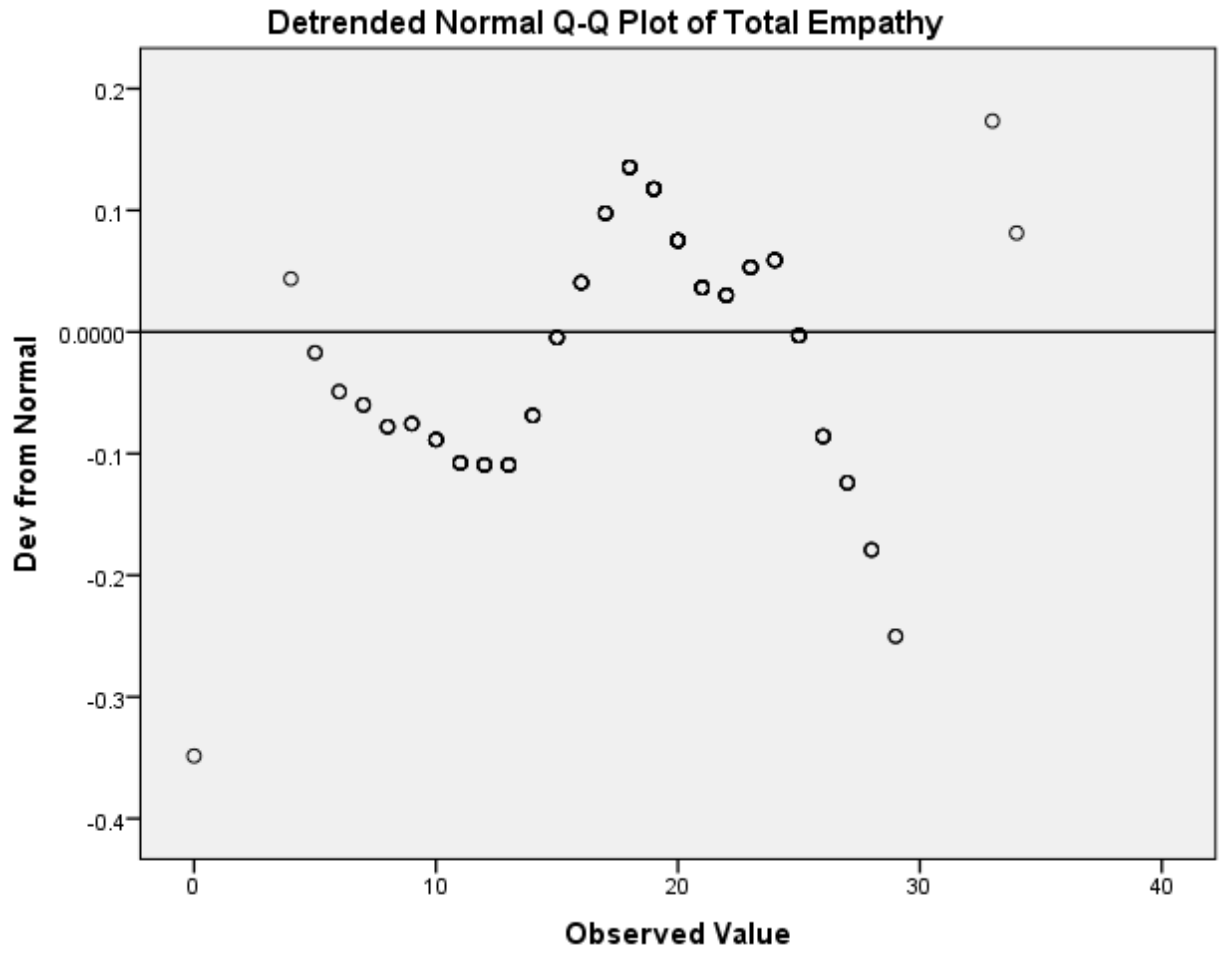


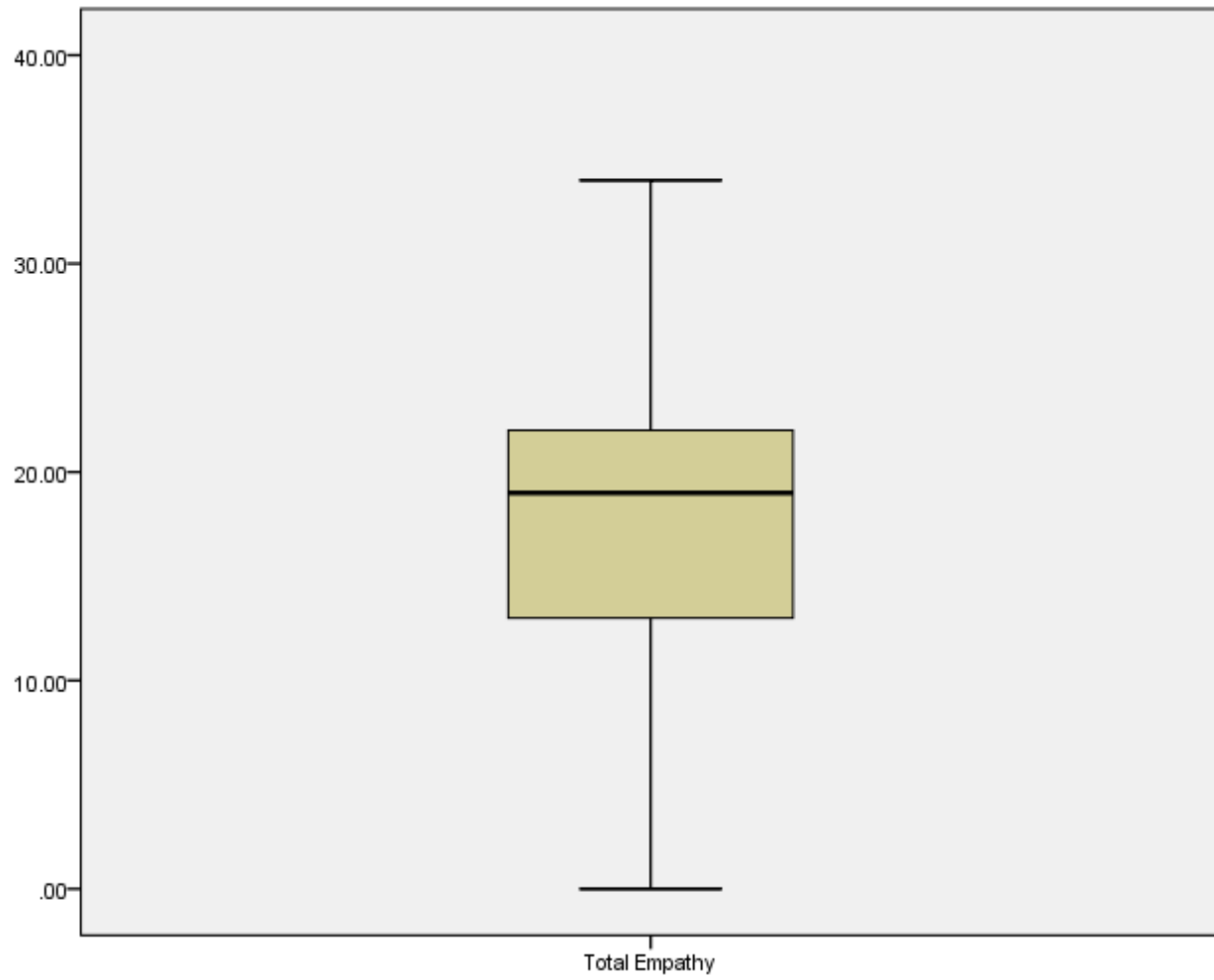


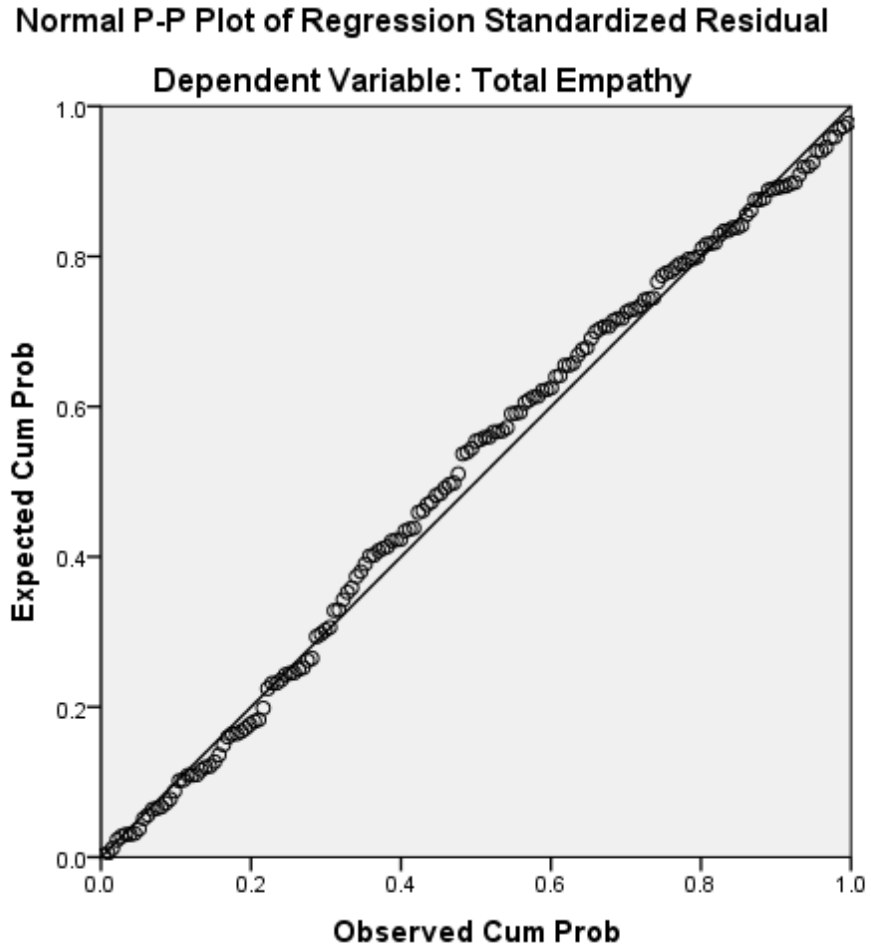
Total Empathy

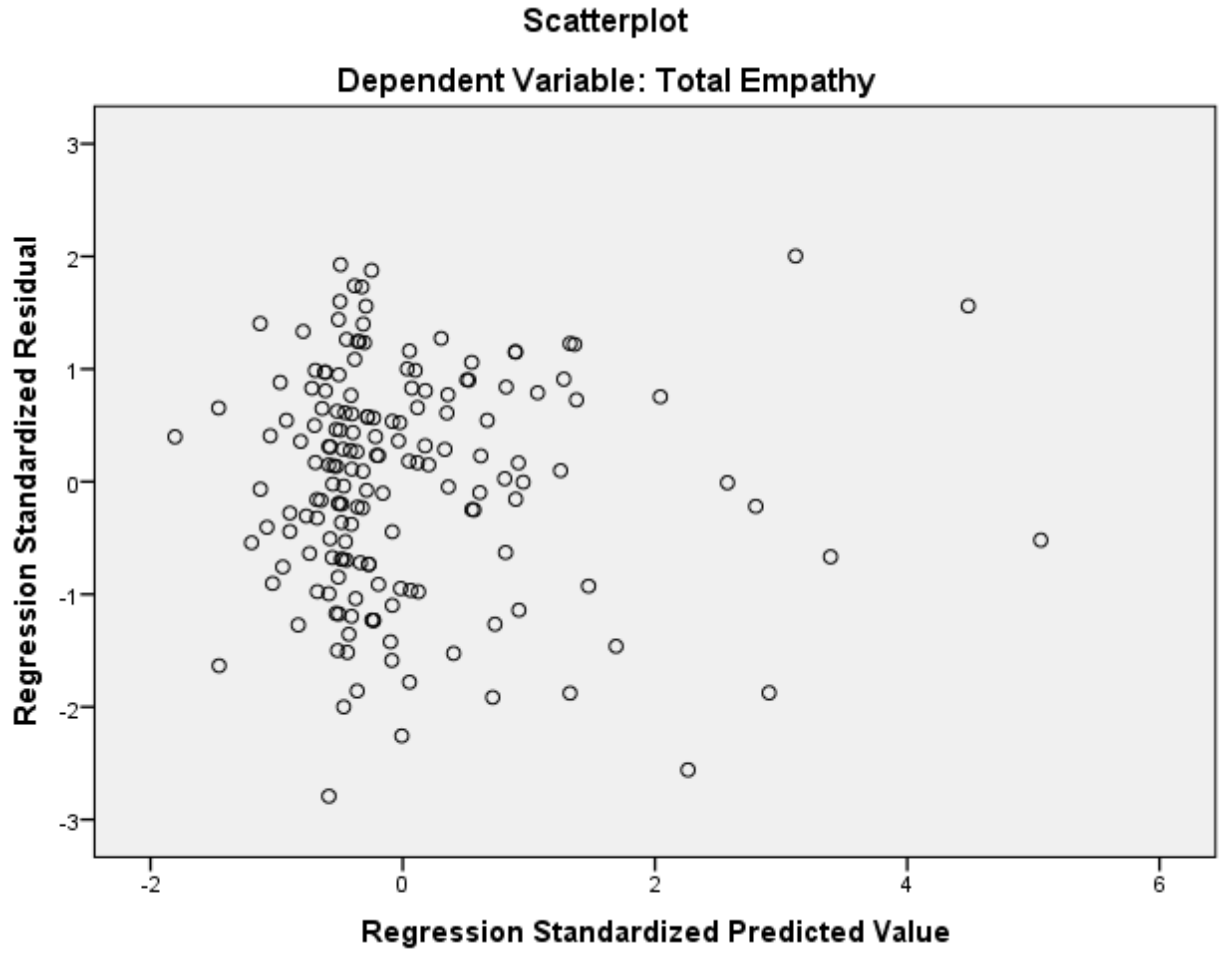












Appendix E: Institutional Review Board Approval Letters

May 6, 2016

Dear Ashley Butterfield,

The Institutional Review Board evaluated your submission.

Researcher Name: Ashley Butterfield

Protocol Title: **Perceived Stress, Self-care Practices, and Empathy in Clinical and Counseling Psychology Doctoral Students**

Protocol Nuber: 16-052

Chair: Dr. Georgios Lampropoulos

Submission is a First time submission, Revision to a protocol, First time submission of an amendment, Revision to an amendment.

Your protocol or amendment has now received **Approval**. This decision means that you may proceed with your plan of research as it is proposed in your protocol, or amended protocol.

Please note that if you wish to make changes to your protocol, you must provide written notification to the IRB in advance of the changes, co-signed by your Dissertation Chair. **You may not implement those changes until you have received an Approval letter from the IRB.** Please feel free to contact myself or other IRB committee members should you have any questions.

Sincerely,



Peter Ji, Ph.D.

Associate Professor

Core Faculty, Department of Psychology

Co-Chair, Institutional Review Board

June 22, 2016

Dear Ashley Butterfield,

The Institutional Review Board evaluated your submission.

Researcher Name: Ashley Butterfield

Protocol Title: **Perceived Stress, Self-care Practices, and Empathy in Clinical and Counseling Psychology Doctoral Students**

Protocol Number: 16-052

Chair: Dr. Georgios Lampropoulos

Submission is a First time submission, Revision to a protocol, First time submission of an amendment, Revision to an amendment.

Your protocol or amendment has now received **Approval**. This decision means that you may proceed with your plan of research as it is proposed in your protocol, or amended protocol.

1. Send follow up email in October
2. Contact training directors of APPIC approved internship sites

Please note that if you wish to make changes to your protocol, you must provide written notification to the IRB in advance of the changes, co-signed by your Dissertation Chair. **You may not implement those changes until you have received an Approval letter from the IRB.** Please feel free to contact myself or other IRB committee members should you have any questions.

Sincerely,



Peter Ji, Ph.D.

Associate Professor

Core Faculty, Department of Psychology

Co-Chair, Institutional Review Board