2017

Identified Stressors and Coping Mechanisms of Occupational Therapy Students

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IDENTIFIED STRESSORS AND COPING MECHANISMS OF OCCUPATIONAL THERAPY STUDENTS

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An Independent Study

Submitted to the Occupational Therapy Department

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of

Master's of Occupational Therapy

Grand Forks, North Dakota

May 2017

This Independent Study Paper, submitted by Amy Fitzsimmons, MOTS and Ashley Zimmer, MOTS in partial fulfillment of the requirement for the Degree of Master's of Occupational Therapy from the University of North Dakota, has been read by the Faculty Advisor under whom the work has been done and is hereby approved.

Amy M. Hagkins

Faculty Advisor

4. 19. 2017

Date

PERMISSION

Title: Identified Stressors and Coping Mechanisms of Occupational Therapy Students

Department: Occupational Therapy

Degree: Master's of Occupational Therapy

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Signature Amy Zimmer, MOTS

Date 4-19-17

Signature Ashley Zimmer, MOTS

Date 4/19/17

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ACKNOWLEDGEMENTS

Thank you to our courteous and patient advisor and professor, Dr. Anne Haskins, for sharing your passion for occupational therapy, and for supporting us throughout our independent study. Your calm demeanor and uplifting spirits made this independent study an enjoyable process. We will forever remember laughing in your office, sharing endless baby pictures, and question 35.

ABSTRACT

Introduction: The purpose of this research study was to gather data on stressors experienced by occupational therapy students during their program and how they cope with their identified stressors. The rationale for this study was the lack of and inconsistent research regarding occupational therapy students, how they experience perceived psychological stress during their program, and how they cope with their identified stressors.

Methodology: The researchers utilized a quantitative exploratory survey design to discover perceived psychological stress and coping methods in Master's of Occupational Therapy (MOT) students. Prior to recruitment, Institutional Review Board (IRB) approval was received. Respondents were recruited through a convenience sampling method from (MOT) programs in the Northeast, South, West and Midwest regions of the United States. Respondents completed online versions of a demographic survey, the Perceived Stress Scale (PSS), and the Revised Ways of Coping Checklist (WCCL). The total sample size was 37 MOT students. Descriptive and inferential analysis was completed to describe the study sample and answer the research questions.

Results: The results of the PSS showed MOT students to have a moderate levels of stress. Perceived psychological stress was significantly correlated with financial assistance. The mean scores on the WCCL showed our sample of MOT students used focusing on the positive, seeking social support, and problem solving coping methods. Self-blame and tension-reduction coping methods were significantly correlated with

those participants living with a significant other. Males were significantly less likely than females to use problem focused and focusing on the positive coping methods.

Conclusions: The findings from this study suggest MOT students experience moderate levels of stress during their academic programs. Effective and ineffective coping methods were found to be utilized as a means to cope with perceived psychological stress.

Significance: The results from this study can assist future educators when developing academic programs. Additionally, the results from this study contribute to previously existing evidence regarding MOT students perceived psychological stress and coping methods.

CHAPTER I

INTRODUCTION

Chapter I, Introduction, consists of an overview of this independent study. Specifically, it includes the purpose of this study, the study design and sample, research questions, assumptions, delimitations, and key definitions.

Rationale

Perceived psychological stress has been increasing in the general population. In 2014, adults in the United States were more likely to report extreme levels of stress than the previous year (American Psychological Association, 2017). An additional factor that has potential to contribute to perceived psychological stress is anxiety. Among adults in the United States, high levels of perceived psychological stress have been reported as particularly prevalent in the college student population (Lovell, Nash, Sharman & Lane, 2015; Mahmoud, Staten, Lennie & Hall, 2015; Novotney, 2014). From 2007 to 2013, anxiety levels in the college student population increased by nearly 10%, resulting in 46% of the student body utilizing counseling centers to address their anxiety (American Psychological Association, 2017). The percentage of college students utilizing counseling centers for mental health related concerns has risen over 3% from 2010 to 2013 (Novotney, 2014). Published research has compared college students' mental health to the general population and results indicated that college students have higher levels of depression, anxiety, and stress compared to the general population (Lovell, Nash, Sharman & Lane, 2015). Duan (2016) examined the perceived psychological stress of

college students over a 12-month period and reported the most prominent stressful events experienced by the college student sample were academic related events. These results indicated a negative effect on mental health over the course of a year in college students experiencing academic related stress (Duan, 2016).

Allied healthcare is a specific sector of the college population with over 200 allied health programs in the United States (Garman, Leach & Spector, 2006). Occupational therapy is one profession that is included in allied health services. The American Occupational Therapy Association (2017) defined occupational therapy as a profession that helps "…people across the lifespan participate in the things they want and need to do through the therapeutic use of everyday activities" (para. 2). Occupational therapy students enroll in a graduate level program to obtain a Master's or Doctoral degree in occupational therapy. Within the United States, there are approximately 186 accredited Master's and Doctoral occupational therapy graduate programs (American Occupational Therapy Association, 2017b). While there is a vast amount of literature regarding mental health of general undergraduate college students, there is a lack of research focusing on mental health of occupational therapy graduate students. As occupational therapy programs are rigorous in terms of curriculum and student expectations, occupational therapy students may experience high levels of perceived psychological stress. Given the negative effects psychological stress can have on students enrolled in a Master's of occupational therapy (MOT) program, it is necessary for further research to be completed in this area.

Theoretical Framework

The primary theoretical framework used to guide this independent study was the Occupational Adaptation (OA) model. The OA model focuses on the internal response individuals utilize when facing situations in their environment (Turpin & Iwama, 2011). This provides a foundation for this study as occupational therapy students must respond to their environment in an effective way in order to be successful and maintain their health. One way to explore students' responses to their environment is through understanding which coping methods they employ. It is through the perspective of the OA model that this independent study was developed.

Statement of the Problem

The problem was identified through the completion of an extensive literature review. Although an adequate quantity of literature has been completed regarding the undergraduate college students' stress levels, and those in allied health professions, minimal research has been completed specifically regarding occupational therapy students. Results from the available evidence has been variable and inconsistent, hindering the ability to make accurate conclusions regarding occupational therapy students' perceived psychological stress levels and utilized coping methods. Thus, further research is needed in order to gain insight into the levels of perceived psychological stress and coping methods utilized by occupational therapy students.

Assumptions

We anticipated that the participants provided honest and accurate responses to the survey items because the study was voluntary, however, the validity of the participants' responses could not be guaranteed. An unequal distribution of first, second, and third year

MOT students comprised the sample, a disproportion that could have influenced the results. It is also assumed that the OA model was an appropriate theoretical model to guide the implementation of this study.

Scope and Delimitations

Students enrolled in 20 randomly selected accredited Master's of occupational therapy (MOT) programs across the United States were required to complete one online survey (composed of three instruments) to participate in this study. Participants' informed consent was required prior to completing the online survey. Instances in which the participants did not offer a response for items occurred, though these appeared to be inadvertent failures to respond due to the random nature of the missing data for some cases. Those participants who did not fully complete the online survey were not included in this study. This limits the study's results as those students who were not included in the study may represent an imperative portion of the population being studied. That is, the students who choose not to participate in the study may be the very students whose stress and coping methods we were most interested in studying. The online survey was composed of close-ended questions to improve management of data and allow for statistical analysis. The online survey consisted of informed consent, general demographic questions, the Perceived Stress Scale (PSS), and the Ways of Coping Checklist (WCCL). Inadvertently, one question from the WCCL was not included in this study. For the purposes of this study, emphasis was on the student-related variables.

Definition of Terms

Current literature lacks a uniform definition and term to describe perceived psychological stress and coping methods. The inconsistency is present in descriptions of

studies present in Chapter II, Literature Review. Definitions of terms have been provided in order to establish a consistent definition for readers. For this independent study, the specified terms were defined as follows:

Accredited Master's of Occupational Therapy program - "Entry-level master's programs that are accredited by the Accreditation Council for Occupational Therapy Education (ACOTE)" (AOTA, 2017b).

Anxiety -"an uneasy feeling of discomfort or dread accompanied by an autonomic response" (Venes, 2013, p. 164).

Coping methods -"adapting to and managing change, stress, or opportunity" (Venes, 2013, p. 564).

Perceived psychological stress - "perceptions, emotions, anxieties, and interpersonal, social, or economic events that are considered threatening to one's physical health, personal safety, or wellbeing" (Venes, 2013, p. 2223).

Summary

Chapter I, Introduction, consisted of an introduction to this independent study and included the purpose of this study, the rationale, the theoretical framework, the statement of the problem, scope and delimitations, and the definition of key terms. Chapter II, Literature Review, includes a thorough examination of the literature available regarding perceived psychological stress in undergraduate and allied health students and the coping methods they employ. Chapter III, Methodology, provides an in depth description of the methodology used for this independent study. Chapter IV, Results, presents the results from the statistical analysis completed following data collection. Chapter V, Summary,

consists of a written discussion of the researchers findings, the study limitations, and recommendations for future research.

Chapter II

Review of Literature

In 2014, adults in the U.S. were significantly more likely to report levels of extreme stress than the previous year (American Psychological Association, 2017). Additionally, in 2014 adults in the U.S were more likely to report their stress levels to be higher than what they believed was healthy (American Psychological Association, 2017). The psychological form of stress is characterized as "perceptions, emotions, anxieties, and interpersonal, social, or economic events that are considered threatening to one's physical health, personal safety, or wellbeing" (Venes, 2013, p. 2223). Anxiety, a feeling that may contribute to psychological stress, is defined as "an uneasy feeling of discomfort or dread accompanied by an autonomic response" (Venes, 2013, p. 164).

High levels of psychological stress have been shown to be particularly prevalent in the college student sector of the general population (Lovell, Nash, Sharman, & Lane, 2015; Mahmoud, Staten, Lennie & Hall, 2015; Novotney, 2014). According to the American Psychological Association (2017), anxiety rates in college age students increased by nearly 10% from 2007 to 2013, with 46% of students utilizing counseling centers to address anxiety. Further, from 2010 to 2013, the rates of college students attending counseling centers for mental health concerns has risen over 3% (Novotney, 2014). Recent literature also addressed the issue of increasing anxiety rates in the college student population. Mahmoud, Staten, Lennie, and Hall (2015) explored the anxiety prevalence in college students and the contributing factors. Their results showed 78% of

their 1337 college student sample scored with above average levels of anxiety (Mahmoud et al., 2015). Lovell, Nash, Sharman, and Lane (2015) compared the mental health of college students to the general population and found college students to have higher levels of depression, anxiety and stress than the general population. In a longitudinal study, Duan (2016) examined the perceived psychological stress of college students. Over the course of 12 months, the most prominent stressful events experienced by the 404 college student sample were academic related (Duan, 2016). These results indicated a negative impact on mental health over the course of a year in college students with the experience of academic related stressors (Duan, 2016).

Allied Health & Occupational Therapy

Allied health programs are a particular sector of the college student population that are defined as "the segment of the health care field that delivers services involving the identification, evaluation, and prevention of diseases and disorders; dietary and nutrition services; and rehabilitation and health systems management" (Liaison International, 2017, para. 1). There are over 200 allied health programs in the United States (Garman, Leach & Spector, 2006). Allied health program students enroll in both undergraduate and graduate level programs to obtain their specified degree. A graduate program is considered "an advanced program of study focused on a particular academic discipline or profession" (University of California Berkeley, 2017, para. 1). Graduate school can be academic, professional, or a combination of both (University of California Berkeley, 2017). One profession included in allied health services is occupational therapy. Occupational therapy practitioners have been defined by the American Occupational Therapy Association as professionals that "help people across the lifespan

participate in the things they want and need to do through the therapeutic use of everyday activities" (American Occupational Therapy Association, 2017, para. 2). Occupational therapy students attend a professional graduate level program to obtain a Master's or Doctoral degree in occupational therapy. There are approximately 186 accredited Master's and Doctorate of occupational therapy programs in the United States (American Occupational Therapy Association, 2017b).

Although there is an abundance of literature on the mental health of general undergraduate college students, evidence is lacking in the focused area of occupational therapy graduate students. Occupational therapy students may also experience high levels of perceived psychological stress due to the rigorous course of occupational therapy programs. It is important that the same principles are applied towards the students enrolled in occupational therapy programs to avoid negative impacts on their quality of life. However, more evidence is needed in order to more fully understand the unique experience of occupational therapy students.

Perceived Psychological Stress

Perceived psychological stress can have many variable ramifications on an individual's health. Although some psychological stress can have positive impacts on health and performance, in large, consistent doses of psychological stress can negatively impact multiple areas of a person's life (DeLongis, Folkman & Lazarus, 1988; Marshall, 2011). Past and recent findings have suggested that psychological stress can influence health and cognition (DeLongis et al., 1988; Marshall, 2011). In a study about the influence of psychological stress on both health and mood, DeLongis et al. (1988) found significant correlations between levels of stress, health and mood. The largest

relationships were between high daily stress and increased somatic symptoms (DeLongis et al., 1988). Somatic symptoms included items such as flu, sore throat, backache, and headache (DeLongis et al., 1988). The magnitudes of these symptoms, as well as the levels of perceived psychological stress, were found to be variable depending on the self-esteem and social support available to the individual (DeLongis et al., 1988).

More recent studies have reported evidence of psychological stress and its effects on both health and cognition. Psychological stress has many possible alterations of human body functions, especially the sympathetic nervous system (Marshall, 2011). This includes functions such as heart rate, blood pressure, catecholamine secretions and platelet aggregations (Lupien et al., 2007; Marshall, 2011). Due to the influence of psychological stress on the sympathetic nervous system, the brain and the immune system are significantly interrelated (Marshall, 2011). This link can make one who experiences higher levels of psychological stress more susceptible to immune related health issues such as infections and inflammatory diseases (Marshall, 2011). This increased prevalence of disease can negatively impact performance, stamina, and positive healthy behaviors such as diet and exercise (Marshall, 2011). The effects of psychological stress on cognition have also been explored. There is evidence that psychological stress can affect an individual's cognition, including functions such as memory, learning, and attention, due to the stress hormones that are released in response to a stressful event (Lupien et al., 2007). These executive functions are all significantly important for student performance in a rigorous academic program as there are a multitude of stressors accompanying the need to learn a high volume of new and challenging information.

Perceived psychological stress & allied health students.

The stress of occupational therapy students has been studied, though the number of studies is limited and the results have been inconsistent. Pfeifer, Kranz, and Scagger (2008) used a sample of occupational therapy students to explore their perceived psychological stress. The results showed that 66% of the sample had above average levels of stress (Pfeifer et al., 2008). For these subjects, the stress levels they were experiencing while being enrolled in their professional program were the highest stress levels they had experienced in their life (Pfiefer et al., 2008). Conversely, Branholm, Fugl-meyer, and Frolunde (1998) compared the perceived levels of stress between a sample of occupational therapy students and a sample from the general population. They concluded that the occupational therapy students stress levels only differed from the general population to a minor extent (Branholm et al., 1998). Notably, the later research was conducted nearly 20 years ago and may not be generalizable to present time.

Academics are one of the largest factors contributing to the stress levels of allied healthcare students. This includes factors such as the amount of material to cover, time demands of the course, studying for examinations, assignments and others (Jacob, Itzchak & Raz, 2013; Tucker, Jones, Mandy & Gupta, 2006). In a sample of occupational therapy students, Everly, Poff, Lamport and Hamant (1994) found the top five stressors rated by their subjects were all school related. Each of the academic based five stressors were rated a medium to high level of stress by 86% of their subjects (Everly et al., 1994). These stressors included examinations, large amounts of classwork, lack of free time, number of study hours, and concerns about grades (Everly et al., 1994).

Financial and personal factors (gender and emotional intelligence) have also been identified as factors that influence perceived psychological stress (Jacob et al., 2012; Jacob et al., 2013; Tucker et al., 2006). Personal factors included items such as relationships and loneliness (Jacob et al., 2013). Jacob et al. (2012) found personal factors to be rated slightly lower than academic factors, however they were still a considerable contributor to stress. Similar results were found by Jacob et al. (2013). No pattern was seen between perceived psychological stress and sociodemographic factors (Jacob et al., 2012; Jacob et al., 2013). Multiple authors have concluded that working full time or part time did not have any significant effect on the level of perceived psychological stress students were experiencing (Jacob et al., 2012; Jacob et al., 2013; Tucker et al., 2006).

The relationship between gender and stress has also been explored. Females have consistently been found to have higher levels of stress than males (Everly et al., 1994, Frank & Cassady, 2005; Mitchell & Kampfe, 1993; Tucker et al., 2006). Tucker et al. (2006) completed a study exploring perceived psychological stress in physiotherapy students in Australia and found that females have higher levels of stress than males; findings that are congruent with those of Everly et al. (1994) who studied occupational therapy students in the U.S. Mitchell and Kampfe (1993) explored occupational therapy students on fieldwork and also found that females reported fieldwork to be more stressful and disruptive than males.

Ruiz-Aranda et al. (2013) explored the relationship between emotional intelligence and well-being of students. Emotional intelligence (EI) as defined by Ruiz-Aranda et al. (2013) is “the ability to perceive, appraise and express emotion

accurately… the ability to regulate emotions to promote growth and well-being" (p.107). Ruiz-Aranda et al. (2013) discovered negative correlations between perceived psychological stress and satisfaction with life, and negative correlations between perceived stress and happiness in students in Spain. However, significant relationships emerged between emotional regulation and perceived psychological stress, life satisfaction, and happiness (Ruiz-Aranda et al., 2013). Specifically, students who reported less perceived psychological stress reported increased satisfaction and happiness and students with greater EI reported less perceived stress (Ruiz-Aranda et al., 2013). Lastly, students with greater EI were able to evaluate situations as less stressful, which resulted in increased life satisfaction and happiness (Ruiz-Aranda et al., 2013).

Coping Methods

Effective and ineffective coping methods utilized by occupational therapy students and allied health students has been documented in published literature. Coping is defined as "adapting to and managing change, stress, or opportunity" (Venes, 2013, p. 564). Conversely, ineffective coping is defined as "inadequate adaptive behavior and inability of a person in meeting life's demands and roles" (Venes, 2013, p. 564). Ineffective coping mechanisms have the potential to be unhealthy for an individual, physically and mentally.

Duan (2016) explored individual strengths that affected a student's level of perceived psychological stress, and found that the strengths a participating student had to handle his or her stressors influenced the magnitude of the effect on that individual's mental health. This concept highlights the importance of college students having effective coping strategies to handle the stressors of attending college.

The Ways of Coping Checklist (WCCL) has been used in multiple studies (Mitchell & Kampfe, 1990, 1993), along with other instruments, to identify individuals' coping methods. The WCCL was utilized in studies with allied health students participating in on-campus programs as well as with occupational therapy students who were completing their fieldwork placements (Gilbert & Strong, 1997; Mitchell & Kampfe, 1990, 1993). Seeking social support was the most common effective coping strategy used by students (Gilbert & Strong, 1997; Lincoln, Adamson & Covic, 2004; Mitchell & Kampfe, 1990, 1993). Other documented effective coping strategies utilized by allied health students were positive thinking and problem solving (Gilbert & Strong, 1997; Lincoln et al., 2004; Mitchell & Kampfe, 1993,1990). Nualnetr and Thanawat (2012) defined health promoting behaviors as "an expression of the human actualizing tendency that is directed toward optimal well-being, personal fulfillment, and productive living" (p. 1003). Nualnetr and Thanawat (2012) conducted a study in Thailand in which they compared physical therapy students' health promoting behaviors in their first, second, third and fourth year of their academic program. Results concluded that first year students reported the lowest scores in nutritional habits while the third and fourth year students scored the lowest in stress management (Nualnetr & Thanawat, 2012). Students reported the largest barrier faced within their program was lack of time and motivation to engage in health promoting behaviors (Nualnetr & Thanawat, 2012). Students scored fairly well in the health promoting behavior areas of interpersonal relations, spiritual growth, and stress management (Nualnetr & Thanawat, 2012).

Occupational therapy and other allied health students have also been found to employ ineffective coping strategies. Everly et al. (1994) conducted a study surveying

occupational therapy students in the U.S. regarding ineffective coping mechanisms and found that 83% of the students used perseverance, 38% used escapism, 19% used withdrawal, 14% utilized medication, and 5% engaged in drugs, sex, and alcohol. Everly et al.'s (1994) results showed that men scored higher than women for utilizing ineffective coping strategies such as drugs, sex, or alcohol. Mitchell and Kampfe (1990, 1993) found that occupational therapy students on fieldwork utilized both effective and ineffective coping strategies. While the effective coping strategies were found to be utilized more often compared to the ineffective coping strategies, students did use the ineffective strategies, which included avoidance, blaming self, and wishful thinking (Mitchell & Kampfe, 1990, 1993). Notably, Mahmoud et al. (2015) discovered that negative thoughts and maladaptive coping were correlated with high levels of anxiety.

Problem

Though research has been conducted on the perceived psychological stress of allied health and occupational therapy students, the literature is sparse, often inconsistent in outcomes, and aged. More than two decades ago, Everly et al. (1994) and Mitchell and Kampfe (1990, 1993) identified the need to not only examine occupational therapy students' stress but also the methods students use to cope with that stress. Since that time, few studies have been published addressing occupational therapy students stress and coping. Those studies that have been done have been completed outside of the U.S. or using samples of allied health students rather than occupational therapy students; each of which limits the generalizability to occupational therapy student populations. It is imperative that stress and coping in occupational therapy students be studied. Ruiz-

Aranda, Extremera and Pineda-Galan (2013) found that without healthy coping techniques, perceived psychological stress could lead to decreased quality of life.

Purpose

The current study will delve into the focused topic of perceived psychological stress in occupational therapy students and the effectiveness of their coping skills. For the current study, perceived psychological stress is defined as any factor increasing the pressure or strain of an individual (Venes, 2013). Coping is to be understood as meaning to deal effectively with or handle stress (Venes, 2013). Quality of Life is defined as the satisfaction of one's physical, emotional, and mental state of being (Venes, 2013).

The purpose of this study is to identify the perceived levels of stress experienced by U.S. Masters of Occupational Therapy students and explore the coping mechanisms those students use. The outcomes of this study will improve understanding of the current levels of perceived psychological stress and coping strategies of current occupational therapy students. The results will also provide information for occupational therapy academic departments to determine whether occupational therapy students' perceived psychological stress and coping methods warrant specific programming within occupational therapy curriculums. Specifically, this study will seek to answer: What are the perceived levels of psychological stress of occupational therapy students in the United States and what coping mechanisms are being employed?

Chapter Summary

Chapter II was comprised an overview of the current state of evidence on general anxiety in university students, perceived psychological stress of allied health students and

occupational therapy students, and coping methods used by university students. In addition, the lack of evidence each of the aforementioned areas was highlighted and the purpose of this study provided. Chapter III, Methodology, provides an overview of the methods we used to design and implement this study.

CHAPTER III

Methodology

Chapter III, Methodology, consists of descriptions of the procedures used during the review of literature, sampling, instrumentation, data collection and data analysis of this study. This study was approved by the Institutional Review Board from the University of North Dakota. A non-experimental, survey research design was utilized to gather data regarding the perceived psychological stress levels and coping strategies used by occupational therapy students.

Theoretical Basis

The model of Occupational Adaptation (OA) provides the underlying foundation for this study. OA focuses on an individual's ability to respond to the environment while performing his or her occupations (Turpin & Iwama, 2011). Individuals are able to master their environment by developing an effective internal adaptive response (Turping & Iwama, 2011). It is mastery that is the central influence of improving occupational performance (Turping & Iwama, 2011). This model provides a framework for the current study, as internal adaptation is necessary for occupational therapy students to be successful while enrolled in their academic program. There are many stressors and occupational conflicts that may occur throughout students' experiences and a student's ability to respond effectively to these situations will influence his or her performance. An effective internal adaptive response will allow students to utilize effective coping

methods to handle the stresses of their program. These principles from OA guided the design of this study.

Design and Sample

During preliminary review of available published literature, we identified a gap in the evidence regarding perceived stress levels and coping strategies of allied health students. The amount of evidence is minimal regarding occupational therapy students in particular, leading to the need for more research on this topic. For the literature review that formed the foundation of this study, multiple databases were utilized including Cumulative Index to Nursing and Allied Health Literature (CINAHL), PsychInfo, and the American Journal of Occupational Therapy (AJOT). Search terms were identified through collaboration with a librarian at the University of North Dakota's Harley E. French Library of the Health and Sciences. The search terms used were: "allied healthcare students", "occupational therapy students", "physical therapy students", "speech therapy students", "perceived stress", "quality of life", "coping methods" and "wellness". Each database was searched using the aforementioned search terms. We scanned abstracts to determine which articles fit the inclusion criteria and which should be excluded based on the pre-established criteria. The inclusion criteria for evidence utilized for the literature review included being published after 1990, written in the English language, pertaining to one or more of the allied health professions and being peer reviewed. The exclusion criteria included being published prior to 1990, published in non-peer-reviewed research journals or pertaining solely to nursing or medical students. Articles that met the inclusion criteria were critiqued and included in this review. Due to the lack of literature conducted in the U.S. regarding the specified topic,

studies that were conducted in countries other than the U.S. were included in our literature review. The selected studies were then synthesized to form a cohesive literature review that provided sufficient background information for the development of this study.

The focused research question was developed based on available findings and research gaps. We created an online Qualtrics survey consisting of a demographic questionnaire, the Perceived Stress Scale (PSS-10) and Ways of Coping Checklist (WCCL) (Cohen et al., 1983; Folkman & Lazarus, 1985). Qualtrics is privately owned research survey software that allows users to create personalized research surveys and carry out data collection using a secure server (Qualtrics, 2017). We sought expedited review secondary to the absence of experimentation and minimal risk for subjects. Institutional Review Board approval was obtained from the University of North Dakota's review board. Refer to Appendix A to view the study approval documentation.

Due to the nature of survey research, both simple random sampling and convenience sampling were implemented to select subjects. A simple random sampling method was utilized to determine which programs would be invited to participate through use of a table of random numbers. All accredited Master's of Occupational Therapy programs were divided into four geographic regions based upon the United States Census Bureau (Bureau, 2015). Refer to the Appendix B for a copy of the United States Census Bureau's geographical regions. A table of random numbers was used to randomly select five programs from each region to be included in the study. After receiving Institutional Review Board approval, the program directors of 20 selected accredited Master's of Occupational Therapy programs throughout the United States were contacted via email (Refer to Appendix C for a copy of the letter sent to each program director and his or her

students). Each program director was sent a link to the online Qualtrics survey with request for his or her program's participation in the study. The program directors who wanted their students to participate in the study then forwarded the survey to students enrolled in their school's program. Students who chose to participate did so after reading a statement of informed consent and choosing to complete the online survey. Convenience sampling was used as those students who chose to complete the questionnaires provided through Qualtrics were included in the study. The online Qualtrics survey was available from October, 2016 through December, 2016. Of the 53 respondents, 16 submissions were considered drop outs due to researcher survey trials and incomplete survey responses of one or more unanswered questions. There were a total of 37 qualified respondent surveys to utilize in data analysis.

Instrumentation

Upon completion of the literature review, we developed an online Qualtrics survey utilizing a demographic questionnaire, the Ways of Coping Checklist (WCCL), and the Perceived Stress Scale (PSS-10) to be used as a means to gather evidence to identify Master's of Occupational Therapy students' perceived stress levels and the coping strategies they employed during their academic school year. The demographic questionnaire, WCCL, and PSS-10 were synthesized into one online survey using the Qualtrics survey software. Refer to Appendix D for a copy of the full online survey.

Demographic Questionnaire.

A 10-item general demographic questionnaire was developed to obtain demographic information from the participants within this research study. Only necessary information was requested for this research study. The accuracy of the questionnaire was

completely dependent upon honest feedback from participants regarding their demographics. The demographic questionnaire was developed based on relevant evidence from the literature, and included only information pertinent to this study. This questionnaire included questions regarding the region of the subjects' current program for exploration of differences between geographical areas of the United States. It also delved into demographics frequently found in the review of literature including current employment status, marital status, finances, gender and age.

Perceived stress scale.

The PSS-10 was originally published in 1983 by Mark Cohen, Tom Karmarck, and Robin Mermelstein (Cohen et al., 1983). The PSS-10 utilizes 10 Likert scale questions to cover aspects of stress including feelings of control, responsibilities, mood and ability to cope, all of which are relevant to the lives of occupational therapy students. This instrument was chosen for its reliability and validity for identifying levels of perceived stress and was incorporated into the current research study to measure how situations within occupational therapy students' lives are perceived as stressful. The PSS-10 was originally assessed with two samples of college students, and one of an adult smoking cessation group (Cohen et al., 1983). The PSS-10 was shown to have adequate internal and test-retest reliability with the coefficient alpha reliability determined to be on average .85, however is dependent on the accuracy of the responses from subjects (Cohen et al., 1983). The PSS-10 was also tested with African American Adults with Asthma and low literacy, and was found to have acceptable reliability and validity (Sharp et al., 2007). Higher scores on the PSS-10 were correlated to higher levels of depression and anxiety when tested with a sample of older adults, which further validated the use of this

instrument to measure perceived stress (Ezzati et al., 2013). Other findings have suggested that the instrument is valid and does not present with gender bias (Taylor, 2014). Overall, the PSS-10 has been shown to provide a reliable and valid measure of perceived stress in multiple populations including college students (Cohen et al., 1983; Ezzati et al., 2013; Sharp et al., 2007; Taylor et al., 2014).

Ways of coping checklist.

The Ways of Coping Checklist was developed in 1980 by Richard Lazarus and Susan Folkman (Folkman & Lazarus, 1985). Together, the researchers created a tool used to identify stressful situations and utilized coping mechanisms (Vitaliano et al., 1985). The revised WCCL was chosen to identify the methods being employed by occupational therapy students to cope with their perceived level of psychological stress. The original WCCL is a 68-item tool that had one revision resulting in a 66-item revised version of the tool, which occurred in 1985 by Peter Vitaliano, Joan Russo, John Carr, Roland Maiuro, and Joseph Becker (Vitaliano et al., 1985). The researchers revised the original WCCL for various reasons, such as complaints that the checklist is too long, some categories were lacking face validity, and the intercorrelations between numerous scales were very high, which resulted in great difficulty assessing multidimensional coping (Vitaliano et al., 1985). After the WCCL was revised, numerous aspects were determined to be reliable and valid across numerous samples, including internal consistency reliability, construct validity, and concurrent validity (Vitaliano et al., 1985). The revised WCCL has two sets of eight subscales, one of which was derived a community sample, and one of which was derived from a sample of college students. The second set of subscales from the college student sample was chosen for this study as this was recommended by the original

authors for samples of college students (Folkman & Lazarus, 1985). The internal consistency reliability alpha coefficient for the college student sample of the revised WCCL was .82 (Vitaliano et al., 1985). The eight subscales were also determined to have adequate reliability with each as follows: *problem-focused coping* (alpha=.88), *wishful thinking* (alpha=.86), *detachment* (alpha=.74), *seeking social support* (alpha=.82), *focusing on the positive* (alpha=.70), *self-blame* (alpha=.76), *tension reduction* (alpha=.59), and *keep to self* (alpha=.65) (Folkman & Lazarus, 1985).

Data Collection

After receiving Institutional Review Board approval, 20 accredited Master's of Occupational Therapy programs throughout the United States were contacted via email through their program directors. Each program director was sent a link to the online Qualtrics survey, with request for their participation in the study. Program directors that approved the students to participate in the study were then asked to forward the survey on to their students currently enrolled in his or her school's program. Informed consent from each participating subject was received through the online survey. Clicking on the Qualtrics link brought subjects to the online informed consent. Upon clicking agree, subjects were then routed to the online Qualtrics survey where they could proceed to answer the survey. Subjects were unable to access the online survey if the informed consent was not agreed to. Refer to the Appendix D for a copy of the online consent form. As responses were anonymous, informed consent forms were not attached to respondents names. All responses were saved in a secure and password protected folder on our computers. Upon completion of the study, those files were deleted and a copy of the original data and output was stored in the faculty advisors office on a password

protected computer. Inclusion criteria for this research study include individuals who are currently enrolled in an accredited Master's of Occupational Therapy program, within the United States. Exclusion criteria of this study included any individual not enrolled in an accredited Master's Occupational Therapy program within the United States. The Qualtrics online survey was available from October through December, 2016. The collected data was downloaded from the Qualtrics software into Statistical Package for the Social Sciences (SPSS) version 24.0 for descriptive and statistical data analysis.

Data Analysis

Data retrieved from the PSS and WCCL were analyzed as interval/ratio variables as both instruments utilized Likert scales which associate with other available literature (Ezzati et al., 2013; Jacob et al., 2012). The PSS and all WCCL subscales were analyzed to determine internal consistency using Cronbach's Coefficient Alpha. Statistical results were calculated using the appropriate statistical test or descriptive statistic calculation including descriptive statistics, Spearman's Rho, Pearson Correlation, T–test for independent data and One-Way Analysis of Variance (ANOVA) with Bonferroni post hoc test. The SPSS-24.0 program was utilized to determine any significance in survey responses.

Chapter III Methodology was comprised of an overview of the processes involved in the design, data gathering and analysis of the data in this study. The results of the data analyses are presented in Chapter IV.

CHAPTER IV

RESULTS

Chapter IV, Results, is comprised of the outcomes for data screening, descriptive and inferential analyses. Pre-analysis data screening was implemented prior to parametric calculations of the data to determine the results of the research questions. This procedure was completed to enhance the accuracy of the results. Instrument reliability was analyzed followed by descriptive statistical analysis of the responses obtained from the demographic questionnaire and instruments. Lastly, to answer the remaining research questions, inferential statistical analyses were conducted.

Pre-Analysis Data Screening

Missing data and case deletion.

Of the 53 total responses, there were 16 occurrences of missing data in the final data analysis. Each appeared to represent an inadvertent or advertent failure to respond to all questions of the Qualtrics survey. All cases with missing data were dropped from the study. Of the 16 total dropped cases, five respondents completed all but the Ways of Coping Checklist (WCCL) and one completed only the demographic questionnaire. These cases have been noted in the limitation section due to substantial amounts of missing data. The total number of participants included in data analysis was 37 respondents.

Instrument Reliability

Cronbach's Alpha was calculated to determine the reliability of the Perceived Stress Scale (PSS) and Ways of Coping Checklist total and subscale measures.

Perceived stress scale reliability.

Cronbach's Alpha was utilized to calculate the reliability of the PSS. It was determined the PSS demonstrated reasonably strong reliability with an alpha level of .836. Results of the PSS reliability are displayed in Table 1.

Table 1
PSS Instrument Reliability

	Total # items	Alpha Level
Total PSS reliability	10	.836

Ways of coping checklist reliability.

Cronbach's Alpha was calculated to determine the reliability of the WCCL and each of the WCCL subscales. The overall WCCL demonstrated reasonably strong reliability with an alpha level of .911. The *problem-focused coping subscale, wishful thinking subscale, detachment subscale,* and *keep-to-self subscale* all demonstrated reasonably strong reliability. Moderate reliability was found for the *seeking social support subscale, focusing on the positive subscale, and the self-blame subscale.* The reliability of the *tension reduction subscale* was compromised likely due to conflicting responses. The *tension reduction subscale* was utilized in the overall WCCL instrument reliability; however the overall WCCL reliability was still demonstrated to be reasonably strong. Refer to Table 2 for further details of WCCL and subscale reliability.

Table 2
WCCL Instrument Reliability

Subscale	Total # items	Alpha Level
Problem-focused coping	10	.814
Wishful thinking	5	.856
Detachment	6	.745
Seeking social support	7	.691
Focusing on the positive	4	.692
Self-blame	3	.530
Tension reduction	3	- 0.005*
Keep to self	3	.837
Total WCCL reliability:	65	.911

***** The limited reliability of the tension reduction subscale has been noted.

Descriptive Analyses

All collected data was subjected to descriptive analysis to identify the characteristics of the sample and discover the mean scores and *sd* for responses on the PSS and WCCL. We calculated averages, percentages and *sd* for the participants demographic information including geographic region, gender, marital status, presence of children, employment status, and financial assistance.

Respondent demographics.

The total number of participants was 37 students from a Master's of Occupational Therapy (MOT) program. Frequencies and percentages of the respondents residing region were calculated and revealed 21.6% (*n* =8) reported residing in the Midwest region and

78.4% (*n* =29) reported residing in the West region. Frequencies and percentages of the respondents' current academic year in the MOT program were calculated and revealed 43.2% (*n* =16) were in their first year, 43.2% (*n* =16) were in their second year, and 13.5% *(n* =5) were in their third year.

Frequencies and percentages for the participants' gender were calculated and revealed 86.5% (*n* =32) of the sample identified as female and 13.5% (*n* =5) identified as male. The frequencies and percentages of the participants' ages were calculated and revealed 64.9% (*n* =24) of respondents were between the ages of 18-25 years, 29.7% (*n* =11) were between the ages of 26-34 years, and 5.4% (*n* =2) were between the ages of 35-54 years with a *sd* of .599.

The frequencies and percentages of the participants' marital status were calculated and revealed 16.2% (*n* =6) reported living with another, 27.0% (*n* =10) reported being married, and 56.8% (*n* =21) reported being single.

The frequencies and percentages of participants living in a household with children ages 18 years or under were calculated and revealed 8.1% (*n* =3) respondents were living with children and 91.9% (*n* =34) responded not living with children. Of the three respondents living with children, 5.4% (*n*=2) were living with two children and 2.7% (*n* =1) reported living with four children with a *sd* of 1.155.

The frequencies and percentages of the participants' current employment status were calculated and revealed 59.5% (n=22) were employed part-time, 40.5% (*n* =15) were not currently employed. Of the 22 participants employed part-time, 27.0% (*n* =10) reported working 1-10 hours per week, 21.6% (*n* =8) reported working 11-15 hours per week, 8.1% (n=3) reported working 16-20 hours per week, and 2.7% (*n* =1) reported

working 36-40 hours per week with a *sd* of 1.342. The frequencies and percentages of participants receiving financial assistance while completing school were calculated and revealed 73.0% (*n* =27) were receiving financial assistance, and 27.0% (n=10) were not receiving financial assistance.

Cross tabulations of respondents' demographic data were completed based on respondents' reported year in the MOT program. That is, the year in the program was used to organize the demographic information from the respondents. Refer to Table 3 for details of the respondent's gender, age and marital status that have been collated within the year in the program. Refer to Table 4 for details of the respondents' academic year in program, financial assistance status and geographic region.

Table 3
Respondent Demographics of Year in Program, Gender, Age, and Marital Status

	1st Year		2nd Year		3rd Year		Total	
Demographics	n	%	n	%	n	%	n	%
Female	14	43.8	15	46.9	3	9.38	32	86.5
Male	2	40.0	1	20.0	2	40.0	5	13.5
Age: 18-25 years	12	50.0	10	41.7	2	8.33	24	64.9
Age: 26-34 years	3	27.3	5	45.5	3	27.3	11	29.7
Age: 35-54 years	1	50.0	1	50.0	0	0.00	2	5.40
Live With Another	3	50.0	2	33.3	1	16.7	6	16.2
Married	1	10.0	6	60.0	3	30.0	10	27.0
Single	12	57.1	8	38.1	1	4.76	21	56.8

Table 4
Respondent Demographics of Year in Program, Financial Assistance, and Region

	1st Year		2nd Year		3rd Year		Total	
Demographics	n	%	n	%	n	%	n	%
Financial Assistance: Yes	10	37.0	13	48.1	4	14.8	27	73.0
Financial Assistance: No	6	60.0	3	30.0	1	10.0	10	27.0
Region: Midwest	4	50.0	4	50.0	0	0.00	8	21.6
Region: West	12	41.4	12	41.4	5	17.2	29	78.4

PSS descriptive results.

Descriptive statistics of participants' overall perceived stress levels were calculated and revealed an average stress level of 17.97 (*n* =37) with a *sd* of 5.28. The range was 23.00 with a minimum of 8.0 and a maximum of 31.0. The Mean, *sd,* range, and middle scale score of the PSS results are detailed in Table 5.

Table 5
PSS Mean, sd, Range, and Middle Scale Score

	Mean (n =37)	*sd*	Range	Middle Scale Score
PSS	17.97	5.28	23.00	20

WCCL descriptive results.

Descriptive statistics of participants' overall scores on the WCCL were computed and revealed an average overall score of 77.73 (*n* =37), a *sd* of 21.29, and a range of 89.0. The minimum score was 40.0 and the maximum score was 129.0.

Descriptive statistics were calculated for each subscale. The *problem focused coping subscale* presented with a mean of 15.83 (*n* =37), a *sd* of 4.69, and a range of 18.0. The *wishful thinking subscale* presented with an average of 5.97 (*n* =37), a *sd* of 3.69, and a range of 14.0. The *detachment subscale* presented with an average of 5.05 (*n* =37), a *sd* of 3.08, and a range of 13.0. The *seeking social support subscale* presented with an average of 10.05 (*n* =37), a *sd* of 3.96, and a range of 16.0. The *focusing on the positive subscale* presented with an average of 6.21 (*n* =37), a *sd* of 2.60, and a range of 10.0. The *self-blame subscale* presented with an average of 3.05 (*n* =37), a *sd* of 1.75 and a range of 8.0. The *tension reduction subscale* presented with an average of 3.84 (*n* =37),

an *sd* of 1.52, and a range of 6.0. The *keep-to-self subscale* presented with an average of 3.35 (*n* =37), an *sd* of 2.54, and a range of 9.0. The Mean, *sd,* range, and middle scale score are detailed in Table 6.

Table 6
WCCL Mean, Standard Deviation, Range, and Middle Scale Score

Subscale	Mean (n =37)	*sd*	Range	Middle Scale Score
Problem focused	15.38	4.69	18.0	15
Wishful Thinking	5.97	3.69	14.0	7.5
Detachment	5.05	3.08	13.0	9
Seeking Social Support	10.05	3.96	16.0	10.5
Focusing on the Positive	6.22	2.60	10.0	6
Self-Blame	3.05	1.75	8.0	4.5
Tension Reduction	3.84	1.52	6.0	4.5
Keep to Self	3.35	2.54	9.0	4.5

Correlational Analysis

Inferential analyses were completed to examine potential relationships between variables. An alpha level of .05 was set and the magnitude of the relationships were interpreted using the following correlation coefficient ranges*: r* = 0 to ± 0.20 is a negligible correlation; *r* = ± 0.20 to ± 0.40 is a low correlation; *r* = ± 0.40 to ± 0.60 is a moderate correlation; *r* = ± 0.60 to ± 0.80 is a high correlation and *r* = ± 0.80 to ± 1.00 is a very strong correlation (Taylor, 2017). Refer to Table 7 for significant correlational findings between demographic and instrument variables.

Table 7
Significant Correlational Results Between Demographic and Instrument Variables

Independent Variable	Dependent Variable	*p* Value	Correlational Value
Number of children	PSS score	< .05	-1.00
Hours worked per week	*Wishful Thinking subscale score*	< .05	.492
Number of children	WCCL score	< .05	-.990
Number of children	*Self-blame subscale score*	< .05	-1.00

Correlations between PSS and demographic variables.

A Spearman *rho* correlation coefficient was calculated to answer the research question: is there a relationship between perceived stress and age in MOT students? A negligible, positive correlation that was not significant was found (r (35) = .024, p >.05). Perceived stress was not related to age of MOT students.

A Spearman *rho* correlation coefficient was calculated to answer the research question: is there a relationship between hours worked per week and perceived stress in MOT students? A low, positive correlation that was not significant was found (r (20) = .216, p >.05). Hours worked per week were not related to perceived stress in MOT students.

A Pearson correlation was calculated to answer the research question: is there a relationship between the number of children who live in the house and perceived stress in MOT students? A very strong, negative correlation that was significant was found (r (1) = -1.00, p <.05). As the number of children living in the house increases, stress in MOT students decrease.

Correlations between the WCCL and number of hours worked per week.

The WCCL correlational results and demographic variables were examined using Spearman *rho* and Pearson correlation coefficients.

A Spearman *rho* correlation coefficient was calculated to answer the research question: is there a relationship between number of hours worked per week and overall coping and each of the WCCL subscales in MOT students? A low positive correlation for the WCCL total that was not significant was found (r (20) = .350, p>.05). The overall WCCL score was not related to number of hours worked per week.

A Spearman *rho* correlation coefficient was calculated to answer the research question: is there a relationship between the *problem-focused coping subscale* and number of hours worked per week. A low positive correlation that was not significant was found (r (20) = .279, p >.05). *Problem focused coping subscale* coping skills were not related to number of hours worked per week.

A Spearman *rho* correlation coefficient was calculated to answer the research question: is there a relationship between the *wishful thinking subscale* and the number of hours worked per week. A moderate positive correlation was found (r (20) = .492, p <.05), indicating a significant relationship between the two variables. The use of *wishful thinking subscale* coping skills increased as hours worked per week increases.

A Spearman *rho* correlation coefficient was calculated to answer the research question: is there a relationship between the *detachment subscale* and number of hours worked per week. A negligible negative correlation that was not significant was found (r (20) = -.014, p >.05). *Detachment subscale* coping skills were not related to number of hours worked per week.

A Spearman *rho* correlation coefficient was calculated to answer the research question: is there a relationship between the *seeking social support subscale* and number of hours worked per week. A negligible negative correlation that was not significant was found (r (20) = -.106, p >.05). *Seeking social support subscale* coping skills were not related to number of hours worked per week.

A Spearman *rho* correlation coefficient was calculated to answer the research question: is there a relationship between the *focusing on the positive subscale* and number of hours worked per week. A negligible negative correlation that was not significant was found (r (20) = .009, p >.05). *Focusing on the positive subscale* coping skills were not related to number of hours worked per week.

A Spearman *rho* correlation coefficient was calculated to answer the research question: is there a relationship between the *self-blame subscale* and number of hours worked per week. A negligible positive correlation that was not significant was found (r (20) = .024, p >.05). *Self-blame subscale* coping skills were not related to number of hours worked per week.

A Spearman *rho* correlation coefficient was calculated to answer the research question: is there a relationship between the relationship between the *tension reduction subscale* and the number of hours worked per week. A moderate positive correlation that was not significant was found (r (20) = .417, p >.05). *Tension reduction subscale* coping skills were not related to number of hours worked per week.

A Spearman *rho* correlation coefficient was calculated to answer the research question: is there a relationship between the *keep-to-self subscale* and number of hours worked per week. A negligible positive correlation that was not significant was found (r

(20) = .081, p >.05). *Keep-to-self subscale* coping skills were not related to number of hours worked per week.

Correlations between the WCCL and number of children.

A Pearson correlation was calculated to answer the research question: is there a relationship between number of children living in the household and overall coping and each of the WCCL subscales in MOT students? A very strong negative correlation that was significant was found (r (1) = -.99, p <.05), indicating a significant relationship between the two variables. As the number of children living in the household increases, the overall use of coping skills in MOT students decreased.

A Pearson correlation coefficient was calculated to answer the research question: is there a relationship between the *problem focused subscale* and number of children. A very strong negative correlation that was not significant was found (r (1) = -.924, p >.05). *Problem focused subscale* coping skills were not related to number of children.

A Pearson correlation coefficient was calculated to answer the research question: is there a relationship between the *wishful thinking subscale* and number of children. A very strong negative correlation that was not significant was found (r (1) = -.982, p >.05). *Wishful thinking subscale* coping skills were not related to number of children.

A Pearson correlation coefficient was calculated to answer the research question: is there a relationship between the *detachment subscale* and number of children. A high negative correlation that was not significant was found (r (1) = -.756, p >.05). *Detachment subscale* coping skills were not related to number of children.

A Pearson correlation coefficient was calculated to answer the research question: is there a relationship between the *seeking social support subscale* and number of

children. A negligible positive correlation that was not significant was found (r (1) = .189, p >.05). *Seeking social support subscale* coping skills were not related to number of children.

A Pearson correlation coefficient was calculated to answer the research question: is there a relationship between the *focusing on the positive subscale* and number of children. A very strong negative correlation that was not significant was found (r (1) = -.961, p >.05). *Focusing on the positive subscale* coping skills were not related to number of children.

A Pearson correlation coefficient was calculated to answer the research question: is there a relationship between the relationship between the *self-blame subscale* and the number of children. A very strong negative correlation was found (r (1) = -1.00, p <.05), indicating a significant relationship between the two variables. As the number of children living in the household increases, the use of *self-blame subscale* coping skills decreased.

A Pearson correlation coefficient was calculated to answer the research question: is there a relationship between the *tension reduction subscale* and number of children. A very strong positive correlation that was not significant was found (r (1) = .866, p >.05). *Tension reduction subscale* coping skills were not related to number of children.

A Pearson correlation coefficient was calculated to answer the research question: is there a relationship between the *keep-to-self subscale* and number of children. A low positive correlation that was not significant was found (r (1) = .277, p >.05). *Keep-to-self subscale* coping skills were not related to number of children.

Analyses of Differences

Inferential analysis was completed to examine differences between the PSS, WCCL, and demographic variables. Calculations were completed using one-way ANOVA's and independent samples *t*-tests. Significant findings are detailed in Table 8. Research findings are presented according to each research question.

Table 8
Significant Differences Between Instrument and Demographic Variables

Dependent Variable	Independent Variable	Mean	*sd*	*p* value
PSS	Received financial assistance	30.78	2.42	< .05
	Did not receive financial assistance	34.00	3.37	
Problem focused coping subscale	Male	21.40	3.51	< .05
	Female	26.00	4.57	
Focusing on the positive subscale	Male	8.00	2.35	< .05
	Female	10.56	2.50	
Self-blame subscale	Living with another	5.67	1.59	< .05
	Single	5.90	1.37	
Tension reduction subscale	Living with another	7.43	1.39	< .05
	Single	6.40	1.51	

PSS scores & demographic variables.

To answer the research question, "is there a difference between the mean perceived psychological stress of males and females?", an independent samples *t* test was performed. An independent-samples *t* test was calculated comparing the mean perceived stress score of participants who identified as male to the mean score of participants who identified as female. No significant difference was found (t (35) = 1.84, $p > .05$). The mean of participants who identified as male (M = 29.4, sd = 2.19) was not significantly different from the mean of participants who identified as female (M = 32.0, sd = 3.02).

To answer the question, "is there a difference between the mean perceived psychological stress score of each age group?", a one-way ANOVA was performed. The PSS total score means of participants in each age group were compared using a one-way ANOVA. No significant difference was found (F (2, 34) = 1.00, $p >.05$). The mean perceived stress score of the participants from the three age groups did not differ significantly. Participants in the 18-25 year old age group had a mean PSS score of 31.58 (sd = 2.92). Participants in the 26-34 year old age group had a mean PSS score of 32.27 (sd = 3.41). Participants in the 35-54 year old age group had a mean PSS score of 29.00 (sd = 0.00).

To answer the question, "is there a difference between the mean perceived psychological stress score of each marital status group?", a one-way ANOVA was performed. The PSS total score means of participants in each marital status group were compared using a one-way ANOVA. No significant difference was found (F (2, 34) = 0.032, $p >.05$). The mean perceived stress score of the participants from the three marital status groups did not differ significantly. Participants in the 'living with another' group

had a mean PSS score of 31.5 (*sd* = 2.35). Participants in the 'married' group had a mean PSS score of 31.5 (*sd* = 3.98). Participants in the 'single' group had a mean PSS score of 31.76 (*sd* = 2.83).

To answer the question, "is there a difference between the mean PSS score of participants receiving financial assistance compared to those who are not receiving financial assistance?", an independent samples *t* test was completed. An independent-samples *t* test was calculated comparing the mean perceived stress score of participants who identified as receiving financial assistance to the mean score of participants who identified as not receiving financial assistance and found a significant difference between the means of the two groups ($t(35) = -3.23$, $p < .05$). The mean of participants who received financial assistance was significantly lower ($M = 30.78$, $sd = 2.42$) than the mean of those not receiving financial assistance ($M = 34.00$, $sd = 3.37$).

To answer the question, "is there a difference between the mean PSS score of participants who worked part time compared to those who were unemployed?", an independent samples *t* test was completed. An independent-samples *t* test was calculated comparing the mean perceived stress score of participants who were unemployed to the mean score of participants who worked part-time. No significant difference was found ($t(35) = 0.85$, $p > .05$). The mean of participants who identified as 'part-time' ($M = 32.0$, $sd = 3.39$) was not significantly different from the mean of participants who identified as 'not employed' ($M = 31.1$, $sd = 2.42$). No participants identified as working 'full-time.'

To answer the question, "is there a difference between the mean PSS score of participants who have children compared to those who do not have children?", an independent samples *t* test was completed. An independent-samples *t* test was calculated

comparing the mean perceived stress score of participants who have children to the mean score of participants who do not have children. No significant difference was found (t (35) = -0.38, $p > .05$). The mean of participants who have children (M = 31.0, sd = 3.46) was not significantly different from the mean of participants who do not have children (M = 31.7, sd = 3.04).

To answer the question, "is there a difference between the mean PSS score of participants enrolled in an MOT program in the West region compared to those in the Midwest region?", an independent samples t test was completed. An independent-samples t test was calculated comparing the mean perceived stress score of participants identifying from the West region to the mean score of participants identifying from the Midwest region. No significant difference was found (t (35) = -0.16, $p > .05$). The mean of participants from the West region (M = 31.7, sd = 2.89) was not significantly different from the mean of participants from the Midwest region (M = 31.5, sd = 3.70).

To answer the question, "is there a difference between the mean PSS score of participants in each year of the MOT program?", a one-way ANOVA was completed. The PSS total score means of participants in each academic year were compared using a one-way ANOVA. No significant difference was found (F (2, 34) = 0.43, $p >.05$). The mean perceived stress score of the participants from the three academic years did not differ significantly. Participants in the first academic year had a mean PSS score of 32.1 (sd = 0.71). Participants in the second academic year had a mean PSS score of 31.1 (sd = 3.61). Participants in the third academic year had a mean PSS score of 31.7 (sd = 3.03).

WCCL scores and gender.

To answer the question, "is there a difference between the mean WCCL score of male participants compared to female participants?", an independent samples *t* test was completed. An independent-samples *t* test was calculated comparing the WCCL total score and each subscale score of participants to their identified gender. No significant difference was found for the overall score (t (35) = 1.97, $p > .05$). The mean WCCL score of female participants (M = 143.4, sd = 20.19) was not significantly different from the mean of male participants (M = 124.6, sd = 16.95).

To answer the question, "is there a difference between the mean *problem focused coping subscale* score of male participants compared to female participants?", an independent samples *t* test was completed. An independent-samples *t* test comparing the mean scores of the *problem focused coping subscale* of the female and male participants found a significant difference between the means of the two groups (t (35) = 2.14, $p < .05$). The mean of the male participants (M =21.4, sd = 3.51) was significantly lower than the mean of the female participants (M =26.00, sd = 4.57).

To answer the question, "is there a difference between the mean *wishful thinking subscale* score of male participants compared to female participants?", an independent samples *t* test was completed. An independent-samples *t* test was calculated comparing the mean scores of the *wishful thinking subscale* of the female and male participants. No significant difference was found (t (35) = 1.16, $p > .05$). The mean of the male participants (M = 9.2, sd = 4.32) was not significantly different than the mean of the female participants (M = 11.25, sd = 3.58).

To answer the question, "is there a difference between the mean *detachment subscale* score of male participants compared to female participants?", an independent samples *t* test was completed. An independent-samples *t* test was calculated comparing the mean scores of the *detachment subscale* of the female and male participants. No significant difference was found (t (35) = 1.47 $p > .05$). The mean of the male participants (M = 17.2, sd = 4.20) was not significantly different than the mean of the female participants (M = 11.34, sd = 3.15).

To answer the question, "is there a difference between the mean *seeking social support subscale* score of male participants compared to female participants?", an independent samples *t* test was completed. An independent-samples *t* test was calculated comparing the mean scores of the *seeking social Support subscale* of the female and male participants. No significant difference was found (t (35) = -.087 $p > .05$). The mean of the male participants (M = 9.20, sd = 4.21) was not significantly different than the mean of the female participants (M = 17.03, sd = 3.99).

To answer the question, "is there a difference between the mean *focusing on the positive subscale* score of male participants compared to female participants?", an independent samples *t* test was completed. An independent-samples *t* test comparing the mean scores of the *focusing on the positive subscale* of the female and male participants found a significant difference between the means of the two groups (t (35) = 2.15, $p <$ .05). The mean of the male participants (M =8.00, sd = 2.35) was significantly lower than the mean of the female participants (M =10.56, sd = 2.50).

To answer the question, "is there a difference between the mean *self-blame subscale* score of male participants compared to female participants?", an independent

samples *t* test was completed. An independent-samples *t* test was calculated comparing the mean scores of the *self-blame subscale* of the female and male participants. No significant difference was found (t (35) = .619, $p > .05$). The mean of the male participants (M = 5.60, sd = 0.55) was not significantly different than the mean of the female participants (M = 6.13, sd = 1.86).

To answer the question, "is there a difference between the mean *tension reduction subscale* score of male participants compared to female participants?", an independent samples *t* test was completed. An independent-samples *t* test was calculated comparing the mean scores of the *tension reduction subscale* of the female and male participants. No significant difference was found (t (35) = 1.01, $p > .05$). The mean of the male participants (M = 6.20, sd = 1.30) was not significantly different than the mean of the female participants (M = 6.94, sd = 1.54).

To answer the question, "is there a difference between the mean *keep-to-self subscale* score of male participants compared to female participants?", an independent samples *t* test was completed. An independent-samples *t* test was calculated comparing the mean scores of the *keep-to-self subscale* of the female and male participants. No significant difference was found (t (35) = 0.706, $p > .05$). The mean of the male participants (M = 5.60, sd = 2.41) was not significantly different than the mean of the female participants (M = 6.47, sd = 2.58).

WCCL scores and age.

To answer the question, "is there a difference between the mean WCCL score of participants in each age group?", a one-way ANOVA was completed. The WCCL total score means of participants in each age group were compared using a one-way ANOVA,

as well as for each of the WCCL subscales. For the overall WCCL mean, no significant difference was found (F (2, 34) = 2.80, p >.05). The mean WCCL score of the participants from the three age groups did not differ significantly. Participants in the 18-25 year old age group had a mean WCCL score of 146.46 (sd = 21.16). Participants in the 26-34 year old age group had a mean WCCL score of 130.73 (sd = 15.10). Participants in the 35-54 year old age group had a mean WCCL score of 129.0 (sd = 24.04).

To answer the question, "is there a difference between the mean *problem focused coping subscale* score of participants in each age group?", a one-way ANOVA was completed. For the *problem focused coping subscale* mean, no significant difference was found (F (2, 34) = 2.34, p >.05). The mean *problem focused coping subscale* score of the participants from the three age groups did not differ significantly. Participants in the 18-25 year old age group had a mean score of 26.54 (sd = 4.32). Participants in the 26-34 year old age group had a mean score of 23.45 (sd = 4.84). Participants in the 35-54 year old age group had a mean score of 22.0 (sd = 5.66).

To answer the question, "is there a difference between the mean *wishful thinking subscale* score of participants in each age group?", a one-way ANOVA was completed. For the *wishful thinking subscale* mean, no significant difference was found (F (2, 34) = 1.26, p >.05). The mean *wishful thinking subscale* score of the participants from the three age groups did not differ significantly. Participants in the 18-25 year old age group had a mean score of 11.50 (sd = 3.59). Participants in the 26-34 year old age group had a mean score of 10.45 (sd = 3.86). Participants in the 35-54 year old age group had a mean score of 7.50 (sd = 3.54).

To answer the question, "is there a difference between the mean *detachment subscale* score of participants in each age group?", a one-way ANOVA was completed. For the *detachment subscale* mean, no significant difference was found (F (2, 34) = 2.09, p >.05). The mean *detachment subscale* score of the participants from the three age groups did not differ significantly. Participants in the 18-25 year old age group had a mean score of 11.79 (*sd* = 3.43). Participants in the 26-34 year old age group had a mean score of 9.64 (*sd* = 1.29). Participants in the 35-54 year old age group had a mean score of 10.0 (*sd* = 4.24).

To answer the question, "is there a difference between the mean *seeking social support* score of participants in each age group?", a one-way ANOVA was completed. For the *seeking social support subscale* mean, no significant difference was found (F (2, 34) = .276, p >.05). The mean *seeking social support subscale* score of the participants from the three age groups did not differ significantly. Participants in the 18-25 year old age group had a mean score of 17.21 (*sd* = 4.10). Participants in the 26-34 year old age group had a mean score of 17.09 (*sd* = 3.88). Participants in the 35-54 year old age group had a mean score of 15.0 (*sd* = 4.24).

To answer the question, "is there a difference between the mean *focusing on the positive subscale* score of participants in each age group?", a one-way ANOVA was completed. For the *focusing on the positive subscale* mean, no significant difference was found (F (2, 34) = 1.03, p >.05). The mean *focusing on the positive subscale* score of the participants from the three age groups did not differ significantly. Participants in the 18-25 year old age group had a mean score of 10.63 (*sd* = 2.22). Participants in the 26-34

year old age group had a mean score of 9.27 (*sd* = 3.23). Participants in the 35-54 year old age group had a mean score of 10.50 (*sd* = 3.54).

To answer the question, "is there a difference between the mean *self-blame subscale* score of participants in each age group?", a one-way ANOVA was completed. For the *self-blame subscale* means, no significant difference was found (F (2, 34) = 2.42, p >.05). The mean *self-blame subscale* score of the participants from the three age groups did not differ significantly. Participants in the 18-25 year old age group had a mean score of 6.50 (*sd* = 1.84). Participants in the 26-34 year old age group had a mean score of 5.27 (*sd* = 1.27). Participants in the 35-54 year old age group had a mean score of 5.00 (*sd* = 1.41).

To answer the question, "is there a difference between the mean *tension reduction subscale* score of participants in each age group?", a one-way ANOVA was completed. For the *tension reduction subscale* means, no significant difference was found (F (2, 34) = .311, p >.05). The mean *tension reduction subscale* score of the participants from the three age groups did not differ significantly. Participants in the 18-25 year old age group had a mean score of 6.88 (*sd* = 1.54). Participants in the 26-34 year old age group had a mean score of 6.91 (*sd* = 1.58). Participants in the 35-54 year old age group had a mean score of 6.00 (*sd* = 1.41).

To answer the question, "is there a difference between the mean *keep-to-self subscale* score of participants in each age group?", a one-way ANOVA was completed. For the *keep-to-self subscale* means, no significant difference was found (F (2, 34) = .227, p >.05). The mean *keep-to-self subscale* score of the participants from the three age groups did not differ significantly. Participants in the 18-25 year old age group had a

mean score of 6.54 (*sd* = 2.73). Participants in the 26-34 year old age group had a mean score of 5.91 (*sd* = 2.39). Participants in the 35-54 year old age group had a mean score of 6.50 (*sd* = .707).

WCCL scores and marital status.

To answer the question, "is there a difference between the mean WCCL score of participants in each marital status group?", a one-way ANOVA was completed. The WCCL total score means of participants in each marital status group were compared using a one-way ANOVA, as well as for each of the WCCL subscales. For the overall WCCL mean, no significant difference was found (F (2, 34) = .228, p >.05). The mean WCCL score of the participants from the three marital status groups did not differ significantly. Participants in the 'living with another' group had a mean score of 142.50 (*sd* = 22.93). Participants in the 'married' group had a mean score of 137.00 (*sd* = 16.34). Participants in the 'single' group had a mean score of 142.20 (*sd* = 22.45).

To answer the question, "is there a difference between the mean *problem focused coping subscale* score of participants in each marital status group?", a one-way ANOVA was completed. For the *problem focused coping subscale* means, no significant difference was found (F (2, 34) = .039, p >.05). The mean *problem focused coping subscale* score of the participants from the three marital status groups did not differ significantly. Participants in the 'living with another' group had a mean score of 25.17 (*sd* = 4.02). Participants in the 'married' group had a mean score of 25.10 (*sd* = 5.82). Participants in the 'single' group had a mean score of 25.57 (*sd* = 4.50).

To answer the question, "is there a difference between the mean *wishful thinking subscale* score of participants in each marital status group?", a one-way ANOVA was

completed. For the *wishful thinking subscale* means, no significant difference was found (F (2, 34) = .697, p >.05). The mean *wishful thinking subscale* score of the participants from the three marital status groups did not differ significantly. Participants in the 'living with another' group had a mean score of 12.50 (*sd* = 3.99). Participants in the 'married' group had a mean score of 11.10 (*sd* = 4.79). Participants in the 'single' group had a mean score of 10.48(*sd* = 3.04).

To answer the question, "is there a difference between the mean *detachment subscale* score of participants in each marital status group?", a one-way ANOVA was completed. For the *detachment subscale* means, no significant difference was found (F (2, 34) = 1.89, p >.05). The mean *detachment subscale* score of the participants from the three marital status groups did not differ significantly. Participants in the 'living with another' group had a mean score of 12.00 (*sd* = 3.35). Participants in the 'married' group had a mean score of 9.50 (*sd* = 1.78). Participants in the 'single' group had a mean score of 11.52 (*sd* = 3.34).

To answer the question, "is there a difference between the mean *seeking social support subscale* score of participants in each marital status group?", a one-way ANOVA was completed. For the *seeking social support subscale* means, no significant difference was found (F (2, 34) = .632, p >.05). The mean *seeking social support subscale* score of the participants from the three marital status groups did not differ significantly. Participants in the 'living with another' group had a mean score of 15.50 (*sd* = 2.88). Participants in the 'married' group had a mean score of 17.80 (*sd* = 3.74). Participants in the 'single' group had a mean score of 17.14 (*sd* = 4.34).

To answer the question, "is there a difference between the mean *focusing on the positive subscale* score of participants in each marital status group?", a one-way ANOVA was completed. For the *focusing on the positive subscale* means, no significant difference was found (F (2, 34) = .111 p >.05). The mean *focusing on the positive subscale* score of the participants from the three marital status groups did not differ significantly. Participants in the 'living with another' group had a mean score of 9.83 (sd = 1.94). Participants in the 'married' group had a mean score of 10.10 (sd = 3.35). Participants in the 'single' group had a mean score of 10.38 (sd = 2.48).

To answer the question, "is there a difference between the mean *self-blame subscale* score of participants in each marital status group?", a one-way ANOVA was completed. A significant difference was found among the *self-blame subscale* and the marital status groups. (F (2, 34) = 3.55 p <.05). Bonferroni's post hoc test was used to determine the nature of the differences between the marital status groups. This analysis revealed that participants who were 'living with another' scored higher (M = 7.67, sd = 2.16) than participants who were 'single' (M = 5.67, sd = 1.59). Participants who were 'married' (M = 5.90, sd = 1.37) were not significantly different in use of the *self-blame* subscale from either of the other two groups.

To answer the question, "is there a difference between the mean *tension-reduction subscale* score of participants in each marital status group?", a one-way ANOVA was completed. A significant difference was found among the *tension-reduction subscale* and the marital status groups. (F (2, 34) = 5.39 p <.05). Bonferroni's post hoc test was used to determine the nature of the differences between the marital status groups. This analysis revealed that participants who were 'living with another' scored lower (M = 5.50, sd =

1.39) than participants who were 'single' (*M = 7.43*, *sd* = 1.29). Participants who were 'married' (*M* = 6.40, *sd* = 1.51) were not significantly different from either of the other two groups.

To answer the question, "is there a difference between the mean *keep-to-self subscale* score of participants in each marital status group?", a one-way ANOVA was completed. For the *keep-to-self subscale* means, no significant difference was found (*F* (2, 34) = 1.00 *p* >.05). The mean *keep-to-self subscale* score of the participants from the three marital status groups did not differ significantly. Participants in the 'living with another' group had a mean score of 7.673 (*sd* = 2.94). Participants in the 'married' group had a mean score of 5.90 (*sd* = 2.64). Participants in the 'single' group had a mean score of 6.19 (*sd* = 2.38).

WCCL scores and employment status.

To answer the question, "is there a difference between the mean WCCL score of participants who were employed part-time compared to those who were unemployed?", an independent samples *t* test was completed. An independent-samples *t* test was calculated comparing the WCCL total score and each subscale score of participants who were employed part-time to participants were 'not employed'. No significant difference was found for the overall WCCL score (*t* (35) = .298, *p* > .05). The mean WCCL score of 'part-time' participants (*M* = 141.68, *sd* = 21.58) was not significantly different from the mean of 'not employed' participants (*M* = 139.60, *sd* = 19.81). No participants were employed full-time.

To answer the question, "is there a difference between the mean *problem focused coping subscale* score of participants who were employed part-time compared to those

who were unemployed?", an independent samples *t* test was completed. For the *problem focused coping subscale,* no significant difference was found (t (35) = .830, $p > .05$). The mean score of 'part-time' participants (M = 25.91, sd = 4.95) was not significantly different from the mean of 'not employed' participants (M = 24.60, sd = 4.34).

To answer the question, "is there a difference between the mean *wishful thinking subscale* score of participants who were employed part-time compared to those who were unemployed?", an independent samples *t* test was completed. For the *wishful thinking subscale,* no significant difference was found (t (35) = -.036, $p > .05$). The mean score of 'part-time' participants (M = 10.95, sd = 3.47) was not significantly different from the mean of 'not employed' participants (M = 11.0, sd = 4.12).

To answer the question, "is there a difference between the mean *detachment subscale* score of participants who were employed part-time compared to those who were unemployed?", an independent samples *t* test was completed. For the *detachment subscale,* no significant difference was found (t (35) = .517, $p > .05$). The mean score of 'part-time' participants (M = 11.27, sd = 3.19) was not significantly different from the mean of 'not employed' participants (M = 10.73, sd = 2.99).

To answer the question, "is there a difference between the mean *seeking social support subscale* score of participants who were employed part-time compared to those who were unemployed?", an independent samples *t* test was completed. For the *seeking social support subscale,* no significant difference was found (t (35) = -1.478, $p > .05$). The mean score of 'part-time' participants (M = 16.27, sd = 4.05) was not significantly different from the mean of 'not employed' participants (M = 18.20, sd = 3.65).

To answer the question, "is there a difference between the mean *focusing on the positive subscale* score of participants who were employed part-time compared to those who were unemployed?", an independent samples *t* test was completed. For the *focusing on the positive subscale,* no significant difference was found (t (35) = .798, $p > .05$). The mean score of 'part-time' participants (M = 10.50, sd = 2.94) was not significantly different from the mean of 'not employed' participants (M = 9.80, sd = 2.84).

To answer the question, "is there a difference between the mean *self-blame subscale* score of participants who were employed part-time compared to those who were unemployed?", an independent samples *t* test was completed. For the *self-blame subscale,* no significant difference was found (t (35) = .153, $p > .05$). The mean score of 'part-time' participants (M = 6.09, sd = 1.34) was not significantly different from the mean of 'not employed' participants (M = 6.00, sd = 2.27).

To answer the question, "is there a difference between the mean *tension reduction subscale* score of participants who were employed part-time compared to those who were unemployed?", an independent samples *t* test was completed. For the *tension reduction subscale,* no significant difference was found (t (35) = 1.47, $p > .05$). The mean score of 'part-time' participants (M = 7.14, sd = 1.49) was not significantly different from the mean of 'not employed' participants (M = 6.40, sd = 1.50).

To answer the question, "is there a difference between the mean *keep-to-self subscale* score of participants who were employed part-time compared to those who were unemployed?", an independent samples *t* test was completed. For the *keep-to-self subscale,* no significant difference was found (t (35) = -.095, $p > .05$). The mean score of

'part-time' participants ($M = 6.32$, $sd = 2.19$) was not significantly different from the mean of 'not employed' participants ($M = 6.40$, $sd = 3.07$).

WCCL scores and financial assistance.

To answer the question, "is there a difference between the mean WCCL score of participants who received financial assistance compared to those who did not?", an independent samples *t* test was completed. An independent-samples *t* test was calculated comparing the WCCL total score and each subscale score of participants who did receive financial assistance to participants who did not receive financial. No significant difference was found for the overall WCCL score (t (35) = -.870, $p > .05$). The mean WCCL score of participants who received financial assistance ($M = 139.04$, $sd = 21.16$) was not significantly different from the mean of participants who did not receive financial assistance ($M = 145.70$, $sd = 19.30$.

To answer the question, "is there a difference between the mean *problem focused coping subscale* score of participants who received financial assistance compared to those who did not?", an independent samples *t* test was completed. For the *problem focused coping subscale,* no significant difference was found (t (35) = -1.459, $p > .05$). The mean score of participants who received financial assistance ($M = 24.70$, $sd = 4.62$) was not significantly different from the mean of participants who did not receive financial assistance ($M = 27.20$, $sd = 4.61$).

To answer the question, "is there a difference between the mean *wishful thinking subscale* score of participants who received financial assistance compared to those who did not?", an independent samples *t* test was completed. For the *wishful thinking subscale,* no significant difference was found (t (35) = -.623, $p > .05$). The mean score of

participants who received financial assistance (M = 10.74, sd = 3.91) was not significantly different from the mean of participants who did not receive financial assistance (M = 11.60, sd = 3.13).

To answer the question, "is there a difference between the mean *detachment subscale* score of participants who received financial assistance compared to those who did not?", an independent samples t test was completed. For the *detachment subscale,* no significant difference was found (t (35) = .301, p > .05). The mean score of participants who received financial assistance (M = 11.15, sd = 3.25) was not significantly different from the mean of participants who did not receive financial assistance (M = 10.80, sd = 2.70).

To answer the question, "is there a difference between the mean *seeking social support subscale* score of participants who received financial assistance compared to those who did not?", an independent samples t test was completed. For the *seeking social support subscale,* no significant difference was found (t (35) = -1.369, p > .05). The mean score of participants who received financial assistance (M = 16.52, sd = 3.96) was not significantly different from the mean of participants who did not receive financial assistance (M = 18.50, sd = 3.75).

To answer the question, "is there a difference between the mean *focusing on the positive subscale* score of participants who received financial assistance compared to those who did not?", an independent samples t test was completed. For the *focusing on the positive subscale,* no significant difference was found (t (35) = -1.728, p > .05). The mean score of participants who received financial assistance (M = 9.78, sd = 2.41) was

not significantly different from the mean of participants who did not receive financial assistance (M = 11.40, sd = 2.88).

To answer the question, "is there a difference between the mean *self-blame subscale* score of participants who received financial assistance compared to those who did not?", an independent samples t test was completed. For the *self-blame subscale,* no significant difference was found (t (35) = -.096, $p > .05$). The mean score of participants who received financial assistance (M = 6.04, sd = 1.76) was not significantly different from the mean of participants who did not receive financial assistance (M = 6.10, sd = 1.79).

To answer the question, "is there a difference between the mean *tension reduction subscale* score of participants who received financial assistance compared to those who did not?", an independent samples t test was completed. For the *tension reduction subscale,* no significant difference was found (t (35) = -.634, $p > .05$). The mean score of participants who received financial assistance (M = 6.74, sd = 1.40) was not significantly different from the mean of participants who did not receive financial assistance (M = 7.10, sd = 1.85).

To answer the question, "is there a difference between the mean *keep-to-self subscale* score of participants who received financial assistance compared to those who did not?", an independent samples t test was completed. For the *keep-to-self subscale,* no significant difference was found (t (35) = .507, $p > .05$). The mean score of participants who received financial assistance (M = 6.48, sd = 2.65) was not significantly different from the mean of participants who did not receive financial assistance (M = 6.00, sd = 2.31).

WCCL scores and number of children.

To answer the question, "is there a difference between the mean WCCL score of participants who have children compared to those who do not have children?", an independent samples *t* test was completed. An independent-samples *t* test was calculated comparing the mean WCCL score and each of the subscales of participants who have children to the mean score of participants who do not have children. No significant difference was found for the overall WCCL score (t (35) = -.594, $p > .05$). The mean of participants who have children (M = 134.0, sd = 19.08) was not significantly different from the mean of participants who do not have children (M = 141.44, sd = 20.92).

To answer the question, "is there a difference between the mean *problem focused coping subscale* score of participants who have children compared to those who do not have children?", an independent samples *t* test was completed. For the *problem focused coping subscale,* no significant difference was found (t (35) = -.144, $p > .05$). The mean of participants who have children (M = 25.0, sd = 6.56) was not significantly different from the mean of participants who do not have children (M = 25.41, sd = 4.63).

To answer the question, "is there a difference between the mean *wishful thinking subscale* score of participants who have children compared to those who do not have children?", an independent samples *t* test was completed. For the *wishful thinking subscale,* no significant difference was found (t (35) = -1.478, $p > .05$). The mean of participants who have children (M = 8.0, sd = 2.65) was not significantly different from the mean of participants who do not have children (M = 11.24, sd = 3.69).

To answer the question, "is there a difference between the mean *detachment subscale* score of participants who have children compared to those who do not have

children?", an independent samples *t* test was completed. For the *detachment subscale,* no significant difference was found (t (35) = -.810, $p > .05$). The mean of participants who have children ($M = 9.67$ $sd = 3.06$) was not significantly different from the mean of participants who do not have children ($M = 11.18$, $sd = 3.10$).

To answer the question, "is there a difference between the mean *seeking social support subscale* score of participants who have children compared to those who do not have children?", an independent samples *t* test was completed. For the *seeking social support subscale,* no significant difference was found (t (35) = -.024, $p > .05$). The mean of participants who have children ($M = 17.0$, $sd = 4.58$) was not significantly different from the mean of participants who do not have children ($M = 17.06$, $sd = 3.98$).

To answer the question, "is there a difference between the mean *focusing on the positive subscale* score of participants who have children compared to those who do not have children?", an independent samples *t* test was completed. For the *focusing on the positive subscale,* no significant difference was found (t (35) = 1.247, $p > .05$). The mean of participants who have children ($M = 12.0$, $sd = 3.61$) was not significantly different from the mean of participants who do not have children ($M = 10.06$, $sd = 2.51$).

To answer the question, "is there a difference between the mean *self-blame subscale* score of participants who have children compared to those who do not have children?", an independent samples *t* test was completed. For the *self-blame subscale,* no significant difference was found (t (35) = -.741, $p > .05$). The mean of participants who have children ($M = 5.33$, $sd = 1.15$) was not significantly different from the mean of participants who do not have children ($M = 6.12$, $sd = 1.79$).

To answer the question, "is there a difference between the mean *tension reduction subscale* score of participants who have children compared to those who do not have children?", an independent samples *t* test was completed. For the *tension reduction subscale,* no significant difference was found (t (35) = -.997, $p > .05$). The mean of participants who have children (M = 6.0, sd = 1.0) was not significantly different from the mean of participants who do not have children (M = 6.91, sd = 1.54).

To answer the question, "is there a difference between the mean *keep-to-self subscale* score of participants who have children compared to those who do not have children?", an independent samples *t* test was completed. For the *keep-to-self subscale,* no significant difference was found (t (35) = -.719, $p > .05$). The mean of participants who have children (M = 5.33, sd = 2.08) was not significantly different from the mean of participants who do not have children (M = 6.44, sd = 2.58).

WCCL scores and geographic region.

To answer the question, "is there a difference between the mean WCCL score of participants from the West region compared to those from the Midwest region?", an independent samples *t* test was completed. An independent-samples *t* test was calculated comparing the mean WCCL score and each of the subscales of participants who were enrolled in a program in the West region to participants were enrolled a program the Midwest region. No significant difference was found for the overall WCCL score (t (35) = -.300, $p > .05$). The mean of participants who were enrolled in a program in the West region (M = 141.38, sd = 21.74) was not significantly different from the mean of participants who were enrolled in programs in the Midwest region (M = 138.88, sd = 17.10).

To answer the question, "is there a difference between the mean *problem focused coping subscale* score of participants from the West region compared to those from the Midwest region?", an independent samples *t* test was completed. For the *problem focused coping subscale,* no significant difference was found (t (35) = .503, $p > .05$). The mean of participants who were enrolled in a program in the West region (M = 25.17, sd = 4.65) was not significantly different from the mean of participants who were enrolled in programs in the Midwest region (M = 26.13, sd = 5.08).

To answer the question, "is there a difference between the mean *wishful thinking coping subscale* score of participants from the West region compared to those from the Midwest region?", an independent samples *t* test was completed. For the *wishful thinking coping subscale,* no significant difference was found (t (35) = -1.172, $p > .05$). The mean of participants who were enrolled in a program in the West region (M = 11.34, sd = 3.76) was not significantly different from the mean of participants who were enrolled in programs in the Midwest region (M = 9.63, sd = 3.29).

To answer the question, "is there a difference between the mean *detachment subscale* score of participants from the West region compared to those from the Midwest region?", an independent samples *t* test was completed. For the *detachment subscale,* no significant difference was found (t (35) = -.44, $p > .05$). The mean of participants who were enrolled in a program in the West region (M = 11.17, sd = 3.15) was not significantly different from the mean of participants who were enrolled in programs in the Midwest region (M = 10.63, sd = 2.97).

To answer the question, "is there a difference between the mean *seeking social support subscale* score of participants from the West region compared to those from the

Midwest region?", an independent samples *t* test was completed. For the *seeking social support subscale,* no significant difference was found (t (35) = .056, $p > .05$). The mean of participants who were enrolled in a program in the West region (M = 17.03, sd = 3.91) was not significantly different from the mean of participants who were enrolled in programs in the Midwest region (M = 17.13, sd = 4.39).

To answer the question, "is there a difference between the mean *focusing on the positive subscale* score of participants from the West region compared to those from the Midwest region?", an independent samples *t* test was completed. For the *focusing on the positive subscale,* no significant difference was found (t (35) = .496, $p > .05$). The mean of participants who were enrolled in a program in the West region (M = 10.10, sd = 2.68) was not significantly different from the mean of participants who were enrolled in programs in the Midwest region (M = 10.63 sd = 2.45).

To answer the question, "is there a difference between the mean *self-blame subscale* score of participants from the West region compared to those from the Midwest region?", an independent samples *t* test was completed. For the *self-blame subscale,* no significant difference was found (t (35) = -.551, $p > .05$). The mean of participants who were enrolled in a program in the West region (M = 6.14, sd = 1.90) was not significantly different from the mean of participants who were enrolled in programs in the Midwest region (M = 5.75, sd = 1.04).

To answer the question, "is there a difference between the mean *tension reduction subscale* score of participants from the West region compared to those from the Midwest region?", an independent samples *t* test was completed. For the *tension reduction subscale,* no significant difference was found (t (35) = -.443, $p > .05$). The mean of

participants who were enrolled in a program in the West region (M = 6.90, sd = 1.42) was not significantly different from the mean of participants who were enrolled in programs in the Midwest region (M = 6.63, sd = 1.92).

To answer the question, "is there a difference between the mean *keep-to-self subscale* score of participants from the West region compared to those from the Midwest region?", an independent samples t test was completed. For the *keep-to-self subscale,* no significant difference was found (t (35) = -1.573, p > .05). The mean of participants who were enrolled in a program in the West region (M = 6.69, sd = 2.65) was not significantly different from the mean of participants who were enrolled in programs in the Midwest region (M = 5.13, sd = 1.73).

WCCL scores and academic year.

To answer the question, "is there a difference between the mean WCCL score of participants in each academic year of the MOT program?", a one-way ANOVA was completed. The WCCL total score means of participants in academic year were compared using a one-way ANOVA, as well as for each of the WCCL subscales. For the overall WCCL mean, no significant difference was found (F (2, 34) = 2.113, p >.05). The mean WCCL score of the participants from the three academic years did not differ significantly. Participants in the first year group had a mean score of 134.06 (sd = 18.24). Participants in the second year of the MOT program had a mean score of 143.56 (sd = 19.72). Participants in the third year group a mean score of 153.80 (sd = 11.83).

To answer the question, "is there a difference between the mean *problem focused coping subscale* score of participants in each academic year of the MOT program?", a one-way ANOVA was completed. For the overall *problem focused coping subscale*

mean, no significant difference was found (F (2, 34) = 1.937, p >.05). The mean *problem focused coping subscale* score of the participants from the three academic years did not differ significantly. Participants in the first year group had a mean score of 23.75 (*sd* = 4.14). Participants in the second year of the MOT program had a mean score of 26.31 (*sd* = 4.30). Participants in the third year group a mean score of 27.60 (*sd* = 6.66).

To answer the question, "is there a difference between the mean *wishful thinking subscale* score of participants in each academic year of the MOT program?", a one-way ANOVA was completed. For the overall *wishful thinking subscale* mean, no significant difference was found (F (2, 34) = 1.690, p >.05). The mean *wishful thinking subscale* score of the participants from the three academic years did not differ significantly. Participants in the first year group had a mean score of 10.19 (*sd* = 3.45). Participants in the second year of the MOT program had a mean score of 10.94 (*sd* = 3.86). Participants in the third year group a mean score of 13.60 (*sd* = 3.36).

To answer the question, "is there a difference between the mean *detachment subscale* score of participants in each academic year of the MOT program?", a one-way ANOVA was completed. For the overall *detachment subscale* mean, no significant difference was found (F (2, 34) = .133, p >.05). The mean *detachment subscale* score of the participants from the three academic years did not differ significantly. Participants in the first year group had a mean score of 10.75 (*sd* = 2.62). Participants in the second year of the MOT program had a mean score of 11.31 (*sd* = 3.52). Participants in the third year group a mean score of 11.20 (*sd* = 3.56).

To answer the question, "is there a difference between the mean *seeking social support subscale* score of participants in each academic year of the MOT program?", a

one-way ANOVA was completed. For the overall *seeking social support subscale* mean, no significant difference was found (F (2, 34) = 1.366, p >.05). The mean s*eeking social support subscale* score of the participants from the three academic years did not differ significantly. Participants in the first year group had a mean score of 16.13 (*sd* = 3.81). Participants in the second year of the MOT program had a mean score of 17.25 (*sd* = 4.31). Participants in the third year group a mean score of 19.40 (*sd* = 2.51).

To answer the question, "is there a difference between the mean *focusing on the positive subscale* score of participants in each academic year of the MOT program?", a one-way ANOVA was completed. For the overall *focusing on the positive subscale* mean, no significant difference was found (F (2, 34) = 1.083, p >.05). The mean *focusing on the positive subscale* score of the participants from the three academic years did not differ significantly. Participants in the first year of the MOT program had a mean score of 9.50 (*sd* = 1.86). Participants in the second year of the MOT program had a mean score of 10.81 (*sd* = 2.99). Participants in the third year of the MOT program had a mean score of 10.60 (*sd* = 3.29).

To answer the question, "is there a difference between the mean *self-blame subscale* score of participants in each academic year of the MOT program?", a one-way ANOVA was completed. For the overall *self-blame subscale* mean, no significant difference was found (F (2, 34) = 1.472, p >.05). The mean *self-blame subscale* score of the participants from the three academic years did not differ significantly. Participants in the first year group had a mean score of 5.50 (*sd* = 1.71). Participants in the second year of the MOT program had a mean score of 6.44 (*sd* = 1.82). Participants in the third year group a mean score of 6.60 (*sd* = 1.34).

To answer the question, "is there a difference between the mean *tension reduction subscale* score of participants in each academic year of the MOT program?", a one-way ANOVA was completed. For the overall *tension reduction subscale* mean, no significant difference was found (F (2, 34) = .321, p >.05). The mean *tension reduction subscale* score of the participants from the three academic years did not differ significantly. Participants in the first year group had a mean score of 7.06 (*sd* = 1.73). Participants in the second year of the MOT program had a mean score of 6.63 (*sd* = 1.36). Participants in the third year group a mean score of 6.80 (*sd* = 1.48).

To answer the question, "is there a difference between the mean *keep-to-self subscale* score of participants in each academic year of the MOT program?", a one-way ANOVA was completed. For the overall *keep-to-self subscale* mean, no significant difference was found (F (2, 34) = .022, p >.05). The mean *keep-to-self subscale* score of the participants from the three academic years did not differ significantly. Participants in the first year group had a mean score of 6.25 (*sd* = 2.18). Participants in the second year of the MOT program had a mean score of 6.44 (*sd* = 3.14). Participants in the third year group a mean score of 6.40 (*sd* = 1.82).

Summary

Chapter IV provided a summary of the results of the descriptive and inferential data analyses of the PSS, WCCL, and demographic variables of this study's respondents. The reliability of the PSS and WCCL was calculated and discussed. Chapter V consists of a discussion of the results in which we have compared current findings to previous findings, described this study's limitations, and provide recommendations for future studies.

CHAPTER V

Discussion

Summary of Findings

In Chapter V, Discussion, we have provided interpretations of the results of this study in regards to previous research. Limitations and recommendations for future research are also described in this chapter.

Interpretation of Findings

Demographics.

The sample utilized in this study consisted of 37 Master's of Occupational Therapy (MOT) students. Of these respondents, 29 were from the West region of the U.S., eight were from the Midwest region of the U.S.. No students responded from Northeast and South regions. The majority of respondents were female, with only five respondents being male. The number of respondents responding from each year of the academic program was variable, with only five respondents being in their third academic year. Other demographic variables examined in this study included marital status, age, employment status and hours worked per week, financial assistance and number of children.

The results of the demographic analyses provide a foundation for discussion and formulation of future questions. First, a low number of third year occupational therapy students responded to the survey. One possible reason for the low response rate is that third year students may be experiencing high levels of perceived psychological stress,

resulting in many potential respondents choosing not to complete an online survey. Similar results were found with the regions of the United States. No respondents responded from the Northeast or South regions. Students in these regions could be experiencing higher levels of perceived psychological stress, resulting in them choosing not to take time to complete an online survey.

Instruments.

Two instruments were used in this study. The Perceived Stress Scale (PSS) was used to measure the levels of stress experienced by the respondents. The Ways of Coping Checklist (WCCL) was used to measure the coping strategies being employed by the respondents while enrolled in a MOT program. The WCCL consists of eight subscales including the following: *problem focused coping, wishful thinking, detachment, seeking social support, focusing on the positive, self-blame, tension reduction* and *keep-to-self* (Folkman & Lazarus, 1985). A Cronbach's alpha was utilized to establish reliability on both the Perceived Stress Scale (PSS) and the Ways of Coping Checklist (WCCL). The PSS analysis showed reliability with an alpha level of .836. The overall WCCL was shown to be reliable with an alpha level of .911. Seven subscales demonstrated adequate reliability. Conversely, the *tension reduction subscale* of the WCCL, was found not reliable and resulted with an alpha level of -0.005. Because the alpha level for the *tension reduction subscale* was negative, we question if the subscale is actually measuring tension reduction coping methods. In addition, over 10 respondents' responses were considered dropouts due to incomplete responses. One reason respondents did not finish the survey may be that they may have been experiencing high levels of perceived

psychological stress during the time we invited them to participate in the study and determined they did not have time to complete the survey.

Perceived stress scale discussion.

The PSS was utilized in order to identify whether there were differences in levels of stress based on respondents' the demographic variables. Insignificant findings were found in perceived psychological stress when comparing the variables of geographic region, gender, year in the MOT program, age, marital status, employment status and number of hours worked per week. Our study did not demonstrate a significant difference between the stress levels of respondents in West and Midwest geographic regions, which cannot be compared to previous studies as this variable has not been explored previously. Everly et al. (1994), Frank and Cassady (2005), Mitchell and Kampfe, (1993), and Tucker et al. (2006) all found that females in an allied health profession have demonstrated to have higher perceived psychological stress levels than males, however, our study did not demonstrate a difference between genders. Although age, marital status and year in the MOT program have not been specifically reported on, Jacob et al. (2012; 2013) did identify that no pattern was recognized between perceived stress and sociodemographic factors, which is similar to our study. Jacob et al. (2012; 2013) and Tucker et al. (2016) concluded in their studies exploring allied health students and occupational therapy students that employment status has not had a significant effect on perceived psychological stress, which is consistent with our study.

The overall scores of the PSS demonstrated a general tendency of MOT students to have an above average level (i.e. above the middle scale score on the PSS) of stress. Our results showed an average score of 17 on the PSS, with this score considered being a

moderate level of stress (Cohen et al., 1983). This indicates that the average level of perceived psychological stress in MOT is moderate. Our findings are consistent with past research studies (Branholm et al., 1998; Pfeifer et al., 2008). Above average levels of stress in 66% of occupational therapy students were found as a result of Pfeifer et al.'s (2008) study, which explored the perceived stress levels of MOT students at a southern university in the U.S. Branholm et al. (1998) completed a study that compared female occupational therapy students' perceived stress in comparison to the general population. Branholm et al.'s (1998) results indicated their sample of occupational therapy students had higher levels of stress to a minor extent. This notion is supported by the current study's scores on the PSS when considering gender.

Our results identified the mean perceived stress of students receiving financial aid to be significantly lower than those who were not receiving financial assistance. This indicates that those students who were not receiving assistance with finances may have been experiencing the added stress of finances. It is possible that those respondents who did not receive financial help felt compelled to work more hours than those who were covered financially and also had another role (i.e. as an employee) to fulfill. One might ascertain that employment results in greater time division between obligations, including time being diverted from coursework. As time demands have been identified as a large factor of stress in this population, any factor that takes time away from focusing on coursework is likely to increase perceived psychological stress (Jacob et al., 2013; Tucker et al., 2006). The question of financial factors' influence on perceived psychological stress has also been considered in both the current and previous studies. Jacob et al., (2012), Jacob et al. (2013) and Tucker et al. (2006) have found finances to be a large

component contributing to perceived psychological stress, though less of a stressor than academic factors

Our results also showed a very strong negative correlation between the mean psychological stress score and the number of children in the household. The etiology of this difference is unknown. Students with children may have greater thresholds for stress or they may view stress differently than those respondents without children. This finding is interesting as, notably, in this study only three respondents had children and still the comparison yielded a significant result.

Pfeifer et al. (2008) and Branholm et al. (1998) completed studies with occupational therapy students, and their results both identified above average levels of perceived psychological stress. Similarly, we found respondents to be experiencing stress above moderate levels. We sought to identify coping methods used by respondents.

Ways of coping checklist discussion.

The WCCL was utilized in order to identify any trends in coping methods in regards to the demographic variables. Trends were examined based on the overall WCCL score, in addition to each of the subscale scores. We found that the respondents' year in the program, geographic region, financial assistance and age did not influence the coping methods used by respondents. Nualnetr and Thanawat (2012) explored physical therapy students in Thailand and found that third and fourth year students had lower scores in stress management. No conclusive results were drawn from our study's results given the small sample size and insignificant findings. Consistent results have not been reported on demographics including geographic region, financial assistance, and age, which our study

additionally did not identify any significant results between these variables and coping methods.

Results of the current study showed a positive relationship as respondents increasingly utilized coping methods from the *wishful thinking subscale* as their hours of work per week increased. According to Mitchell and Kampfe (1993), students who utilized *wishful thinking subscale* coping methods less often implied that the students had increased effective coping strategies readily available. Thus respondents from the current study may have decreased effective coping strategies, resulting in increased *wishful thinking subscale* coping strategies as their weekly work hours increase. Reasons for increased ineffective coping methods when work hours increased could be due to respondents wishing for more time during their week. This is a may be an important factor to take into consideration when MOT students seek employment during the academic year.

Our results also demonstrated a very strong and negative correlation associated with the number of children living in the household and overall use of coping methods. This implies that respondents utilize less coping methods as the number of children living in the household increases. We speculate that increased number of children in a household may contribute to greater life satisfaction requiring a decreased need to utilize overall coping methods. The number of children living in the household was also significantly correlated with the use of self-blame coping methods. The results showed that as the number of children in the household increases, there is a very strong and negative correlation to respondents utilizing *self-blame subscale* coping methods. We speculate that as the number of children living in a household increases, the respondents

may have had less time to focus on self-blame and instead prioritize their time to be spent with their children. Similar findings have shown that occupational therapy students utilize effective coping strategies more often than ineffective coping methods (Mitchell & Kampfe, 1990, 1993). This finding could imply that respondents with children are more apt to utilize effective coping methods to positively impact their mental health.

The *self-blame subscale* and *tension reduction subscale* were also correlated with living with a significant other. Research from our study concluded that respondents who reported 'living with another' utilized significantly increased *self-blame* and *tension reduction subscale* coping methods compared to respondents who reported being 'single'. Respondents who reported being 'married' were not significantly different from either of the two groups, which we speculate is due to utilizing other effective coping strategies such as problem-solving. Previous research has concluded that coping methods from the *self-blame subscale* are an ineffective coping strategies (Mitchell & Kampfe, 1990, 1993). Further, the *tension reduction subscale* also includes ineffective components such as eating, drinking, smoking and drug usage. In addition, Mohamoud et al. (2015) discovered that ineffective coping strategies are correlated with higher levels of anxiety. We speculate that increased ineffective coping methods utilized by respondents who reported 'living with another' may be due to commitment concerns or time restraints placed on their relationships and academic responsibilities. However, for this study, the reliability for the *tension-reduction subscale* was questionable, which limits the reliability of any conclusions of the results.

Multiple significant results were found between the coping methods utilized by male and female MOT students. Males were found to use both *problem focused coping*

methods and *focusing on the positive coping* methods significantly less than females. We viewed both *problem focused* and *focusing on the positive coping* methods as effective means of coping with perceived psychological stress as they involve managing the source of stress (Mitchell & Kampfe, 1990). With males using these significantly less often, it is called into question what coping methods males are utilizing. Although our study consisted of a considerably higher number of females than males, previous studies have also found males are more likely to use ineffective and unhealthy coping mechanisms (Everly et al., 1994). Although the same conclusion may not be able to be drawn strictly from our study's results, the question can still be raised of which coping methods male MOT students are using, and whether or not they are effective. A conclusive answer to this question is difficult to be drawn given the low proportion of men enrolled in MOT programs, however the evidence that has been found to date indicates that more research is needed on this topic.

Model Application

The high levels of perceived psychological stress demonstrated in this sample of MOT students' gives purpose to gaining perspective on how MOT students are adapting to stress. The model of Occupational Adaptation (OA) provides a lens to explore our results. The model of OA speculates that individuals' ability to master an environment is dependent on their ability to internally adapt to their environment (Turpin & Iwama, 2011). Our respondents' ability to internally adapt to their MOT program's environment can be mirrored through the coping methods they utilize. Our findings demonstrate that some factors may lead to difficulty with effectively adapting to the high level of stress that comes with the MOT program environment. These characteristics included factors

such as gender, having children, and receiving financial assistance. Through the perspective of OA, it may be beneficial for MOT programs to instill knowledge of effective internal adaptation methods to their students. Whether this is through the teaching of effective coping methods or developing healthy thought processes, it could be a valuable factor that has the potential to influence MOT student's quality of life. Teaching ways to adapt to the program may promote student success, and potentially limit the number of students using ineffective coping mechanisms to complete their academic programs.

Limitations

Limitations of the current study impact the generalizability and applicability of our findings. Several limitations from this study must be taken into consideration when reviewing the results. Considerations regarding the small sample size hinder the ability to generalize to the general population. Only five students in their third academic year participated, which is a small representation of the third year MOT student population. Geographic location may also be considered a limitation as only respondents from two regions participated in the study. The East and South regions were not represented in our sample, which made it possible to only compare two regions of the United States. The instruments that were used were also a limitation, as they utilized a self-report method, which is dependent on honesty from the respondents. Perceived psychological stress is also a subjective experience for each individual. The length of the online survey could be a limitation as many of the dropped cases were a result of incomplete answers on the 65 item WCCL. Simply stated, the instrument was too long. Lastly, as this was an exploratory study, cause and effect cannot be derived from the findings.

Recommendations

It is recommended that the results of this study be taken into consideration for the development of academic MOT programs. The high levels of stress seen through the PSS responses demonstrate the need for stress to be addressed for MOT students. The significant differences between the ineffective coping mechanisms and demographic variables, such as gender and financial assistance, are aspects to keep in mind when developing programs to effectively manage stress. Future studies addressing the perceived psychological stress and coping mechanisms of MOT students are recommended to further the available evidence. The use of a larger sample size would increase the ability to generalize the results to the general population. It is also recommended that future studies include a sample of MOT students from all regions of the U.S.

REFERENCES

American Occupational Therapy Association. (2017). About occupational therapy. Retrieved January 14, 2017, from http://www.aota.org/About-Occupational-Therapy.aspx

American Occupational Therapy Association. (2017b). Find a school. Retrieved January 14, 2017, from http://www.aota.org/Education-Careers/Find-School.aspx

American Psychological Association. (2017, January). 2015 stress in America. Retrieved January 15, 2017, from http://www.apa.org/news/press/releases/stress/2015/snapshot.aspx

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health And Social Behavior, 24*(4), 385-396. doi:10.2307/2136404

Branholm, I., Fugl-Meyer, A., & Frolunde, A. (1998). Life satisfaction, sense of coherence and locus of control in occupational therapy students. *Scandinavian Journal of Occupational Therapy*, *5*(1), 39-44.

Bureau, U. C. (2015, April 18). Census regions and divisions of the United States. Retrieved June 19, 2016, from https://www.census.gov

DeLongis, A., Folkman, S., & Lazarus, R. S. (1988). The impact of daily stress on health and mood: Psychological and social resources as mediators. *Journal of Personality and Social Psychology*, *54*(3), 486-495. doi:10.1037/0022-3514.54.3.486

Duan, W. (2016). The benefits of personal strengths in mental health of stressed students:

A longitudinal investigation. *Quality of Life Research: An International Journal of Quality of Life Aspects of Treatment, Care & Rehabilitation*, *25*(11), 2879-2888. doi:10.1007/s11136-016-1320-8

Everly, J. S., Poff, D. W., Lamport, N., Hamant, C., & Alvey, G. (1994). Perceived stressors and coping strategies of occupational therapy students. *American Journal of Occupational Therapy*, *48*(11), 1022-1028. doi:10.5014/ajot.48.11.1022

Ezzati, A., Jiang, J., Katz, M. J., Sliwinski, M. J., Zimmerman, M. E., & Lipton, R. B. (2014). Validation of the perceived stress scale in a community sample of older adults. *International Journal of Geriatric Psychiatry, 29*(6), 645-652. doi:10.1002/gps.4049

Folkman, S. & Lazarus, R. S. (1985). If it changes it must be a process: Study of emotion and coping during three stages of a college examination. *Journal of Personality and Social Psychology, 48,* 150-170.

Frank, L., & Cassady, S. (2005). Health and wellness in entry-level physical therapy students: Are measures of stress, anxiety, and academic performance related?. *Cardiopulmonary Physical Therapy Journal (American Physical Therapy Association, Cardiopulmonary Section)*, *16*(4), 5-13.

Garman, A.N., Leach, D.C., & Spector, N. (2006). Worldviews in collision: Conflict and collaboration across professional lines. *Journal of Organizational Behavior, 27,* 829-849. doi: 10.1002/job.394

Gilbert, J., & Strong, J. (1997). Coping strategies employed by occupational therapy students anticipating fieldwork placement. *Australian Occupational Therapy Journal*, *44*(1), 30-40.

Jacob, T., Gummesson, C., Nordmark, E., El-Ansary, D., Remedios, L., & Webb, G. (2012). Perceived stress and sources of stress among physiotherapy students from 3 countries. *Journal of Physical Therapy Education*, *26*(3), 57-65.

Jacob, T., Itzchak, E. B., & Raz, O. (2013). Stress among healthcare students - A cross disciplinary perspective. *Physiotherapy Theory & Practice*, *29*(5), 401-412. doi:10.3109/09593985.2012.734011

Kielhofner, G. & Taylor, R. (2017). Deciding on an approach to data analysis. In Taylor, R. (Ed), *Kielhofner's research in occupational therapy* (pp. 330-331). Philedelphia, PA: F.A. Davis Company.

Lincoln, M., Adamson, B., & Covic, T. (2004). Perceptions of stress, time management and coping strategies of speech pathology students on clinical placement. *Advances In Speech Language Pathology*, *6*(2), 91-99. doi:10.1080/14417040410001708512

Liaison International. (2017). Surgical Technologist. Retrieved January 14, 2017, from https://explorehealthcareers.org/field/allied-health-professions/

Lovell, G. P., Nash, K., Sharman, R., & Lane, B. R. (2015). A cross-sectional investigation of depressive, anxiety, and stress symptoms and health-behavior participation in Australian university students. *Nursing & Health Sciences*, *17*(1), 134-142. doi:10.1111/nhs.12147

Lupien, S. J., Maheu, F., Tu, M., Fiocco, A., & Schramek, T. E. (2007). The effects of

stress and stress hormones on human cognition: Implications for the field of brain and cognition. *Brain And Cognition*, *65*(3), 209-237. doi:10.1016/j.bandc.2007.02.007

Mahmoud, J. R., Staten, R., Lennie, T. A., & Hall, L. A. (2015). The relationships of coping, negative thinking, life satisfaction, social support, and selected demographics with anxiety of young adult college students. *Journal of Child and Adolescent Psychiatric Nursing*, *28*(2), 97-108. doi:10.1111/jcap.12109

Marshall G.D., J. (2011). The adverse effects of psychological stress on immunoregulatory balance: Applications to human inflammatory diseases. *Immunology & Allergy Clinics of North America, 31*(1), 133-140. doi:10.1016/j.iac.2010.09.013

Mitchell, M. & Kampfe, C. (1990). Coping strategies used by occupational therapy students during fieldwork: an exploratory study. *American Journal of Occupational Therapy*, *44*(6), 543-550. doi:10.5014/ajot.44.6.543

Mitchell, M. & Kampfe, C. (1993). Student coping strategies and perceptions of fieldwork. *American Journal of Occupational Therapy*, *47*(6), 535-540. doi: 10.5014/ajot.47.6.535

Novotney, A. (2014, September). Students under pressure. *American Psychological Association.* Retrieved September, 2016, from http://www.apa.org/monitor/2014/09/cover- pressure.aspx.

Nualnetr, N., & Thanawat, T. (2012). Health-promoting behaviors of physical therapy students. *Journal of Physical Therapy Science*, *24*(10), 1003-1006. doi: org/10.1589/jpts.24.1003

O'Meara, S., Kostas, T., Markland, F., & Previty, J. (1994). Perceived academic stress in physical therapy students. *Journal of Physical Therapy Education*, *8*(2), 71-75.

Pfeifer, T., Kranz, P., & Scogger, A. (2008). Perceived stress in occupational therapy students. *Occupational Therapy International*, *15*(4), 221-231. doi: 10.1002/oti.256

Ruiz-Aranda, D., Extremera, N., & Pineda-GalÃ¡n, C. (2014). Emotional intelligence, life satisfaction and subjective happiness in female student health professionals: The mediating effect of perceived stress. *Journal of Psychiatric & Mental Health Nursing*, *21*(2), 106-113. doi:10.1111/jpm.12052

Sharp, L. K., Kimmel, L. G., Kee, R., Saltoun, C., & Chang, C. (2007). Assessing the perceived stress scale for African American adults with asthma and low literacy. J*ournal of Asthma, 44*(4), 311-316. doi:10.1080/02770900701344165

Taylor, J. M. (2015). Psychometric analysis of the ten-item perceived stress scale. *Psychological Assessment, 27*(1), 90-101. doi:10.1037/a0038100

Tucker, B., Jones, S., Mandy, A., & Gupta, R. (2006). Physiotherapy students' sources of stress, perceived course difficulty, and paid employment: Comparison between Western Australia and United Kingdom. *Physiotherapy Theory & Practice*, *22*(6), 317-328. doi:10.1080/09593980601059550

Turpin, M., & Iwama, M. K. (2011). *Using occupational therapy models in practice: A field guide.* Edinburgh: Churchill Livingstone.

University of California Berkeley. (2017). What is graduate school? Retrieved January 14, 2017, from https://career.berkeley.edu/Grad/GradWhatis

Venes, D. (2013). *Taber's cyclopedic medical dictionary* (22nd ed.). Philadelphia: F.A.

Davis.

Vitaliano, P.P., Russo, J., Carr, J.C., Maiuro, R. D., & Becker, J. (1985). The ways of coping checklist: Revision and psychometric properties. *Multivariate Behavior Research, 20*(1), 3-26. doi: 10.1207/s15327906mbr2001_1

APPENDICES

APPENDIX A

UNIVERSITY OF NORTH DAKOTA

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DIVISION OF RESEARCH & ECONOMIC DEVELOPMENT

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September 15, 2016

Principal Investigator:	Amy Fitzsimmons and Ashley Zimmer
Project Title:	Identified Stressors and Coping Mechanisms of Occupational Therapy Students
IRB Project Number:	IRB-201609-059
Project Review Level:	Expedited 7
Date of IRB Approval:	09/13/2016
Expiration Date of This Approval:	09/12/2017

The application form and all included documentation for the above-referenced project have been reviewed and approved via the procedures of the University of North Dakota Institutional Review Board.

The waiver of written consent has been approved under 45 CFR 46.117(c)(2).

Prior to implementation, submit any changes to or departures from the protocol or consent form to the IRB for approval. No changes to approved research may take place without prior IRB approval.

You have approval for this project through the above-listed expiration date. When this research is completed, please submit a termination form to the IRB. If the research will last longer than one year, an annual review and progress report must be submitted to the IRB prior to the submission deadline to ensure adequate time for IRB review.

The forms to assist you in filing your project termination, annual review and progress report, adverse event/unanticipated problem, protocol change, etc. may be accessed on the IRB website: http://und.edu/research/resources/human-subjects/

Sincerely,

Michelle L. Bowles, M.P.A., CIP
IRB Coordinator

MLB/sb

Cc: Dr. Anne Haskins

APPENDIX B

According to the U.S. Census Bureau (2015), the United States is divided into four geographic regions including Northeast, Midwest, South, and West. The Northeast region consists of the following states: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, New Jersey, New York and Pennsylvania. The Midwest region consists of the following states: Indiana, Illinois, Michigan, Ohio, Wisconsin, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota and South Dakota. The South region consists of the following states: Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia, Alabama, Kentucky, Mississippi, Tennessee, Arkansas, Louisiana, Oklahoma and Texas. The West region consists of the following states: Arizona, Colorado, Idaho, New Mexico, Montana, Utah, Nevada, Wyoming, Alaska, California, Hawaii, Oregon and Washington.

APPENDIX C

Dear _____,

Hello. We hope the fall season is finding you well and wonderful. We are graduate students at the University of North Dakota who are working on the completion of our final research project. The purpose of this research is to examine the perceived stress levels and coping mechanisms of students enrolled in accredited Masters of Occupational Therapy programs in the United States.

We are writing to request your assistance in reaching occupational therapy students. Specifically, we are hoping that you are willing to forward this email to your current students. Below we have provided the invitation for your students to participate. Thank you for your time and consideration.

Sincerely,
Amy Fitzsimmons, OTS and Ashley Zimmer, OTS

Dear Occupational Therapy Student,

Greetings! We hope the fall season is finding you well and wonderful. We are graduate students at the University of North Dakota who are working on the completion of our final research project. The purpose of this research is to examine the perceived stress levels and coping mechanisms of students enrolled in accredited Masters of Occupational Therapy programs in the United States. We are writing to request your participation in our research study about perceived stress and coping mechanisms of occupational therapy students enrolled in programs in the United States.

This exploratory research study would require that you complete three online surveys: a short demographic questionnaire, the Perceived Stress Scale (PSS), and the Ways of Coping Checklist (WCCL). The PSS and WCC will be used to identify perceived stress levels experienced and coping mechanisms. Participation in the study should take approximately 15-20 minutes. Although current students and educators may not benefit directly from this research, we hope to inform future occupational therapy programs with information to assist with program development to ensure that they are meeting the needs of their students.

Below you will find a link that will take you to the statement of informed consent that includes a study overview and potential risks of the study. Once you read the statement of informed consent, if you agree to participate, you will simply click on "I agree to participate".

Qualtrics Link:
https://und.qualtrics.com/SE/?SID=SV_9BLKDHGQwPvJ5hr

If you have any questions or concerns, you may contact Amy Fitzsimmons[redacted], Ashley Zimmer[redacted], or our academic advisor Anne Haskins (701-777-2209) at any time. If you have questions regarding you or your students' rights as research subjects, or if you have any concerns or complaints about the research, you may contact the University of North Dakota Institutional Review Board at (701)-777-4279.

Thank you in advance for your time, consideration, and potential involvement!

Sincerely,
Amy Fitzsimmons, OTS and Ashley Zimmer, OTS
[redacted]

APPENDIX D

5/22/2016

[redacted]

Haskins, Anne;
Zimmer, Ashley
Sent Items

Dear Dr[redacted],

Hello. We hope the day is finding you well and wonderful. We are graduate students at the University of North Dakota and working on the completion of our final research project. The purpose of our project is to explore the stressors and coping mechanisms of occupational therapy students. To successfully complete this final research project, we are hoping to utilize the Perceived Stress Scale (PSS-10) you have created, and are seeking your permission to use that instrument. To complete our project we will be creating a survey to obtain demographic information and then we wish to utilize the PSS-10 that you have developed. Implementing the PSS-10 that you have helped create will assist us in determining stressors occupational therapy students' are experiencing throughout their program and what coping mechanisms they are utilizing to cope with their identified stressors. Once the research study has been completed, we are hoping to publish this study and present in a variety of venues. We would of course, cite you and your work throughout our graduate project and in any subsequent scholarly activities.

In short, may we have your permission to utilize the valuable tool you created? We would be happy to answer any further questions you have and you can also contact our advisor, Dr. Anne Haskins at anne.haskins@med.und.edu

Thank you for your consideration,

Amy Fitzsimmons, OTS & Ashley Zimmer, OTS
University of North Dakota

[redacted]

5/23/2016

Amy, You are welcome to use the PSS in your project. sc

5/22/2016

Dear Dr.[redacted],

Hello. We hope the day is finding you well and wonderful. We are graduate students at the University of North Dakota and working on the completion of our final research project. The

purpose of our project is to explore the stressors and coping mechanisms of occupational therapy students. To successfully complete this final research project, we are hoping to utilize the Revised Ways of Coping Checklist you have created, and are seeking your permission to use that instrument. To complete our project we will be creating a survey to obtain demographic information and then we wish to utilize the Revised Ways of Coping Checklist that you have developed. Implementing the Revised Ways of Coping Checklist that you have helped create will assist us in determining stressors occupational therapy students' are experiencing throughout their program and what coping mechanisms they are utilizing to cope with their identified stressors. Once the research study has been completed we are hoping to publish this study and present in a variety of venues. We would of course, cite you and your work throughout our graduate project and in any subsequent scholarly activities.

In short, may we have your permission to utilize the valuable tool you created? We would be happy to answer any further questions you have and you can also contact our advisor, Dr. Anne Haskins at anne.haskins@med.und.edu

Thank you for your consideration,

Amy Fitzsimmons, OTS & Ashley Zimmer, OTS
University of North Dakota

FS

Folkman, Susan [redacted]>

5/23/2016

Dear Amy, The attached memo provides the information you requested. This version of the WOC is in the public domain, so you don't need special permission to use it. I recommend using only the items on the factor scales, not the ones that don't "load" on the factor scales.
Best wishes with your research,
Susan Folkman, PhD
Professor of Medicine Emeritus
UCSF
[redacted]

FA

Fitzsimmons, Amy

THE UNIVERSITY OF NORTH DAKOTA
CONSENT TO PARTICIPATE IN RESEARCH

TITLE: *Identified Stressors and Coping Mechanisms of Occupational Therapy Students*

PROJECT DIRECTOR: *Amy Fitzsimmons, OTS, Ashley Zimmer, OTS & Anne M. Haskins, PhD, OTR/L*

PHONE #: *701-777-2209*

DEPARTMENT: *Occupational Therapy*

STATEMENT OF RESEARCH

A person who is to participate in this research study must give his or her informed consent to such participation. This consent must be based on an understanding of the nature and risks of the research. This description provides information that is important for this understanding. Research projects include only subjects who choose to take part. Please take your time in making your decision as to whether to participate. If you have questions at any time, contact us using the contact information listed below.

WHAT IS THE PURPOSE OF THIS STUDY?

You are invited to be in this research study about identifying stress and the coping mechanisms experienced by occupational therapy students because you are currently enrolled in an accredited Masters of Occupational Therapy program.

The purpose of this research study is to gain an understanding of stressors and coping mechanisms used by occupational therapy students in an accredited Masters of Occupational Therapy program. We are seeking this knowledge because we want to explore the quality of life of accredited Masters of Occupational Therapy students.

HOW MANY PEOPLE WILL PARTICIPATE?

We anticipate more than 50 people will take part in this study at the University of North Dakota. All students enrolled in selected accredited Masters of Occupational Therapy programs will be encouraged to participate.

HOW LONG WILL I BE IN THIS STUDY?

Completion of this survey should take no more than 15 minutes though you may discontinue the survey at any time by closing your browser.

WHAT WILL HAPPEN DURING THIS STUDY?

You will be asked to complete a demographic questionnaire, the Perceived Stress Scale (PSS), and the Ways of Coping Checklist (WCC). The PSS will be used to identify the stress levels and factors of current occupational therapy students. The WCC will be used to identify the coping mechanisms that are being utilized by students to manage their stressors. Completion of the survey will take approximately 15 minutes. This is a one-time survey and participation in the study will conclude with the completion of the survey. You are free to skip any question that you prefer not to answer.

WHAT ARE THE RISKS OF THE STUDY?

There may be some risk from being in this study. You may experience frustration that is often experienced when completing surveys. Some questions may be of a sensitive nature, and you may therefore become upset as a result. However, such risks are not viewed as being in excess of "minimal risk". If, however, you become upset by any of the questions, you may stop at any time or choose not to answer a question. If you would like to talk to someone about your feelings about this study, you are encouraged to contact your university's counseling center, or other local counseling services.

WHAT ARE THE BENEFITS OF THIS STUDY?

You will not benefit personally from being in this study. However, we hope that, in the future, other people might benefit from this study because it will inform Masters of Occupational Therapy programs of the quality of life of current students.

WILL IT COST ME ANYTHING TO BE IN THIS STUDY?

You will not have any costs for being in this research study.

WILL I BE PAID FOR PARTICIPATING?

You will not be paid for being in this research study.

WHO IS FUNDING THE STUDY?

The University of North Dakota and the research team are receiving no payments from other agencies, organizations, or companies to conduct this research study.

CONFIDENTIALITY

The records of this study will be kept private to the extent permitted by law. In any report about this study that might be published, you will not be identified. Your study record may be reviewed by Government agencies, the UND Research Development and Compliance office, and the University of North Dakota Institutional Review Board.

Confidentiality will be maintained as surveys will be completed anonymously, and name identifiers will not be attached to any responses. All survey responses will be kept electronically and be protected by a password. Only the researchers and faculty advisor will have access to the responses.

If we write a report or article about this study, we will describe the study results in a summarized manner so that you cannot be identified.

IS THIS STUDY VOLUNTARY?

Your participation is voluntary. You may choose not to participate or you may discontinue your participation at any time without penalty or loss of benefits to which you are otherwise entitled. Your decision whether or not to participate will not affect your current or future relations with the University of North Dakota. If you are a University of North Dakota student, we ensure you will not be penalized for not participating as all surveys will be anonymous and you will not be identifiable. There are no consequences for withdrawing from the study.

CONTACTS AND QUESTIONS?

The researchers conducting this study are Amy Fitzsimmons, Ashley Zimmer and Anne Haskins. You may ask any questions you have now. If you later have questions, concerns, or complaints about the research please contact Amy Fitzsimmons or Ashley Zimmer at 763-438-4632 during the day hours or the researcher's advisor, Anne Haskins at (701) 777-2209.

If you have questions regarding your rights as a research subject, you may contact The University of North Dakota Institutional Review Board at **(701) 777-4279** or **UND.irb@research.UND.edu.**

You may also call this number about any problems, complaints, or concerns you have about this research study. You may also call this number if you cannot reach research staff, or you wish to talk with someone who is independent of the research team. General information about being a research subject can be found by clicking "Information for Research Participants" on the web site: http://und.edu/research/resources/human-subjects/research-participants.cfm

you are encouraged to print this page for your records.

- I Agree to Participate

Survey Powered By Qualtrics

Q1. What is your gender?

- Female
- Male
- Prefer not to identify

Q2. How old are you?

- Under 18
- 18-25
- 26-34
- 35-54
- 55-64
- 65 or over

Survey Powered By Qualtrics

Q4. What is your current marital status?

- Rather not say
- Divorced
- Living with another
- Married
- Separated
- Single
- Widowed

Q5. What is your current employment status?

- Full-Time
- Part-Time
- Not currently employed

Survey Powered By Qualtrics

Q6. How many hours per week do you work?

Q7. Do you receive any financial assistance while completing your schooling?

1. Yes
2. No

Q9. Do you have any children?

- Yes
- No

Survey Powered By Qualtrics

Q10. Please identify how many children (under age 18) live in your household.

- 0
- 1
- 2

- 3
- 4
- 5
- 6
- 7+

Q12.
What region is your Occupational Therapy program located in?

Regions

Northeast: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, New Jersey, New York, Pennsylvania

Midwest: Indiana, Illinois, Michigan, Ohio, Wisconsin, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota

South: Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia, Alabama, Kentucky, Mississippi, Tennessee, Arkansas, Louisiana, Oklahoma, Texas

West: Arizona, Colorado, Idaho, New Mexico, Montana, Utah, Nevada, Wyoming, Alaska, California, Hawaii, Oregon, Washington

Q13. In what year of your occupational therapy program are you currently enrolled?

- First Year
- Second Year
- Third Year
- Fourth Year

Perceived Stress Scale

Q1.
The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate by selecting the response that is closest to how often you felt or thought a certain way.

	0- Never	1- Almost Never	2- Sometimes	3- Fairly Often	4- Very Often
In the last month, how often have you been upset because of something that happened unexpectedly?					
In the last month, how often have you felt that you were unable to control the important things in your life?					

In the last month, how often have you felt nervous and "stressed"?					
In the last month, how often have you felt confident about your ability to handle your personal problems?					
In the last month, how often have you felt that things were going your way?					
	0- Never	1- Almost Never	2- Sometimes	3- Fairly Often	4- Very Often
In the last month, how often have you found that you could not cope with all the things that you had to do?					
In the last month, how often have you been able to control irritations in your life?					
In the last month, how often have you felt that you were on top of things?					
In the last month, how often have you been angered because of things that were outside of your control?					
In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?					

Ways of Coping Checklist

Q1. For the next set of questions, please think about stressful events that you have experienced since beginning your Masters of Occupational Therapy Program. Please read each item below and indicate, by using the following rating scale, to what extent you used it in the situation you have just descri

	0- Not Used	1- Used Somewhat	2- Used Quite a Bit	3- Used A Great Deal
Just concentrated on what I had to do next – the next step.				
I tried to analyze the problem in order to understand it better.				
Turned to work or substitute activity to take my mind off things.				
I felt that time would make a difference – the only thing to do was to wait.				
Bargained or compromised to get something positive from the situation.				
I did something which I didn't think would work, but at least I was doing something.				
Tried to get the person responsible to change his or her mind.				
Talked to someone to find out more about the situation.				
Criticized or lectured myself.				
	0- Not Used	1- Used Somewhat	2- Used Quite a Bit	3- Used A Great Deal

Tried not to burn my bridges, but leave things open somewhat.				
Hoped a miracle would happen.				
Went along with fate; sometimes I just have bad luck.				
Went on as if nothing had happened.				
I tried to keep my feelings to myself.				
Looked for the silver lining, so to speak; tried to look on the bright side of things.				
Slept more than usual.				
I expressed anger to the person(s) who caused the problem.				
Accepted sympathy and understanding from someone.				
	0- Not Used	1- Used Somewhat	2- Used Quite a Bit	3- Used A Great Deal
I told myself things that helped me to feel better.				
I was inspired to do something creative.				

Tried to forget the whole thing.				
I got professional help.				
Changed or grew as a person in a good way.				
I waited to see what would happen before doing anything.				
I apologized or did something to make up.				
I made a plan of action and followed it.				
I accepted the next best thing to what I wanted.				

	0- Not Used	1- Used Somewhat	2- Used Quite a Bit	3- Used A Great Deal
I let my feelings out somehow.				
Realized I brought the problem on myself.				
I came out of the experience better than when I went in.				
Talked to someone who could do something concrete about the problem.				
Got away from it for a while; tried to rest or take a vacation.				

Tried to make myself feel better by eating, drinking, smoking, using drugs or medication, etc.				
Took a big chance or did something very risky.				
Found new faith.				
Maintained my pride and kept a stiff upper lip.				

	0- Not Used	1- Used Somewhat	2- Used Quite a Bit	3- Used A Great Deal
Rediscovered what is important in life.				
Changed something so things would turn out all right.				
Avoided being with people in general.				
Didn't let it get to me; refused to think too much about it.				
I asked a relative or friend I respected for advice.				
Kept others from knowing how bad things were.				
Made light of the situation; refused to get too serious about it.				
Talked to someone about how I was feeling.				

Stood my ground and fought for what I wanted.				
	0- Not Used	1- Used Somewhat	2- Used Quite a Bit	3- Used A Great Deal
Took it out on other people.				
Drew on my past experiences; I was in a similar situation before.				
I knew what had to be done, so I doubled my efforts to make things work.				
Refused to believe that it had happened.				
I made a promise to myself that things would be different next time.				
Came up with a couple of different solutions to the problem.				
Accepted it, since nothing could be done.				
I tried to keep my feelings from interfering with other things too much.				
Wished that I could change what had happened or how I felt.				
	0- Not Used	1- Used Somewhat	2- Used Quite a Bit	3- Used A Great Deal

I changed something about myself.				
I daydreamed or imagined a better time or place than the one I was in.				
Wished that the situation would go away or somehow be over with.				
Had fantasies or wishes about how things might turn out.				
I prayed.				
I prepared myself for the worst.				
I went over in my mind what I would say or do.				
I thought about how a person I admire would handle this situation and used that as a model				
I tried to see things from the other person's point of view.				
	0- Not Used	1- Used Somewhat	2- Used Quite a Bit	3- Used A Great Deal
I reminded myself how much worse things could be.				
I jogged or exercised.				

. Thank you for your participation. Your time and input are greatly appreciated!