

2018

# The Effects of a Structured Coping Strategy Program for Graduate Occupational Therapy Students

Ana L. Rodriguez  
*Florida International University*

Ingrid Provident  
*Chatham University*

Follow this and additional works at: <https://encompass.eku.edu/jote>



Part of the [Occupational Therapy Commons](#)

## Recommended Citation

Rodriguez, A. L., & Provident, I. (2018). The Effects of a Structured Coping Strategy Program for Graduate Occupational Therapy Students. *Journal of Occupational Therapy Education*, 2 (1). <https://doi.org/10.26681/jote.2018.020109>

This Educational Innovations is brought to you for free and open access by Encompass. It has been accepted for inclusion in Journal of Occupational Therapy Education by an authorized editor of Encompass. For more information, please contact [Linda.Sizemore@eku.edu](mailto:Linda.Sizemore@eku.edu).

---

# The Effects of a Structured Coping Strategy Program for Graduate Occupational Therapy Students

## Abstract

Graduate students experience high levels of stress, which may hinder their learning. Students may use both adaptive and maladaptive coping strategies, or they may not have acquired strategies to effectively cope with stress. A six week pilot educational intervention based on the cognitive-behavioral model was developed and delivered to second year Master of Occupational Therapy students. The intervention was a structured adaptive coping strategy program designed to educate and increase students' awareness of adaptive coping strategies and overall well-being. The intervention educated participants on strategies aimed at improving coping skills as measured by the Brief COPE and a Coping Strategy Survey. Authors used a mixed-methods research design. Eleven occupational therapy students completed pre- and post-assessments. Participants demonstrated a 73% decrease in self-distraction and self-blame. Positive-reframing increased by 64% and active-coping increased by 60%. Participants' response rates for use of religion increased by 64% and use of instrumental support increased by 59%. The use of emotional support increased by 50% and planning increased by 41% among participants. Three themes emerged from the qualitative data analysis. Outcomes suggest occupational therapy graduate students benefit from an adaptive coping strategy program and occupational therapy educators should consider incorporating such a program into the curriculum.

## Keywords

Cognitive behavioral model, mixed methods, stress

## Creative Commons License



This work is licensed under a [Creative Commons Attribution-Noncommercial-No Derivative Works 4.0 License](https://creativecommons.org/licenses/by-nc-nd/4.0/).

## Acknowledgements

The authors thank the participants for their time in this study: Hector Huerta, OTD, OTR/L, Jaclyn Schwartz, PhD, OTR/L and the faculty and staff in the Occupational Therapy Department at Florida International University for their guidance and support during the completion of this pilot educational intervention.

# JOTE

Journal of Occupational  
Therapy Education

Volume 2, Issue 1

---

## The Effects of a Structured Coping Strategy Program for Graduate Occupational Therapy Students

---

Ana Rodriguez, OTD, OTR/L<sup>1</sup> and Ingrid Provident, EdD, OTR/L, FAOTA<sup>2</sup>  
Florida International University<sup>1</sup> and Chatham University<sup>2</sup>  
United States

---

### ABSTRACT

Graduate students experience high levels of stress, which may hinder their learning. Students may use both adaptive and maladaptive coping strategies, or they may not have acquired strategies to effectively cope with stress. A six week pilot educational intervention based on the cognitive-behavioral model was developed and delivered to second year Master of Occupational Therapy students. The intervention was a structured adaptive coping strategy program designed to educate and increase students' awareness of adaptive coping strategies and overall well-being. The intervention educated participants on strategies aimed at improving coping skills as measured by the Brief COPE and a Coping Strategy Survey. Authors used a mixed-methods research design. Eleven occupational therapy students completed pre- and post-assessments. Participants demonstrated a 73% decrease in self-distraction and self-blame. Positive-reframing increased by 64% and active-coping increased by 60%. Participants' response rates for use of religion increased by 64% and use of instrumental support increased by 59%. The use of emotional support increased by 50% and planning increased by 41% among participants. Three themes emerged from the qualitative data analysis. Outcomes suggest occupational therapy graduate students benefit from an adaptive coping strategy program and occupational therapy educators should consider incorporating such a program into the curriculum.

---

### INTRODUCTION

Students encounter various stressors during graduate school. A 2011 survey found that 43% of the United States graduate students who participated reported experiencing more stress than they could handle (Wang, 2015). Shaikh et al. (2004) identified some of these stressors as "an obligation of success, uncertain future and difficulties

envisaged for integration into the system” (p. 347). Hubbard and Blyler (2016) noted that the myriad of college assignments and responsibilities expected of graduate students may lead to stress. Graduate students may also experience “social, emotional, physical, and family problems which may affect their learning ability and academic performance” (Shaikh et al., 2004, p. 347). Ultimately, the prevalence of perceived stress among graduate students tends to affect not only their academic performance but also all aspects of health (Shaikh et al., 2004). Interventions that assist students to effectively manage stress are necessary (Steinhardt & Dolbier, 2008).

According to Steinhardt and Dolbier (2008), “coping strategies are individuals’ behavioral and cognitive responses to stressful situations” (p. 448). Some researchers suggest that students’ coping strategies may predict academic performance (Collins & Onwuegbuzie, 2003). Hubbard and Blyler (2016) found that “the impact that stress and anxiety have on working memory and academic performance among college students is a significant concern in academic settings because being overstressed inhibits students’ learning and performance” (p. 1). Without a healthy method of coping with stressful events and an ability to reevaluate academic skills as challenging and manageable, graduate students may not just jeopardize passing grades but also their psychosocial health and well-being (Alexander & Onwuegbuzie, 2006). Researchers suggest that even in graduate school students may not have acquired strategies to cope and appropriately assess personal “anxiety, low self-efficacy, and maladaptive perfectionism that typify fear of failure, at least around writing term papers, studying for exams, and keeping up with weekly readings (Alexander & Onwuegbuzie, 2006, p. 1307).

Students turn to different coping strategies, harmful as well as constructive, during stressful situations (Shaikh et al., 2004). Students with poor coping strategies have difficulty learning new and challenging material for exams (Collins & Onwuegbuzie, 2003). Consequently, students with poor coping strategies are less well-prepared for examinations than are their cohort who utilize better study coping strategies (Collins & Onwuegbuzie, 2003). Researchers have found that interventions that focus on improving coping strategies for both studying and examination-taking are effective both in reducing anxiety and improving academic performance (Collins & Onwuegbuzie, 2003). As per Klassen, Krawchuck, and Rajani (2008), “metacognitive strategy training may assist students in knowing what to do and how to do it, but in order to increase self-efficacy for self-regulation, students need repeated successful experiences, encouragement, and demonstrations of the benefits of successful strategy use (p. 928). Graduate students have also identified the use of better time management, emotional support, talking to family members/friends and good sleep as effective coping strategies that allow them to relax in order to successfully control stress (Jahan, Siddiqui, Mitwally, Al Zubidi, & Al Zubidi, 2016).

The cognitive-behavioral model may provide guidance in developing an intervention to address coping strategies for occupational therapy graduate students. The cognitive-behavioral model is based upon the assumption that thoughts and beliefs influence behavior, emotions, and physiology (Solmonson, 2009). Typically, cognitive-behavioral

model interventions are structured, focused, and educational in nature (Solmonson, 2009). The purpose of cognitive-behavioral model interventions is to address emotional and behavioral problems by addressing the dysfunctional and misleading thoughts that mediate them (Brown & Stoffel, 2011). The model focuses on the development of personal coping strategies that aim to solve present-day problems and alter obstructive patterns in cognition such as thoughts, beliefs, attitudes, behaviors, and emotional regulation (“Cognitive behavioral therapy,” n.d.). Furthermore, it is believed that an individual’s symptoms and associated distress can be reduced by teaching new information-processing skills and coping mechanisms (“Cognitive behavioral therapy,” n.d.).

The purpose of this article is to describe the effects of a pilot educational intervention based on the cognitive-behavioral model on second year Master of Occupational Therapy (MOT) students’ awareness of adaptive coping strategies and overall well-being.

## **METHODS**

### **Recruitment**

The author selected only second year MOT students, who were available when the pilot educational intervention took place during the summer semester. All second year MOT students were invited to an information session. Eleven of a possible 54 students attended the information session. Emphasis on the voluntary nature of participation was provided to all participants. The commitment requirements and the dates, times and location of the educational sessions were discussed. After the information session, all 11 students decided to participate, signed the informed consent, and ultimately completed the program.

### **Educational Intervention**

This pilot educational intervention was a structured adaptive coping strategy program designed by the first author based on review of the literature (Alexander & Onwuegbuzie, 2006; Collins & Onwuegbuzie, 2003; Hubbard & Blyler, 2016; Jahan et al., 2016; Schlemper, 2011; Shaikh et al., 2004; Steinhardt & Dolbier, 2008). The group educational sessions were designed to increase students’ awareness of adaptive strategies to help cope with the stressors inherent in the demands of transitioning from undergraduate to graduate student. The pilot educational intervention engaged participants in a reflective process of conceptualizing the coping strategies they used to manage stress associated with graduate school. In addition, the intervention activities provided the occupational therapy students with adaptive coping strategies in order to better manage stress.

Several educational methods were used to deliver the content including: PowerPoint presentations, case studies, YouTube video links, handouts /worksheets for guided activities, assignments to facilitate open discussion of the effects of coping strategies in graduate school, cognitive-behavioral model visual diagrams, role playing, and journaling. Rubrics on specific educational assignments were provided to all participants

prior to each session to provide structure to the expectations and address compliance. Students' responses in written and verbal formats yielded information about their ability to cope with the stress from graduate school and how they responded to the educational intervention.

### **Outcome Measures**

The primary outcome measure for this project was the Brief COPE. The Brief COPE (Carver, 1997) measures a broad range of cognitive and behavioral coping strategies that individuals typically use in stressful situations (Steinhardt & Dolbier, 2008). It includes 14 two-item subscales: active coping, planning, positive reframing, acceptance, humor, religion, emotional support, instrumental support, self-distraction, denial, venting, substance abuse, behavioral disengagement, and self-blame (Steinhardt & Dolbier, 2008). For each of the items, respondents indicate the extent to which they used the strategy in dealing with stressful situations on a 4-point Likert scale ranging from 1 (not at all) to 4 (a lot). The Brief COPE was used to establish baseline and post-intervention measurement of coping strategies among participants.

The second outcome measure consisted of the Coping Strategy Survey, which was developed by the first author for the purpose of this pilot educational intervention. The survey gathered qualitative and quantitative data regarding coping strategies during graduate school. The survey included three sections. The first section consisted of five questions in which responses were recorded using a 5-point Likert Scale ranging from 1 (strongly agree) to 5 (strongly disagree) addressing awareness of coping strategies, the effects of stress in graduate school, and overall well-being. The second section was composed of three open-ended questions regarding how the student reported coping with the stressors associated with the transition to graduate coursework. The final survey section consisted of six questions about students' demographic information including age, gender, ethnicity, living situation, hours of employment, and GPA.

### **Procedures**

This pilot educational intervention was approved by an Institutional Review Board and was delivered in May and June of 2017. The pilot educational intervention began with participants' informed consent following the information session. The students were then asked to participate as a group in the educational intervention, which consisted of six, 60 minute modules over 6 weeks. All six sessions took place in a University setting.

The group format allowed for guided open discussions among participants following each topic. During the first session participants completed the Brief COPE and the Coping Strategy Survey using the survey software Qualtrics. The responses of the Brief COPE identified the frequency of use of 14 coping strategies, while the Coping Strategy

Survey provided participants' socio-demographic information, and identified the participants' overall sense of self-mastery regarding coping with stress from graduate school. The pre-intervention assessments were completed in the first 20 minutes of the first session. The remaining 40 minutes consisted of a PowerPoint presentation, planned activity/group discussion and journal prompt. All sessions ended with ten

minutes to complete a journal reflection. Journaling was used to gather constructive information regarding participants' feedback related to the session and overall thoughts about the coping strategy program.

The following adaptive and maladaptive coping strategies were discussed throughout the intervention: Meditation/Progressive Muscle Relaxation (PMR) and avoidance behaviors; planning/time-management and procrastination; exercise/physical activity and stress eating; social support, and social withdrawal. On the final session, the post-intervention assessments were completed and a summary of the literature review for the pilot educational intervention was provided. Refer to Appendix A: Project Implementation Table for a detailed description of the six sessions of the pilot educational intervention.

## **RESULTS**

Eleven participants completed the pre-assessment during the first session and all participants attended the first five sessions. Ten participants attended the final session and completed their post-assessments; one participant was unable to attend the last session but made arrangements to complete the last session on her own by reading the information and completing the post-assessments; therefore all 11 participants completed the post-assessment. Participants demonstrated their commitment to the educational intervention program by being punctual to scheduled sessions, being engaged and enthusiastic during the presentations, actively participating in discussions and assigned activities, and completing their journal entries each session.

The demographics of the occupational therapy students who participated in the pilot educational intervention are shown in Table 1. Their average pre- and post-scores on the Brief COPE outcome measure are shown in Figure 1.

**Table 1***Socio-demographic Distribution of Participants*

<b>Participant Characteristics</b>	<b>Frequency (n-11)</b>	
	<b>n</b>	<b>%</b>
<i>Age</i>		
21-25	7	64%
26 and above	4	36%
<i>Gender</i>		
Male	0	0%
Female	11	100%
<i>Nationality</i>		
Hispanic/Latino	9	82%
Black/African American	2	18%
<i>Living Arrangements</i>		
Lives with spouse/significant other	1	9%
Lives with family	8	73%
Lives with roommate/friend	1	9%
Lives alone with a pet	1	9%
<i>Hours of Work per Week</i>		
0 hours a week	5	46%
1-10 hours a week	2	18%
11-22 hours a week	4	36%
<i>GPA</i>		
3.6 to 3.0	11	100%



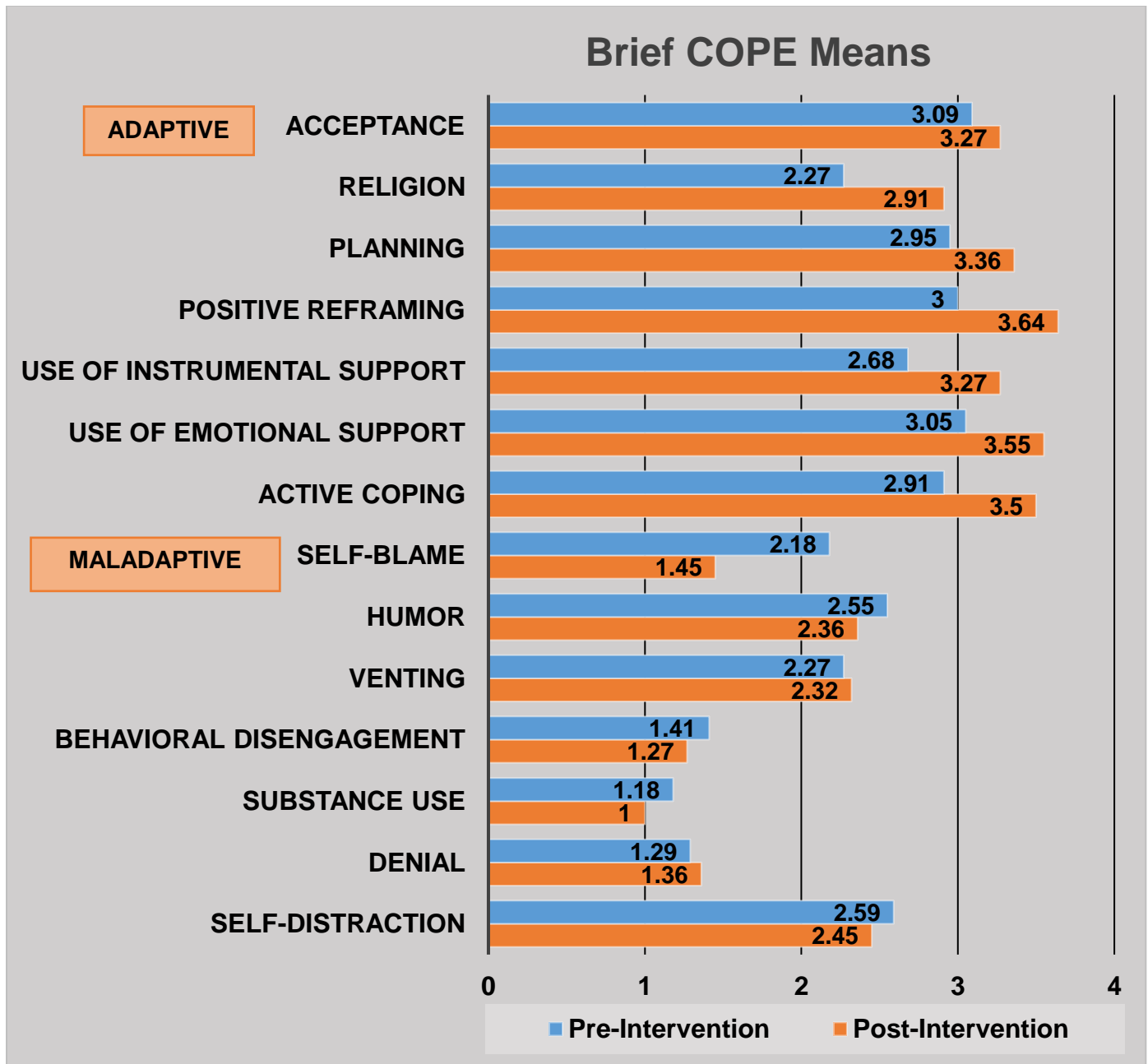


Figure 1. Brief Cope results (N = 11)

Response choices:

- 1 = I haven't been doing that at all
- 2 = I've been doing this a little bit
- 3 = I've been doing this a medium amount
- 4 = I've been doing this a lot

The following subscales demonstrated an increase in scores pre- and post-intervention: positive-reframing, active-coping, religion, use of instrumental support, use of emotional support, planning, acceptance, venting, and denial. The following subscales demonstrated a decrease in scores: self-distraction, self-blame, substance abuse, behavioral disengagement, and humor.

The Coping Strategy Survey provided quantitative data specific to coping strategies during graduate school. Refer to Figures 2, 3, and 4 for results.

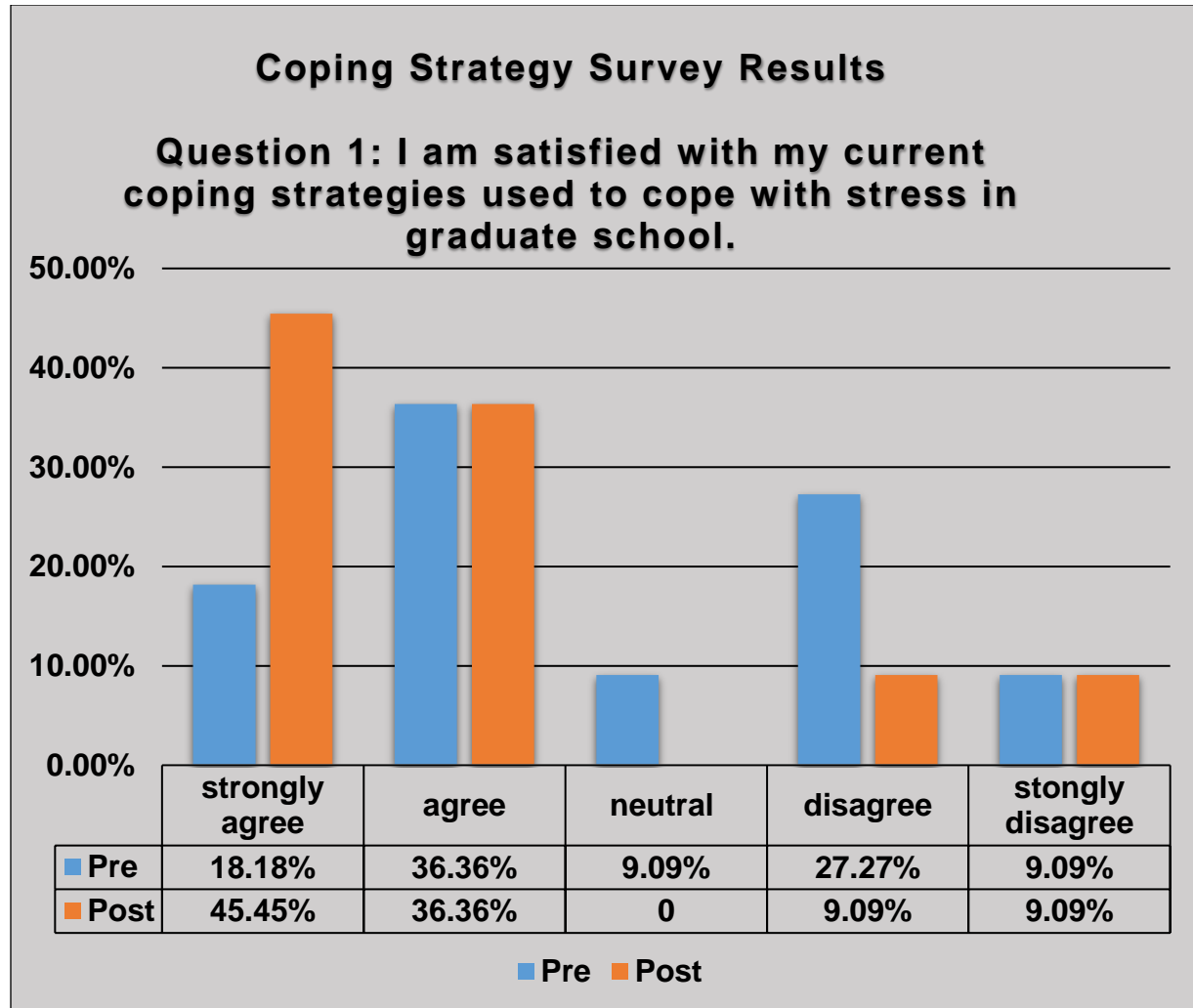


Figure 2. Coping Strategy Survey results question 1. (N= 11)

\*Pre: Pre-Intervention

\*Post: Post-Intervention

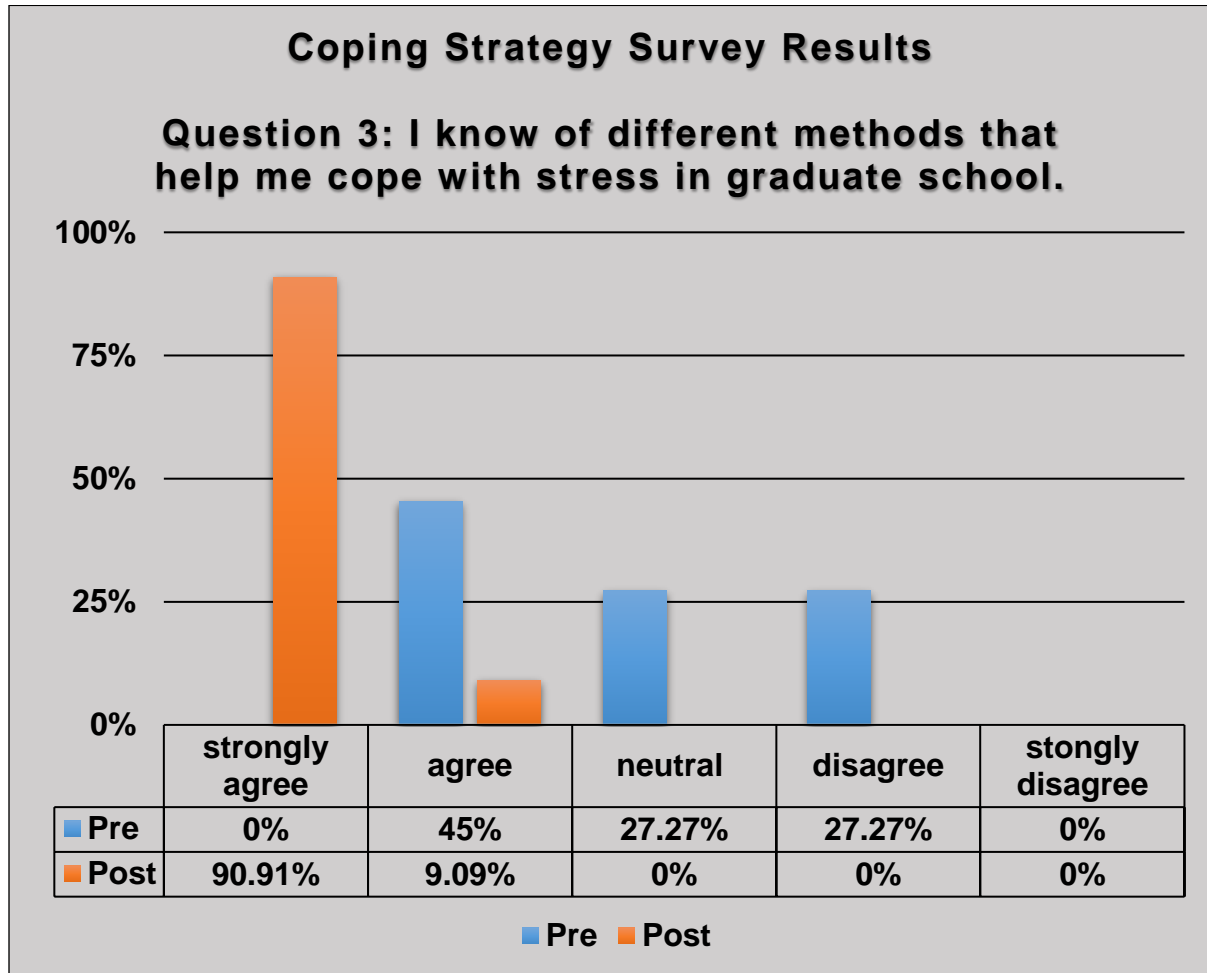


Figure 3. Coping Strategy Survey results question 3. (N= 11)

\*Pre: Pre-Intervention

\*Post: Post-Intervention

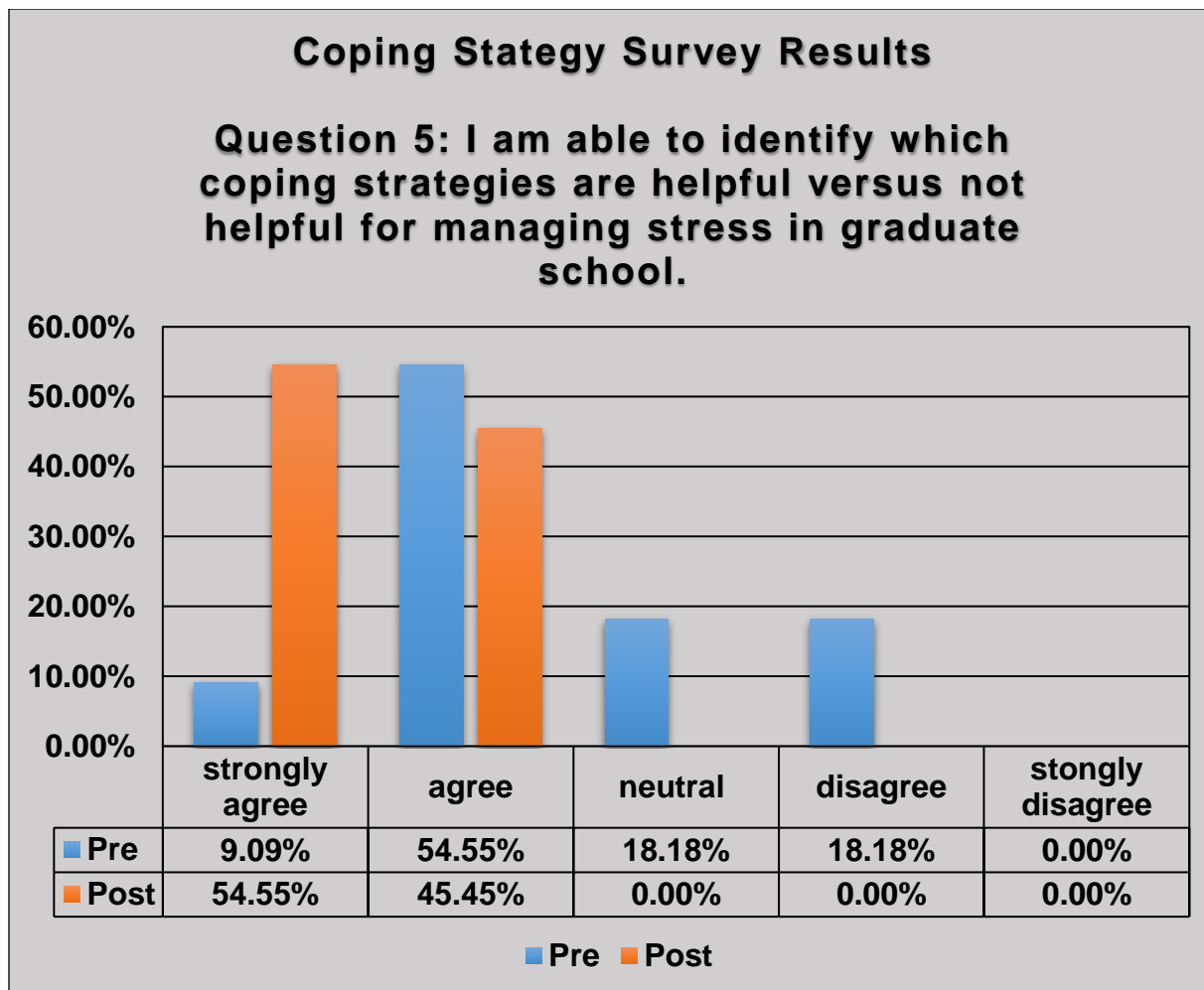


Figure 4. Coping Strategy Survey results question 5. (N=11)

\*Pre: Pre-Intervention

\*Post: Post-Intervention

Qualitative data was gathered in the pre- and post-Coping Strategy Survey and through journaling following each session. All information contained on the surveys and in the journals was read by the first author several times to look for themes and patterns of responses. These themes were verified by the second author to ensure appropriate categorization of supporting quotes. All of the participants acknowledged the negative effects that stress and maladaptive coping strategies had on their academic performance as well as their overall well-being. The participants reported feelings of anxiety and stress stemming from the demands of graduate school. The educational intervention enabled participants to increase their awareness of adaptive coping strategies and identify the different effects and consequences of maladaptive strategies. For the open ended questions in the Coping Strategy Survey, pre-intervention three out of the 11 participants (27%) reported being satisfied with their current coping strategies and four out of the 11 participants (36%) were not satisfied. The remaining four participants (36%) were satisfied, however reported room for improvement with their current coping strategies, pre-intervention. Post-intervention, nine out of the 11

participants (82%) reported being satisfied with the current coping strategies that they were using to help them cope with the stress from graduate school. Two out of the 11 participants (18%) reported not being satisfied with their current coping strategies for graduate school, post-intervention.

Common themes emerged as a result of the participant's engaging in journal reflections. Following are the three main themes identified by the authors based on the qualitative data gathered: 1. Understanding the differences between adaptive and maladaptive coping strategies, 2. The program helped me feel less stressed, and 3. Identification of new adaptive coping strategies. Refer to Figures 5, Figure 6 and Figure 7 for the participants' qualitative statements as they related to the three common themes identified by the qualitative data analysis.

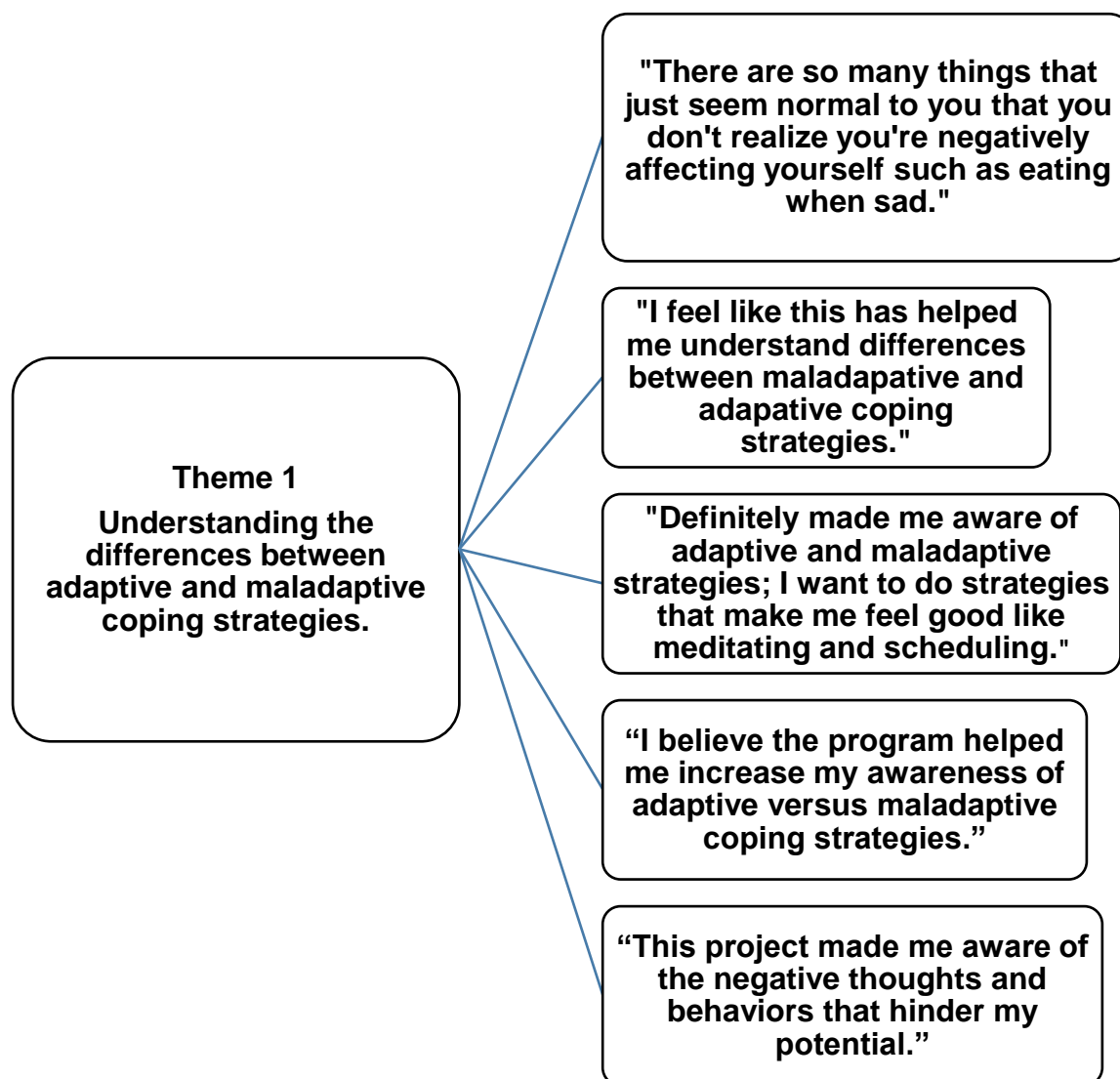


Figure 5. Theme 1 participants' qualitative statements.

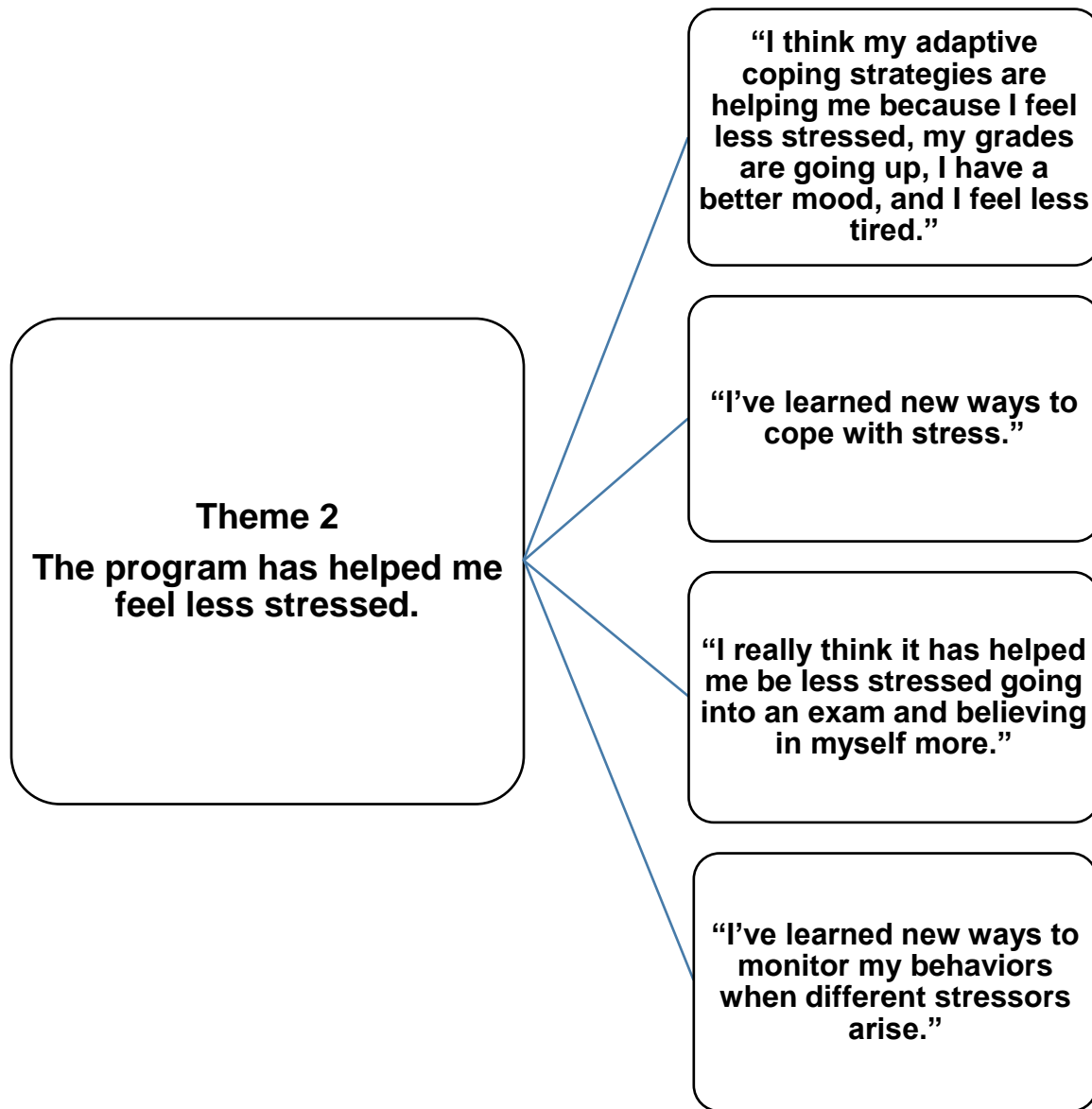


Figure 6. Theme 2 participants' qualitative statements.

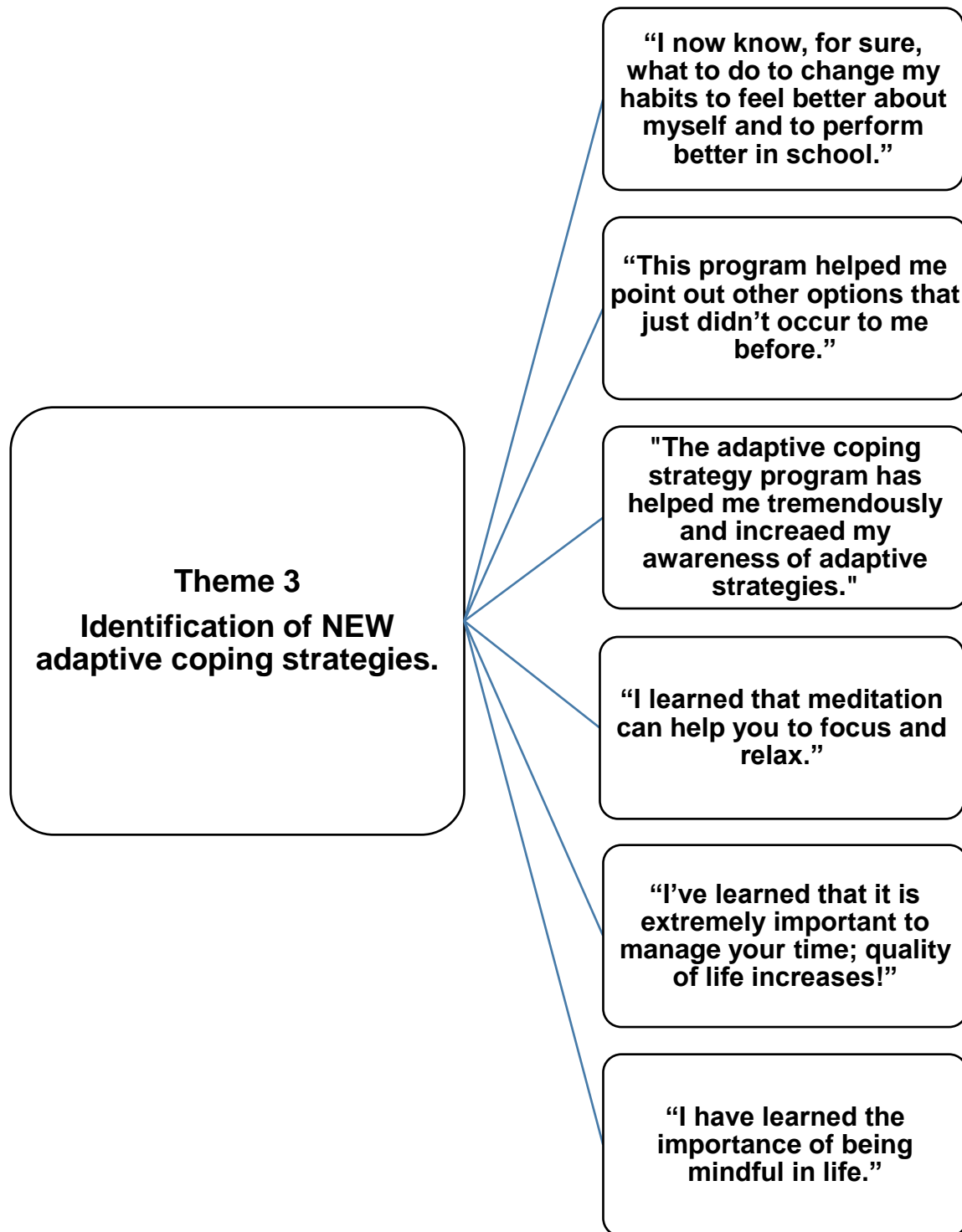


Figure 7. Theme 3 participants' qualitative statements.

All of the participants expressed an enhanced understanding of the various coping strategies presented in the program. The participants frequently expressed the value of receiving intervention to address the anxiety and stress caused by the challenges and demands from graduate school. Providing education and training in the use of adaptive coping strategies provided the participants with an increased ability to cope with the stressors from graduate school.

## **DISCUSSION**

The pilot educational intervention was purposefully designed to provide occupational therapy graduate students with adaptive coping strategies to help them overcome the stressors and challenges from graduate school. Moreover, the pilot educational intervention was designed to increase awareness and educate participants on the benefits and possible consequences of engaging in adaptive and maladaptive coping strategies in graduate school. The quantitative results from the Brief COPE and Coping Strategy Survey demonstrated positive results overall, indicating a general increase in participants' awareness and engagement of adaptive coping strategies to help them overcome the stressors and challenges from graduate school. This supports findings by Alexander and Onwuegbuzie (2006), who noted that graduate school students may not have acquired strategies to cope with stress and may benefit from training.

While it is possible that the students answered in ways they felt were expected by the instructor, the qualitative statements demonstrated some evidence that the strategies taught in the sessions were new and novel ways of approaching stress and could perhaps be used by students who were genuinely concerned about the adverse health and academic consequences of stress. Maladaptive responses that were not the anticipated pre- and post-responses expected by the authors consisted of venting and denial. Shaikh et al. (2016) found that students used both adaptive and maladaptive strategies to cope with stress. Jahan and colleagues (2016) showed that graduate students can be trained to identify adaptive strategies for stress management. Findings from this pilot educational intervention supported the concept that students can be trained to recognize adaptive and maladaptive strategies, and to employ adaptive strategies with the result of reduced stress.

The outcomes of the pilot educational intervention was considered a worthwhile addition to the curriculum and demonstrated benefits of infusing a coping strategy program, guided by the cognitive-behavioral model, for graduate students. Collins and Onwuegbuzie (2003) noted that identification of students with ineffective coping strategies is an important first step. Use of the Brief COPE and Coping Strategy Survey appeared to be an effective means of identifying these students. The delivery of education and training in the use of cognitive-behavioral based coping strategies encouraged increased self-efficacy regarding the ability to manage stress associated with graduate school. Occupational therapists working in academia can provide emotional support to their students by providing them with the proper tools and resources to adaptively cope with the stress caused by the challenging demands of graduate studies, and as a result help increase academic performance and overall well-being among graduate students.



## **LIMITATIONS**

Although thoroughness in assessing evidence that is indicative of best practice, and thoughtful analysis of the methods of implementation were observed, the authors recognize essential limitations that may have diminished the effectiveness of the planned intervention. The first limitation included the six-week time constraint. The time constraint had the potential to negatively impact the intervention in that cognitive-behavioral based interventions typically require a prolonged length of time to effectively implement. Changes in an individual's coping strategies occur gradually. With that said, it may be unrealistic for some students to achieve measurable change in their perception of their coping strategies in the relatively brief time span of six weeks. Second, the use of self-reported data has inherent limitations. Although surveys, assessments and journal responses were confidential, responses might have been untruthful or inaccurate due to interventions being implemented within the context of their university graduate program by one of their current professors. Last, assessment of the long term effects is beyond the scope of this pilot educational intervention due to the time constraints of the author's graduate course of study. To gather information about the lasting effectiveness of the planned intervention, follow-up surveys and/or interviews with the students would need to be designed and conducted to determine if their increased awareness in adaptive coping strategies influence academic performance and overall well-being. Increasing a student's awareness and competence in adaptive coping strategies to effectively overcome the challenges of graduate school was sufficient justification for the implementation of the pilot educational intervention.

## **IMPLICATIONS FOR OCCUPATIONAL THERAPY EDUCATION**

Occupational therapy practitioners are concerned with the end result of participation and thus enable engagement through adaptations and modifications to the environment or objects within the environment when needed. Enabling engagement in education through modification or adaptations of students' adaptive coping strategies during graduate school can maximize their academic and personal success while attaining their graduate degrees in occupational therapy. Occupational therapy graduate students can be viewed as the clients in an academic setting, thus supporting the need for academicians to address interventions that increase awareness of adaptive coping strategies among this population.

The goal for this pilot educational intervention was to promote adaptive coping strategies among occupational therapy graduate students to increase their overall emotional health and well-being. In an academic setting, "self-regulation of learning involves selecting appropriate learning strategies, assessing one's knowledge, self-correcting when necessary, and understanding the importance of strategy use" (Klassen, Krawchuk, & Rajani, 2008, p. 918). Self-efficacy for self-regulation is a reflection of people's forward-looking beliefs about their abilities to succeed in upcoming experiences (Klassen, Krawchuk, & Rajani, 2008). The pilot educational intervention aimed to focus on increasing the students' self-efficacy regarding the use of adaptive coping strategies for graduate school. The planned intervention promoted students' engagement in adaptive strategies to help cope with the challenges and stressors associated with graduate school. The anticipated results is to encourage educators of

graduate programs to incorporate a coping strategy program for students among their graduate programs or at a minimum increase their awareness of the negative effects that stress and anxiety can have on students' academic performance and overall well-being. The intention of incorporating the intervention into occupational therapy graduate programs is to provide students with adaptive strategies to cope with the requirements of graduate school and help ensure academic success.

---

## References

- Alexander, E. S., & Onwuegbuzie, A. J. (2006). Academic procrastination and the role of hope as a coping strategy. *Personality and Individual Differences, 42*, 1301-1310. <https://doi.org/10.1016/j.paid.2006.10.008>
- Brown, C., & Stoffel, V.C. (2011). Occupational therapy in mental health: A vision for participation. Philadelphia, Pennsylvania: F.A. Davis Company.
- Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the Brief COPE. *International Journal of Behavioral Medicine, 4*, 92-100. [https://doi.org/10.1207/s15327558ijbm0401\\_6](https://doi.org/10.1207/s15327558ijbm0401_6)
- Cognitive behavioral therapy. (n.d.). Retrieved January 31, 2017 from [http://en.wikipedia.org/wiki/Cognitive\\_behavioral\\_therapy](http://en.wikipedia.org/wiki/Cognitive_behavioral_therapy)
- Collins, K., & Onwuegbuzie, A. (2003). Study coping and examination-taking coping strategies: The role of learning modalities among female graduate students. *Personality and Individual Differences, 35*, 1021-1032. [https://doi.org/10.1016/S0191-8869\(02\)00315-X](https://doi.org/10.1016/S0191-8869(02)00315-X)
- Hubbard, K.K., & Blyler, D. (2016). Improving academic performance and working memory in health science graduate students using progressive muscle relaxation training. *American Journal of Occupational Therapy, 70*, 1-8. <https://doi.org/10.5014/ajot.2016.020644>
- Jahan, F., Siddiqui, M. A., Mitwally, M., Al Zubidi, N. S. J., & Al Zubidi, H. S. J. (2016). Perception of stress, anxiety, depression, and coping strategies among medical students at Oman Medical College. *Middle East Journal of Family Medicine, 14*(7), 16-23. <https://doi.org/10.5742/MEWFM.2016.92856>
- Klassen, R., Krawchuk, L., & Rajani, S. (2008). Academic procrastination of undergraduates: Low self-efficacy to self-regulate predicts higher levels of procrastination. *Contemporary Educational Psychology, 33*, 915-931. <https://doi.org/10.1016/j.cedpsych.2007.07.001>
- Schlemper, M., B. (2011). Challenges and coping in graduate school. *The Geographical Bulletin, 52*, 67-72.
- Shaikh, B.T., Kahloon, A., Kazmi, M., Khalid, H., Nawaz, K., Khan, N., & Khan, S. (2004). Students, stress and coping strategies: A case of Pakistani medical school. *Education for Health, 17*(3), 346-353. <https://doi.org/10.1080/13576280400002585>
- Solmonson, Le'Ann, (2009). The cognitive-behavioral model. *TACES Presents Supervision, Theories, Methods, and Ethics*. Retrieved from <https://www.txca.org/images/tca/TheoriesofSupervision/TheoriesofSupervision8.html>

Steinhardt, M., & Dolbier, C. (2008). Evaluation of a resilience intervention to enhance coping strategies and protective factors and decrease symptomatology. *Journal of American College Health, 56*(4), 445-453.

<https://doi.org/10.3200/JACH.56.44.445-454>

Wang, L. (2015). Opening up about stress in graduate school. *Chemical and Engineering News, 93*(36), 59-61. Retrieved from

<https://cen.acs.org/articles/93/i36/Opening-Stress-Graduate-School.html>

<https://doi.org/10.1016/j.ces.2015.05.052>

## Appendix A

### Project Implementation Table

Week	Intervention	Assessment	Time Commitment for Participants
1	<p>Complete the Brief COPE and Coping Strategy Survey (20 minutes)</p> <p>Power Point presentation on coping, coping strategies and effects of adaptive and maladaptive strategies in graduate school.</p> <p>Explanation of two visual diagrams on the cognitive-behavioral model.</p> <p>Guided reflection topic through journaling (10 minutes).</p>	<p>Scores on the Brief Cope and Coping Strategy Survey.</p> <p>Responses to open ended questions.</p> <p>Based on session content, each participant will verbally describe coping and its effect on stress for graduate school with an open discussion format.</p> <p>Rubric on oral discussions will be provided to participants prior to presentation.</p> <p>Project implementer will assess compliance based on verbal response using the rubric as a guide, and responses to reflections on journals.</p>	60 minutes
2	<p>Lecture/Power point presentation on the following material:</p> <ul style="list-style-type: none"> <li>-One adaptive and one maladaptive coping strategy.</li> <li>-Steps to take to engage in the specific adaptive coping strategy.</li> </ul>	<p>In an open discussion format, each participant will verbally explain the adaptive and maladaptive coping strategy discussed.</p> <p>Rubric will be provided to participants prior to presentation indicating the</p>	60 minutes

	<p>-Tools and resources for the coping strategy being addressed.</p> <p>-Benefits and consequences for each strategy being deliberated.</p> <p>-Common stressors for graduate students.</p> <p>Show one YouTube video on coping with stress in graduate school.</p> <p>Guided reflection topic through journaling (10 minutes)</p>	<p>expectations for the explanation of each coping strategy.</p> <p>Each participant will identify 3 examples of the potential benefits of engaging in the adaptive coping strategy by completing a worksheet that was constructed and provided by the project implementer.</p> <p>Project implementer will assess compliance based on verbal and written responses using the rubrics as a guide, and responses to reflections on journals.</p>	
<b>3</b>	<p>Lecture/Power point presentation on the following material:</p> <p>-A second adaptive and maladaptive coping strategy.</p> <p>-Steps to take to engage in the specific adaptive coping strategy.</p> <p>-Tools and resources for the coping strategy being addressed.</p> <p>-Benefits and consequences for each strategy being deliberated.</p> <p>Guided activity incorporating one case</p>	<p>In an open discussion format, each participant will verbally explain the adaptive and maladaptive coping strategy discussed.</p> <p>Rubric will be provided to participants prior to presentation indicating the expectations for the explanation of each coping strategy.</p> <p>The student will complete a worksheet (constructed and provided by project implementer) that will ask students to identify adaptive versus</p>	60 minutes

	<p>study and discussions on adaptive versus maladaptive coping strategies.</p> <p>Guided reflection topic through journaling (10 minutes).</p>	<p>maladaptive strategies using the assigned case studies.</p> <p>Project implementer will assess compliance based on verbal and written responses using the rubrics as a guide, and responses to reflections on journals.</p>	
<b>4</b>	<p>Lecture/Power point presentation on the following material:</p> <ul style="list-style-type: none"> <li>-A third adaptive and maladaptive coping strategy.</li> <li>-Steps to take to engage in the specific adaptive coping strategy.</li> <li>-Tools and resources for the adaptive coping strategy being addressed.</li> <li>-Benefits and consequences for each strategy being deliberated.</li> </ul> <p>Role-playing activity based on case scenario provided.</p> <p>Guided reflection topic through journaling (10 minutes).</p>	<p>In an open discussion format each participant will verbally explain the adaptive and maladaptive coping strategy discussed.</p> <p>Rubric will be provided to participants prior to presentation indicating the expectations for the explanation of each coping strategy and role-playing activity.</p> <p>The students will participate in a guided role-playing activity with a peer (constructed and provided by project implementer).</p> <p>Students will be asked to role-play one of the adaptive and maladaptive strategies discussed in the program.</p> <p>Project implementer will assess compliance based on verbal responses and</p>	60 minutes

		role-playing activity using the rubrics as a guide, and responses to reflections on journals.	
<b>5</b>	<p>Lecture/Power point presentation on the following material:</p> <ul style="list-style-type: none"> <li>-A fourth adaptive and maladaptive coping strategy.</li> <li>-Steps to take to engage in the specific adaptive coping strategy.</li> <li>-Tools and resources for the adaptive coping strategy being addressed.</li> <li>-Benefits and consequences for each strategy being deliberated.</li> </ul> <p>Guided activity involving the completion of assigned worksheet on the effects of adaptive and maladaptive coping strategies on stress in graduate school.</p> <p>Guided reflection topic through journaling (10 minutes).</p>	<p>In an open discussion format each participant will verbally explain the adaptive and maladaptive coping strategy discussed.</p> <p>Rubric will be provided to participants prior to presentation indicating the expectations for the explanation of each coping strategy and worksheet activity.</p> <p>The student will complete a worksheet (constructed and provided by project implementer) that will ask students to describe the effects of adaptive and maladaptive coping strategies on stress in reference to graduate school.</p> <p>Project implementer will assess compliance based on verbal and written responses using the rubrics as a guide, and responses to reflections on journals.</p>	60 minutes
<b>6</b>	Complete the Brief COPE and Coping Strategy Survey (20 minutes).	Results/scores of the Brief COPE and Coping Strategy Survey.	60 minutes

	<p>Lecture/Power point presentation on the following material:</p> <ul style="list-style-type: none"> <li>-Summary of the adaptive and maladaptive coping strategies discussed on previous sessions.</li> <li>-Overall benefits of engaging in adaptive strategies to cope with the challenges of graduate school.</li> <li>-Overall possible consequences of engaging in maladaptive strategies in graduate school.</li> </ul> <p>The completion of a worksheet/template on a plan with specific goals to incorporate adaptive coping strategies discussed in graduate school.</p> <p>Guided reflection topic through journaling (10 minutes).</p>	<p>Rubric will be provided to participants prior to presentation indicating the expectations for completed worksheet on the development of a strategic plan with specific goals on the incorporation of adaptive coping strategies discussed.</p> <p>Project implementer will assess compliance based on written responses on worksheet using the rubric as a guide, and responses to reflections on journals.</p>	
			<p><b>Total time commitment from each participant: 6 hours (one hour a week for six weeks)</b></p>