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Abstract

Previous literature explored the concepts of stress, mindfulness, and occupational engagement, yet there is a substantial gap linking these terms within the field of occupational therapy (OT). The researchers identified a need to investigate the perceptions of these concepts among graduate-level OT students and its impact on their quality of life and occupational balance. Current research identified mindfulness and occupational engagement as healthy coping strategies for reducing stress and both concepts emphasized the action of being fully present and engaged. The exploratory mixed-methods study consisted of 490 students from graduate-level OT programs throughout the United States. Results revealed that the majority of participants experienced high levels of stress while in graduate school. The findings indicated that stress, academic responsibilities, and limited application of coping strategies impacted the ability to engage in meaningful activities. Participants identified mindfulness as an effective coping mechanism, which included strategies of deep breathing, journaling, and meditation in addition to the act of being mindful through self-reflection and self-awareness. Although participants reported positive views of mindfulness to decrease stress, the reported use did not appear to alter the participants' perceptions of quality of life. Findings suggested a lack of occupational engagement in meaningful activities negatively impacted the participants' perceived quality of life and occupational balance. The study provided support for strengthening the connection between the constructs of mindfulness and occupational engagement. The study has broad implications for the field of OT and its applicability to stress management in both academic and professional settings.

Keywords

Perceived stress, mindfulness, occupational engagement, graduate students, occupational therapy

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ABSTRACT

Previous literature explored the concepts of stress, mindfulness, and occupational engagement, yet there is a substantial gap linking these terms within the field of occupational therapy (OT). The researchers identified a need to investigate the perceptions of these concepts among graduate-level OT students and its impact on their quality of life and occupational balance. Current research identified mindfulness and occupational engagement as healthy coping strategies for reducing stress and both concepts emphasized the action of being fully present and engaged. The exploratory mixed-methods study consisted of 490 students from graduate-level OT programs throughout the United States. Results revealed that the majority of participants experienced high levels of stress while in graduate school. The findings indicated that stress, academic responsibilities, and limited application of coping strategies impacted the ability to engage in meaningful activities. Participants identified mindfulness as an effective coping mechanism, which included strategies of deep breathing, journaling, and meditation in addition to the act of being mindful through self-reflection and self-awareness. Although participants reported positive views of mindfulness to decrease stress, the reported use did not appear to alter the participants' perceptions of quality of life. Findings suggested a lack of occupational engagement in meaningful activities negatively impacted the participants' perceived quality of life and occupational balance. The study provided support for strengthening the connection between the constructs of mindfulness and occupational engagement. The study has broad implications for the field of OT and its applicability to stress management in both academic and professional settings.

Introduction

Previous research has indicated that graduate-level healthcare students are susceptible to experience higher levels of psychological distress compared to the general population due to the challenging demands of academic programs, which decreases their quality of life and can impact both academic and clinical performance (McConville et al., 2017). A study among occupational therapy (OT) graduate students found that almost half of the students reported their perception of their current level of stress as above average (Pfeifer et al., 2008). While stress is primarily considered a universal phenomenon and experience, the way in which each student perceives stress varies greatly as individuals respond to and cope with stress differently (Govender et al., 2015). *Perceived stress* is defined as "the degree to which one perceives an event or situation as threatening or demanding and beyond one's coping resources" (Stillwell et al., 2017, p. 508). Each student's unique response to challenging situations can either further increase or decrease personal levels of stress. Therefore, there is a need to understand the perceptions of stress and healthy coping skills among graduate-level healthcare students in order to promote both personal and professional well-being.

While numerous coping skills are explored in literature, there is limited research on the perceptions of these coping skills among graduate-level OT students. According to Beck et al. (2017), mindfulness is heavily researched as an effective method for stress reduction. *Mindfulness* is defined as "the intentional act of paying attention to the present moment in a non-judgmental way" (Beck et al., 2017, p. 894). The principle of mindfulness is rooted in the concept of being intentionally engaged in the present moment, and this concept is also reflected in the principle of occupational engagement in OT. *Occupational engagement* is defined in OT literature as "being completely present in mind, body, and spirit; demonstrating passion and meaning" (Kennedy & Davis, 2017, p. 105). Jackman (2014) defined *mindful occupational engagement* as "the moment-by-moment awareness and nonjudgmental engagement in an activity, without expectation of specific outcomes" (p. 243). Both principles of mindfulness and occupational engagement emphasize the act of being fully present and engaged. While mindfulness and occupational engagement may be closely related or support one another, there is a gap in literature linking the two variables and their relationship to perceived stress among graduate students. The proposed question identified by the researchers is: How do graduate-level OT students perceive stress, mindfulness, and occupational engagement, and how do these variables impact students' overall quality of life?

Literature Review

Stressors Among Graduate Students

A review of literature revealed limited research on measuring perceived stress specifically among graduate-level OT students. According to Beck et al. (2017), college tends to be a stressful time in life, and the stress can be amplified in students pursuing a healthcare career. The researchers suggested that while stress can be positive and aid in professional and academic growth, if mismanaged, stress may negatively affect students' attitudes and their ability to learn and be productive (Beck et al., 2017). Pfeifer

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et al. (2008) found that entry-level graduate OT students experienced above-average stress related to course work and unclear expectations. The study identified that time management issues of balancing academics, family, and work was a primary factor for causing stress, which were reported to impact the students' academic roles and engagement in daily occupations (Pfeifer et al., 2008). Beck et al. (2017) reported the academic pressures of graduate school combined with an insufficient amount of time to balance school, health management, and leisure participation may lead to increased stressors that make graduate students more susceptible to stress, anxiety, and other psychological effects. Furthermore, negative psychological and physiological effects of stress can impact students' productivity, ability to learn, and overall attitude if high stress levels are not managed appropriately (Beck et al., 2017).

Coping Strategies

Coping strategies included specific efforts, both behavioral and psychological, that individuals implemented to tolerate and minimize the harmful effects of stress (Shearer et al., 2016). De Vibe et al. (2018) identified beneficial coping strategies for students to implement as a healthy way of dealing with stress. An example of a coping strategy included participation in mindfulness techniques, such as deep breathing, yoga, positive self-talk, and having oneself be fully present in the given moment (de Vibe et al., 2018).

A study conducted by Shearer et al. (2016) suggested that practicing mindfulness can significantly lower anxiety in the moment and also help students better regulate their stress responses when confronted with cognitive challenges. The study found that mindfulness practice for as short as four weeks was able to produce detectable physiological benefits. Furthermore, the researchers recommended mindfulness practice as a simple and cost-effective stress management strategy for students (Shearer et al., 2016). The literature suggested that OT graduate students should learn and implement healthy coping skills while in school so that they can later transfer these skills in clinical practice (de Vibe et al., 2018; Pfeifer et al., 2008; Shearer et al., 2016).

Mindfulness

Research has examined spiritual practices of mindfulness from both secular and religious perspectives and associated worldviews (Bodhi, 2011; Frederick & White, 2015; Jackson, 2019; Kabat-Zinn, 1982). There was no consensus on a single definition of mindfulness because of different cultural and religious perspectives from which mindfulness originated.

As a secular practice, mindfulness increased in popularity in modern Western society due to the introduction by Dr. Jon Kabat-Zinn (Jackson, 2019). Kabat-Zinn (1982), described mindfulness as awareness in the present moment through meditation and stillness, for the purpose of restoring balance and perspective. Mindfulness included a quality of focused awareness in addition to a set of skills and techniques (Kabat-Zinn, 1982). According to Jackson (2019), the secular approach introduced mindfulness as a universal skill that was independent yet respectful of its religious and cultural perspective.

Within the field of OT, Jackman (2014) described the practice of mindfulness in a holistic context of body, mind, and spirit and defined it as "a way of being attuned and consciously aware while engaged in an occupation in everyday modes of engagement" (p. 243). Goodman et al. (2018) stated that mindfulness may have implications for how humans experience, understand, and approach all manner of human occupation at both individual and socio-cultural levels. Mindfulness interventions in OT practice included addressing physical symptoms, cognitive issues, and psychosocial difficulties in both psychological and medical settings (Jackman, 2014). Mindfulness had broad implications in a variety of health and social care contexts including schools, workplaces, clinics, and hospitals, and was applicable to either secular or spiritual practice (Goodman et al., 2018; Jackman, 2014).

Jackman (2014) examined mindfulness as a spiritual practice in the context of OT theory and the Canadian Model of Occupational Performance and Engagement (CMOP-E). The CMOP-E included the main components of person, environment, and occupation and emphasized spirituality as the main essence of a person (Townsend & Polatajko, 2007). Within the model, they defined *spirituality* as "a pervasive life force, source of will and self-determination, and a sense of meaning, purpose and connectedness that people experience in the context of their environment" (Canadian Association of Occupational Therapists, 1997, p. 183). Furthermore, Jackman (2014) suggested that mindful occupational engagement provided an underlying spiritual context and emphasized key constructs of spirituality and occupational engagement.

A qualitative study on mindfulness training by Tarrasch (2015) found that graduate students who participated in mindfulness training perceived improvements in quality of sleep, reductions in stress, and were more aware of their own feelings, thoughts, and behavior. Students also developed an awareness of others, and of others' perspectives, which led to a positive influence on their relationships. The outcomes suggested including mindfulness practices in professional development programs for graduate students (Tarrasch, 2015). Similarly, a study by Beck et al. (2017) found that participation in mindfulness sessions decreased stress levels, helped individuals relax, and improved their general outlook on their own life. Research by Kelly (2017) suggested that mindfulness can be an effective tool in reducing anxiety and stress among healthcare students.

Occupational Engagement

The construct of occupational engagement in OT literature was a broad and conceptual term that encompassed the act of doing and participating in meaningful occupations. Within the *Occupational Therapy Practice Framework: Domain and Process*, engagement in occupation was defined as "performance of occupations as the result of choice, motivation, and meaning within a supportive context and environment" (American Occupational Therapy Association [AOTA], 2020, p.76). The process of engagement included clients' objective and subjective experiences and involved reciprocity of the mind, body, and spirit (AOTA, 2020, p. 5-6). While the act of doing generally described occupational performance, the concept of engagement supported the practice of being fully present (Jackman, 2014; Wong & Fisher, 2015).

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Occupational therapists' perspectives on the construct of occupational engagement included "being completely present in mind, body, and spirit; demonstrating passion and meaning" (Kennedy & Davis, 2017, p. 105). Similarly, Jackson (2019) described the act of being oriented to the present moment and being consciously curious, open, and accepting of one's present experiences and observations of momental events. Through a literature search, key elements of occupational engagement included (a) associating meaning with the occupation, (b) being motivated and self-determined, (c) having the physical and mental competence to complete the occupation, and (d) being involved in a supportive environment (Kennedy & Davis, 2017).

Jackman (2014) conceptualized occupational engagement as an individual's personal investment into an occupation and how devoted they are to the experience. One's subjective experience of an occupation illustrated the manner in which they perform the occupation and the sense of engagement and meaning they personally derive from the experience (Jackman, 2014). Elliot (2011) suggested that being mindful while engaging in occupations has the potential to facilitate an increased awareness of a deeper meaning of the occupations.

The Link Between Mindfulness and Occupational Engagement

When reviewing the definitions of mindfulness and occupational engagement, both terms emphasized being intentionally focused on tasks (Jackman, 2014). Mindful occupational engagement was a proposed term to link the two variables of mindfulness and occupational engagement as Jackman (2014) described the term as being aware in the moment while engaging in an activity without judgement or expectations.

Elliot (2011) and Goodman et al. (2018) reviewed the relationship between mindfulness and human occupation and identified gaps that existed in current literature in relation to the discipline of OT. The authors described a connection of mindfulness to occupation that requires further exploration. Incorporating mindfulness into everyday occupations influenced the way in which individuals viewed and participated in meaningful activities to promote mindful human occupations (Goodman et al., 2018). To engage in everyday occupations, individuals required conscious awareness to complete a task, to achieve appropriate outcomes, and to involve oneself within the immediate and social environments (Reid, 2011). Elliot (2011) emphasized the idea of seeking mindful engagement in the everyday, mundane occupations of daily living as this can allow for discovery of deeper understandings of the process of 'doing' those occupations as well as 'being' in daily life. In this way, mindfulness had a natural fit with occupation as its informal practice of cultivating awareness promoted increased engagement and attunement to activities while positively contributing to quality of life and personal well-being (Elliot, 2011). Furthermore, researchers suggested that mindfulness was a valuable intervention to support individuals in experiencing increased enjoyment and presence during occupational engagement (Elliot, 2011; Jackman, 2014).

Purpose

The culmination of research provided support for further exploration of stress levels among graduate students and how students choose to cope with this stress. The primary focus of the study was to explore the perceptions of stress, mindfulness, and occupational engagement from the point of view of graduate-level OT students and to examine the potential connection between these constructs.

Methods

The study used a mixed-methods approach with an exploratory design to examine OT graduate students' perceptions of stress, mindfulness, and occupational engagement during their graduate-level program. The design included a cross-sectional survey consisting of quantitative and qualitative responses to gain an understanding of students' reported levels of stress, use of coping skills and strategies, and engagement in occupations, as well as to explore their perceptions of these concepts. The survey was followed by an optional focus group to further explore students' perceptions of the impact of stress on occupational engagement, and perceptions of mindfulness.

Sampling

The sample consisted of graduate students recruited from accredited OT programs across the United States (U.S.) who met the inclusion and exclusion criteria. The inclusion criteria for the study included graduate-level students who were currently enrolled in an accredited OT program within the U.S. and were all adults over the age of 18 years. The exclusion criteria for the study excluded individuals who were not graduate-level students, were not currently enrolled in an accredited OT program within the U.S., or were not over the age of 18 years. Participants were recruited using a non-random purposive sample through an email invitation asking for survey participation.

Instrumentation

Data was collected using a mixed-method self-designed instrument that was specifically developed to gain OT student perceptions on concepts of stress, mindfulness, and occupational engagement (see Appendix A). The instrument underwent expert review by university faculty and was pilot tested in a preliminary study. The survey instrument consisted of 24 questions, which included a mix of demographic, quantitative Likert-scale questions and qualitative open-ended questions. The data collection was facilitated through an online survey website, www.SurveyMonkey.com. The focus group instrument consisted of open-ended questions for participants to verbally respond to through an audio conference call (see Appendix B). The researchers performed a pilot test of the instrument and multiple experts reviewed the instrument to enhance face validity.

Procedure

Following approval from the university's institutional review board (IRB), researchers recruited participants on a voluntary basis through an email that was sent to program directors/chairperson/faculty member of OT programs to disperse to all individuals who met the inclusion criteria. Once participants provided their consent, they proceeded with the survey. If more than two questions were not answered in the survey, the

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researchers discarded the data and did not include it in the analysis within the study. At the end of the survey, participants voluntarily provided their email address through an external website link if they desired to be entered in a random incentive drawing of a $25.00 gift card. Additionally, participants voluntarily provided their contact information through an external website link if they were interested in participating in the optional brief focus group. All participants that provided their contact information were sent an email with a Google Form link to provide informed consent prior to participating in the focus group on Thursday, December 5, 2019 via an audio teleconference call.

Prior to the focus group, participants gave their consent to participate. The data collected from the participants during the focus group was anonymous and did not include any identifying information about themselves or their program to ensure the confidentiality of the participants. During the focus group session, the researchers utilized audio recording, which was transcribed verbatim after completion of the focus group.

Data Analysis

The researchers extracted qualitative and quantitative data from the survey and discarded incomplete surveys in which three or more questions were not answered according to a predetermined procedure. This omitted 53 survey participants' data. Of the 543 participants who completed the survey, 490 surveys met the criteria to be included in the final analysis of data. Methods of qualitative data analyses included content and thematic analysis. Qualitative data from the open-ended survey responses and the focus group transcription were manually coded and analyzed using an inductive approach. Key words were identified by content analysis. Manual coding of the data led to the identification of codes and themes. The researchers used thematic mapping in order to discover the underlying themes within the participants' responses. The qualitative findings were of primary importance in the exploratory study and involved multiple readings of transcribed data. Researchers independently coded the data prior to coming together to triangulate all data sets. Researchers were able to reach a consensus after many rounds of discussion to discover overarching themes. Analysis of quantitative data from the Likert-style survey responses included descriptive statistics. The researchers performed triangulation of all three data sets in order to bring together both the quantitative and qualitative findings of the study to verify final themes.

Results

Demographics

Among the 490 surveys that met the inclusion criteria, 95.31% (n= 467) of all participants were female, 74.69% (n= 366) of participants were between the ages of 22-25 years, and 81.84% (n= 401) of participants were white/Caucasian. The majority of all participants (89.18%, n= 437) reported their marital status as single, and more than half of all participants reported part-time employment (57.14%, n= 280).

Not all participants responded to every survey question, thus resulting in missing data of three questions (see Table 1). Of 489 respondents, a large percentage reported enrollment in an entry-level master's degree in OT (66.05%, n= 323). 489 respondents reported enrollment in OT programs throughout the U.S., with the greatest percentage of programs in the Midwest (41.92%, n= 205), followed by 26.18% (n= 128) in the South, 25.97% (n= 127) in the Northeast, and 5.93% (n= 29) in the West. When asked which year of their OT degree the participants were currently enrolled in, the following were reported by 489 respondents: first year = 44.99% (n= 220), second year = 43.97% (n= 215), and third year = 11.04% (n= 54). The majority of all 490 participants reported that they were currently completing the didactic portion of their OT degree (86.73%, n= 425), while 12.04% (n= 59) reported completing level II fieldwork and 1.22% (n= 6) reported completing their capstone/residency/doctoral component. See Table 1 for further demographic information.

Table 1

Frequencies and Percentages of Demographics

Variable	Frequency (*f*)	Percentage (%)
Gender		
Male	21	4.29%
Female	467	95.31%
Other	2	0.41%
Age		
18-21	30	6.12%
22-25	366	74.69%
26-29	62	12.65%
30-33	20	4.08%
34-37	6	1.22%
38-41	2	0.41%
42-45	2	0.41%
46-49	0	0.00%
50+	2	0.41%
Ethnicity		
American Indian or Alaskan Native	0	0.00%
Asian	26	5.31%
Black or African American	8	1.63%
White/Caucasian	401	81.84%
Hispanic or Latino	34	6.94%
Native Hawaiian or Pacific Islander	3	0.61%
Other	18	3.67%
Employment Status		
Part-Time (<35 hours a week)	280	57.14%
Full- Time (35+ hours a week)	11	2.24%
Unemployed	199	40.61%

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Variable	Frequency (*f*)	Percentage (%)
Marital Status		
Single (never married)	437	89.18%
Married	48	9.80
Divorced	3	0.61%
Separated	2	0.41%
Widowed	0	0.00%
Location of OT Program * (n=489)		
West	29	5.93%
Midwest	205	41.92%
South	128	26.18%
Northeast	127	25.97%
OT Degree Currently Being Pursued * (n=489)		
Entry-level Master's degree in OT	323	66.05%
Entry-level Doctorate degree in OT	163	33.33%
Post-professional Doctoral degree in OT	3	0.61%
Current Year in OT Program * (n=489)		
First-year	220	44.99%
Second-year	215	43.97%
Third-year	54	11.04%
Current Status within OT Program		
Didactic coursework	425	86.73%
Level II Fieldwork	59	12.04%
Capstone/Residency/Doctoral Component	6	1.22%

Note. Data shown are based on a sample of 490 participants (n=490), with the exception of categories * due to missing data.

Qualitative Data

Qualitative data consisted of open-ended responses from 490 survey participants in addition to responses from a focus group of five participants. All qualitative questions were based upon the constructs of stress, mindfulness, and occupational engagement. Three overarching themes of stress, mindfulness, and occupational engagement were based on participants' descriptions of the constructs. Themes emerged in each category that were central to the experience of OT graduate students. Refer to Appendix C for a summary table of themes, subthemes, and representational quotations.

Stress

Influence of Internal and External Demands. The culmination of qualitative responses revealed an overarching theme that described stress as a result of internal and external demands of the past, present, and future. Participants reported that internal demands consisted of self-driven expectations, self-perceptions of the current situation or occupational balance, or being preoccupied with the past and future. In contrast, external demands were associated with education, employment, extra-

curricular activities, finances, relationships, and other daily obligations. The increased academic workload required during graduate school, consisted of assignments, exams, and clinical fieldwork, and identified as common factors associated with increased stress. Participants offered the following related statements:

> My stress is at a higher level than it ever was in undergrad. I have trouble maintaining my stable mental health daily and it has affected my physical health as well. I have trouble engaging socially, even responding to texts, like I used to because my mind is so preoccupied. I find that my stress becomes so overwhelming that I have issues studying daily and getting work done at an efficient rate (p. 3, line 201).

> Stress to me is an overwhelming demand placed on myself. This affects my daily life because I become more anxious with the piling up demands/tasks that constantly need my attention. It interferes with my ability to have an occupational balance in my life (p. 4, line 269).

Manifestations of Stress and Perceived Impact. The effects of stress included symptoms ranging from physiological, mental, or emotional distress as well as positive motivation, which contributed to a positive or negative impact on daily activities, physical and emotional well-being, and quality of life. Among the participants who viewed stress in a positive manner, their descriptions included stress as a motivating factor to (a) increase productivity and time-management, (b) engage in stress-reduction techniques, and (c) prioritize meaningful activities in their daily routine. The internal and external demands of stress affected free time, the ability to successfully complete daily obligations, and the ability to engage in meaningful activities. The physical effects of stress included symptoms of gastrointestinal distress, musculoskeletal pain, headaches, sleep disturbances, increased heart rate, difficulty breathing, and decreased energy levels. Participants described their emotional responses to stress as an overwhelming and anxious feeling of inner tension that affects one's ability to cope. Additionally, participants reported these emotional responses to increase the physiological effects of feeling panicked, guilty, and agitated. Participants' statements that described different perspectives of stress were as follows:

> For me, stress is a taxing physical, mental, social, and emotional force that is exacerbated by deadlines, unexpected events, and the inability to 'let things go.' When I am stressed, I am often on 'autopilot' and have a difficult time taking time for myself or doing things I enjoy with others. I am often on edge, feeling anxious at all times, and respond to others in an agitated tone. I will often have a hard time getting and staying asleep. My body also craves comfort food, and feels worn down and sluggish (p. 5, line 345).

> Although stress is technically a neutral term, we usually view it as a negative thing. For me, a moderate amount of stress is necessary for optimal performance. Having no stress at all would probably lead to decreased productivity (p. 6, line 374).

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Mindfulness

Mindfulness and Being Mindful. The construct of mindfulness was described as being self-aware and presently engaged in the moment without being preoccupied with the past or future. Participants discussed various strategies that can be utilized to be mindful and to experience the positive effects of mindfulness. The responses from the qualitative data revealed that the participants' descriptions of mindfulness varied between the act of being mindful versus implementing mindfulness strategies. Participants interchangeably used the terms "mindfulness" and "being mindful" when describing their engagement and perception of mindfulness.

At times, participants described mindfulness strategies as engaging in activities such as meditation, deep breathing, yoga, journaling, spiritual practices, self-care, and exercise. One participant described the use of mindfulness strategies as "when I can't sleep I listen to mindfulness exercises and deep sleep meditations... I also like to engage in mindfulness yoga when stressed and I also use the deep breathing exercise... when stressed before exams or competencies" (p. 28, line 1944). Another participant described mindfulness routines as "I journal every day, practice deep breathing, and spend solitary time in nature. This allows me to calm my mind and become more aware of my thoughts and feelings… to cope with stressful feelings and see things more objectively" (p. 41, line 2846). Another participant described mindfulness as: "...self care and a practice to set a foundation for myself to live my best life. I am a newbie in my mindfulness practice, though [I] use [a meditation application] and practice my own mindfulness strategies in structuring my journal and exercise time" (p. 35, line 2398).

In contrast, other participants described the act of being mindful as including elements of self-awareness, self-reflection, being present, being grounded, and being intentional. One participant described being mindful as "being present in your daily activities - whether that is with my encounters and conversations with others, being mindful of how I speak to myself, being mindful when eating, etc." (p. 31, line 2160). Another participant stated that "mindfulness is being cognitively present in the moment and understanding what is occurring within us (emotions, thoughts, etc.) and around us (physical and social environment)" (p. 28, line 1924). Being grounded was included as an act of being mindful, in which one participant stated: "taking the time to ground all aspects of your being into what is happening right here, right now" (p. 41, line 2844).

Effects of Mindfulness and Being Mindful. Participants described numerous positive effects of mindfulness and being mindful and generally viewed mindfulness as coping mechanisms and stress-reduction techniques. Positive effects included decreased anxiety or stress, and improved productivity, quality of life, occupational balance, occupational engagement, or motivation. Participants offered the following statements regarding the benefits of engaging in mindfulness:

> [Mindfulness] keeps me from worrying about the future, and it helps me remain positive about what is to come even if I'm uncertain. … It has helped me tremendously since I learned about it during my first year of OT school and I make time to practice it very often (p. 30, line 2045).

> Mindfulness is being aware of your body and mind's reaction to things. I think noticing when I am stressed or when I have the potential to become overly stressed is a big benefit to me. Being mindful of my mental health and stress levels allows me to use activities to reduce and manage it before it gets out of hand (p. 40, line 2764).
>
> It looks like really enjoying what you're doing and not noticing that time is passing, and not thinking about when the next thing will happen. … And when I'm fully engaged in an activity, then I have like a flow where nothing else matters except for what I'm doing at that moment (p. 72, line 4842).

Barriers to Mindfulness and Being Mindful: Internal and External Demands. Although participants reported positive benefits of mindfulness and being mindful, many individuals described various barriers to mindfulness such as not having adequate time or instruction to participate in mindfulness. One participant stated, "I do not think that I know how to make mindfulness work for me in settings other than yoga and meditation. I would like more education" (p. 33, line 2237). The lack of time to participate in mindfulness was noted, as one participant shared "I do not have much time for mindfulness. I think it could be beneficial but I have so much to do in one day... due to school work and FW [fieldwork]" (p. 28, line 1926).

Participants reported using mindfulness on an inconsistent basis, such as during times of high stress or as a coping mechanism for certain situations, rather than incorporating mindfulness into everyday life. One participant described using mindfulness as a coping mechanism instead of applying it to life on a daily basis in the following statement: "[mindfulness is] a helpful coping mechanism but I have trouble using mindfulness as a preventative measure. I feel like I turn to it for damage control" (p. 35, line 2417). Another participant stated, "I tend to only do [mindfulness] after I've stressed for a while or after panicking and being redirected by an outside source (or not having an outside source to turn to)" (p. 41, line 2796). In contrast, other participants reported that they were unable to implement mindfulness in their daily lives when stress levels become too high and overwhelming. Additionally, a participant described the impact of mindfulness on their stress level: "[mindfulness] helps with anxiety when you have time for it, but there are times when you're so overloaded with stress that nothing seems to help" (p. 26, line 1765).

Occupational Engagement

Intentional Participation in Meaningful Activities and Perceived Impact. Participants defined occupational engagement as an active construct of intentionally participating in and prioritizing meaningful activities within one's daily schedule. Participants described a holistic view of occupational engagement including components of engaging in activities of meaning and purpose, finding life balance and motivation, and included physical, cognitive, social, and emotional factors. Participants emphasized the context of occupational engagement as being attentive to the present moment and taking the time to intentionally engage in meaningful daily activities. For example, a participant explained occupational engagement as "the willful participation in something - being fully present in the role, activity, or task" (p. 50, line 3479).

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Participants reported that participating in occupational engagement may positively impact one's daily life by supporting occupational balance. For example, one participant shared "... when I can get a good occupational balance with my activities and focus on them while I do them, then I am happier with how I am living my life" (p. 55, line 3831). Participants stated outcomes of occupational engagement as decreasing stress and supporting well-being, quality of life, mental and physical health, motivation, participation, performance, and feelings of accomplishment. A participant provided the following statement regarding the impact of occupational engagement: "It affects your daily life by decreasing stress, increasing social participation, and increasing happiness contributing to a better QOL [quality of life]" (p. 52, line 3594).

Barriers to Occupational Engagement and the Effects. Participants reported that a lack of occupational engagement (occupational disengagement) may negatively impact daily life and can contribute to occupational imbalance. Numerous barriers were reported by participants to contribute to the inability to participate in occupational engagement, specifically stress/stressors, physical and mental constraints, time constraints, and external demands such as school, work, or daily obligations. Due to the barriers of occupational engagement, participants stated that they often prioritize their time on what they need to do rather than what they want to do, which may lead to occupational imbalance. Participants reported that the effects of occupational disengagement and imbalance may decrease quality of life, social participation, and self-efficacy while increasing stress and workload. Participants offered the following statements regarding their decreased occupational engagement:

> I feel that I am at an occupational imbalance because there are a lot of occupations I don't feel I can fully engage in while in school. Those would be social, work, and some IADLs [instrumental activities of daily living] such as cleaning and cooking. I try hard to make sure I am taking care of myself but even that can be a challenge in the most difficult weeks (p. 49, line 3370).

> Occupational engagement is participation in the 8 domains of occupation; ADLs [activities of daily living], IADLs, Education, Work, Social Participation, Sleep/Rest, Play, and Leisure. I feel as I am occupational imbalanced by not actively being engaged in meaningful activities. My routine is consumed with the domains of Education and Work, which limits my engagement of the other 6 domains (p. 55, line 3838).

Quantitative Data

The quantitative data consisted of responses from nine Likert-scale questions of the 490 participants. Not all participants responded to every question, resulting in missing data of five survey questions (Refer to Table 2). All quantitative responses utilized a seven-point Likert scale where 0 = never, 1 = rarely, 2 = occasionally, 3 = sometimes, 4 = frequently, 5 = very often, and 6 = always. Refer to Table 2 for quantitative data related to the perceptions of stress, mindfulness, and occupational engagement.

Perception of Stress

The first three survey questions were based upon the construct of perceived stress in which the participants were asked to rate their responses based on their experiences within the past week. More than half of all 490 participants reported they “frequently” (33.27%, n= 163) or “very often” (21.22%, n= 104) experienced high levels of stress, while 21.43% (n= 105) reported they “sometimes” experienced high levels of stress. Of all 490 participants, over half reported their stress “sometimes” (24.49%, n= 120) or “frequently” (29.59%, n= 145) affected their quality of life. Of 487 respondents, a majority reported they “sometimes” (29.16%, n= 142) or “frequently” (30.18%, n= 147) engaged in coping skills to manage stress, while 9.65% (n= 47) reported “rarely” participating in coping skills to manage stress.

Perception of Mindfulness

The following three survey questions were based upon the construct of mindfulness. Of 489 respondents, the data revealed that within the past week, 84.66% (n= 355) found themselves “sometimes” (16.56%, n= 81), “frequently” (28.63%, n= 140), or “very often” (27.40%, n= 134) preoccupied with the future. Over half of all 490 participants reported they “rarely” (25.10%, n= 123) or “occasionally” (26.12%, n= 128) used mindfulness to manage their stress levels, while less than five percent reported using mindfulness “very often” (3.27%, n= 16) or “always” (0.82%, n= 4). However, of 488 respondents, the majority reported they would implement mindfulness to manage their stress if given additional education or training, ranging from “sometimes” (27.46%, n= 134) to “frequently” (27.05%, n= 132).

Perception of Occupational Engagement

The following three survey questions were based upon the construct of occupational engagement. Of all 490 participants, almost half “occasionally” (22.86%, n= 112) or “sometimes” (24.29%, n= 119) reported completing daily tasks within the past week without being aware of what they were doing. Of 487 respondents, 35.73% (n= 174) reported “frequently” believing that the activities they participated in gave them a sense of satisfaction. Outside of academics, more than half of the 488 respondents reported they were “occasionally” (29.10%, n= 142) or “sometimes” (30.53%, n= 149) able to participate in activities meaningful to them.

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Table 2

Results of Quantitative Responses

Likert Scale: 0=Never, 1=Rarely, 2= Occasionally, 3=Sometimes, 4=Frequently, 5=Very Often, 6=Always									
Question	0	1	2	3	4	5	6	M	SD
In the past week, how often have you experienced high levels of stress?	0.00% n=0	4.29% n=21	13.88% n=68	21.43% n=105	33.27% n=163	21.22% n=104	5.92% n=29	4.71	1.23
In the past week, how often did your stress affect your quality of life?	1.02% n=5	10.20% n=50	18.98% n=93	24.49% n=120	29.59% n=145	12.65% n=62	3.06% n=15	4.22	1.31
In the past week, how often did you engage in coping skills to manage your stress? * (n=487)	0.62% n=3	9.65% n=47	19.51% n=95	29.16% n=142	30.18% n=147	9.45% n=46	1.44% n=7	4.13	1.20
In the past week, how often did you find yourself preoccupied with the future? * (n=489)	0.82% n=4	5.93% n=29	13.91% n=68	16.56% n=81	28.63% n=140	27.40% n=134	6.75% n=33	4.75	1.37
In the past week, how often did you complete daily tasks without being aware of what you were doing?	4.69% n=23	18.78% n=92	22.86% n=112	24.29% n=119	17.96% n=88	9.18% n=45	2.24% n=11	3.69	1.43
How often do you believe that the activities that you participate in give you a sense of satisfaction? * (n=487)	0.00% n=0	2.87% n=14	11.70% n=57	31.62% n=154	35.73% n=174	15.81% n=77	2.26% n=11	4.57	1.05
Outside of academics, how often are you able to participate in activities that are meaningful to you? * (n=488)	0.61% n=3	12.09% n=59	29.10% n=142	30.53% n=149	19.06% n=93	7.99% n=39	0.61% n=3	3.82	1.17
How often have you used mindfulness to manage your stress levels?	7.35% n=36	25.10% n=123	26.12% n=128	22.86% n=112	12.49% n=71	3.27% n=16	0.82% n=4	3.25	1.31
If given additional education or training, how often would you implement mindfulness to manage your stress levels? * (n=488)	1.23% n=6	6.56% n=32	18.65% n=91	27.46% n=134	27.05% n=132	14.14% n=69	4.92% n=24	4.35	1.31

Note. Data shown are based on a sample of 490 participants (n=490), with the exception of categories * due to missing data.

Discussion

Stress

The purpose of the research was to explore the perceptions of stress, mindfulness, and occupational engagement among graduate-level OT students and to explore how these variables impact students' overall quality of life. The findings of the mixed-methods study suggested there is an interaction between these variables. The data revealed that the majority of participants experienced some level of high stress while in graduate school, which was reported to affect their quality of life. The finding supported previous literature that graduate-level healthcare students reported they frequently experienced above-average levels of stress due to academic pressures and workload, time management issues, and decreased leisure participation (Beck et al., 2017; Pfeifer et al., 2008). Participants' perceptions of stress included both internal and external demands of the present and future that may either negatively lead to physiological, mental, or emotional distress or positively contribute towards increased motivation and productivity. The finding that stress may have positive or negative effects was similar to research by Beck et al. (2017) that described stress to either aid in professional and academic growth or negatively affect the ability to learn and be productive. Participants that viewed stress as a negative response primarily reported that their academic workload impacted their engagement in daily occupations, desired roles, and routines, and these findings are consistent with research by Pfeifer et al. (2008). The findings of the data suggested that the stress and academic responsibilities among graduate-level OT students may limit the ability to engage in meaningful activities, which may negatively impact one's occupational balance and quality of life. Not being engaged in the present moment may be a contributing factor of high levels of perceived stress and occupational disengagement as a large percentage of participants reported experiencing times of being preoccupied with the future or the past.

Mindfulness

Among the participants who reported experiencing high levels of stress, only a small portion reported frequently engaging in coping skills or mindfulness to manage stress. The limited use of mindfulness is likely due to the various barriers reported by participants, including lack of time or knowledge and using mindfulness retroactively as a form of damage control rather than proactively for stress prevention. However, participants reported that the physical and emotional symptoms of stress could be improved by utilizing mindfulness activities, which was supported by previous research (Beck et al., 2017; Kelly, 2017; Shearer et al., 2016). Mindfulness was commonly described as a coping mechanism and stress-reduction technique, which was associated with positive effects of decreased anxiety or stress and improved quality of life, productivity, motivation, occupational balance, or occupational engagement. While the majority of the positive effects of mindfulness were reflected in previous literature, the outcomes of occupational balance and occupational engagement were unique to the current study as there is currently limited empirical research on the topic of mindfulness in the field of OT (Elliot, 2011; Goodman et al., 2018). Therefore, the current mixed-methods study introduced the language of human occupation into the mindfulness discourse as it discussed the possibilities of mindfulness in relation to OT.

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The researchers identified confusion among the construct of mindfulness as to whether participants defined the term as a set of strategies to actively engage in, such as deep breathing and yoga, or as the act of being mindful in the present moment and engaging in elements of self-awareness, self-reflection, and grounding. The current study provided evidence to support the views of Elliott (2011) that described mindfulness as both a "state" of being and an act of "practice" leading to the difficulty to differentiate the concepts within the literature. Throughout the data, the construct of mindfulness emerged as being self-aware and presently engaged in the moment without being preoccupied with the past or future. Tarrasch (2015) found that mindfulness activities increased awareness of thoughts and feelings, which echoes participants' responses, as being mindful included elements of self-awareness and self-reflection. However, many of the participants' responses revealed a lack of mindfulness as they reported being preoccupied while completing daily tasks without being aware of what is being done, which may hinder occupational engagement.

Occupational Engagement

The term occupational engagement was also identified by researchers to cause confusion as some participants described the concept as passively participating in daily activities out of obligation without full engagement, while other participants viewed the concept as actively and intentionally engaging in meaningful activities. The lack of a clear, universal description of occupational engagement among participants echoed the research by Kennedy and Davis (2017) which found an apparent lack of conceptual clarity while attempting to uncover a specific definition of occupational engagement. Overall, the data revealed that occupational engagement was commonly associated with positive outcomes such as decreasing stress and supporting quality of life when participants reported achieving occupational balance. Based upon the data of the current study, the researchers suggested that the goal of occupational engagement is to be fully present in meaningful activities and not feel limited by stressors. The goal of occupational engagement with an emphasis on being oriented to the present moment builds upon the research by Kennedy and Davis (2017) that identified elements of occupational engagement as being able to find meaning within occupations while having the physical and mental competence to complete the occupation. Despite the positive outcomes associated with occupational engagement, numerous participants reported experiencing occupational imbalance due to barriers of occupational engagement including stress and external demands. A factor hindering occupational engagement may be that the majority of participants reported only "sometimes" engaging in activities they find meaningful outside of academics, which illustrates the toll of academic demands on students' quality of life. For instance, some participants reported prioritizing academic responsibilities over other occupations including leisure and basic activities of daily living.

Stress, Mindfulness, and Occupational Engagement

The synthesis of the qualitative and quantitative findings through the exploratory mixed-methods design suggested a possible interwoven connection between stress, mindfulness, and occupational engagement and graduate-level OT students' overall quality of life and occupational balance. The participants reported that high levels of

perceived stress were primarily due to external demands of academic responsibilities and commonly impacted their ability to engage in meaningful occupations or stress-reduction techniques such as mindfulness. The current study supplements the findings of research by Pfeifer et al. (2008) that discussed how increased stressors associated with the academic pressure of graduate school may impact students' academic roles and engagement in daily occupations. Depending upon the participants' perception of stress, the results yielded either a positive or negative impact on one's participation in daily activities, physical and emotional well-being, and quality of life. Participants with a positive perception of stress commonly reported having high levels of occupational engagement as stress was a motivator to increase productivity, prioritize meaningful activities in their daily routine, and engage in stress-reduction techniques such as mindfulness. The findings provided data to enhance the literature as mindfulness was identified as a valuable intervention to support individuals in experiencing increased enjoyment and presence during occupational engagement (Elliot, 2011; Jackman, 2014). Participants who viewed stress in a positive manner commonly utilized mindfulness as a coping mechanism and concurrently reported having high levels of occupational engagement, therefore suggesting a positive link between the constructs of perceived stress, mindfulness, and occupational engagement.

Although mindfulness was identified among participants as a positive coping skill for managing stress, participants reported that they rarely utilized mindfulness on a regular basis due to daily obligations, external demands, and a lack of education or training. The identified barriers to engaging in mindfulness were found to be a unique contribution towards the literature on mindfulness use among graduate-level healthcare students. Previous research suggested that mindfulness can be a valuable intervention to support individuals in experiencing increased enjoyment and presence during occupational engagement, which strengthens the revealing theme (Jackman, 2014). Increasing participants' awareness of the construct of occupational engagement may further increase their ability to reduce stress and improve their quality of life. Similarly, incorporating mindfulness into meaningful occupations may influence the way that participants engage in activities (Beck et al., 2017; Goodman et al., 2018; Kelly, 2017; Tarrasch, 2015).

While a component of the study was to explore the perception and implementation of mindfulness as an effective coping mechanism for stress among graduate-level OT students, the responses revealed that students acknowledged a variety of healthy and holistic coping strategies beyond mindfulness. The findings revealed a limited use of mindfulness among participants, primarily due to the previously discussed barriers, despite reporting awareness of the positive benefits of mindfulness. In congruence with previous literature, the data supported the need for implementing healthy coping strategies among graduate students, which may include mindfulness, to promote occupational engagement in meaningful activities and improve overall quality of life (de Vibe et al., 2018). Previous literature by Pfeifer et al. (2008) identified additional coping strategies among graduate-level OT students including exercise, sleeping, spending time with family and friends, and watching television or movies, which were also reported in the current study. Participants identified additional positive coping strategies

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that were unique to the literature and consistent with OT language, including: religious activities and expression, solitary time in nature, journaling, leisure participation, care of pets, meal preparation, and engaging in daily routines. Additionally, Pfeifer et al. (2008) found that the most frequent coping mechanism among OT students was actively engaging in occupations. The qualitative responses from the current study provided a new insight on this finding as participants discussed occupational engagement as an active construct of intentionally participating in and prioritizing meaningful activities to positively cope with stress. By learning and implementing effective coping strategies such as mindfulness during their academic program, graduate-level OT students can take a proactive approach to manage their heightened levels of stress.

As revealed through the data, additional education may be needed to dispel any confusion between the concept of mindfulness and the practice of being mindful. More than half of the participants reported an interest in implementing mindfulness to manage stress if given additional education or training. Graduate-level OT students may benefit from education and training on mindfulness as a stress-reduction method to promote occupational balance and quality of life. Mindfulness is a simple and cost-effective coping strategy that graduate students could implement into their daily routines to promote both personal and academic well-being (Shearer et al., 2016). Research by Pfeifer et al. (2008) suggested that learning these skills while in school may increase transferability in the clinical setting and improve quality of life in future roles as an OT practitioner. In addition, training in coping skills and mindfulness provides the opportunity for students to gain skills that will be used to promote the health and wellbeing of their future clients, from a holistic perspective.

Limitations

The current study faced several challenges within the research process. The descriptive design limited the examination of the relationship between the constructs of stress, mindfulness, and occupational engagement. The researchers utilized a self-created instrument, which had face-validity through expert review and pilot testing of a similar survey instrument used in an earlier study. In the dissemination of the survey, language regarding high levels of stress and the purpose of the study may have inadvertently been viewed by some graduate students and potential participants through forwarded emails; however, the issue was corrected promptly upon notification, and within the first week of sending out the survey. Additionally, the timing of the survey may have resulted in higher reported levels of stress since the survey may have been received by students mid-semester for many traditional OT programs. Furthermore, the majority of study participants were white/Caucasian females between the ages of 22 and 25 years, which may not be representative of the diversity within the larger population of OT graduate students.

Implications for OT Education and Future Research

Among the sample population of graduate-level OT students, the researchers found that the high levels of perceived stress appeared to impact their ability to engage in meaningful occupations and mindfulness activities. Although stress was more frequently viewed in a negative manner, students with positive views of stress reported commonly

applying mindfulness as a coping strategy, and also reported higher levels of occupational engagement. These findings may indicate the need for OT educators to promote students' self-awareness of their views of stress, and potential barriers that limit the application of mindfulness or positive coping strategies. Additionally, the findings supported the need for OT education programs to examine students' levels of stress, occupational engagement, and use of mindfulness, in order to encourage self-reflection and application of unique, positive coping strategies. OT educators may also consider the implementation of mindfulness-based theories and education into their curriculum for improving knowledge of mindfulness and its application in future OT practice.

Although the study provided support for strengthening the connection between the constructs of mindfulness and occupational engagement, further study is required to investigate the relationship between the three constructs of stress, mindfulness, and occupational engagement. Future research may explore the effects of mindfulness-based interventions among graduate-level OT or other healthcare students by comparing perceived stress levels and levels of occupational engagement before and after interventions. Additionally, future research should explore new terms discovered in the study and the implications of occupation-based mindfulness/occupational mindfulness, occupational disengagement, and occupational balance and imbalance from a holistic OT perspective.

Conclusion

The findings of the exploratory mixed-methods study suggested that the high levels of perceived stress experienced among graduate-level OT students influenced their application of coping mechanisms including mindfulness and involvement in occupational engagement. The data revealed a link between the principles of mindfulness and occupational engagement as they both emphasize the idea of being engaged in the present moment and have the potential to increase one's quality of life. However, the data suggested limited use of mindfulness to decrease stress and a lack of occupational engagement in meaningful activities among participants, which negatively influenced their perceived quality of life and occupational balance. Further investigation of the relationship between the constructs of mindfulness and occupational engagement has broad implications for the field of OT and its applicability to stress management and supporting occupational balance both personally and professionally.

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Appendix A

Survey Instrument

Disclosure: The purpose of this survey is to gather information about the perceptions of stress, mindfulness, and occupational engagement among graduate-level occupational therapy (OT) students. You may withdraw from the study at any time. The survey responses will remain anonymous. All responses will remain confidential and only accessible by the lead researchers and supervising professors.

By moving forward in this survey, you are indicating your informed consent to voluntarily participate in the study.

Demographics (fill in the blank and/or select your response):

1. Age: 18-21, 22-25, 26-29, 30-33, 34-37, 38-41, 42-45, 46-49, 50+
2. Gender: Male, Female, Other (please specify)
3. Ethnicity: American Indiana or Alaskan Native, Asian, Black or African American, White/ Caucasian, Hispanic or Latino, Native Hawaiian or Pacific Islander, Other (please specify)
4. Marital status: Single, Married, Divorced, Widowed, Separated
5. Employment status: Part-time, Full-time, Unemployed
6. Location of Occupational Therapy program: Northeast, West, Midwest, South
7. Highest level of completed education: Less than high school, High school graduate, Some college, Associate's degree, Bachelor's degree, Master's degree, Doctorate, Post-Professional Degree
8. Occupational Therapy degree currently being pursued: Entry-Level Masters, Entry-Level Doctorate, Post-Professional Doctorate

Terminology:

Perceived stress: "the degree to which one perceives an event or situation as threatening or demanding and beyond one's coping resources" (Stillwell, Vermeesch, & Scott, 2017, p. 508).

Mindfulness: "the intentional act of paying attention to the present moment in a non-judgmental way" (Beck, Verticchio, Seeman, Milliken, & Schaab, 2017, p. 894).

Occupational engagement: "being fully present and engaged in one's occupations" (Jackman, 2014, p. 265).

Rating-Scale Questions (select your response)**:**

(Likert Scale: 0= never (0%), 1= rarely (less than 10%), 2= occasionally (~30%) , 3= sometimes (~50%), 4= frequently (~70%), 5= very often (~90%), 6= always (>90%))

1. In the past week, how often do you experience high levels of stress?
2. In the past week, how often did your stress affect your quality of life?
3. In the past week, how often did you engage in coping skills to manage your stress?
4. In the past week, how often did you find yourself preoccupied with the future or the past?

5. In the past week, how often did you complete jobs or daily tasks without being aware of what you were doing?
6. How often do you believe that the activities that you participate in give you a sense of purpose and satisfaction?
7. How often do you value the activities that you participate in?
8. Outside of academics, how often are you able to participate in meaningful activities?
9. Have you ever used formal mindfulness tools or strategies?
10. How often would you be willing to participate in mindfulness activities to manage your stress levels?

Open-Response Questions:

11. How would you describe stress, and how does it affect your daily life?
12. How would you describe mindfulness, and how does it affect your daily life?
13. How would you describe occupational engagement, and how does it affect your daily life?

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Appendix B

Focus Group Questions

1. Without going into detail can you state the top three reasons for stress in your life?
    a. How does your schooling impact your level of stress?
    b. Would you describe your stress more positive, negative, or a combination?
2. How do you think your stress levels impact your engagement in daily activities?
3. Based on your current understanding of mindfulness, how can you apply mindfulness into your daily life?
4. How can occupational therapy programs use mindfulness to reduce stress?
5. How can occupational therapy programs use mindfulness to promote engagement in meaningful activities?

Appendix C

Summary of Qualitative Findings

Appendix C. Table Summary of Qualitative Findings		
I. Stress		
Theme	Subtheme	Representational Quotation
Influence of Internal and External Demands.	Stress Factors	“Stress is the impact of several things […] weighing […] on our personal lives that may include academics, family issues, personal setbacks and other things that make us overwhelmed” (p. 4, line 227).
Manifestations of Stress and Perceived Impact.	Physical Effects of Stress	“I can feel myself getting stressed when my muscles tense up, and once that happens it’s hard to make the physical pain go away. This happens almost daily.” (p. 4, line 244)
	Psychological Effects of Stress	“When I am stressed I have trouble concentrating, I become irritable, and I have decreased motivation to participate in my meaningful or necessary occupations” (p. 1, line 18).
	Occupational Impact of Stress	“I have trouble engaging socially, even responding to texts, like I used to because my mind is so preoccupied. I find that my stress becomes so overwhelming that I have issues studying daily and getting work done at an efficient rate” (p. 3, line 201).
	Positive Effect of Stress and Coping Strategies	“Although stress is technically a neutral term, we usually view it as a negative thing. For me, a moderate amount of stress is necessary for optimal performance. Having no stress at all would probably lead to decreased productivity.” (p. 6, line 374) “I try to not let it [stress] hinder what I do or my thoughts on the future, implementing the mindfulness strategies I learned within my first year of graduate school have helped tremendously…” (p. 7, line 438).
	Negative Effect of Stress and Coping Strategies	“For me, stress is a taxing physical, mental, social, and emotional force that is exacerbated by deadlines, unexpected events, and the inability to "let things go." When I am stressed, I am often on "autopilot" and have a difficult time taking time for myself or doing things I enjoy with others. I am often on edge, feeling anxious at all

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		times, and respond to others in an agitated tone. I will often have a hard time getting and staying asleep. My body also craves comfort food and feels worn down and sluggish." (p. 5, line 345)
II. Mindfulness		
Theme	Subtheme	Representational Quotation
Mindfulness and Being Mindful.	Being Self-aware and Present in the Moment Without Being Preoccupied with the Past or Future	"Mindfulness is being present in the current moment, no matter what you are doing [...] As long as you are present and connected to your body and thoughts" (p. 40, line 2791).
	Mindfulness Strategies	"I journal every day, practice deep breathing, and spend solitary time in nature. This allows me to calm my mind and become more aware of my thoughts and feelings. It allows me to cope with stressful feelings and see things more objectively" (p. 41, line 2846).
Effects of Mindfulness and Being Mindful.	-	"Taking a deep breath and reminding myself to the present moment can help me be more engaged and attentive to the people I'm working with [...] being mindful allows me to do my job better, which is better for the people I'm working with. And conversely, working with people on mindfulness and the potential benefits that mindfulness has for them helps them maintain a higher quality of life after my time with them has ended" (p. 72, line 4886).
Barriers to Mindfulness and Being Mindful: Internal and External Demands.	-	My anxiety often gets in the way and having so much work to do also prevents me from taking the time to be mindful. I have issues even thinking to use it because I'm so stressed." (p. 27, line 1834) "I try to be mindful but sometimes find it hard not to focus on what's coming up (exams, classwork, weekend plans, work, etc.)" (p. 40, line 2746).
III. Occupational Engagement		
Theme	Subtheme	Representational Quotation
Intentional Participation in Meaningful Activities and Perceived Impact.	Occupational Engagement Requires Intention	"Occupational engagement, for me, involves actively participating in the steps and activities that make up an activity. It means being aware, present, and "tuned in" to the activity at hand" (p. 47, line 3212).

	Occupational Engagement has a Positive Effect on Daily Life	"I would describe occupational engagement as participating in productive, pleasurable, or restorative activities that are meaningful to the individual" (p. 56, line 3852).
	Occupational Engagement Supports Occupational Balance	"I would describe occupational engagement as being an active participant in a variety of different occupations. Similar to having a good occupational balance" (p. 46, line 3161). "I try to engage in meaningful and enjoyable occupations at least a few times a week to keep occupational balance in my life" (p. 47, line 3238).
Barriers to Occupational Engagement and the Effects.	Participating in Daily Activities without Intention / Occupational Disengagement	"I frequently find myself "going through the motions" or passively engaging in occupations due to stress" (p. 56, line 3875).
	Factors Hindering Occupational Engagement	"Occupational engagement is participating in the things that you find pleasure in doing. Lately this has not been able to happen much due to the stressors of everyday life" (p. 58, line 4038).
	Lack of Occupational Engagement may Contribute to Occupational Imbalance	"I feel that I am at an occupational imbalance because there are a lot of occupations I don't feel I can fully engage while in school. Those would be social, work, and some IADLs such as cleaning and cooking" (p. 49, line 3371).

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