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## Exploring Occupational Therapy Student Stress: Professor and Student Perspectives

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## Exploring Occupational Therapy Student Stress: Professor and Student Perspectives

### Abstract

The purpose of this study was to identify occupational therapy student stress levels and determine factors influencing this emotional response. The study also sought to obtain the perspective of occupational therapy professors on this issue. This mixed-methods study utilized an online quantitative descriptive survey and a telephone or face-to-face qualitative open-ended interview. Online survey respondents included a nationwide sample of 340 occupational therapy professors and 459 occupational therapy students. Additionally, nine professors and five students served as the interviewees. All professors were certified by the National Board for Certification in Occupational Therapy (NBCOT) and employed either full or part time as instructors in an Accreditation Council of Occupational Therapy Education (ACOTE) accredited entry level Master of Science or entry level doctoral educational program. All students were enrolled in an ACOTE accredited entry level master's or entry level occupational therapy doctoral degree program. Findings demonstrated high stress levels in students caused by personal, financial, and academic pressures. Professors acknowledged student stress; however, the results indicated the need for enhanced understanding and communication regarding student stress. Students may benefit from more intense counseling and stress reduction measures. Additionally, professors and universities may need to enhance existing support systems for students. Professors are advised to be attuned to student stress levels and may need to adjust academic requirements accordingly. Further research is needed to determine avenues for diminishing student stress.

### Keywords

Occupational therapy student, occupational therapy professor, stress, occupational therapy education

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**Exploring Occupational Therapy Student Stress:  
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**ABSTRACT**

The purpose of this study was to identify occupational therapy student stress levels and determine factors influencing this emotional response. The study also sought to obtain the perspective of occupational therapy professors on this issue. This mixed-methods study utilized an online quantitative descriptive survey and a telephone or face-to-face qualitative open-ended interview. Online survey respondents included a nationwide sample of 340 occupational therapy professors and 459 occupational therapy students. Additionally, nine professors and five students served as the interviewees. All professors were certified by the National Board for Certification in Occupational Therapy (NBCOT) and employed either full or part time as instructors in an Accreditation Council of Occupational Therapy Education (ACOTE) accredited entry level Master of Science or entry level doctoral educational program. All students were enrolled in an ACOTE accredited entry level master's or entry level occupational therapy doctoral degree program. Findings demonstrated high stress levels in students caused by personal, financial, and academic pressures. Professors acknowledged student stress; however, the results indicated the need for enhanced understanding and communication regarding student stress. Students may benefit from more intense counseling and stress reduction measures. Additionally, professors and universities may need to enhance existing support systems for students. Professors are advised to be attuned to student stress levels and may need to adjust academic requirements accordingly. Further research is needed to determine avenues for diminishing student stress.

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## **Introduction**

The investigation described in this report explored occupational therapy student stress, including contributing factors and potential ways to alleviate it, from both student and professor perspectives. A number of factors can cause stress and thus impact many different areas of a person's life. This is certainly true for occupational therapy students. Stress can negatively impact academic and work performance, family and social relationships, and overall physical and emotional health and wellbeing. Oswalt and Riddock (2007) noted college student stress levels increased over time as tracked since the 1950's. Increased stress has an impact on students' lives and health. According to Kulkarni et al. (2020), stress has led to college student headache, muscle tension or pain, chest pain, fatigue, stomach upset, and sleep problems. Kulkarni et al. noted the impact stress can have on mood, including increased anxiety, restlessness, irritability, depression, lack of motivation, and feeling overwhelmed. The combined challenges of meeting admissions and curriculum requirements, dealing with financial issues, maintaining high academic standards, and performing well in fieldwork often make occupational therapy entry level education a stressful experience.

There are currently 128 Accreditation Council of Occupational Therapy Education (ACOTE) accredited entry level master's and 56 ACOTE-accredited entry level doctoral programs at institutions across the United States (US; ACOTE, 2020a). Entry level admission requirements at the various programs may address high school rank, high school grade point average (GPA), Scholastic Aptitude Test (SAT) and/or American College Testing (ACT) scores, bachelor's degree GPA, completion of a variety of math and science requirements, a record of extracurricular activities, occupational therapy observation hours, a resume, an application essay, work and/or volunteer experience, recommendation letters, and knowledge of the profession. These extensive requirements for acceptance into an occupational therapy program ensure that prospective students are well-qualified; however, the process of trying to meet these requirements can add to student stress before they even begin their occupational therapy education.

Along with completing prerequisites for an occupational therapy program and being accepted, potential students must explore and consider its cost. Tuition, room and board, and other college costs can be exceptionally high, while expenses at even the lower priced institutions can be a financial burden. To best prepare for fieldwork, students are required to complete health clearances and may be asked to complete drug screenings and travel to participate in pre-affiliation interviews. Thus, the additional cost of these requirements is incurred by the student and can contribute to financial strain. In particular, low-income and/or first-generation college students may experience high stress due to these substantial costs. Adams et al. (2016) found that perceived stress increased the physical effects of financial strain on college students, negatively affecting their academic and social integration.

A major factor influencing student stress is the pressure to do well in the chosen curriculum. ACOTE standards require entry level occupational therapy programs to offer intense study of a variety of disciplines, including neuroscience, human anatomy,

statistics, and physics (ACOTE, 2018). Additionally, knowledge of human development across all life stages is acquired through in-depth exploration. Furthermore, occupational therapy students must learn a vast array of clinical skills including assessment and intervention for individuals with a variety of developmental or medical conditions and impairments. Students learn clinical documentation skills which are in keeping with facility, accreditation, and reimbursement requirements. Students learn the value of evidence-based practice and critique a variety of research designs. A culminating project typically requires students to explore a topic in depth, and students are often required to present it to a professional audience. Thus, occupational therapy coursework is professionally enriching, yet challenging. Sometimes the assignments that are required become a source of negative stress, which, if not effectively dealt with, becomes highly problematic for the responsible yet overworked occupational therapy student.

Haughey et al. (2017) also found that fieldwork placements were a common source of stress in occupational therapy students. The ACOTE Standards and Interpretive Guide (ACOTE, 2018) states that students are required to complete Level I and II fieldwork to gain practical experience. The standards required students to complete assessments and evaluations and also deliver occupational therapy intervention, under the supervision of qualified occupational therapists. Level II fieldwork, in particular, places high stress on occupational therapy students. In fieldwork, students strive to provide effective occupational therapy intervention for the benefit of those they serve, and also develop their own professional skills. Transitioning to the fieldwork environment is challenging for many, and even with training and practice many students do not feel prepared enough to begin work in these settings.

In addition to academics, meaningful occupations for college students typically include leisure, relationships, and sometimes employment. However, stress imposed by graduate curricula can prevent full participation in these important life pursuits. In a study conducted by Chang et al. (2017), it was noted that 79% of occupational therapy students felt stressed and indicated they did not participate fully in meaningful occupations. Engagement in meaningful non-academic occupations is often precluded due to time-consuming educational requirements, including class attendance and numerous reading, writing, and research assignments. Increased stress may negatively affect student quality of life. In an investigation by Grube et al. (2005), it was determined that college students had a significant lack of leisure in their lives. Students in the Grube et al. study claimed they held leisure activities at a lower level of importance than academics, professional studies, and work. Occupational therapists are taught the importance of leisure, yet occupational therapy students may discredit its importance when compared to more productive activities such as school work. However, a study conducted by Chen and Chippendale (2018) explored the importance of younger adults maintaining a steady leisure-work balance to excel in their career and prevent burnout. An investigation conducted by Jordan et al. (2018) demonstrated that a leisure program improved quality of life and a higher level of perceived life satisfaction in college students.

A study of occupational therapy students found their frequently voiced concerns included the inability to balance school and family matters such as caring for children, aging parents, or significant others (Pfeifer et al., 2008). For occupational therapy students, strict curricular guidelines include numerous challenging required courses. Some occupational therapy curricula may also allow students to enroll in additional electives, adding even more stress and time commitment in their busy lives. Managing classes, homework, assignments, research, and fieldwork can lead to poor participation in meaningful occupations and weakened interpersonal relationships. It was recognized that, due to financial demands, college students may need to work and also may live off campus, which could diminish their educational performance and relationships in the college community (Adams et al., 2016). Grube et al. (2005) reported college students sometimes found it hard to maintain employment roles due to academic course loads and the inability to fully commit to shifts because of constant academic changes. Successfully maintaining employment is an important obligation of many students, including occupational therapy students, often because work can pay for school expenses. Financial strain can be a double-edged sword for many students because it may make having a job essential during college, presenting an additional challenge.

According to Adams et al. (2016), perceived stress is the degree to which the person feels they cannot successfully deal with their obligations. Student academic performance and health can be affected when the stress level is too high (Misra et al., 2000). Misra et al. (2000) also reported that pressure and self-imposed demands caused the highest levels of stress in college students, with females experiencing higher levels of self-imposed stress than males. Students in the Misra et al. study had different types of academic stress reactions including emotional, cognitive, behavioral, and physiological responses. Misra et al. noted reactions students experienced due to academic stress potentially affected their academic performance, personal life, and health. The effect of stress on college student physical health is a concern. Govender et al. (2015) reported observing a rise in student cases which needed medical attention as a result of stress.

In addition to understanding student perceptions of stress, it is important to understand professor perceptions of this issue. Misra et al. (2000) found professors perceived student stress levels to be even higher than the students self-reported. Misra et al. (2000) also noted that both students and professors believed students were stressed due to competition, meeting deadlines, and interpersonal relationships. This indicated students and professors had similar perceptions about the causes of student stress, but different perceptions about the degree of student stress.

In order to be successful, students need to learn to properly cope with stress. Coping involves using effective strategies to deal with difficult times and stressful situations. Without the use of healthy coping mechanisms, individuals may experience excessive negative emotions and be unable to live healthy lives. According to a study done by Mitchell and Kampfe (1993), occupational therapy students used a variety of coping strategies such as being “problem-focused”, “seeking social support”, “blaming self”, “wishful thinking”, and “avoidance” (p. 535). The Mitchell and Kampfe study showed that

the occupational therapy students used the “problem focused” and “seeking social support” coping mechanisms most. Mitchell and Kampfe found the occupational therapy students utilized more positive than negative strategies, and thus demonstrated effective coping with academic stressors. Although factors contributing to fieldwork and coursework stress may be different, the students used many of the same methods to cope in these situations. Everly et al. (1994) found occupational therapy students used three common strategies to cope with stress: “withdrawal”, “escapism”, and “perseverance” (p. 1024). Everly et al. concluded that the majority of the occupational therapy students (83.6%) used the perseverance coping strategies, while 38% used escapism and 13.4% used withdrawal. They noted the healthiest of these coping mechanisms were the ones included in the perseverance area, however, other less healthy tactics were also often utilized. Regardless of the source of the stress, effective coping strategies are necessary to utilize when dealing with stress.

### **Purpose**

The purpose of this investigation was to explore and describe occupational therapy student stress from the standpoint of both occupational therapy students and professors. This study aimed to:

- Identify academic and life stressors reported by entry-level occupational therapy students.
- Explore stress levels in occupational therapy students and how stress affected their daily lives.
- Explain occupational therapy professor perceptions of student stress, and professor involvement in helping students deal with it.
- Identify useful methods students use to cope with and reduce academic stressors.
- Suggest ways professors can help students reduce unwanted stress.

### **Method**

This mixed-methods study utilized surveys and interviews of occupational therapy students and occupational therapy professors. Human subjects' ethical approval for this study was obtained by the Institutional Review Board (IRB) at the researchers' university and informed consent was obtained from all who participated in accordance with the approved protocol.

### **Participants**

Participants in this study were occupational therapy students enrolled in ACOTE-approved entry level master's degree and/or entry level occupational therapy doctoral programs. Participants also included occupational therapy professors who were licensed and registered by NBCOT and were employed in ACOTE-approved entry level master's or entry level doctoral degree programs. Participants were recruited by first obtaining the names of accredited entry level educational programs from the ACOTE (2020b) web page. Occupational therapy professor and program director email addresses were then obtained from program web sites. An email invitation was sent to 1768 professors representing 176 public and private occupational therapy entry level programs in 45 states, Puerto Rico, and the District of Columbia, as well as one international ACOTE-accredited program. The invitation contained a link to the

SurveyMonkey professor survey. At the end of the survey there was a request asking interested professors to contact the researchers if they were also willing to participate in an interview. To recruit student participants, an email request was sent to 173 chairs or directors of occupational therapy entry level educational programs, selected because they were listed as chair or director on their school's web page. Chair or program director email addresses for three of the 176 schools were not located. The chairs and directors were asked to forward the invitation to their entry level occupational therapy students. The invitation contained a link to the SurveyMonkey student survey. Due to concerns about solely relying upon the chairs and directors to forward the survey to their students, and aiming for a satisfactory response, the student survey link was also sent to approximately 220 entry level occupational therapy students at the researcher's own university. At the end of the survey there was a request asking interested students to contact the researchers if they were willing to also participate in an interview.

Inclusion criteria for this study were:

1. Occupational therapy students needed to be English-speaking and currently enrolled in an ACOTE-approved occupational therapy entry level Master of Science (MS) or entry level occupational therapy doctoral degree program in the US.
2. Occupational therapy professors were required to be English-speaking, currently certified by NBCOT, and employed as instructors in an ACOTE-approved entry level MS or entry level occupational therapy doctoral program.

### **Development of Surveys and Interview Guides**

The team sought to develop questions in the professor and student structured interview guides which would identify stress sources, stress levels, and stress effects on student life. The development of these instruments occurred through a process of ongoing discussion and refinement over a four-week period which included weekly two-hour meetings of the entire research team with the faculty research advisor. Question items were based on the literature review, as well as research team experiences and impressions. The entire research team, graduate student researchers and faculty advisor "brainstormed" the content of these instruments, and jointly developed preliminary drafts. The student researchers then worked in pairs to further refine the drafts and brought them back to the entire team for re-examination, discussion, and modification. Another member of the occupational therapy faculty at the researchers' university (not a member of the research team), who was an expert in mental health, served as the "reader" for the project. She reviewed the instruments and provided additional suggestions for improvement. The research team made modifications accordingly, in response to her suggestions. All researchers concurred on final instrument content. It was determined at that time that an acceptable amount of face and content validity of the survey instruments was achieved. As reflected upon in the limitations section of this report, due to anticipated time limitations in securing IRB approval, a pilot study was not conducted but would have added further credibility.

The survey for professors contained one question which asked if the inclusion criteria were met and an additional 17 questions which addressed professor perceptions of student stress, for a total of 18 questions. The student survey included a question that



verified inclusion criteria were met, two questions about the student's status in their occupational therapy educational curriculum (year in program and number credits currently engaged in), and 15 questions designed to determine factors affecting any stress they may have been experiencing while in the occupational therapy educational program, for a total of 18 questions. The structured interview guide for professors and the structured interview guide for students both contained 10 open-ended questions.

### **Procedures**

All survey data were collected online via the SurveyMonkey professor survey and the SurveyMonkey student survey via the unshared private password-protected account of the faculty member on the research team. Survey recipients were asked to complete the surveys in private. Face-to-face interviews were conducted in a private area on the university campus. Interviewees were contacted by phone and were advised to sit in a private area during the pre-arranged phone or face to face interview, while the researcher did the same. The student structured interview guide and the professor structured interview guide were used to obtain interviewee responses. All four graduate student researchers conducted the interviews and made detailed notes on what each interviewee said. Interviews were not recorded. Approximately 15 minutes were needed for the occupational therapy students and professors to complete the online surveys, and approximately 30 minutes to complete the interviews. The university's student research grant committee provided funding for a \$25 gift card for all professors and students who participated in the interview portion of this study. Two professors declined to accept the gift card.

### **Data Analysis**

Quantitative data were analyzed within the SurveyMonkey instrument to determine appropriate statistics, including means, frequency counts, and response percentages for each question. The graduate student researchers entered all interview responses into a single Excel sheet, and then highlighted what they interpreted as the most pertinent remarks made by the interviewees. The entire research team, including the faculty research team member, reviewed the Excel sheet to come to consensus on pertinent remarks made by the interviewees. Thus, a question-by question content analysis of interview responses was conducted to determine similarities, differences, and unique responses. The team then selectively consolidated this information into this narrative report. The research rigor of the online survey was obtained by gathering data from a large nationwide sample of both professors and students in a uniform and consistent manner. Furthermore, the anonymity of the SurveyMonkey instruments helped to reduce response bias. Rigor of the content analysis of the qualitative interview findings was obtained in several ways. The four graduate student researchers gathered the interview data and analyzed it along with their faculty research advisor. Triangulation of data sources and analyzers added to the credibility of the data analysis. Via the use of the structured interview guides, consistency of data collection across researchers was achieved. Transferability of interview findings was substantiated by obtaining information from a nation-wide sample of professors and students. Additionally, although the interviews were conducted with a small sample of interviewees, they did offer their unique and diverse individual views.

## **Results**

Online survey respondents were a nationwide sample of 459 occupational therapy students and 340 occupational therapy professors. Additionally, five students and nine professors served as the interviewees.

### **Occupational Therapy Student Survey Responses**

The number of respondents who answered each question on the student survey varied and ranged from 440 responses to 459 responses per question, as seen in Tables 1 and 2. The average number of responses per question was 457. Table 1 provides the student respondents' academic levels and current credit loads, as well as other background information. Interestingly, the majority of the 440 students who answered this question reported they were either freshmen or 5th year students. Responses regarding the amount of credits students were taking were fairly evenly distributed, but most students were taking over 12 credits. A majority of students (88%, n=402) reported they were not specializing or double majoring, due to the already heavy course load. A small number of students reported they were specializing or double majoring in pediatrics, geriatrics, psychology, or another area of practice. Sixty nine percent (n=317) of students were involved in one or more extra-curricular activities, but a sizable portion of them (31%, n= 142) were not involved in added pursuits (see Table 1).

Also seen in Table 1, over half of the respondents (55%, n=253) reported using a combination of loans, scholarships, assistance from parents, and work to meet their college expenses. A moderate number of students (38%, n=174) reported they did not have a job, and out of those who did have a job, the highest percentage worked eight to 15 hours a week. Forty-two percent (n=192) of students reported their institution was between one and three hours from their family, while 25 percent (n=113) of the students reported their institution was over three hours from their family. A moderate portion of students lived with their families and commuted to their institutions, and a small amount lived less than an hour from their institutions (see Table 1).

<b>Table 1</b>			
<i>Student Background Information</i>			
<b>Survey Question</b>	<b>Answer Choices</b>	<b>Percentage of Respondents</b>	<b>Number of Respondents</b>
I attest that I am an English-speaking occupational therapy student in an entry level MS or entry level OTD program in an ACOTE accredited school and I agree to participate in this investigation.	Yes	100% (n=459)	Answered: 459 No response: 0
	No	0% (n=0)	
What is your classification as of right now?	Freshman	29.55% (n=130)	*Answered: 440 No response: 19
	Sophomore	14.09% (n=62)	
	Junior	7.73% (n=34)	
	Senior	16.59% (n=73)	
	Fifth Year	32.05% (n=141)	
How many credits are you taking this term?	Less than 12	10.89% (n=50)	Answered: 459 No response: 0
	12 to 14	33.99% (n=156)	
	15 to 17	34.64% (n=159)	
	17 or more	20.48% (n=94)	
Are you specializing or double majoring?	No, the regular course load is enough	88.16% (n=402)	Answered: 456 No response: 3
	Yes, specializing in pediatrics	3.29% (n=15)	
	Yes, specializing in geriatrics	0.88% (n=4)	

	Double majoring in psychology	1.97% (n=9)	
	Yes – another major/specialization	5.70% (n=26)	
How many extra-curricular activities are you involved in?	None	30.94% (n=142)	Answered: 459 No response: 0
	1 to 2	55.99% (n=257)	
	3 to 4	10.89% (n=50)	
	5+	2.18% (n=10)	
How do you meet your college expenses?	Loans	33.12% (n=152)	Answered: 459 No response: 0
	Scholarships	0.65% (n=3)	
	Parents	6.97% (n=32)	
	Work	4.14% (n=19)	
	Combination of the above	55.12% (n=253)	
If you have a job, how many hours a week do you work?	I do not have a job	37.91% (n=174)	Answered: 459 No response: 0
	Under 8	23.53% (n=108)	
	8 to 15	24.62% (n=113)	
	16 to 24	10.46% (n=48)	
	25+	3.49% (n=16)	
How far away is your institution from your family?	I commute and live with my family currently	20.70% (n=95)	Answered: 459 No response: 0
	Less than 1 hour	12.85% (n=59)	
	1 to 3 hours	41.83% (n=192)	
	3+ hours	24.62% (n=113)	
* The researchers inferred the 19 students who did not answer this question were in “graduate only” entry level MS or occupational therapy doctoral programs, but this answer option was inadvertently not included in the survey. Please see further explanation of this in the limitations section of this report.			

On a scale from one to ten, with one being not stressed at all and ten being extremely stressed, students reported a mean stress level of seven (n=459). Seventy-six percent (n=343) of students reported spending much more time completing work for occupational therapy classes as compared to general classes (see Table 2). As seen in Table 2, a sizable portion of the students 48%, (n=220) claimed their occupational involvement was not very balanced. A moderate number of other students described having little balance. A minority of students claimed their occupational involvement was very balanced, and another distinct minority claimed they had no occupational balance. When asked how often they felt overwhelmed, over half of respondents said they were overwhelmed frequently, and 31 percent (n=144) of respondents said they were overwhelmed daily. Over fifty percent (n=231) of respondents verified finances had a very large impact on their education, a sizable number said finances had a non-overwhelming impact, and a small percentage said finances did not impact their education. The majority of respondents (66%, n=302) agreed stress from school affected their family relationships, while the remaining respondents said stress did not impact family relationships. Eighty-three percent (n=378) of students agreed stress impacted social relationships, while the remaining respondents said stress did not impact social relationships (see Table 2).

Also reported in Table 2, half of the students (n=231) claimed they had met some but not all of their goals in the program, while over forty percent (n=197) reported they reached their goals and a small percentage (n=31) said they had not. Approximately half of respondents (51%, n=232) claimed stress did not affect their feelings toward becoming an occupational therapist, while a moderate amount noted stress occasionally made them not want to be an occupational therapist. A smaller portion reported stress made them not want to be an occupational therapist. Over half the students (59%, n=271) claimed their professors were unaware of the students' feelings of stress, while a moderate amount (37%, n=167) said their professors were aware of their stress level. A very small percentage of respondents stated they were not currently stressed (see Table 2). Table 2 also shows the students' reported coping strategies. To alleviate stress, exercise (30%, n=138) and sleep (23%, n=104) were the most popular strategies. A moderate number of respondents used avoidance, faith, or other non-specified tactics, while a very minute number of respondents reported the use of "partying." A large majority of students (71%, n=327) claimed they had not received counseling services while in the occupational therapy program, while the others (29% n=132) disclosed they had sought these services during their occupational therapy education.

<b>Table 2</b>			
<i>Student-Reported Stress and Life Challenges</i>			
<b>Survey Question</b>	<b>Answer Choices</b>	<b>Percentage of Respondents</b>	<b>Number of Respondents</b>
On a scale from much less time to much more time, how much time do your occupational therapy classes require compared to your general classes?	Much less time	3.31% (n=15)	Answered: 453 No response: 6
	About the same time	20.97% (n=95)	
	Much more time	75.72% (n=343)	
On a scale from not balanced at all to very balanced, how balanced is your occupational profile?	There is no balance	5.66% (n=26)	Answered: 459 No response: 0
	I try, but the balance is still not very good	47.93% (n=220)	
	There is a little balance	34.20% (n=157)	
	Very balanced	12.20% (n=56)	
How often do you feel overwhelmed with your responsibilities?	Daily	31.37% (n=144)	Answered: 459 No response: 0
	Frequently	54.68% (n=251)	
	Rarely	13.94% (n=64)	
	Never	0.00% (n=0)	
On a scale from very large impact to no impact at all, what impact do finances have on your education?	Very large impact	50.33% (n=231)	Answered: 459 No response: 0
	There is some impact, but not overwhelming	43.14% (n=198)	
	No impact	6.54% (n=30)	
Does your stress affect your family relationships?	Yes	65.80% (n=302)	Answered: 459 No response: 0
	No	34.20% (n=157)	
Does your stress affect your social relationships?	Yes	82.53% (n=378)	Answered: 458 No response: 1
	No	17.47% (n=80)	

Have you met your individual goals so far in the program?	Yes	42.92% (n=197)	Answered: 459 No response: 0
	No	6.75% (n=31)	
	Some of them	50.33% (n=231)	
Does stress ever make you not want to be an occupational therapist anymore?	Yes	15.47% (n=71)	Answered: 459 No response: 0
	Never	50.54% (n=232)	
	Sometimes	33.99% (n=156)	
Have you sought any type of counseling services during your time as an occupational therapy student?	Yes	28.76% (n=132)	Answered: 459 No response: 0
	No	71.24% (n=327)	
Do you feel your professors are aware of stress you may be feeling?	I'm not stressed	4.16% (n=19)	Answered: 457 No response: 2
	No, they're not aware. I keep it to myself	59.30% (n=271)	
	Yes, my feelings are very obvious	36.54% (n=167)	
How do you deal with stress?	Sleep	22.66% (n=104)	Answered: 459 No response: 0
	Party	2.61% (n=12)	
	Faith	14.81% (n=68)	
	Avoidance	16.99% (n=78)	
	Exercise	30.07% (n=138)	
	Other	12.85% (n=59)	

### Occupational therapy Professor Survey Responses

A total of 340 occupational therapy professors completed the survey. There were only slight variations in the number who chose to answer each question, as seen in Tables 3, 4, and 5. Table 3 displays the professors' years of practice, teaching experience, and current teaching involvement. There were wide variations in the practice experience of the professors who responded, however, well over half had been occupational therapists for more than 20 years. Conversely, more than half of the professors had been teaching for 10 years or less. These two factors appeared to demonstrate that many professors engaged in practice for significant periods of time before they entered

the teaching world. More than half of the professors were responsible for teaching three or more classes at the time of the survey, with a large number who were teaching four or more courses, indicating high teaching responsibilities.

<b>Table 3</b>			
<i>Professor Years of OT Practice and Teaching Experience</i>			
<b>Survey Question</b>	<b>Answer Choices</b>	<b>Percentage of Respondents</b>	<b>Number of Respondents who Answered</b>
How long have you been certified as an occupational therapist?	Less than 2 years	1.49% (n=5)	Answered: 335 No response: 5
	2-5 years	2.99% (n=10)	
	6-10 years	10.45% (n=35)	
	11-15 years	11.04% (n=37)	
	16-20 years	16.72% (n=56)	
	21-30 years	26.27% (n=88)	
	31-40 years	22.69% (n=76)	
	40+ years	8.36% (n=28)	
How long have you been an occupational therapy professor?	Less than 2 years	14.12% (n=48)	Answered: 340 No response: 0
	2-5 years	26.47% (n=90)	
	6-10 years	22.94% (n=78)	
	11-15 years	9.71% (n=33)	
	16-20 years	9.41% (n=32)	
	21-30 years	14.71% (n=50)	
	31-40 years	2.65% (n=9)	
	40+ years	0.00% (n=0)	
How many occupational therapy classes are you currently teaching?	1	9.47% (n=32)	Answered: 338 No response: 2
	2	25.44% (n=86)	
	3	29.88% (n=101)	
	4 or more	35.21% (n=119)	



Table 4 displays the professors' perceptions of student stress and course demands. On a scale from one (no stress) to ten (high stress), the professors stated they felt the average student stress level was just under seven (n=337). When asked how much time their occupational therapy classes required compared to general classes, the average response was seven and a half (n=335) on a scale of one to ten, indicating the professors perceived the need for more time required by occupational therapy classes.

<b>Table 4</b>		
<i>Professor Perceptions of Student Stress and Occupational Therapy Course Demands</i>		
<b>Survey Question</b>	<b>Answer</b>	<b>Number of Respondents</b>
On a scale from 1-10 (1= not stressed at all, 10=extremely stressed), how stressed do you think students are on a daily basis?	(n=337) mean= 6.8 standard deviation= 1.84	Answered: 337 No response: 3
On a scale from "much less time=0" to "much more time=10", how much time do you think occupational therapy classes require compared to student's general classes?	(n=335) mean= 7.5 standard deviation= 1.45	Answered: 335 No response: 5

As seen in Table 5, the vast majority (96%, n=321) of professors reported they were aware of the stress their students experienced. A little over half (54%, n=182) of the professors stated their students had "no" or "not very good" balance in their "occupational profiles", another large number perceived they had "a little" balance, and a very small number reported "no balance." The researchers asked about the "occupational profile" as a measure of balance because they assumed the occupational therapy professors would be familiar with this term as defined by the AOTA Practice Framework (AOTA, 2020), and could use this to help judge the level of balance in their students' lives. Table 5 also provides a view of professor impressions of the effect of stress on student relationships and student aspirations for their professional future in occupational therapy. A very distinct majority of professors surveyed believed students were "daily" (23%, n=78) or "frequently" (74%, n=249) overwhelmed with their responsibilities (see Table 5). Another profound majority (91%, n=301) of the professors believed stress affected their students' family relationships. An additional large number (93%, n=313) of professors surveyed felt stress affected students' social relationships, with very few reporting it did not.

When asked their perceptions of how their students dealt with stress, “exercise” (34%, (n=114) was the most common answer from the professors (see Table 5). Another significant number of professors perceived “avoidance” (24%; n=81) was a frequent coping method used by students. A very small number of professors reported their students used “sleep”, “party”, “faith”, or “other” to cope with stress. It is also very significant that a large majority (77%, n=257) of the professors surveyed believed their students sought counseling services during their time as occupational therapy students. As noted in Table 5, a majority of the professors surveyed believed stress sometimes made their students not want to be occupational therapists anymore. Nonetheless, the vast majority of professors (88%, n=298) believed their students had high expectations to meet goals in their occupational therapy programs.

<b>Table 5</b>			
<i>Professor Perceptions of Student Stress and Life Challenges</i>			
<b>Survey Question</b>	<b>Answer Choices</b>	<b>Percentage of Respondents</b>	<b>Number of Respondents</b>
Do you feel you are aware of stress your students may be feeling?	Yes	95.82% (n=321)	Answered: 335 No response: 5
	No	4.18% (n=14)	
On a scale from not balanced at all to very balanced, how balanced do you think your students' occupational profiles are?	No balance	3.54% (n=12)	Answered: 339 No response: 1
	They attempt to have balance but it isn't very good	50.15% (n=170)	
	A little balance	43.95% (n=149)	
	Very balanced	2.36% (n=8)	
How often do you think your students feel overwhelmed with their responsibilities?	Daily	23.21% (n=78)	Answered: 336 No response: 4
	Frequently	74.11% (n=249)	
	Rarely	2.38% (n=8)	
	Never	0.30% (n=1)	
Do you think stress affects your students' family relationships?	Yes	90.66% (n=301)	Answered: 332 No response: 8
	No	9.34% (n=31)	
	Yes	93.15% (n=313)	Answered: 336

Do you think stress affects your students' social relationships?	No	6.85% (n=23)	No response: 4
How do you think your students' deal with stress?	Sleep	5.95% (n=20)	Answered: 336 No response: 4
	Party	3.87% (n=13)	
	Faith	3.87% (n=13)	
	Avoidance	24.11% (n=81)	
	Exercise	33.93% (n=114)	
	Other	28.27% (n=95)	
Do you think your students have sought any type of counseling services during their time as occupational therapy students?	Yes	76.72% (n=257)	Answered: 335 No response: 5
	No	23.28% (n=78)	
Do you think stress ever makes your students not want to be occupational therapists anymore?	Yes	15.43% (n=52)	Answered: 337 No response: 3
	Sometimes	55.49% (n=187)	
	Never	29.08% (n=98)	
Do you think your students have high expectations to meet goals in this program?	Yes	88.43% (n=298)	Answered: 337 No response: 3
	Some of them	11.28% (n=38)	
	No	0.30% (n=1)	

### Student and Professor Interview Results

Nine professors (from 9 different programs within 8 different northeast, midwest, southern, and western states), and 5 students (from 4 different programs within 3 different northeast and midwest states) participated in the interviews, for a total of fourteen interviews. Content analysis of interview findings yielded highly descriptive interviewee responses. The following categories emerged from the analysis: academic and relationship stress, financial causes, expectations, views on life balance, academic performance, views on communication, and views of coping. The researchers contend the findings may have approached data saturation, as students expressed similar recurring concerns and similarity was also seen among professor responses, though interviewees in each of the two datasets also provided their own unique thoughts and circumstances.

### **Academic and Relationship Stress**

Occupational therapy students indicated a number of factors contributing to their stress. These included high demands from professors in courses, a large number of projects and tests, and the required GPA minimum for their curricula. Some students linked their stress to internal or personal factors such as a sense of self-expectation to succeed and get higher grades, or an issue with their own time management when it came to completing course work. One student commented, *“the overabundance of tests and assignments, in a general week it’s a lot.”* Another student commented, *“school, work, managing many different projects, studying for exams, [and] trying to balance things”* are major factors in stress levels. Occupational therapy students highlighted several factors causing stress that were not specifically academic in nature. Most students interviewed mentioned the financial obligations of school, such as anticipated loans or the difficulty in working while getting an education due to inadequate time availability, as high stressors not related to academics. Students noted maintaining relationships and a social presence also contributed to stress.

The professors who were interviewed noted several factors they felt affected student stress. The most frequently reported professor answers included time management and the intense course load in comparison to undergraduate coursework. One professor commented that the cause of student stress may be due to an *“accelerated program [with] a lot of assignments.”* Professors discussed other factors impacting student stress including personal situations such as family, finances, and unforeseen circumstances. One professor expressed, *“I feel that personal factors affect students the greatest. These circumstances can vary greatly such as finances, moving, family problems, relationships, etc.”* Another described that *“anything going on in home life – death in family, abusive relationships, being forced to move out, horrible breakups, a lot of stress comes from interpersonal relationship[s]”* and can impact a student’s stress level.

### **Financial Causes**

Many students noted during their interviews that financial responsibility was a high stressor, while other students did not feel the impact as heavily as other stressors they faced. One student stated, *“everyone is somewhat concerned with financials.”* The point where each student was in his/her academic career seemed to contribute to whether or not financial responsibility was a stressor. Students who were farther along in their schooling were concerned about paying off any loans, and these students reported more stress from such impending financial responsibility. Professors who were interviewed agreed that finances played a large role in stress for students, and many professors noted that families were not always able to assist the students financially which in turn may cause increased stress. A common response as well was that the course load and class schedule made it difficult to work, and that financial burdens such as cost of tuition, books, and lab fees also played a role in stress. A professor commented, *“students often question ‘will I have enough money when I graduate to pay for a car, a house, [and] food?’”*

### **Expectations**

Students indicated various academic expectations contributed to their stress, such as GPA minimums, professor expectations of skills regarding recall and participation, and expectations for a 100% pass rate for the school on the NBCOT exam. Some students said the expectations for students to be active in class, do well on exams, and be involved in clubs are stressors. One student commented, *"expectations are the biggest stressor... although perfection is unattainable, it continues to be my goal... this makes it very hard to be proud of myself."* Another student asked, *"...where's the time for you to be you?"* Professors noted faculty academic expectations may increase student stress along with the student's own personal performance expectations as graduate students. One professor believed stress *"comes from many areas: personal, staff, peers, and it's all about the clearness of the expectations."*

### **Views on Life Balance**

Most students interviewed reported they did not have life balance. Many noted that when they had school assignments due or exams coming up, they tended to put these as the top priority and neglected sleep, leisure, or social participation. One student stated, *"it can make life unbalanced...I often find myself with more studying and less leisure [and] sleep."* Another student reported that social participation decreased, stating *"if I have an exam coming up I will stop hanging out with friends."* A majority of professors felt their students did not have a good life balance or that life balance ebbed on a continuum depending on the point in the semester. The professor interviewees noted student sleep and social participation decreased when stress increased. One professor commented, *"life balance is a continuum, less of it when you're in school...students tell [me] they go home, work, eat, and study, [and are] concerned about not having time to de-stress, older students tend to be better with it, younger students tend to struggle, especially in first year."*

### **Academic Performance**

The interviewed students reported they tried to reduce stress by organizing their course materials prior to the class. Most students noted they utilized planners, friends, and other tools to help keep on top of work. Students reported de-stressing by communicating with friends, joking around, and exercising. Another student said *"talking to friends and having comraderies, having the cohort together to joke about how much work you have and having people to lean on to make[s] it feel easier...no matter how stressed you are, remember how blessed you are...I like to think that I am lucky to have an education and the goal of OT."* The student interviewees reported that when they felt stress, they "buckled down" to increase workload productivity in order to complete tasks. Many students commented that while stress was present, and they occasionally felt overwhelmed, pressure often encouraged them to complete tasks and succeed. One student said, *"[stress] affects performance in [a] somewhat positive light, some people get more attentive when they're stressed... [it can be a] detriment to your mental health and physical health, social relationships...some stress is better than no stress, but it does affect your performance."*

Professors stated they noticed stress in the classroom by students' appearances and the way they interacted with each other and the professor. Professors also noted students may ask more questions and send more emails to their instructors when stressed. Professors commented that students' performance in class changed when the students were stressed, and they may submit assignments late or at the last minute. One instructor commented *"I believe that maintaining these expectations while students are under stress isn't right...it's like asking a hungry student to concentrate."* Some professors noted they take the time to do check-ins with students about how they are handling things and how the professor can help. Professors noticed stressed students missed assignments or submitted late or low-quality work. Professors said students may be forced to prioritize by working on a paper and slacking on a group project, or working on an assignment for another class while in class. One professor commented that academic performance should not always be the ultimate goal, stating: *"I would rather see my students be better with people and interacting with patients than knowing everything from a book."* Another professor noted, *"I've told students before that I cannot fault them for just trying to squeak through."*

### **Views on Communication**

Several students reported they communicated frequently during office hours and classes. Other students commented that professors did not allow students to communicate with the professor outside of the classroom. One student mentioned, *"it depends on the professor...we can email them and go to office hours, Canvas [online learning application], [or] you can stay after class...mostly just conversational...pretty open communication...I am closer to some professors more than others so I feel more comfortable and open going to them."* Another student reported, *"I feel professors are aware of our stress... sometimes professors respond to our concerns, but sometimes they don't."*

Professors described an open-door policy, where they allowed students to stop by their office to talk as needed during office hours. Interestingly, one professor reported avoiding an open-door policy and preferred students email beforehand. Most professors described their relationships with students as "open" and reported telling students to come to them with any concerns they have. Professors said some students took advantage of open-door policies to discuss their concerns, however, they said other students did not feel comfortable talking about their feelings with the professor. One professor commented, *"I try to email within 24 hours, but we have a 48-hour policy where we need to send emails."* An additional instructor stated, *"we will all be colleagues soon, so I treat the classroom like a work environment...I respect that they have lives and things happen...if they have open communication with me, I will have open communication with them."*

### **Views of Coping**

Students shared coping strategies they utilized included exercising, sleeping, socializing, and partaking in non-school related things. A frequent response was students often avoided school tasks to sleep and relax. One student reported they, *"try to maintain some type of balance and routine...use your cohort to vent and express*

*concerns...utilize free counseling services.” Another student noted, “other students in cohort exercise as well, some people party, [the] whole class usually feels the same stress.” Students highlighted the most important ways they believed professors can eliminate stress were to properly outline professional and educational expectations prior to the class, vocalize needs to professors, and have open lines of communication. One student commented, “communication is number one... that goes two-ways, communications about expectations is super important from the students and the professor...what it means to be a full-time student, what it means for expectations in class, directions for tests, papers, and projects.” Another student recommended, “definitely have a clear syllabus in the beginning of the semester, [discuss] if things are changed, discussing when things are due with outlines and descriptions...open communications on deadlines...just being clear with students on expectations especially with presentations.”*

Professors noted coping strategies utilized by students included physical activities such as walking, exercising, and yoga. Some professors mentioned students may be using inadequate strategies. One professor said there are a “fair amount of students who use maladaptive strategies [such as] going out drinking... [I] anticipate that there is some smoking marijuana.” Some professors also noted students will commiserate with each other, sometimes through social media, and said this may not always be a good strategy. Instructors believed this strategy can bring out negativity and cause more stress. Professors recommended advisement meetings as a time to support students and get an understanding of their concerns. Professors also stated that being open and sharing their experiences may be helpful, as well as trying to be a role model for the students by demonstrating good life balance. One professor mentioned thinking about their relationship with students as therapeutic. Professors stated they do their best to acknowledge how the students are feeling and that they modified assignments or due dates when they could to help students decrease stress. Professors also mentioned using or wanting to implement strategies such as breathing techniques, meditation, quiet rooms, and fidgets to assist students in managing stress. One professor placed responsibility on occupational therapy professors, stating “[we need to] step outside of ourselves and preconceived notions on how it should be, and meet students where they’re at, look at it as a therapeutic relationship.”

### **Discussion**

The results of our study revealed some discrepancies between student and professor perceptions of stress. A higher percentage of professors than students stated students were frequently overwhelmed. There was an even larger difference in the responses for professors' awareness of student stress. An overwhelming amount of the professors who were surveyed believed they were aware of their students' stress, while the majority of students did not believe their professors had awareness of their stress. This is similar to a result from a previous study that found professors had a greater perception of student academic stress than students' perceptions indicated (Misra et al., 2000). A contributing factor to this may be that insufficient actions are taken to reduce student stress. Although professors may be aware of student stress, they often may not take further action to reduce student stress beyond offering office hours to discuss

concerns. Perhaps these issues could be alleviated via enhanced student/professor communication. The findings illustrated the need for action to address the problem of student stress. Chang et al. (2017) suggested decreasing workload, prioritizing leisure, and using stress management techniques to improve occupational balance and overall enjoyment of college life.

Communication is widely acknowledged as an important aspect of the professor-student relationship. Our study's respondents believed that clear and open communication between professors and students could have a positive impact on student academic stress levels. The researchers propose that reserving time in class for students to ask questions and express concerns may be an important element in student/professor relationship building. Establishing an "open-door" policy wherein students know they are welcome to meet with the professor is also important for this relationship. Similarly, encouraging students to call or email can be very helpful, along with providing polite and consistent answers to student inquiries.

Benner and Curl (2018) identified how academic performance can diminish and burnout can result in social work students due to the demands of employment. Many students in the Benner and Curl study noted their lives were not balanced appropriately and indicated that out of necessity they put more emphasis on education and work occupations than leisure and social occupations. For example, students may not take the appropriate time they need to socialize, therefore rendering them inefficient at reducing stress. Benner and Curl's findings may also apply to occupational therapy students, as many are involved in numerous life roles, including employment. The occupational therapy discipline's professional commitment to restoration of life satisfaction and balance via involvement in meaningful occupations, including socialization, demonstrates the need for occupational therapy students to establish fulfilling connections with others (AOTA, 2020). The researchers recognized, however, that potentially stress-reducing campus involvement recommendations, such as being a club member, participating in service trips, attending social gatherings, attending religious services, taking part in musical events, involvement in sports, and even more relaxed socializing such as watching movies or dining with friends, may be vastly limited by student employment. The results of our study found that while students utilized various strategies such as exercise to cope with stress, they still reported high levels of stress. This may be explained in study findings from Yzer and Gilasevetch (2019), who found college students cited exercise as their favored means of dealing with stress, yet time to engage in exercise was often limited. An older yet very relevant study by Bray and Kwan (2006) demonstrated higher scores in measures of psychological and physical health in first year college students who actively engaged in physical exercise.

It was apparent from our study's findings that, although the students described some strategies they used for stress reduction, they may benefit from learning and adopting additional techniques to alleviate anxiety. There are many suggested relaxation methods students can try to utilize while in school and in fieldwork, such as progressive relaxation and diaphragmatic breathing exercises (Cuncin, 2019). Professors noted in the interviews that they occasionally delayed due dates for assignments or modified



expectations in order to reduce student stress, but some also stated interest in implementing other strategies in the future, such as meditation and breathing techniques during class. Evidence for mindfulness approaches may reside in a recently conducted investigation which demonstrated the effectiveness of a 6-week meditation and yoga program in decreasing college student anxiety (Lemay et al., 2019). Professor advocacy for programs targeted at student stress reduction may help foster more openness between professors and students and may help students recognize that professors are not only aware of student stress, but are interested in supporting students as they navigate through the difficulties they face.

Some writers have suggested coping strategies that can help with stress in occupational therapy school. A qualitative study by McConville et al. (2019) reported that meditation and mindful movement improved self-awareness of stress responses in university physical therapy students; other subjects self-reported positive gains from the program included better dietary and exercise habits, increased ability to listen to others, enhanced communication, and more focused studying. Mindfulness is a meditation technique that includes being focused in an intentional and accepting way (Bahr, 2016). Bahr (2016) suggested the usefulness of mindfulness techniques for students, claiming they improve test-taking skills, assist in thinking more clearly and critically, reduce stress, and promote being more forgiving, less angry, and more compassionate. She stated using these techniques will improve student mental well-being and emotional status which were previously compromised by educational stress.

### **Implications for Occupational Therapy Education**

The results of our study highlight the need for occupational therapy educational programs to be attuned to student stress levels. Moving forward, program faculty are encouraged to identify and acknowledge the presence of excessive student stress and to problem-solve ways to assist in normalizing it. This can include utilizing stress-reduction strategies in the classroom, providing resources to students such as contact information for institution-based counselors, or personally acknowledging challenges students may be facing and providing support. Occupational therapy educators should also consider working within the occupational therapy program as well as with the institution to identify universal strategies that can work to decrease overall student stress, such as providing workshops and stress-reduction programs.

### **Limitations**

A thorough pilot study could have enhanced the validity of this investigation by allowing for refinement of survey instruments and interview questions. It could have promoted improved sequencing of questions, and it also may have screened to assure that all questions directly addressed the aim of the study, as data analyses of several question responses were not included in this report because they did not seem to address the research questions. A pilot study also may have pointed to the need to obtain more demographic information from participants.

Student recruitment largely relied upon emails disseminated to chairs and program directors requesting they send the SurveyMonkey link to their students. This was a limitation because the researchers were unable to determine if chairs and directors disseminated the link to their students. Although more students than professors responded to the surveys, more professors than students volunteered for the interviews. One of the limitations of the study was the relatively small number of interviews, as additional interviewing may have yielded a more pervasive and deeper perspective.

Curricular designs in entry-level occupational therapy education vary and may include combined undergraduate/graduate five-year entry MS or six-year entry level occupational therapy doctorate programs as well as exclusively graduate programs. Undergraduate students responding to this study who were enrolled in a combined undergraduate and graduate occupational therapy program were likely required to complete a variety of non-occupational therapy core courses, including liberal arts, science, and mathematics. Additionally, occupational therapy students are required to take courses such as anatomy and statistics, offered outside of the occupational therapy department. These additional challenges may have added to the stress associated with the occupational therapy department-offered courses. Thus, the occupational therapy coursework may not have been the only academic challenge causing stress in the students.

Additionally, it would have been helpful to obtain additional demographic information about both survey and interviewee characteristics. Instead of asking if student survey respondents were freshmen, sophomores, juniors, seniors, or in their fifth year, it would have been better to rephrase the question to ask if they were “undergraduate, first year graduate, second year graduate, or third year graduate” or “other” as possible answer options. Additionally, although being an entry-level MS or entry-level occupational therapy doctoral student were the inclusion criteria, the survey questions did not require students to report which degree program they were in. As described previously, to assure an acceptable quantity of student responses a relatively large number of student invitations were sent to the researchers’ university, which offered a five-year entry level MS program, and which was transitioning to a six-year OTD entry program at the time of the study. Though survey responses were anonymous, it is presumed that a fair number of the student survey responses were from the researchers’ university, which may have biased the student survey findings to reflect a disproportionate number of concerns unique to that institution. Lastly, care in the design of the interview questions sought to avoid leading interviewees in their responses, however, it is possible that this may have happened.

### **Future Research**

Further research is needed to identify productive stress-reduction strategies as well as to identify the best suited methods for educators and administrators to implement these strategies in occupational therapy curricula. For example, experimental and quasi-experimental studies could identify optimal strategies for reducing student stress. The researchers also recommend the completion of a longitudinal study to identify periods during the occupational therapy curriculum that invoke the highest levels of stress and

ways to support students during these periods. Additionally, another longitudinal study could track stress levels in occupational therapy students as they advance and become occupational therapy practitioners, to examine the long-term presence of stress in their lives. A related issue arose when contemplating the results of our study, in that students may not be the only faction in the college environment in need of stress reduction. A recent investigation demonstrated the importance of the professor/student relationship in promoting the professors' emotional well-being, wherein student support for the professor played an instrumental role (Martini et al., 2019). Therefore, additional occupational therapy research may also want to investigate professor stress. There may be a relationship between professor and student stress levels which, if explored, could lead to reduction of this problem in both groups.

### Conclusion

The results of this study illustrated heightened stress levels in many occupational therapy students, compounded by academic, financial, employment, and social forces. Findings also illustrated the need for professors to be aware of increased student stress through monitoring academic and behavioral changes in the classroom. It is recommended that professors teach and demonstrate how coping skills and relaxation methods can be used to decrease student stress in the classroom. Other strategies may be helpful, such as offering additional office hours and routine check-ins during stressful periods of the semester, as well as outlining clear and concise directions for assignments. Evaluation and consideration of occupational therapy student stress now will help to produce a cohort of occupational therapists who are ready and able to cope with stressors or unexpected challenges that may arise in the ever-changing world of healthcare.

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