

# **Pre-Service During a Pandemic: College Students' Perceived Effects of Mindfulness Practices: A Mixed Methods Study**

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Being stressed in college has almost become a rite of passage and the COVID-19 pandemic has undoubtedly heightened these stress levels. The purpose of this study was to obtain more information regarding students' perceptions regarding the benefits, if any, of engaging in mindfulness practices in the classroom. The study consisted of students from a small liberal arts college who were enrolled in a teacher preparation program during the 2020 Fall semester. Participants engaged in a guided meditation using the Calm app as a whole group at the beginning of class and then a gratitude journaling activity at the end of class. Students were given a survey at the end of the semester to judge the effectiveness of mindfulness practices in the classroom and to determine if these practices made an impact on students' lives outside of the classroom.

*Keywords:* college students, COVID-19 pandemic, gratitude journaling, meditation, mental health, mindfulness, pre-service teacher, teacher education

It comes as no surprise that college students experience stress – these young adults are tasked with navigating newfound independence while determining a career path. The fact that the COVID-19 pandemic has heightened this stress is hardly breaking news. For college students pursuing a career in education, school closures and decreased interactions with children have further heightened stress levels:

*“Being a college student and preservice teacher has directly impacted my stress levels while making my way through a pandemic. I am upset that it is so hard to complete fieldwork in person. I feel like it adds more stress and I really miss seeing all the students’ faces.”*

(Anonymous, Junior)

*“The most difficult part of being an education major during this time has been the lack of student interactions. The children are the best part of the job, and because of the pandemic, I have had very little engagement with students which has been disappointing.”*

(Marcella Smith, Junior, Elementary Education PreK-4 major)

When enrolled in an education program, one of the more exciting aspects is stepping away from the lecture halls, going out into the classroom, and putting the theories you have learned into practice. The COVID-19 pandemic has caused instructors to become creative in ways that pre-service teachers interact with children.

*“For me, my stress level depends on the class...In my education courses, the courses have all changed a lot. Normally, I would be teaching at [a local high school], but because of COVID, we can’t go and I can’t get that valuable teaching experience. Last March ...I had to move all of my classes online and make accommodations and also start*

*virtually tutoring students to get my required field hours. That was the most stressed I have ever been...”*

(Alejandro Barlock, Junior, Middle-Level Science)

*“Being an Early Education major during the COVID-19 pandemic has added a multitude of obstacles that I never expected to face...I was enrolled in a class where my peers and I were to teach two eight-week classes on topics that interested us as well as our future students. In a normal year, this class would have been held in person, but due to our conditions, I taught my classes online. This was a huge challenge because not only did I have to teach kindergarteners for the first time in my life, but I also had to lead instruction over Zoom. This was extremely stressful...”*

(Marcella Smith, Junior, Elementary Education PreK-4 major)

While it is important to know what students are experiencing, it is even more important to begin to discern what coping skills are beneficial for students and to teach them ways to incorporate them into their lifestyles. This study aimed to gather data regarding the impact of practicing mindfulness in the classroom and to discern if students found themselves using mindfulness practices and techniques outside of the classroom environment. Because college students often feel as if they do not have enough time for all of the tasks they need to accomplish, self-care can often be neglected or be perceived as just another task students need to add to their “to-do” list. It was hypothesized that if students found themselves experiencing benefits from participating in mindfulness practices in the classroom, they would make these practices a part of their everyday lives.

## Review of Literature

### College Stress

College students and stress seem to go hand in hand. Chen et al. (2019) conducted research prior to the COVID-19 pandemic and found “significant evidence demonstrating high baseline levels of stress and mental health challenges among college students” (p.443).

According to an April 2020 survey of over 2,000 college students conducted by the nonprofit organization, Active Minds (2021), one in five respondents reported that their mental health had significantly worsened during the pandemic. A study conducted by Son et al. (2020) found that 71% of college-aged individuals indicated that their stress and anxiety had increased due to the COVID-19 pandemic. From this study, 91% of participants reported negative impacts of the pandemic. 89% of participants reported difficulty in concentrating, 86% reported disruptions to sleeping patterns, 86% had decreased social interactions due to physical distancing, and 82% of participants had increased concerns about academic performance (Son et al, 2020).

After accidental injuries, suicide is the second leading cause of death in college-aged adults (Turner et al., 2013). Despite the increasing need for mental health care services at postsecondary institutions, only a small portion of students committing suicide contact their institution counseling centers (Shuchman, 2007). Students being hesitant to reach out for help could be due to the stigma associated with mental health. Such negative stigma surrounding mental health diagnosis and care has been found to correlate with a reduction in adherence to treatment and even early termination of treatment. According to the Centers for Disease Control and Prevention (2021), 50% of people in the United States will experience a mental health condition in their lifetime, therefore it is of the utmost importance that we provide young adults with the opportunity to learn and practice coping mechanisms.

No matter our age, stress will always be in our lives and should not always be perceived as negative. Stress can serve as a healthy response when we are feeling threatened or attacked (Khan et al., 2015). Stress can also serve as a positive motivator (Nandamuri & Ch, 2007). Thus, while some stress may positively serve us, other forms of stress may impact us negatively. When individuals struggle to employ effective stress coping mechanisms to handle a stressful situation, their feeling of stress can persist over time and, in turn, they can become at a higher risk of developing severe physical and mental problems (Auerbach & Gramling, 1998).

A 2018 study that investigated the level of stress among college students enrolled in a teacher preparation program found that the students experienced five types of stress - physiological, social, psychological, academic, and environmental (Yikealo et al., 2018). The results of the study indicated that there was a “moderate level of stress among the students” and that “out of the five domains, academic and environmental stressors were found contributing most to the students’ level of stress” (Yikealo et al., 2018, p.1). The COVID-19 pandemic has undeniably affected the environment in which students are functioning.

More recently, through Son and colleagues’ (2020) research involving the effects of COVID-19 on college students’ mental health in the United States, they discovered that pandemic-related stresses included many aspects such as relocation, online learning, social distancing, and anxiety over health and economics. Specifically, students are experiencing stress regarding:

- academics
- challenges of online classes
- their own health and the health of their family members
- changes in their living environment

- financial concerns
- difficulty concentrating due to distractions at home
- low motivation
- issues with sleeping - either sleeping too much, not being able to sleep, or having difficulty sleeping
- feelings of isolation
- lack of social interactions
- loneliness causing depressive thoughts
- eating patterns - either increased or decreased appetites

For college students who are pursuing a teaching certificate, the pandemic has only seemed to intensify these feelings as they are worried about the lack of interactions with children and teachers in the K-12 environment, the lack of socialization, and the inability to work with children in-person. As teachers, a large part of the job is interacting with students - seeing the joy of discovery light their faces, walking around the classroom to check on students' progress, and providing motivation. Many in the teaching field were inspired to become teachers from the relationships they formed with their own teachers as they grew up. Research conducted by Bergmark et al. (2018) investigated why individuals decide to enter the teaching profession and found that pre-service teachers aim to recreate the "caring school experiences they had from their own schooling and former teachers" (p.270). The pandemic has severely limited these interactions, likely taking a yet to be fully measured toll on the emotional health of pre-service teachers.

### **Benefits of Meditation**

In recent years, meditation has become much more of a mainstream topic. Simply turn on the television and you may see a commercial for the Headspace app or be provided a 15-second “break” via the Calm app where a commercial shows a babbling brook and encourages the viewer to take a few deep breaths. In the book, *Buddha’s Brain: The Practical Neuroscience of Happiness*, Hanson and Mendius (2009) discuss how regular meditation promotes mindfulness which results in a decrease in stress-related cortisol levels, insomnia, symptoms of autoimmune illnesses, PMS, asthma, falling back into depression, general emotional distress, anxiety, and panic, and an increase in immune system factors, control of blood sugar in type 2 diabetes, detachment from reactions, self-understanding, and general well-being (p. 85). Meditation can aid in lowering blood pressure, heart rate, and cortisol levels while increasing attention, memory, and self-compassion (Pascoe et al., 2021).

Meditation can also help people be happier and more positive in their relationships, allowing individuals to be less reactive when negative events occur in their lives (Hanson & Mendius, 2009). Prior to the COVID-19 pandemic, Huberty et al. (2019) conducted a study using the Calm app with 88 undergraduate college students and found that, after using the app for 8 weeks, participants had “significantly decreased perceived stress scores” (p. 26). In a study investigating the benefits of meditation and mindfulness practices during times of crisis such as COVID-19, Behan (2020) found that regular practice of mediation allowed “individuals to react to their environment and anything that arises in the course of their day with more calm and equanimity” (p. 257). Teachers, even prior to a pandemic, must react to their environment with a sense of calm. When a student comes with news of abuse, teachers must react calmly. When administration places another task on always-growing to-do lists, teachers must react calmly.

Remaining calm during unexpected events and developing a sense of resilience is one of the most important dispositions a teacher can possess.

Furthermore, engaging in meditation practices has proven to cause structural changes in the brain. Studies of people who have meditated over the long-term show changes in areas of the brain concerned with stress and anxiety (Afonso et al., 2020). When engaged in meditation practice, the prefrontal cortex, the cingulate cortex, and the hippocampus show increased activity, and the amygdala shows decreased activity consistent with improved emotional regulation (Pascoe et al., 2021). Hanson and Mendius (2009) further support these findings, stating that strengthening the anterior cingulate cortex (ACC) through meditation - the part of the brain responsible for emotional regulation — “helps you think more clearly when you’re upset and brings warmth and emotional intelligence to your logical reasoning” (p. 101). Providing pre-service teachers with tools to enhance clear thinking and to respond with warmth, regardless of being in a pandemic, is a tool that will benefit them and their students.

### **Benefits of Gratitude Journaling**

For teachers, adding anything extra to the constantly growing to-do lists can cause more stress and anxiety. One of the greatest aspects of gratitude journaling is that it takes little in regard to preparation or necessary materials. According to Boggiss et al. (2020) gratitude interventions “offer a straight-forward, easy-to-deliver intervention that can be completed individually, without a heavy resource cost” (p. 9).

Hanson and Mendius (2009) have found that the benefits of practicing gratitude include lifting mood, increasing life satisfaction, and building resiliency. Emmons et al. (2019) explain the many benefits of engaging in gratitude practices such as contributing to “an increase in happiness, health, and other desirable life outcomes” while also contributing to a “decrease in



negative affect and problematic functioning, including in patients with neuromuscular disease, college students, hypertensives, patients with cancer, health care providers, and early adolescents” (p. 317). Işık and Ergüner-Tekinalp (2017) considered the effect of engaging in gratitude practices with college students and how it relates to their adjustment to college life. The students who engaged in gratitude practices had “significantly higher post-test scores on gratitude, adjustment to university life, life satisfaction, and positive affect (Işık & Ergüner-Tekinalp, 2017, p. 164).

As with meditation, gratitude journaling has also been proven to result in structural changes in the brain. Functional MRI scans have shown structural changes in the brain after engaging in gratitude practice. Karns et al. (2017) conducted an experiment in which individuals engaged in three weeks of gratitude journaling and found that “grateful people show stronger neural signatures of pure altruism in reward system regions” of the brain (p. 7). They also discovered that “gratitude biases the brain’s reward system toward rewards for others versus oneself” thus increasing individuals' altruism. Upon looking at MRI scans of the brain, the researchers found that three weeks of gratitude journaling engaged the ventromedial prefrontal cortex (VMPFC), the region of the brain associated with emotional processing, decision-making, memory, self-perception, and social cognition more strongly (Karns et al., 2017).

The human brain is predisposed toward negativity (Hanson & Mendius, 2009). While this trait has enabled humans to adapt and survive for millions of years, the majority of people live in a world where they do not need to have their brains engaged to constantly scan for threats. By practicing gratitude and actively focusing on positive thoughts, individuals can rewire their brains to engage in constructive practices, allowing them to perceive themselves and others in a more positive way. Intentionally practicing gratitude can assist in maintaining a positive attitude

while helping to calm the nervous system and stimulate peaceful feelings (Hanson & Menius, 2009). Instilling in pre-service teachers the ability to maintain a positive attitude and to create an environment of calm are tools that they can use in their future classrooms for their own benefit and that of their future students.

## **Methods**

### **Participants**

The study was conducted in a small, liberal arts, Catholic college in the Fall of 2020. Two full-time professors, one from the Education Department and one from the Theology Department participated in the study. After obtaining IRB approval from the researchers' institution, each professor used participants from one of their courses, for a total of 39 students. Students ranged in age from 19-23 years of age and were all enrolled in a teacher education program. Participants ranged in major from Early Childhood Education PreK-4, Special Education, and Secondary Education concentration majors, such as History, Art, Mathematics, Biology, and Foreign Language.

The purpose of the study was to examine college students' perceptions of engaging in mindfulness practices such as guided meditation and gratitude journaling and to determine if students experienced any benefits from these activities. Even before a global pandemic, college students have reported experiencing stress and anxiety. One of the causes of stress is feeling like there is not enough time to complete assignments and/or study. This feeling of a lack of time can cause college students to put self-care at the bottom of their priority list. Students who engaged in this study were already in attendance as it took place during their normally scheduled course meeting time. Participating in this study then enabled participants to engage in self-care while not taking away any of their "free time" or "down time." Because of this, the study also aimed to

determine if college students found themselves engaging in mindfulness practices outside of the classroom. This study was seeking information regarding students' perceptions of the importance of incorporating self-care strategies into their lives outside of the classroom and if they determined what was happening in the classroom so beneficial that they would take the time to practice self-care during their own time.

### **Research Design**

At the beginning of each class, students would engage in a guided meditation from the Calm app, which lasted approximately 10-15 minutes. First, the College Collection was used, which involved 8 different meditations ranging from an Introduction to Mindfulness to meditations addressing stress, concentration, balance, sleep, self-compassion, and purpose. The College Collection, authored by Tamara Levitt (2020), is said to “help students ride the rollercoaster of college life” (College Collection section). After the College collection meditations were completed, participants then completed the 21 Days of Calm series which is a series said to “integrate mindfulness into your everyday life” (Levitt, 2020). The 21 Days of Calm series involved topics such as non-reactivity to sound and emotions, the judging mind, impermanence, loving kindness, and catching and questioning our thoughts. The guided meditations involved different mindfulness and meditation techniques including mindfulness of breathing (using the breath as an anchor to the present moment), compassion-focused meditation (using loving kindness, and awareness of others' and our own suffering to be in the present moment), the body scan (being aware of each part of the body in turn as an anchor for the present moment and for where we hold tension and stress in our bodies) as well as body awareness (concentrating on our feet in contact with the earth or our hips on our seat to ground to the present moment) (Behran, 2020). Students would engage in these guided meditations as a whole

group. The lights would be dimmed, the classroom door closed, and the meditation would be played via the classroom desktop computer via the projector speakers to the entire group. At the end of the meditation, the class would proceed according to the syllabus, covering the intended material for the day.

The gratitude journaling practice took place at the end of class time. Towards the end of class, students were encouraged to take the last five minutes of class to list approximately five things that they were grateful for in their life. Upon the start of the study, participants were given notebooks to use as their gratitude journals. Participants were instructed that the gratitude journals were to be their private property and that they would never be collected or read by the researchers.

### **Data Collection**

A mixed-methods study was conducted to collect qualitative and quantitative data after 14 weeks of intervention. During the last week of the semester, participants were provided a weblink to answer questions regarding their perceptions of engaging in guided meditation and gratitude journaling during class. An anonymous survey was administered via Survey Monkey and consisted of 10 questions - seven questions were multiple choice and the last three questions were open-ended short answers. Participants were provided with time during class to answer survey questions and 39 participants completed the survey.

### **Results**

At the end of the semester, after participating in 14 weeks of guided meditations and gratitude journaling, a survey was given to collect participants' perceptions. Quantitative data from multiple-choice questions provided percentages that were analyzed and interpreted in the following results. Of the 39 participants who completed the survey at the end of the semester,

61.54% agreed and 39.5% strongly agreed that the guided meditations helped them to alleviate stress. Regarding participants' increased concentration, 48.72% agreed and 23.08% strongly agreed that the guided meditation helped them to focus in class. Finally, because of the guided meditations, 56.41% of participants strongly agreed and 38.46% agreed that they felt a sense of calm after the guided meditations.

When asked about gratitude journaling, 48.72% of participants agreed and 30.77% strongly agreed that after journaling, they felt an overall sense of wellbeing and happiness. After journaling, participants felt able to be more optimistic and positive according to the 53.85% of participants who agreed and 30.77% who strongly agreed. Further survey data found that 41.03% of participants agreed and 33.33% strongly agreed that after journaling, they felt an increase in empathy and self-compassion.

Study participants also had the opportunity to respond to open-ended questions to describe their overall experience completing the guided meditations and gratitude journaling in class. Open coding was used with the qualitative data from open-ended survey questions to determine emerging themes. Themes from qualitative data included overall reaction to the mindfulness intervention and perceived benefits. After being surveyed, 37 out of 39 participants responded positively to engaging in the guided meditations and gratitude journaling. One study participant stated, "I have never meditated before this class and honestly I can say that I absolutely loved it! I feel like I have gained so many positives...I have more patience, a positive attitude, and ways to decrease my anxiety!" According to another study participant, "I loved it and felt like it completely transformed my mental health." A third study participant stated that they enjoyed meditating and gratitude journaling because they were able to "...get into the groove of relaxing before class. I also liked the gratitude journaling because often we do not

make the time to self-reflect on how many great things are happening that we should be grateful for.”

An additional occurring theme was an increased sense of calm and a decrease in stress. One participant stated that the meditations provided them “...a chance to relax during the hustle and bustle of school, work, and life events. With my schedule being so incredibly hectic and stressful, the meditation allowed me to get organized.” A second study participant remarked that the meditations “really helped me relieve stress and journaling gratitude helped me realize the important people and activities in my life.”

More impactful is that some participants noted feelings of calm carrying over into their other classes throughout their day and/or their week. One participant stated, “I always felt a great sense of relief after meditation and I could definitely see a difference in my motivation for the rest of the day after each session.” Other participants stated that the meditations at the beginning of class enabled them to begin their day with a calm mindset, “It was a great way to help start the day and calm down before learning in other classes.” The meditations also provided students the opportunity to be more present in class, “It helped me understand what was important and what was not. It helped me reset and channel my stress to get down what I needed to get done.”

Participants also expressed that the guided meditations helped to increase their focus in the classroom setting. One participant stated, “It was a fantastic experience that I looked forward to every class because it helped me focus and calm my mind which I have learned is constantly busy.” Another study participant stated that it helped them to attend class “...with a clearer mind so I may better pay attention and comprehend more fully what is presented in front of me.”

Regarding the gratitude journaling activity, study participants found it to be a beneficial way to focus on the positive aspects of their lives as opposed to the negative. One participant

stated that “Gratitude journaling was a nice way to remind myself of the good things I had.” while another felt that “...the journaling helped me to focus on good rather than bad things.” An additional study participant remarked that “...this experience made me realize I had so much more in my life to be grateful for than I ever really thought about.”

Participants were also asked if they found themselves using any of the practices (meditating or gratitude journaling) outside of the classroom. Approximately 74% of participants responded that they had added meditation and/or gratitude journaling to their daily life outside of the classroom. Of the 39 participants, 23 participants indicated that they had started meditating on their own time. One participant stated “...as we got closer to finals, I used some meditation sessions to relieve any stress and this helped me a lot” while another stated, “...I try to meditate for at least 30 minutes 5 times a week”

One reason for using meditation outside of the classroom setting was to aid with sleep. Six participants mentioned that they were using guided meditation to help them fall asleep at night. One study participant stated that they had “...never really been one to do any type of relaxation method, but I found it to be really helpful. I even went on to start using them at night to help me sleep because I get pretty bad anxiety attacks.”

Five participants indicated that they had bought the Calm app to continue meditating outside of class. One study participant stated that “...After completing a few sessions of mindfulness in class, I downloaded the program and started using it daily. I can honestly say that it has helped me deal with my stress and anxiety in incredible ways.” Furthermore, seven participants responded that they continued to engage in gratitude journaling on their own time. One participant remarked that they “...started to gratitude journal when it felt like everything in the world sucked. It was a good reminder of the positives in my life.” Lastly, five participants

indicated that, while they had not yet started to engage in meditations or gratitude journaling outside of the classroom setting, they hoped to do so in the future.

### **Discussion**

This study examined the impact of practicing mindfulness in the classroom on preservice teachers' stress levels and to discern if students found themselves using mindfulness practices and techniques outside of the classroom environment. Benefits of guided meditation include increased concentration, a sense of calm, and a decrease in stress. While the benefits of gratitude journaling include an increase in empathy and self-compassion, the ability to be more optimistic and positive, and an overall sense of wellbeing and happiness. With the stress that the pandemic has placed on college students and teachers, these benefits are important to contribute to the education of a resilient and positive future educator.

While examining the effects of COVID-19 on college students' mental health in the United States, researchers found that the long-lasting pandemic situation is bringing negative impacts on higher education (Son et al., 2020). The findings of their study highlight the urgent need to develop interventions and preventive strategies to address the mental health of college students. The students who participated in this study broadly agreed that guided meditation and gratitude journaling were effective ways to manage stress and increase focus.

In their research conducted with college students enrolled in a teacher preparation program, Yikealo et al. (2018) encouraged "college communities to take concrete steps towards the improvement of the learning environment and subsequently mitigating the adverse impact of stress on students' wellbeing and learning outcomes" (p. 1). However, their article did not provide guidance on which steps to take. Engaging students in mindfulness activities such as



guided meditation and gratitude journaling are two steps that colleges and universities can take to improve the mental well-being of their students.

It is important to consider that instructing students to meditate outside of the classroom setting could be perceived as adding yet another item to their to-do lists. This study also showed the efficacy of engaging in mindfulness practices, such as guided meditation and gratitude journaling, inside of the classroom setting. By enabling students to engage in these practices in the classroom, an environment in which they are already scheduled to be in, additional tasks are not being added to their workload or creating any additional stressors in their lives. College students' time is limited and they may feel pressure and stress when trying to pack those hours full with classes, studying, club meetings, extracurriculars, sports, a job, research, working out, time to socialize, etc. According to one participant, it was helpful to not have to worry about mindfulness practices taking time out of their already busy schedules:

*“It was a pleasant way to reflect on what’s been going on without having to worry about wasting time. With the journaling, I think that it helped remind me about what I’m truly focusing on in life and let me reflect on where I am.”*

### **Limitations and Future Considerations**

Limitations of the research included a small sample size due to the number of students enrolled in the institution where the research occurred. Demographic variance was also limited due to the setting of the study. The study took place at a small, private, Catholic, liberal arts college located in a rural setting which resulted in limited profiles. It also would have been beneficial to have conducted a survey prior to the intervention for data collection to discern perceived growth, if any, from participants after participating in 14 weeks of mindfulness practices.

An additional limitation to the data was that the primary researcher was the instructor of one of the courses where participants were recruited. Students were informed that their consent was voluntary and would not impact their grades in the course. Students were provided the opportunity to wait outside the classroom or sit in the classroom and not engage in the mindfulness exercises if they chose to not participate in the study. While one student chose not to participate in the study, students may have felt pressure to participate due to their instructor being the primary researcher.

The last survey question that participants were invited to answer was if they would make any changes to the experience. They were asked to make any suggestions for the future - anything they would like to add or change regarding their experience of mindfulness practices in guided meditation and gratitude journaling. Two of the recurring themes for recommendations for changes were shorter meditations and more structure to the gratitude journaling. Some participants remarked that they found it difficult to sit for the longer meditations while others stated that they had a desire for different journal prompts.

As a result of this research, shorter meditations were produced for students at the institution where the experiment took place. A grant was obtained and guided meditations were produced specifically for the college community. Using the feedback from the students in this research, guided meditations were written that were tailored to the students' experiences (midterms, finals, etc.). These meditations were scripted to be between 5 and 7 minutes and were recorded by prominent figures on campus. The meditations were released weekly to the entire campus community.

Further research should concentrate on the resilience of teachers and whether or not engaging pre-service teachers in practices such as meditation and gratitude journaling decreases

the current rates of teacher burnout. Longitudinal studies should include determining if pre-service teachers who engage in practices such as meditation and gratitude journaling take these practices into their future classroom and if/how it impacts their future students.

When implementing mindfulness practices into a course, it is important to take into consideration the amount of time available in the course, the content curriculum that needs to be covered, and how to best work the mindfulness exercises into the course while still effectively covering the necessary material. While gratitude journaling can be completed relatively quickly, engaging in guided meditations may take more time away from the course. It is important to be aware of the time of the guided meditations and to be proactive in selecting meditations that have a timeframe and theme that work for the course. If students are worrying about the meditations taking too much time away from their course instruction, any benefits of mindfulness exercises will be negated.

### **Conclusion**

*“I have incorporated mindfulness into my life, and it makes it better. Taking just ten minutes a day to breathe and reflect really does make a difference in stress levels. I have noticed that I have become less reactive and more patient with mindfulness.”*

(Anonymous, Junior)

Educators are often working more than ever before to ensure both the academic and emotional success of students. As individuals in higher education who are responsible for producing the next generation of teachers, teacher educators need to ensure that future teachers have the capacity to respond appropriately to the environment around them and the resiliency to remain steadfast when the world around them is shifting. Engaging students in mindfulness practices such as guided meditation and gratitude journaling provides pre-service teachers with a

skill set to use for the betterment of themselves and their future students. These practices take little means of planning and resources and are easily available to all. It is important that, while pre-service teachers are academically ready to teach, they also must be emotionally prepared to teach and instill their emotional resiliency skills in their future students.

### References

- Active Minds. (2021, August 2). *The Impact of COVID-19 on Student Mental Health*. Retrieved December 9, 2021, from <https://www.activeminds.org/studentsurvey/>
- Afonso, R. F., Kraft, I., Aratanha, M. A., & Kozasa, E. H. (2020). Neural correlates of meditation: a review of structural and functional MRI studies. *Frontiers in Bioscience (Scholars Edition)*, *12*, 92-115.
- Auerbach, M. S., & Gramling, E. S. (1998). *Stress Management: Psychological Foundations* (1st ed.). Upper Saddle River, N.J: Prentice Hall.
- Behan, C. (2020). The benefits of meditation and mindfulness practices during times of crisis such as COVID-19. *Irish Journal of Psychological Medicine*, *37*(4), 256-258.
- Bergmark, U., Lundström, S., Manderstedt, L., & Palo, A. (2018). Why become a teacher? Student teachers' perceptions of the teaching profession and motives for career choice. *European Journal of Teacher Education*, *41*(3), 266-281.
- Boggiss, A. L., Consedine, N. S., Brenton-Peters, J. M., Hofman, P. L., & Serlachius, A. S. (2020). A systematic review of gratitude interventions: effects on physical health and health behaviors. *Journal of Psychosomatic Research*, *135*, 1-10. doi.org/10.1016/j.jpsychores.2020.110165
- Chen, J. A., Stevens, C., Wong, S. H., & Liu, C. H. (2019). Psychiatric symptoms and diagnoses among US college students: A comparison by race and ethnicity. *Psychiatric Services*, *70*(6), 442-449.
- Centers for Disease Control and Prevention. (2021, June 28). *About mental health*. Retrieved December 10, 2021, from <https://www.cdc.gov/mentalhealth/learn/index.htm#:~:text=Mental%20illnesses%20are%20among%20the,some%20point%20in%20their%20lifetime.&text=1%20in%205%20Americans%20will,illness%20in%20a%20given%20year>.
- Emmons, R. A., Froh, J., & Rose, R. (2019). Gratitude. In M. W. Gallagher & S. J. Lopez (Eds.), *Positive psychological assessment: A handbook of models and measures* (pp. 317–332). American Psychological Association. doi.org/10.1037/0000138-020
- Hanson, R., & Mendius, R. (2009). *Buddha's brain: The practical neuroscience of happiness, love & wisdom*. Oakland, CA: New Harbinger Publications.
- Huberty, J., Green, J., Glissmann, C., Larkey, L., Puzia, M., & Lee, C. (2019). Efficacy of the mindfulness meditation mobile app “calm” to reduce stress among college students: Randomized controlled trial. *JMIR mHealth and uHealth*, *7*(6).
- Işık, Ş., & Ergüner-Tekinalp, B. (2017). The effects of gratitude journaling on Turkish first year college students' college adjustment, life satisfaction and positive affect. *International Journal for the Advancement of Counselling*, *39*(2), 164-175.
- Karns, C. M., Moore III, W. E., & Mayr, U. (2017). The cultivation of pure altruism via gratitude: a functional MRI study of change with gratitude practice. *Frontiers in Human Neuroscience*, *11*, 1-14.
- Khan, Z., Lanin, A. B., & Ahmad, N. (2015). The Level of Stress in Male and Female School Students. *Journal of Education and Practice*, *6*(13), 166-168.

- Levitt, T. (2020). *College Collection*. Calm. Retrieved August 10, 2020, from <https://app.www.calm.com/program/J9QKKY7/college-collection>
- Nandamuri, P., & Gowthami, C. (2011). Sources of academic stress—A study on management students. *Journal of Management and Science, 1*(2), 31-42.
- Pascoe, M. C., de Manincor, M., Tseberja, J., Hallgren, M., Baldwin, P. A., & Parker, A. G. (2021). Psychobiological mechanisms underlying the mood benefits of meditation: a narrative review. *Comprehensive Psychoneuroendocrinology, 6*, doi.org/10.1016/j.cpnec.2021.100037
- Shuchman, M. (2007). Falling Through the Cracks—Virginia Tech and the Restructuring of College Mental Health Services. *New England Journal of Medicine, 357*(2), 105-110.
- Son, C., Hegde, S., Smith, A., Wang, X., & Sasangohar, F. (2020). Effects of COVID-19 on college students' mental health in the United States: Interview survey study. *Journal of Medical Internet Research, 22*(9), doi:10.2196/21279.
- Turner, J. C., Leno, E. V., & Keller, A. (2013). Causes of mortality among American college students: A pilot study. *Journal of College Student Psychotherapy, 27*(1), 31-42.
- Yikealo, D., Tareke, W., & Karvinen, I. (2018). The level of stress among college students: A case in the college of education, Eritrea Institute of Technology. *Open Science Journal, 3*(4), 1-18.