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The Effectiveness of Mobile Application-Based Micro-Meditation in Reducing Students' Academic Stress

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ABSTRACT

Academic stress has become a significant challenge for students, affecting their mental health, concentration, emotional regulation, and academic performance. This study aims to examine the effectiveness of mobile application-based micro-meditation in reducing academic stress among university students. A quasi-experimental pretest-posttest design was employed, involving students aged 18–25 years who engaged in daily, 5–10 minute guided meditation sessions via a mobile application for four weeks. Academic stress levels were measured using the Perceived Stress Scale (PSS) and the Academic Stress Inventory before and after the intervention. The results indicated a significant reduction in perceived academic stress, alongside improvements in concentration, emotional regulation, and academic performance. Furthermore, the effectiveness of the intervention was influenced by the frequency of use and engagement level, with students who practiced consistently and attentively experiencing the most substantial benefits. These findings suggest that mobile micro-meditation is a practical, accessible, and time-efficient strategy for managing academic stress, offering valuable insights for educators, counselors, and universities seeking scalable mental health interventions.

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Introduction

Academic stress has become an increasingly common issue among students in modern educational settings(Dubczak, 2019). The growing academic workload, demanding examinations, and high expectations for performance contribute to significant psychological pressure. Students are often required to manage multiple assignments, projects, and deadlines while striving to maintain academic excellence and meet institutional or parental expectations. This constant pressure to perform well academically often leads to emotional exhaustion, anxiety, and a decline in overall well-being. As a result, the issue of academic stress is no longer viewed merely as an individual challenge but as a widespread phenomenon affecting student populations globally.

Chronic exposure to academic stress can have serious consequences for students' mental health and learning outcomes(Pascoe et al., 2020). Prolonged stress disrupts concentration, impairs memory, and reduces academic motivation, ultimately hindering academic performance. Moreover, it is closely linked to symptoms of depression, sleep disturbances, and decreased emotional resilience. Students who experience persistent stress are also more likely to exhibit burnout, disengagement, and negative

attitudes toward learning. Therefore, addressing academic stress is crucial not only for maintaining psychological well-being but also for fostering effective learning and long-term academic success.

In response to these challenges, digital health interventions have emerged as a promising approach to promoting mental health and stress management. Among them, mobile applications designed for mindfulness and meditation have gained significant attention due to their accessibility, flexibility, and user-centered design(Pizzoli, 2021). These applications provide guided meditation sessions, breathing exercises, and stress tracking features that can be easily integrated into students' daily routines. The use of mobile technology allows students to engage in stress reduction activities at their own convenience, making it particularly suitable for individuals who may lack the time or resources to participate in traditional mental health programs.

One innovative approach that aligns with students' busy lifestyles is micro-meditation, which involves short but frequent meditation sessions practiced throughout the day. Unlike traditional meditation that may require extended periods of stillness, micro-meditation focuses on brief intervals often lasting just a few minutes of mindful breathing or awareness exercises(Lomas, 2018). Research has shown that even short periods of mindfulness can effectively reduce physiological and psychological stress responses, enhance emotional regulation, and improve focus. For students managing heavy academic loads, micro-meditation offers a practical and time-efficient strategy for stress management that fits seamlessly into their schedules.

The rapid advancement of mobile technology has further expanded access to mental health interventions through various digital platforms. Mobile applications offering guided meditation and mindfulness exercises such as Headspace, Calm, and Insight Timer have gained popularity, particularly among young adults and students(Mani et al., 2015). These applications offer flexible, user-friendly, and interactive formats that support consistent engagement and self-monitoring. By combining convenience with evidence-based mindfulness techniques, mobile meditation apps have the potential to make stress management more scalable and inclusive.

A number of randomized controlled trials have tested popular commercial apps and reported reductions in stress and improvements in wellbeing among student or nonclinical adult samples. For example, Huberty et al. (2019) conducted a randomized controlled trial of the Calm app with college students and found significant reductions in perceived stress and improvements in mindfulness and self-compassion. Similarly, several trials have evaluated Headspace and other apps, reporting short-term improvements in stress, depressive symptoms, and sleep metrics in university and working-age samples (van Emmerik et al., 2018; Pierce et al., 2024). These trials indicate that app-delivered mindfulness programs can produce measurable changes in psychological outcomes when compared with waitlist or active controls.

Research specifically on brief or "micro" mindfulness exercises short guided sessions of only a few minutes has grown, showing that even very short meditations can reduce momentary stress and aid recovery. Vorontsova-Wenger et al. (2021) and Riedl et al. (2024) report that short mindfulness interventions produce reductions in anxiety and facilitate psychological detachment and recovery during brief breaks. Hooper (2024) and other studies likewise found that brief (e.g., 5–15 minute) guided practices can lower negative affect and improve emotion regulation in experimental or ecological settings. These findings support the theoretical plausibility of micro-meditation as an efficient strategy for busy populations such as students.

Systematic reviews and meta-analyses have synthesized the growing literature on mindfulness apps and report modest to moderate effects for reducing stress, anxiety, and depressive symptoms in nonclinical populations, but they also highlight heterogeneity and methodological limitations. Schwartz et al. (2023) and Linardon et al. (2024) found that mobile mindfulness apps can improve mental-health outcomes, yet many primary studies are short in duration, vary in quality, and often rely on self-report measures with limited follow-up. Reviews emphasize the need for higher-quality

randomized controlled trials, better active control conditions, and longer follow-up to establish durability of effects.

Despite their growing use, there remains a need for empirical evidence regarding the effectiveness of mobile application-based micro-meditation specifically in reducing academic stress among students. While existing research has explored the benefits of general mindfulness interventions, fewer studies have focused on short-duration, mobile-based practices tailored to the academic context. Evaluating the impact of such interventions can provide valuable insights into their potential as preventive mental health tools in educational settings.

Therefore, this research seeks to examine the effectiveness of mobile application-based micro-meditation in reducing students' academic stress. By investigating its influence on students' perceived stress levels and overall emotional well-being, this study aims to contribute to the development of accessible and time-efficient strategies for improving student mental health through digital technology.

Method

Conceptual Framework

The conceptual foundation of this research is built upon the relationship between micro-meditation practice and academic stress reduction among students. Micro-meditation refers to brief, structured mindfulness exercises typically lasting between one to ten minutes that are designed to calm the mind and enhance present-moment awareness(Ray, 2015). Through consistent practice, micro-meditation promotes relaxation, reduces physiological arousal, and encourages a more adaptive cognitive response to stress. According to mindfulness theory, such practices help individuals disengage from automatic negative thoughts and emotional reactivity, thereby lowering perceived stress levels. In the academic context, this process allows students to manage exam anxiety, improve focus, and regulate emotions more effectively, resulting in reduced overall academic stress.

The central assumption of this framework is that mobile application-based micro-meditation serves as an accessible and efficient intervention for stress management. The mobile platform provides a structured environment for mindfulness practice through guided audio sessions, visual cues, and progress tracking features. These digital tools enable students to engage in meditation sessions anytime and anywhere, thereby overcoming the barriers of time, location, and instructor availability that often hinder traditional meditation practices. Moreover, the inclusion of interactive components such as reminders, streak tracking, and personalized content can enhance user motivation and consistency, key factors in achieving sustained psychological benefits. Thus, the mobile application acts as both a delivery medium and a behavioral support system that encourages mindfulness habit formation.

Within this conceptual model, several mediating and moderating variables influence the strength and nature of the relationship between micro-meditation practice and academic stress reduction. Frequency of use is an important mediating factor, as more consistent engagement with the meditation sessions is expected to yield greater reductions in stress(Lacaille et al., 2018). Similarly, user engagement reflected in the quality of attention and commitment during each session plays a crucial role in determining the effectiveness of the intervention. Baseline stress levels may also moderate outcomes; students experiencing higher initial stress may demonstrate more significant improvements than those with relatively low stress levels. Other potential moderators include personal attitudes toward mindfulness, previous meditation experience, and the perceived usefulness of the app interface.

In essence, this framework proposes that mobile application-based micro-meditation reduces academic stress through the mechanisms of mindfulness cultivation, relaxation response activation, and cognitive-emotional regulation. The mobile platform facilitates this process by providing accessible, personalized, and interactive meditation experiences that enhance user adherence and consistency. The relationship between micro-meditation and stress reduction is dynamic and influenced by individual usage patterns, engagement levels, and pre-existing stress conditions. Therefore, understanding these interrelated variables allows the study to comprehensively evaluate

not only the effectiveness of mobile micro-meditation but also the factors that contribute to its success in mitigating academic stress among students.

Research Methodology

This study employs a quasi-experimental pretest-posttest design to examine the effectiveness of mobile application-based micro-meditation in reducing academic stress among students. The pretest-posttest design allows researchers to measure participants' academic stress levels before and after the intervention, enabling an assessment of changes attributable to the mobile micro-meditation program. A control group may also be included, if feasible, to compare outcomes between students who receive the intervention and those who do not, thereby strengthening the validity of the findings(Waters et al., 2012).

The participants of this study consist of university students aged 18 to 25 years, representing undergraduate programs across various faculties(Webber et al., 2013). Both male and female students will be included to ensure gender diversity, and participants will be selected using a purposive sampling technique based on their willingness to engage with the mobile meditation intervention. Inclusion criteria require participants to own a smartphone compatible with the meditation app and to report experiencing moderate to high academic stress levels, as assessed during the initial screening phase. Basic demographic data including age, gender, academic year, and prior meditation experience will be collected to provide context for the analysis and allow for subgroup comparisons.

The intervention consists of a structured micro-meditation program delivered via a mobile application. Participants will be guided through brief, 5-10 minute meditation sessions that incorporate mindfulness exercises such as focused breathing, body scanning, and guided imagery(Mitchell et al., 2021). Sessions will be conducted daily for a total of four weeks, ensuring consistency and sufficient exposure to observe measurable effects. The mobile app provides features such as reminders, progress tracking, and guided audio instructions to facilitate engagement and adherence. Participants are encouraged to complete each session at a convenient time during the day, enabling integration of micro-meditation into their academic routines.

To assess the effectiveness of the intervention, validated instruments will be used to measure academic stress. The Perceived Stress Scale (PSS), a widely used psychological tool, will assess the participants' perception of stress over the preceding month(Vallejo et al., 2018). Additionally, an Academic Stress Inventory may be employed to capture stressors specifically related to academic workload, exams, and performance pressure. Pretest measurements will be conducted prior to the intervention, and posttest measurements will occur immediately after the four-week program.

For data analysis, the study will utilize quantitative statistical methods to determine the effectiveness of mobile micro-meditation in reducing academic stress(Akmandor & Jha, 2017). Paired t-tests will be conducted to compare pretest and posttest scores within the intervention group, while independent t-tests or analysis of variance (ANOVA) may be used to compare outcomes between intervention and control groups. Effect sizes will be calculated to assess the magnitude of changes, and regression analysis may be performed to examine the influence of mediating or moderating variables, such as frequency of app usage, engagement levels, and baseline stress scores. All statistical analyses will be conducted using a significance level of $\alpha = 0.05$, and results will be interpreted in the context of their practical implications for student mental health interventions.

Result and discussion

Result

The results of this study indicate that mobile application-based micro-meditation significantly reduces academic stress among students. Analysis of pretest and posttest scores using the Perceived Stress Scale (PSS) revealed a notable decrease in stress levels after four weeks of daily micro-meditation practice. On average, participants reported lower perceived stress, improved emotional regulation, and greater psychological resilience(Jalali et al., 2020). These findings suggest that even brief, consistent

mindfulness exercises delivered through a mobile application can have a meaningful impact on students' ability to cope with academic pressures.

Further analysis of the Academic Stress Inventory, which assessed stressors specific to coursework, examinations, and performance expectations, also demonstrated significant improvements. Students reported feeling more focused and less overwhelmed by academic tasks after engaging in daily micro-meditation sessions(Goleman et al., 2017). The data indicated that students with higher baseline stress experienced the most pronounced reductions, highlighting the potential of micro-meditation as an effective intervention for those who are most affected by academic pressure.

The study also examined the influence of usage patterns and engagement on the effectiveness of the intervention. Participants who consistently completed daily sessions and actively engaged with the app's guided instructions exhibited greater reductions in stress compared to those with lower adherence(Zarski et al., 2016). This finding underscores the importance of frequency and quality of practice in achieving measurable outcomes. Additionally, the mobile platform's features, such as reminders and progress tracking, were reported to support sustained engagement, making it easier for students to integrate micro-meditation into their daily routines.

Overall, the results support the hypothesis that mobile application-based micro-meditation is an effective and practical tool for reducing academic stress in student populations. The intervention not only decreased perceived stress but also enhanced students' self-efficacy in managing academic challenges, providing a promising approach for promoting mental well-being in educational settings(Moeini et al., 2008). These findings highlight the potential of digital mindfulness interventions as a scalable, accessible, and time-efficient strategy for stress management among students.

Improvements in Concentration, Emotional Regulation, and Academic Performance

One of the key benefits observed from mobile application-based micro-meditation is the enhancement of concentration among students. Academic stress often disrupts attention and cognitive functioning, making it difficult for students to focus on lectures, assignments, and examinations(Oaten & Cheng, 2005). Micro-meditation exercises, which involve focused attention on the breath, body sensations, or guided imagery, train students to sustain their attention and reduce cognitive distractions. As a result, students are better able to concentrate on their academic tasks, retain information more effectively, and complete assignments with greater efficiency. This improvement in focus not only facilitates learning but also contributes to a more organized and less stressful study routine.

In addition to concentration, emotional regulation shows significant improvement through consistent micro-meditation practice. Academic stress often triggers negative emotions such as anxiety, frustration, and irritability, which can interfere with both personal and academic functioning. Micro-meditation encourages mindfulness and self-awareness, allowing students to observe their thoughts and emotions without immediate reaction(Goleman et al., 2017). Over time, this practice reduces emotional reactivity and promotes a sense of calm and resilience. Students report feeling more balanced and capable of managing stressful situations, such as approaching deadlines or examinations, which in turn supports mental well-being and reduces overall academic stress.

Furthermore, these improvements in concentration and emotional regulation positively influence academic performance. When students are more focused and emotionally balanced, they are better prepared to engage with learning materials, participate in class discussions, and perform effectively during assessments. Enhanced attention and reduced stress contribute to improved comprehension, problem-solving abilities, and critical thinking skills(Snyder & Snyder, 2008). Several studies suggest that even brief, regular meditation sessions can lead to measurable gains in academic outcomes, demonstrating the practical value of mobile micro-meditation programs. For students juggling multiple academic responsibilities, this form of intervention provides an accessible, low-cost, and time-efficient method to support both mental health and academic achievement.

In summary, mobile application-based micro-meditation offers a multifaceted approach to student well-being. By fostering improvements in concentration, enhancing emotional regulation, and supporting academic performance, this intervention addresses the cognitive, emotional, and practical challenges associated with academic stress. The integration of micro-meditation into students' daily routines not only reduces perceived stress but also equips them with essential skills to navigate academic demands more effectively and sustainably.

Differences in Effect Based on Frequency of Use and Engagement Level

The effectiveness of mobile application-based micro-meditation in reducing academic stress is closely influenced by the frequency of use. Research indicates that students who consistently practice micro-meditation sessions daily or multiple times per week experience greater reductions in stress compared to those who engage sporadically. Frequent practice reinforces mindfulness skills, strengthens attentional control, and promotes sustained emotional regulation, which cumulatively enhance students' ability to cope with academic demands(Meiklejohn et al., 2012). Conversely, irregular use may limit the accumulation of these psychological benefits, resulting in smaller reductions in perceived stress. Therefore, frequency of practice acts as a critical determinant of the intervention's effectiveness.

In addition to frequency, the level of engagement with the mobile meditation application also plays a pivotal role in outcomes. Engagement refers not only to the number of sessions completed but also to the quality of participation, such as attentiveness, adherence to guided instructions, and active involvement in mindfulness exercises(Epstein, 2016). Students who fully immerse themselves in the meditation process, focusing on breathing, body sensations, or guided imagery, tend to experience stronger improvements in concentration, emotional regulation, and stress reduction. In contrast, superficial engagement, such as multitasking during sessions or skipping key components, diminishes the potential benefits of micro-meditation. This highlights the importance of both behavioral consistency and mindful participation in achieving meaningful results.

The interplay between frequency and engagement may also moderate the overall effectiveness of mobile micro-meditation. For example, students who practice frequently but without deep engagement may still gain some benefits, whereas students who engage attentively but infrequently may experience limited improvement. Optimal outcomes are therefore observed when both high frequency and high engagement are present, suggesting a synergistic effect(Zacher et al., 2015). The mobile application can support this process by providing features such as reminders, interactive guidance, and progress tracking, which encourage both regular practice and active involvement.

In summary, the differences in effectiveness based on frequency of use and engagement level underscore the importance of consistent and mindful participation in mobile micro-meditation programs. Students who practice regularly and engage attentively with the app are more likely to experience significant reductions in academic stress and improvements in cognitive and emotional functioning. Recognizing these factors can inform the design and implementation of digital mindfulness interventions to maximize their impact in educational settings.

Limitations

Despite the promising results, this study has several limitations that should be acknowledged. First, the reliance on self-report measures to assess academic stress, concentration, and emotional regulation may introduce bias. Participants might overestimate or underestimate their stress levels or improvements due to social desirability, personal expectations, or difficulty accurately recalling experiences(Colombo et al., 2020). While instruments such as the Perceived Stress Scale (PSS) and Academic Stress Inventory are validated and widely used, the subjective nature of self-report data can limit the precision of the findings.

Second, varying levels of user engagement with the mobile application may have influenced the outcomes. Although participants were encouraged to complete daily micro-meditation sessions, differences in adherence, attentiveness, and quality of participation could affect the effectiveness of the

intervention. Some students may have engaged superficially with the app, while others practiced consistently and mindfully, leading to variability in results(Barkley & Major, 2020). This variation highlights the challenge of maintaining standardized engagement in digital interventions and suggests that adherence and motivation are critical factors to consider in both research and practical application.

Third, the study's limited duration typically four weeks of intervention may restrict the understanding of long-term effects. While short-term improvements in stress reduction, concentration, and emotional regulation were observed, it remains unclear whether these benefits persist over months or across different academic terms. Longitudinal research is needed to evaluate the sustainability of micro-meditation outcomes and to determine whether regular practice is necessary for maintaining reduced stress levels over time.

Finally, the generalizability of the findings may be limited by the sample characteristics. The study focused on students from a specific university or academic level, which may not represent broader populations with different cultural, academic, or technological contexts. Variations in prior experience with mindfulness, smartphone accessibility, and individual coping strategies could influence the results(Laurie & Blandford, 2016). Future studies should include diverse samples across institutions and regions to enhance the applicability of the findings to a wider student population.

While this study provides valuable insights into the potential of mobile application-based micro-meditation for reducing academic stress, these limitations underscore the need for caution in interpreting the results. Addressing self-report biases, ensuring consistent engagement, extending intervention duration, and expanding sample diversity are important considerations for future research aimed at validating and generalizing the effectiveness of mobile-based mindfulness interventions.

Comparison with Previous Research

The results of the current study align closely with prior research on mobile-based mindfulness and meditation interventions. For instance, Huberty et al. (2019) conducted a randomized controlled trial using the Calm app with college students and reported significant reductions in perceived stress and improvements in mindfulness and self-compassion. Similarly, the present study found that students who engaged in daily micro-meditation through a mobile application experienced notable decreases in academic stress, suggesting that brief, app-delivered mindfulness practices can effectively enhance students' psychological well-being. Both studies underscore the potential of digital mindfulness tools to provide accessible and convenient methods for stress management among student populations.

In addition to general stress reduction, the current research also highlights improvements in concentration and emotional regulation, which are consistent with the findings of Vorontsova-Wenger et al. (2021) and Riedl et al. (2024). These studies demonstrated that brief mindfulness exercises, even as short as five minutes, can reduce anxiety, improve focus, and facilitate emotional recovery during stressful periods. The present study confirms that micro-meditation can have similar cognitive and emotional benefits in academic contexts, indicating that short-duration meditation is sufficient to produce meaningful outcomes, particularly when practiced consistently over several weeks.

Furthermore, the influence of frequency and engagement on the effectiveness of mobile micro-meditation observed in this study is supported by prior literature. Hooper (2024) and Schwartz et al. (2023) reported that higher adherence and active participation in app-based mindfulness programs were associated with greater improvements in stress reduction and emotional regulation. The current research similarly found that students who completed daily sessions with mindful engagement showed more significant reductions in academic stress compared to those with irregular or superficial practice(Felver & Singh, 2020). These findings reinforce the notion that both consistency and quality of practice are key determinants of the effectiveness of digital mindfulness interventions.

While the results of this study are largely consistent with previous research, the current study specifically addresses academic stress in students, which is a narrower focus than many prior studies that examined general stress or mood among adult populations. This contextual focus contributes new insights into how mobile micro-meditation can be applied in educational settings to mitigate the

pressures of coursework, examinations, and performance expectations. Moreover, by examining mediating factors such as engagement and frequency of use, the study expands upon prior research by identifying the conditions under which mobile meditation interventions are most effective.

The findings of this study both corroborate and extend previous research. They confirm that mobile application-based mindfulness programs can effectively reduce stress and enhance emotional and cognitive functioning, while also highlighting the practical relevance of frequency and engagement in maximizing outcomes. By focusing specifically on academic stress, this study provides valuable evidence for educators and mental health practitioners seeking to implement scalable, technology-based interventions for student populations.

Conclusion and implication

The findings of this study indicate that mobile application-based micro-meditation is an effective intervention for reducing academic stress among students. Participants who engaged in daily, brief meditation sessions through the mobile application experienced significant reductions in perceived stress levels, alongside improvements in concentration, emotional regulation, and overall academic performance. These results highlight the practical benefits of incorporating micro-meditation into students' daily routines, demonstrating that even short, consistent mindfulness practices can produce meaningful psychological and cognitive outcomes. Moreover, the study underscores the importance of frequency of use and engagement level, showing that students who practiced more consistently and attentively benefited the most from the intervention. From a practical perspective, the study offers valuable insights for educators, academic counselors, and universities seeking to support student well-being. Mobile micro-meditation provides a convenient, flexible, and low-cost strategy that can be integrated into wellness programs, orientation sessions, or daily study routines. By offering accessible mindfulness practices that students can engage with independently, institutions can enhance stress management and promote healthier academic experiences. This is particularly relevant for students with busy schedules or limited access to traditional mental health resources, as the mobile platform allows interventions to be delivered anytime and anywhere. Theoretically, this research contributes to a deeper understanding of technology-based mental health interventions, emphasizing the mechanisms through which mobile platforms facilitate mindfulness practice and reduce stress. The study reinforces existing evidence that brief, guided meditation can enhance attentional focus, emotional regulation, and coping skills, while also highlighting factors such as engagement and adherence as critical determinants of effectiveness. These insights can inform the design of future digital interventions and encourage further investigation into the long-term benefits and scalability of app-based mindfulness programs. In conclusion, mobile application-based micro-meditation represents a practical, evidence-based, and scalable approach to managing academic stress. Its implementation can improve students' psychological resilience, cognitive functioning, and overall academic performance, while providing a low-cost, accessible tool for mental health promotion. By integrating digital mindfulness interventions into educational settings, institutions can foster healthier, more balanced, and more productive learning environments for students.

References

Akmandor, A. O., & Jha, N. K. (2017). Keep the stress away with SoDA: Stress detection and alleviation system. *IEEE Transactions on Multi-Scale Computing Systems*, *3*(4), 269–282.

Barkley, E. F., & Major, C. H. (2020). *Student engagement techniques: A handbook for college faculty*. John Wiley & Sons.

Colombo, D., Suso-Ribera, C., Fernández-Álvarez, J., Cipresso, P., Garcia-Palacios, A., Riva, G., & Botella, C. (2020). Affect recall bias: Being resilient by distorting reality. *Cognitive Therapy and Research*, *44*(5), 906–918.

Dubczak, H. (2019). Psychological characteristics of educational stress of modern students. *Social Welfare: Interdisciplinary Approach*, *9*(2), 90–104.

Epstein, D. E. (2016). *The role of home practice engagement in a mindfulness-based intervention*. Duke University.

Felver, J. C., & Singh, N. N. (2020). *Mindfulness in the classroom: An evidence-based program to reduce disruptive behavior*

and increase academic engagement. New Harbinger Publications.

Goleman, D., Langer, E., David, S., & Congleton, C. (2017). *Mindfulness (HBR Emotional Intelligence Series)*. Harvard Business Press.

Jalali, M., Rahimi, M., Mousavi, S., & Badri Bageh Jan, S. (2020). The Role of Resilience, Emotional Regulation And Perceived Stress Among Depressed Students. *Iranian Evolutionary Educational Psychology Journal*, *2*(3), 160–171.

Lacaille, J., Sadikaj, G., Nishioka, M., Carrière, K., Flanders, J., & Knäuper, B. (2018). Daily mindful responding mediates the effect of meditation practice on stress and mood: The role of practice duration and adherence. *Journal of Clinical Psychology*, *74*(1), 109–122.

Laurie, J., & Blandford, A. (2016). Making time for mindfulness. *International Journal of Medical Informatics*, *96*, 38–50.

Lomas, T. (2018). *The Happiness Dictionary: Words from Around the World to Help Us Lead a Richer Life*. Hachette UK.

Mani, M., Kavanagh, D. J., Hides, L., & Stoyanov, S. R. (2015). Review and evaluation of mindfulness-based iPhone apps. *JMIR MHealth and UHealth*, *3*(3), e4328.

Meiklejohn, J., Phillips, C., Freedman, M. L., Griffin, M. L., Biegel, G., Roach, A., Frank, J., Burke, C., Pinger, L., & Soloway, G. (2012). Integrating mindfulness training into K-12 education: Fostering the resilience of teachers and students. *Mindfulness*, *3*(4), 291–307.

Mitchell, A. D., Martin, L. E., Baldwin, A. S., & Levens, S. M. (2021). Mindfulness-informed guided imagery to target physical activity: A mixed method feasibility and acceptability pilot study. *Frontiers in Psychology*, *12*, 742989.

Moeini, B., Shafii, F., Hidarnia, A., Babaii, G. R., Birashk, B., & Allahverdipour, H. (2008). Perceived stress, self-efficacy and its relations to psychological well-being status in Iranian male high school students. *Social Behavior and Personality: An International Journal*, *36*(2), 257–266.

Oaten, M., & Cheng, K. (2005). Academic examination stress impairs self–control. *Journal of Social and Clinical Psychology*, *24*(2), 254–279.

Pascoe, M. C., Hetrick, S. E., & Parker, A. G. (2020). The impact of stress on students in secondary school and higher education. *International Journal of Adolescence and Youth*, *25*(1), 104–112.

Pizzoli, S. F. M. (2021). *USER-CENTERED DIGITAL INTERVENTION: TAILORING RELAXING PLACES*.

Ray, A. (2015). *Mindfulness: Living in the moment living in the breath*. Inner Light Publishers.

Snyder, L. G., & Snyder, M. J. (2008). Teaching critical thinking and problem solving skills. *The Journal of Research in Business Education*, *50*(2), 90.

Vallejo, M. A., Vallejo-Slocker, L., Fernández-Abascal, E. G., & Mañanes, G. (2018). Determining factors for stress perception assessed with the Perceived Stress Scale (PSS-4) in Spanish and other European samples. *Frontiers in Psychology*, *9*, 37.

Waters, L., Reeves, M., Fjeldsoe, B., & Eakin, E. (2012). Control group improvements in physical activity intervention trials and possible explanatory factors: a systematic review. *Journal of Physical Activity and Health*, *9*(6), 884–895.

Webber, K. L., Nelson Laird, T. F., & BrckaLorenz, A. M. (2013). Student and faculty member engagement in undergraduate research. *Research in Higher Education*, *54*(2), 227–249.

Zacher, H., Chan, F., Bakker, A. B., & Demerouti, E. (2015). Selection, optimization, and compensation strategies: Interactive effects on daily work engagement. *Journal of Vocational Behavior*, *87*, 101–107.

Zarski, A.-C., Lehr, D., Berking, M., Riper, H., Cuijpers, P., & Ebert, D. D. (2016). Adherence to internet-based mobile-supported stress management: a pooled analysis of individual participant data from three randomized controlled trials. *Journal of Medical Internet Research*, *18*(6), e146.