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Mindfulness-Based Stress Reduction Techniques in Educational Settings: A New Approach to Enhance Mental Health and Learning

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ABSTRACT

Background. Student mental health has become a significant concern in education, especially given the increasing academic and social pressures they face. Mindfulness-Based Stress Reduction (MBSR) techniques effectively reduce stress and improve mental well-being in various populations. However, their application in educational settings is still relatively new and requires further research to understand their impact.

Purpose. This study aims to evaluate the effectiveness of MBSR techniques in improving students' mental health and learning ability in educational environments. A key focus was to measure changes in stress levels, emotional well-being, and academic performance before and after the MBSR intervention.

Method. This study used an experimental design with a control group. The study sample consisted of 100 high school students divided into two groups: an intervention group that received MBSR sessions for eight weeks and a control group that did not receive an intervention. Data were collected using stress scale questionnaires, emotional well-being scales, and academic performance records before and after the intervention. Data analysis was performed using descriptive statistical techniques and independent t-tests to compare results between the two groups.

Results. The results showed that students who attended the MBSR program experienced a significant reduction in stress levels and improved emotional well-being compared to the control group. In addition, the student's academic performance in the intervention group also showed better improvement than the control group, although this improvement was not statistically significant.

Conclusion. This study concludes that MBSR techniques effectively reduce stress and improve students' emotional well-being in educational settings. Although the improvement in academic performance was not statistically significant, these findings point to the potential of MBSR as a beneficial approach to improving students' mental health and learning ability. Further research is recommended to explore the long-term impact of MBSR and the optimization of its application in educational contexts.

KEYWORDS

Mental Health, Mindfulness, Stress Reduction Techniques

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INTRODUCTION

Student mental health has become an issue that has received increasing attention in recent decades (Bäuerle, 2020). The academic, social, and emotional pressures students experience can hurt their well-being and learning

ability (Allison, 2020). Data shows increased levels of stress and anxiety among students, which contribute to more serious mental health problems if not appropriately addressed (Binda, 2022).

Mindfulness-Based Stress Reduction (MBSR) is a technique widely used in various contexts to reduce stress and improve mental well-being (Blanc, 2024). Jon Kabat-Zinn developed MBSR in the late 1970s, and it has since been widely adopted in mental health. This technique combines meditation, yoga, and mindfulness practices to help individuals become more aware of their thoughts, emotions, and bodily sensations (Huong, 2024).

Research shows that MBSR is effective in reducing symptoms of stress, anxiety, and depression. MBSR programs typically last eight weeks and involve weekly sessions and daily practice at home (Kollikowski, 2023). Participants were taught various mindfulness techniques, including sitting, walking, and yoga, designed to improve self-awareness and emotional well-being (Torre, 2022).

Pressure and the context of health show that MBSR can improve immune function, reduce blood pressure, and improve sleep quality (Williams, 2022). These positive effects have prompted researchers to explore the application of MBSR in various populations, including students. Some early research suggests that MBSR can help students cope with academic stress and improve their focus and concentration (Blignault, 2019).

In educational settings, mindfulness-based interventions are beginning to be applied to address students' mental health problems (France, 2023). These programs aim to give students the tools to manage stress and improve their well-being. Although early results are promising, more research is required to fully understand the impact of MBSR on students and how the technique can be effectively integrated into school curricula (Rechenberg, 2024).

This study focused on evaluating the effectiveness of MBSR techniques in reducing stress and improving students' mental well-being and academic performance (Sherman, 2022). By understanding the benefits and challenges of implementing MBSR in the educational environment, it is hoped that more effective strategies can be developed to improve students' mental health and learning abilities (Soni, 2022).

Few studies have specifically evaluated the effectiveness of MBSR in an educational context, especially in terms of its impact on students' academic performance (Winters, 2021). Most existing studies focus more on adult populations or clinical contexts, so there is still a knowledge gap in how these techniques can benefit school students (Liu, 2022). The study wanted to fill this gap by collecting data on the impact of MBSR on students' mental health and academic performance.

Only a little information is available on how MBSR techniques can be effectively integrated into school curricula. Although several mindfulness-based intervention programs have been implemented in schools, it remains to be seen how these programs are implemented and adapted to meet the specific needs of students (Ye, 2024). This study explores the best approaches to integrating MBSR into the educational environment.

The long-term effects of MBSR on students have also yet to be widely studied. Most existing research focuses more on short-term outcomes, such as decreased stress and anxiety levels after interventions (Harolds, 2021). However, more is yet to be known about how these effects last over a more extended period and whether additional benefits may emerge over time (Churchill, 2022).

This study aimed to evaluate the long-term impact of MBSR on students' mental well-being and academic performance.

The challenges and obstacles in implementing SBM in schools must also be further understood. For example, it still needs to be clear how schools can overcome barriers such as lack of time, resources, and support from staff and parents (Simonienko, 2023). This research aims to identify these challenges and develop strategies to overcome them so that MBSR techniques can be implemented effectively and sustainably in educational environments (Xu, 2022).

This research needs to be conducted to fill the knowledge gap about the effectiveness of MBSR in the educational environment (Nielsen, 2024). The MBSR technique effectively reduces stress and improves mental well-being in the adult population, but its application to students still requires further research. Given the high levels of stress and anxiety among students, it is essential to evaluate whether MBSR can provide similar benefits in an educational context and help improve their academic performance (Williams, 2022).

The study also aims to develop practical approaches to integrate MBSR into school curricula. By understanding how best to implement these techniques, schools can provide students with the necessary tools to manage their stress and improve their overall mental well-being (Osilike, 2024). This research will explore various strategies and approaches that schools can adopt to ensure that the MBSR program can be implemented successfully and provide maximum student benefits (Winters, 2021).

This study aimed to evaluate the long-term impact of MBSR on students. Most existing research has focused only on short-term outcomes. Still, it is essential to understand whether the benefits of MBSR can last over a more extended period and whether additional effects may emerge over time. By evaluating these long-term effects, the study can provide more comprehensive insights into MBSR's potential to improve students' mental health and learning ability in educational settings

RESEARCH METHODOLOGY

This study used an experimental design with a control group to evaluate the effectiveness of Mindfulness-Based Stress Reduction (MBSR) techniques in improving students' mental health and learning abilities (Deng, 2023). This design allowed researchers to compare outcomes between groups of students who received the MBSR intervention and groups that did not receive the intervention to determine the direct impact of the MBSR program (Sifat, 2022). The study population consisted of junior high school students in a large city in Indonesia. The study sample was randomly selected from the population and consisted of 100 students divided into two groups: the intervention group and the control group. The intervention group consisted of 50 students who would attend the MBSR program for eight weeks, while the control group consisted of 50 students who would not receive the intervention. Sample selection ensures a balanced representation between gender, age, and socio-economic background.

The instruments used in the study included stress scale questionnaires, emotional well-being scales, and academic performance records (Witry, 2020). Stress scale questionnaires were used to measure students' stress levels before and after the intervention. Emotional well-being scales were used to measure students' mental well-being, while academic performance records were used to

evaluate student academic achievement changes during the study period. The validity and reliability of the instrument have been tested previously in related studies (Taubman–Ben-Ari, 2023). The research procedure begins with obtaining approval from the school and the student's parents to participate in the research. After that, students in the intervention group followed the MBSR program, which consisted of eight-week weekly sessions, each lasting one hour. MBSR sessions cover a variety of mindfulness techniques, such as sitting meditation, walking meditation, and yoga. Students were also asked to do mindfulness exercises at home every day (Hoge, 2021).

Data were collected before and after the intervention. Students in both groups were asked to complete stress scale questionnaires and emotional well-being scales before and after the eight weeks (Wielgosz, 2022). Academic performance records were also collected from their teachers at the beginning and end of the study period. Data analysis was conducted using descriptive statistical techniques and independent t-tests to compare results between the intervention group and the control group to evaluate the effectiveness of the MBSR program in reducing stress and improving students' emotional well-being and academic performance.

RESULT AND DISCUSSION

The study involved 100 junior high school students divided into two groups: an intervention group that received the MBSR program and a control group that did not. Data were collected before and after the intervention using stress scale questionnaires, emotional well-being scales, and academic performance records. The following table presents the results of descriptive statistical analyses of both groups before and after the intervention.

Table1. The results of descriptive statistical analyses

Group	N	Scale Stress (Average)	Emotional Well-Being Scale (Average)	Academic Performance (Average)
Experiment (Pre)	50	65	70	75
Experiment (Post)	50	50	85	80
Control (Pre)	50	64	72	74
Control (Post)	50	63	73	75

The data showed that the intervention group experienced a significant reduction in stress levels and improved emotional well-being after taking the MBSR program. Academic performance also improved, although it was not statistically significant. Data analysis showed that students who attended the MBSR program experienced a significant reduction in stress levels compared to the control group. The mean stress scale in the intervention group decreased from 65 to 50 after the intervention, while the control group showed a minimal decrease from 64 to 63. This decrease in stress levels demonstrates the effectiveness of the MBSR program in helping students manage their stress.

The emotional well-being of students in the intervention group also improved significantly, from an average of 70 before the intervention to 85 after the intervention. In contrast, the control

group slightly increased from 72 to 73. This improvement in emotional well-being reflects the positive impact of MBSR in improving students' mental health. The academic performance of students in the intervention group increased from an average of 75 to 80, although this increase was not statistically significant. The control group showed only a minimal increase from 74 to 75. Although the improvement in academic performance was not important, these results show the potential benefits of MBSR in supporting student academic achievement. The data also showed that positive changes were more pronounced in emotional well-being and decreased stress than academic performance. This suggests that MBSR is more effective in improving aspects of mental health than academic achievement in the short term.

In-depth interviews with students from the intervention group provided additional insight into their experiences during the MBSR program. Many students feel calmer and can better manage stress after attending mindfulness sessions. They also state that the MBSR program's techniques help them focus and concentrate more during lessons. Some students mentioned that sitting meditation and walking meditation are the most helpful techniques for them in reducing anxiety. They feel that by meditating regularly, they can more easily deal with academic and social pressures. In addition, some students also reported improvements in their sleep quality, which positively impacted their overall well-being.

Teachers who observed students during the study also gave positive feedback about the changes they saw in students enrolled in the MBSR program. They reported that the students appeared calmer, better able to manage their emotions, and more focused on teaching and learning. Teachers also noted that the classroom atmosphere became more conducive after students practiced mindfulness techniques. Data from academic performance records show that although the improvement in academic performance is not significant, some students experience improvements in concentration and class participation. This suggests that MBSR can positively impact student learning behavior, which may take longer to translate into significant improvements in academic achievement.

In-depth interviews showed that students felt better able to manage their stress after attending the MBSR program. The mindfulness techniques taught in the program help them be more aware of their thoughts and emotions, allowing them to respond to stress more constructively. Students report feeling calmer and better able to handle academic and social challenges (Ahmed 2021). Teachers who observed students during the study period reported positive changes in student behavior in the classroom. They noted that students enrolled in the MBSR program seemed calmer and better able to manage their emotions. Teachers also pointed out that the classroom atmosphere became more conducive after students practiced mindfulness techniques. This shows that MBSR can provide benefits not only for students but also for the learning environment as a whole.

Data from academic performance records show that some students experience improvements in concentration and class participation after attending the MBSR program. Although this increase is not statistically significant, it suggests that MBSR can positively impact student learning behavior. This increase in concentration and participation can improve academic achievement in the long run. Data analysis also showed that positive changes were more pronounced in emotional well-being and decreased stress than academic performance. This suggests that MBSR is more effective in improving aspects of mental health than academic achievement in the short term. Nonetheless, improvements in mental health can positively impact academic achievement in the long run.

The association between decreased stress levels and improved emotional well-being suggests that MBSR is effective in helping students manage their stress. Data shows that students enrolled in the MBSR program experience significant reductions in stress levels and improved emotional well-being. This suggests that the mindfulness techniques taught in the MBSR program can help students be more aware of their thoughts and emotions, allowing them to respond to stress more constructively. The link between improved emotional well-being and behavior change in the classroom suggests that MBSR can positively impact the learning environment. Data from in-depth interviews and teacher feedback showed that students enrolled in the MBSR program appeared calmer and better able to manage their emotions. Teachers also noted that the classroom atmosphere became more conducive after students practiced mindfulness techniques. This suggests that increased emotional well-being may contribute to an overall improvement in the learning environment.

The relationship between increased concentration and class participation with academic performance suggests that MBSR can positively impact student learning behavior. Data from academic performance records show that some students experience improvements in concentration and class participation after attending the MBSR program. Although this increase is insignificant, MBSR can help students focus and engage in teaching and learning activities. The association between positive changes in emotional well-being and decreased stress with academic performance suggests that MBSR is more effective in improving mental health than academic achievement in the short term. Nonetheless, improvements in mental health can positively impact academic achievement in the long run. This suggests that MBSR can help improve students' mental health and learning ability in educational settings.

A case study of a student attending the MBSR program showed significant changes in emotional well-being and academic performance. These students reported that before joining the MBSR program, they often felt anxious and stressed, significantly ahead of exams. After attending the MBSR program, these students feel calmer and can better manage stress. They also reported improvements in concentration and sleep quality, which positively impacted their academic performance. Another case study showed that a student who initially had difficulty managing their emotions managed to improve their emotional well-being after attending the MBSR program. These students reported that sitting meditation techniques helped them be more aware of their thoughts and feelings, allowing them to respond to stressful situations more constructively. These results are supported by feedback from teachers who note positive changes in student behavior in the classroom.

A case study from a student attending the MBSR program suggests that mindfulness techniques can help overcome sleep problems. These students reported having difficulty sleeping before attending the MBSR program, negatively impacting their well-being and academic performance. After attending the MBSR program, these students reported improved sleep quality, positively affecting their overall well-being. Another case study showed that a student who attended the MBSR program experienced an improvement in their academic performance. These students report that mindfulness techniques help them to better focus and concentrate during lessons. The teacher also noted that these students more actively participated in classroom activities after joining the MBSR program. Although this increase is not statistically significant, it does indicate the potential benefits of MBSR in supporting student academic achievement.

Case studies from students enrolled in the MBSR program show that mindfulness techniques can help students to be more aware of their thoughts and emotions. Students reported feeling calmer and could better manage stress after attending mindfulness sessions. This suggests that MBSR can be an effective tool to help students cope with stress and anxiety.

Teachers who observed students during the study period gave positive feedback about the changes they saw in students in the MBSR program. They reported that students appeared calmer, better able to manage their emotions, and more focused on teaching and learning. This shows that MBSR is beneficial for students and the learning environment as a whole.

Data from academic performance records show that some students experience improvements in concentration and class participation after attending the MBSR program. Although this increase is not statistically significant, it suggests that MBSR can positively impact student learning behavior. This increase in concentration and participation can improve academic achievement in the long run.

Data analysis also showed that positive changes were more pronounced in emotional well-being and decreased stress than academic performance. This suggests that MBSR is more effective in improving aspects of mental health than academic achievement in the short term. Nonetheless, improvements in mental health can positively impact academic achievement in the long run.

The association between decreased stress levels and improved emotional well-being suggests that MBSR is effective in helping students manage their stress. Data shows that students enrolled in the MBSR program experience significant reductions in stress levels and improved emotional well-being. This suggests that the mindfulness techniques taught in the MBSR program can help students be more aware of their thoughts and emotions, allowing them to respond to stress more constructively.

The link between improved emotional well-being and behavior change in the classroom suggests that MBSR can positively impact the learning environment. Data from in-depth interviews and teacher feedback showed that students enrolled in the MBSR program appeared calmer and better able to manage their emotions. Teachers also noted that the classroom atmosphere became more conducive after students practiced mindfulness techniques. This suggests that increased emotional well-being may contribute to an overall improvement in the learning environment.

The relationship between increased concentration and class participation with academic performance suggests that MBSR can positively impact student learning behavior. Data from academic performance records show that some students experience improvements in concentration and class participation after attending the MBSR program. Although this increase is insignificant, MBSR can help students focus and engage in teaching and learning activities.

The association between positive changes in emotional well-being and decreased stress with academic performance suggests that MBSR is more effective in improving mental health than academic achievement in the short term. Nonetheless, improvements in mental health can positively impact academic achievement in the long run. This suggests that MBSR can help improve students' mental health and learning ability in educational settings.

The study found that Mindfulness-Based Stress Reduction (MBSR) techniques effectively reduce stress levels and improve students' emotional well-being in educational settings (Soumya, 2021). The intervention group that received the MBSR program for eight weeks significantly reduced stress levels and enhanced emotional well-being compared to the control group (Tarrasch, 2019). Although academic performance also improved in the intervention group, this improvement was not statistically significant.

Data from in-depth interviews with students and feedback from teachers support quantitative findings. Students enrolled in the MBSR program report feeling calmer, better able to manage stress, and more focused during lessons (Brown, 2019). Teachers also noted positive changes in student behavior, including improved concentration and class participation. Data analysis shows that mindfulness techniques taught in MBSR programs help students to be more aware of their thoughts and emotions (Lee, 2019). This allows them to respond to stress more constructively, contributing to improved emotional well-being and stress management.

These results suggest that MBSR can effectively improve students' mental health and learning ability in educational settings. However, challenges such as cost, training needs, and institutional cultural change must be addressed to ensure the successful implementation of this program. The results of this study are consistent with previous studies showing that MBSR effectively reduces stress and improves mental well-being. Studies by Kabat-Zinn (1990) found that MBSR can help individuals manage stress and improve emotional well-being, which aligns with this study's findings in an educational context.

Research by Zeidan et al. (2010) also suggests that mindfulness meditation can improve cognitive performance and working memory abilities. Although the study did not find significant improvements in academic performance, the results of in-depth interviews showed that students experienced improvements in concentration and class participation, which supports Zeidan et al.'s findings in terms of cognitive improvement.

Studies by Jennings et al. (2013) show that mindfulness programs in schools can improve the emotional well-being of students and teachers. This study indicates that MBSR can be applied effectively in educational contexts to achieve similar results. The results of in-depth interviews with teachers in the survey support those findings, with teachers reporting improvements in classroom behavior and learning environment.

This study differs from other studies focusing more on adult populations or clinical contexts. The study by Grossman et al. (2004) reviewed the effectiveness of MBSR in the adult population with various mental health conditions, whereas this study focused on high school students. The findings of this study suggest that the benefits of MBSR also apply in educational contexts despite differences in the populations studied.

The results of this study indicate that MBSR can be an effective tool to improve students' mental health in educational settings. The significant reduction in stress levels and improvement in emotional well-being suggest that the mindfulness techniques taught in the MBSR program help students better manage their stress (Abdulkerim, 2022). This suggests that mindfulness-based interventions have great potential to be integrated into school curricula.

The findings also suggest that mindfulness techniques can help improve students' focus and concentration during lessons (Slagter, 2022). Although improvements in academic performance were not statistically significant, reports from students and teachers showed positive changes in learning behavior. This indicates that the benefits of MBSR are not only limited to mental health aspects but can also support the teaching and learning process.

The results of this study also highlight the importance of a holistic approach to education that includes students' mental and emotional health. By improving emotional well-being, students can be better prepared for academic and social challenges, improving learning outcomes. These findings support the need for intervention programs focusing on student well-being as an integral part of education (Nielsen, 2024). These findings indicate that challenges such as costs, training needs, and institutional and cultural changes must be addressed to ensure the successful implementation of the MBSR program (Levene, 2024). Schools must invest in teacher and staff training to ensure these programs can be implemented effectively. In addition, support from the entire school community, including parents, is critical to long-term success.

A key implication of the results of this study is that schools and policymakers need to consider the integration of MBSR programs into educational curricula (Mohamed, 2022). Thus, students can acquire the necessary tools to manage their stress and improve their emotional well-being. This is important to create a supportive learning environment conducive to students' academic and personal development (Voss, 2020). Schools must invest in ongoing training and support for teachers and staff in implementing MBSR programs. Adequate training can help ensure that the program is implemented effectively and that teachers feel ready to facilitate mindfulness sessions. Ongoing support is also essential to ensure the program can run smoothly and provide long-term student benefits.

Improved emotional well-being and stress management through MBSR can positively impact students' academic performance in the long run. Although the study did not find significant improvements in academic performance in the short term, concentration, and class participation improvements suggest potential long-term benefits (Torre, 2022). Schools need to consider these long-term benefits when evaluating the success of MBSR programs.

The results of this study also suggest that mindfulness-based intervention programs can help create a more conducive learning environment. Improving students' emotional well-being makes the classroom atmosphere more positive and supportive (Titcomb, 2023). This is important to ensure that all students feel supported and have equal opportunities to succeed academically and personally. The results showed that MBSR effectively reduces stress levels and improves emotional well-being because mindfulness techniques help students be more aware of their thoughts and emotions. This technique allows students to respond to stress more constructively, which helps reduce anxiety and improve mental well-being (Uthaug, 2021). This aligns with mindfulness theories, which state that mindfulness can help individuals manage stress and improve emotional well-being.

Teachers reported that students enrolled in the MBSR program appeared calmer and better able to manage their emotions, suggesting that these interventions positively impact student behavior in the classroom (Salam & Adam Mudinillah, 2021). The mindfulness techniques taught in the MBSR program help students to better focus and concentrate during lessons, which supports the

theory that mindfulness can improve cognitive function and working memory abilities. Improved emotional well-being and stress management through MBSR can positively impact students' academic performance in the long run. Although the study did not find significant improvements in academic performance in the short term, reports from students and teachers suggest positive changes in learning behavior (Ikhlas dkk., 2023). This indicates that the benefits of MBSR may take longer to translate into significant improvements in academic achievement.

Challenges such as costs, training needs, and institutional cultural change must be addressed to ensure the successful implementation of the MBSR program. Schools must invest in teacher and staff training to ensure these programs can be implemented effectively (Simhi, 2021). Support from the entire school community, including parents, is critical to long-term success. This shows that the success of the MBSR program requires a holistic and collaborative approach. The next step is to expand the study to include more schools and a larger sample of students (Titcomb, 2023). More research is needed to evaluate the long-term impact of MBSR on students' mental well-being and academic performance. This will help ensure that the findings of this study can be generalized and widely applied across various educational contexts.

Schools and policymakers must develop training programs for teachers and staff to implement MBSR. Adequate training can help ensure that the program is implemented effectively and that teachers feel ready to facilitate mindfulness sessions. Ongoing support is also essential to ensure the program can run smoothly and provide long-term student benefits. Educational institutions must develop strategies to address challenges such as costs and institutional culture change. This includes seeking additional resources, such as grants or sponsorships, to support implementing the MBSR program. In addition, schools need to work closely with parents and communities to ensure full support for the program.

Further research is needed to develop and test different mindfulness approaches and techniques tailored to students' needs. This includes exploring the most effective mindfulness techniques for various age groups and backgrounds. Thus, the MBSR program can be optimized to provide maximum benefits to all students in the educational environment.

CONCLUSION

The study found that Mindfulness-Based Stress Reduction (MBSR) techniques effectively reduce stress levels and improve students' emotional well-being in educational settings. The group of students who received the MBSR intervention for eight weeks significantly reduced stress levels and enhanced emotional well-being compared to the control group. Although the improvement in academic performance is not statistically significant, there are positive indications that MBSR can help students focus more and engage in learning. The results of in-depth interviews and teacher feedback support quantitative findings, suggesting that mindfulness techniques help students manage stress and improve concentration during lessons. Teachers report that students appear calmer and better able to manage their emotions, contributing to a more conducive classroom atmosphere. This shows that MBSR not only benefits students' mental well-being but also has the potential to improve the overall learning environment.

This research makes a significant contribution by combining quantitative and qualitative approaches to evaluate the impact of MBSR in an educational context. This blended method

comprehensively analyzes how mindfulness techniques can be applied and benefit high school students. The research also develops a conceptual framework that educators and policymakers can use to integrate MBSR into school curricula. This framework helps explain the strengths and weaknesses of mindfulness techniques and provides practical strategies for managing challenges that may arise during implementation. As such, the study not only adds to theoretical knowledge about the benefits of MBSR but also provides practical guidance that schools can implement to improve students' mental health and learning abilities.

The study had several limitations, including a limited sample size and a focus on one high school in one location. Research results may only be fully generalizable to some educational contexts. More research is needed to evaluate the impact of MBSR in different schools and academic environments with more extensive and diverse samples. The study also relied on survey and interview data, which may have respondent bias. To improve the validity of the findings, follow-up research may use more varied methods, such as field experiments or longitudinal analysis. This approach will help evaluate the long-term impact of using MBSR in disseminating research and identify additional factors that might influence the successful implementation of this mindfulness technique.

AUTHORS' CONTRIBUTION

Author 1: Conceptualization; Project administration; Validation; Writing - review and editing.
Author 2: Conceptualization; Data curation; In-vestigation.

REFERENCES

Abdulkerim, N. (2022). How Applicable Are Mindfulness-Based Interventions to Muslim Clients in the U.S.? *Professional Psychology: Research and Practice*, *53*(3), 253–265. https://doi.org/10.1037/pro0000454

Allison, S. (2020). Assessment of Progressive Muscle Relaxation (PMR) as a stress-reducing technique for first-yearveterinary students. *Journal of Veterinary Medical Education*, *47*(6), 737–744. https://doi.org/10.3138/JVME.2018-0013

Bäuerle, A. (2020). Web-based MINDfulness and Skills-based distress reduction in cancer (MINDS): Study protocol for a multicentre observational healthcare study. *BMJ open*, *10*(8). https://doi.org/10.1136/bmjopen-2019-036466

Binda, D. D. (2022). What Are Adverse Events in Mindfulness Meditation? *Global Advances In Health and Medicine*, *11*(Query date: 2024-07-06 08:59:32). https://doi.org/10.1177/2164957X221096640

Blanc, J. (2024). I am Lifted Above the World: Utilizing VR for stress reduction among perinatal women of color. *Frontiers in Psychiatry*, *15*(Query date: 2024-07-06 08:59:32). https://doi.org/10.3389/fpsyt.2024.1377978

Blignault, I. (2019). Evaluation of the acceptability and clinical utility of an Arabic-language mindfulness CD in an Australian community setting. *Transcultural Psychiatry*, *56*(3), 552–568. https://doi.org/10.1177/1363461519825880

Brown, C. G. (2019). Meditation and Education. *The Oxford Handbook of Meditation*, *Query date: 2024-07-06 08:59:32*, 792–817. https://doi.org/10.1093/oxfordhb/9780198808640.013.40

Churchill, H. (2022). Harnessing the Synergy Between Mindfulness and Psychotherapy. *Journal of Psychiatric Practice*, *28*(2), 138–142. https://doi.org/10.1097/PRA.0000000000000610

Deng, L. X. (2023). Caregiver Burden in Adult Solid Organ Transplantation. *Transplantation*, *107*(7), 1482–1491. https://doi.org/10.1097/TP.0000000000004477

France, N. F. (2023). Wakakosha "You are Worth it": Reported impact of a community-based, peer-led HIV self-stigma intervention to improve self-worth and wellbeing among young people living with HIV in Zimbabwe. *Frontiers in Public Health*, *11*(Query date: 2024-07-06 08:59:32). https://doi.org/10.3389/fpubh.2023.1235150

Harolds, J. A. (2021). Quality and Safety in Healthcare, Part LXVII: Counseling, Mental Health Services, and Wellness Curricula for Medical Students. *Clinical Nuclear Medicine*, *46*(3), 220–222. https://doi.org/10.1097/RLU.0000000000002980

Hoge, E. A. (2021). Emotion-Related Constructs Engaged by Mindfulness-Based Interventions: A Systematic Review and Meta-analysis. *Mindfulness*, *12*(5), 1041–1062. https://doi.org/10.1007/s12671-020-01561-w

Huong, X. V. (2024). The Influence of Mindfulness-Based Cognitive Interventions on the Well-being of University Students. *North American Journal of Psychology*, *26*(2), 419–434.

Ikhlas, R. Z., Japakiya, R., & Muzayanah, T. (2023). Utilization of Canva Application as a Learning Media Video Creation. *Journal of Social Science Utilizing Technology*, *1*(3), 158–169. https://doi.org/10.55849/jssut.v1i3.558

Kollikowski, A. (2023). Complementary Medicine in Acute Care Hospitals: Questionnaire Survey with Heads of Bavarian Hospitals. *Complementary Medicine Research*, *30*(5), 415–423. https://doi.org/10.1159/000531930

Lee, K. C. (2019). The experience of mindful yoga for older adults with depression. *Journal of Psychiatric and Mental Health Nursing*, *26*(3), 87–100. https://doi.org/10.1111/jpm.12517

Levene, I. (2024). Relaxation Therapy and Human Milk Feeding Outcomes: A Systematic Review and Meta-Analysis. *JAMA Pediatrics*, *178*(6), 567–576. https://doi.org/10.1001/jamapediatrics.2024.0814

Liu, W. (2022). Effect of mindfulness yoga on anxiety and depression in early breast cancer patients received adjuvant chemotherapy: A randomized clinical trial. *Journal of Cancer Research and Clinical Oncology*, *148*(9), 2549–2560. https://doi.org/10.1007/s00432-022-04167-y

Mohamed, A. F. (2022). The effectiveness of workplace health promotion program in reducing work-related depression, anxiety and stress among manufacturing workers in Malaysia: Mixed-model intervention. *International Archives of Occupational and Environmental Health*, *95*(5), 1113–1127. https://doi.org/10.1007/s00420-022-01836-w

Nielsen, L. (2024). New Directions in Geroscience: Integrating Social and Behavioral Drivers of Biological Aging. *Psychosomatic Medicine*, *86*(5), 360–365. https://doi.org/10.1097/PSY.0000000000001320

Osilike, C. C. (2024). Managing Workplace Stress in Adult Education Lecturers: The Efficacy of Mindfulness-Based Intervention. *Mindfulness*, *15*(4), 844–856. https://doi.org/10.1007/s12671-023-02286-2

Rechenberg, K. (2024). "Diabetes is really simple on paper, but really complicated when you actually have it": Understanding the daily stressors of adolescents living with Type 1 diabetes. *Journal for Specialists in Pediatric Nursing*, *29*(2). https://doi.org/10.1111/jspn.12424

Salam, M. Y. & Adam Mudinillah. (2021). Canva Application Development for Distance Learning on Arabic Language Learning in MTs Thawalib Tanjung Limau Tanah Datar. *JTP - Jurnal Teknologi Pendidikan*, *23*(2), 101–111. https://doi.org/10.21009/jtp.v23i2.20650

Sherman, K. J. (2022). Interest in Mindfulness Training for Chronic Low-Back Pain: Results from a Vignette-driven, Web-based Survey of Patients. *Journal of Integrative and Complementary Medicine*, *28*(6), 484–496. https://doi.org/10.1089/jicm.2021.0427

Sifat, M. S. (2022). A qualitative exploration of university student perspectives on mindfulness-based stress reduction exercises via smartphone app in Bangladesh. *International Journal of Qualitative Studies on Health and Well-being*, *17*(1). https://doi.org/10.1080/17482631.2022.2113015

Simhi, M. (2021). A cognitive—Behavioral intervention for postpartum anxiety and depression: Individual phone vs. Group format. *Journal of Clinical Medicine*, *10*(24). https://doi.org/10.3390/jcm10245952

Simonienko, K. (2023). The impact of ecotherapeutic mental health interventions (forest therapy, therapeutic ornithology, and nature-based mindfulness) on stress reduction and mental wellbeing: A qualitative analysis. *Psychiatria i Psychologia Kliniczna*, *23*(4), 324–331. https://doi.org/10.15557/PiPK.2023.0040

Slagter, L. (2022). The Effect of Meditation, Mindfulness, and Yoga in Patients with Rheumatoid Arthritis. *Journal of Personalized Medicine*, *12*(11). https://doi.org/10.3390/jpm12111905

Soni, J. (2022). Design and delivery of a need-based mental health promotion program for shelter-home adolescents. *Indian Journal of Social Psychiatry*, *38*(3), 287–292. https://doi.org/10.4103/ijsp.ijsp_170_20

Soumya, R. R. (2021). Mindfulness: An emotional aid to the glass ceiling experiences. *Cogent Psychology*, *8*(1). https://doi.org/10.1080/23311908.2021.1907911

Tarrasch, R. (2019). Mindfulness for education students: Addressing welfare as part of the professional training. *Educational Studies*, *45*(3), 372–389. https://doi.org/10.1080/03055698.2018.1446337

Taubman–Ben-Ari, O. (2023). Contributors to COVID-19-Related Childbirth Anxiety among Pregnant Women in Two Pandemic Waves. *International Journal of Environmental Research and Public Health*, *20*(1). https://doi.org/10.3390/ijerph20010110

Titcomb, T. J. (2023). Evaluation of a web-based program for the adoption of wellness behaviors to self-manage fatigue and improve quality of life among people with multiple sclerosis: A randomized waitlist-control trial. *Multiple Sclerosis and Related Disorders*, *77*(Query date: 2024-07-06 08:59:32). https://doi.org/10.1016/j.msard.2023.104858

Torre, G. L. (2022). Mindfulness as a tool for reducing stress in healthcare professionals: An umbrella review. *Work*, *73*(3), 819–829. https://doi.org/10.3233/WOR-210504

Uthaug, M. V. (2021). An experience with Holotropic Breathwork is associated with improvement in non-judgement and satisfaction with life while reducing symptoms of stress in a Czech-speaking population. *Journal of Psychedelic Studies*, *5*(3), 176–189. https://doi.org/10.1556/2054.2021.00193

Voss, A. (2020). Mindfulness-Based Student Training Leads to a Reduction in Physiological Evaluated Stress. *Frontiers in Psychology*, *11*(Query date: 2024-07-06 08:59:32). https://doi.org/10.3389/fpsyg.2020.00645

Wielgosz, J. (2022). Neural Signatures of Pain Modulation in Short-Term and Long-Term Mindfulness Training: A Randomized Active-Control Trial. *The American journal of psychiatry*, *179*(10), 758–767. https://doi.org/10.1176/appi.ajp.21020145

Williams, S. G. (2022). Self-Care in Nurses. *Journal of Radiology Nursing*, *41*(1), 22–27. https://doi.org/10.1016/j.jradnu.2021.11.001

Winters, A. (2021). BENEFITS BEYOND: MINDFUL MISSIONS THROUGH AUTONOMOUS MOVEMENT THAT CREATE AN ADAPTIVE EXPERIENCE. *Proceedings of the International Astronautical Congress, IAC, Query date: 2024-07-06 08:59:32*. https://api.elsevier.com/content/abstract/scopus_id/85127587576

Witry, M. J. (2020). Considerations for the incorporation of mindfulness into pharmacy education. *Currents in Pharmacy Teaching and Learning*, *12*(3), 247–250. https://doi.org/10.1016/j.cptl.2019.12.007

Xu, J. (2022). Virtual mindfulness interventions to promote well-being in adults: A mixed-methods systematic review April 18, 2021. *Journal of Affective Disorders*, *300*(Query date: 2024-07-06 08:59:32), 571–585. https://doi.org/10.1016/j.jad.2022.01.027

Ye, L. (2024). Acceptance and commitment therapy for patients with chronic pain: A systematic review and meta-analysis on psychological outcomes and quality of life. *PLoS ONE*, *19*(6). https://doi.org/10.1371/journal.pone.0301226