PSYCHOLOGY AND COGNITIVE SCIENCES
ISSN: 3080-1893

IRSTI 15.81.70
Scientific article

https://doi.org/10.32523/3080-1893-2025-152-3-39-52

Experimental studies on the effectiveness of mindfulness interventions in reducing symptoms of stress, anxiety, and depression: A systematic review

A.S. Mambetalina*[1], L.M. Gitikhmayeva[2]*, Zh. K. Aubakirova[3], Zh. Abishev[4], S.V. Karagulakova[5]

[1,2,3,4,5] *L.N. Gumilyov Eurasian National University, Astana, Kazakhstan*

(E-mail: [1]mambetalina@mail.ru, [2]Enu.psichologists@gmail.com, [3]aubakirova_zhk@enu.kz, [4]abishev.zhassulan@gmail.com, [5]karagulakova77@gmail.com)
(Corresponding author: Enu.psichologists@gmail.com)

Abstract. This systematic review of recent experimental mindfulness research aims to analyze the effectiveness of mindfulness-based interventions (MBIs) in reducing symptoms of stress, anxiety, and depression across diverse population groups. Based on the analysis of ten studies (S. Bai, S. Elavsky, M. Kishida, G.G. Gallo, D.F. Curado, M.P. Machado, N. Polyvyannaya, N. Akhtayeva, H. Franco, P.A. Alvarado-García, M.R. Soto-Vásquez, G.F.M. Infantes, E.N. Osin, I.I. Turilina, et al.) published between 2020 and 2025 in Brazil, Peru, Iran, the United States, Australia, Kazakhstan, China, and Russia, it was found that mindfulness practices have a positive impact on the psycho-emotional state of participants. The review discusses mechanisms of action, intervention formats (including MBSR, MBCT, and their modifications), experimental research methods, sampling criteria, and the limitations of existing studies. All reviewed studies reported statistically significant reductions in perceived stress, anxiety, and depressive symptoms in participants who completed mindfulness interventions compared to control groups. Particular attention is given to the effects of mindfulness on enhancing cognitive control, developing self-regulation skills, and positively influencing emotional well-being, sleep quality, and subjective life perception following mindfulness programs. Various intervention formats are examined, including classical MBSR programs, remote and online courses, adapted protocols, short meditations, and mobile applications. These programs demonstrated broad effectiveness for diverse groups, including students, schoolchildren, working adults, and individuals with elevated anxiety or chronic stress.

Keywords: mindfulness, awareness, meditation, stress, anxiety, depression, life satisfaction, interventions, MBSR.

Recieved: 13.07.2025; Revised: 13.08.2025; Approved: 15.09.2025; Available online: 29.09.2025

***the corresponding author**

Introduction

Anxiety and depressive disorders are among the most prevalent forms of mental illness worldwide. According to WHO (2023), over 280 million people live with depression, and approximately 301 million with anxiety disorders. Against this backdrop, non-pharmacological methods of treatment and prevention aimed at reducing psycho-emotional strain have become increasingly salient. One such approach is mindfulness.

J. Kabat-Zinn defines mindfulness as a state of full awareness characterized by sustained attention to present-moment experience and awareness of one's thoughts, words, and actions.

The term mindfulness encompasses a set of practices targeting awareness of mental and bodily processes and is commonly grouped into (a) focused-attention practices and (b) open-monitoring practices.

Focused-attention practice entails sustaining attention on an internal or external object (e.g., breath, bodily sensations, mantras), whereas open-monitoring involves receptive awareness of all thoughts and sensations arising in the present moment (Kabat-Zinn J., 2011).

Mindfulness emphasizes nonjudgmental awareness and acceptance of the current moment, fostering a compassionate stance toward one's experience and supporting emotional regulation and resilience. This practice implies the ability to appreciate each moment and to live in harmony with oneself and the surrounding environment.

As a psychological process, mindfulness has been described as "paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally" (J. Kabat-Zinn) or "nonjudgmental observation of the continuous flow of internal and external stimuli as they arise" (R.A. Baer, 2003).

Developed by J. Kabat-Zinn, the 8-week Mindfulness-Based Stress Reduction (MBSR) program is intended for individuals with chronic conditions or heightened psychological/ emotional strain. Core practices include awareness of breathing, body scan, awareness of bodily sensations, loving-kindness meditation, and more (Chiesa et al., 2011).

Since its inception, mindfulness programs have undergone adaptations and modifications and are now delivered as longer courses, short-format retreats, and remote/online variants (Figure 1).

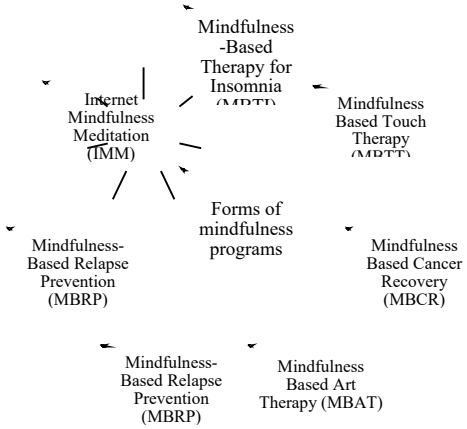

Figure 1. Forms and Modifications of Mindfulness Programs

We briefly outline the formats and modifications referenced in Figure 1:

1. Mindfulness-Based Therapy for Insomnia (MBTI) – enhances mindful awareness and adaptive responses to sleep disturbance, supporting individuals with chronic insomnia via sleep restriction and stimulus control.

2. Mindfulness-Based Touch Therapy (MBTT) – combines MBSR components with tactile therapy; tactile stimulation elicits a sensorimotor response that is experienced emotionally and interpreted by the practitioner.

3. Mindfulness-Based Cancer Recovery (MBCR) – a mindfulness-adapted intervention for oncology patients – is designed to reduce stress through structured mindfulness practices tailored to the specific psychological and physiological needs of individuals undergoing or recovering from cancer treatment.

4. Internet Mindfulness Meditation (IMM) – an online mindfulness program – offers the opportunity to learn and practice mindfulness at any time and from any location via the Internet, through six weekly sessions supplemented by 20 minutes of daily home meditation practice.

5. Mindfulness-Based Art Therapy (MBAT) – an art therapy approach grounded in mindfulness – integrates the creative process of producing works of art into a mindful exploration of one's own identity and inner experience.

6. Mindfulness-Based Relapse Prevention (MBRP) – a relapse prevention program grounded in mindfulness – combines formal mindfulness practice, motivational interviewing, and cognitive therapy to prevent relapse following addiction treatment. A variant of this approach, Mindfulness-Oriented Recovery Enhancement (MORE), is designed for group-based treatment of individuals with alcohol dependence, focusing on mindful recovery processes.

7. Mindfulness-based cognitive therapy (MBCT) – a cognitive therapy model grounded in mindfulness – was developed on the foundation of MBSR and integrates mindfulness principles with concepts from cognitive psychology. The primary aim of MBCT is to free individuals from the tendency to react automatically to thoughts, emotions, and life events (Johns et al., 2021; Ives-Deliperi et al., 2011).

Mindfulness-based interventions, such as the Mindfulness-Based Stress Reduction (MBSR) program and Mindfulness-Based Cognitive Therapy (MBCT), have achieved wide dissemination and are actively investigated in clinical research.

An analysis of the application of mindfulness techniques demonstrates a broad spectrum of positive effects. In particular, studies conducted by K.W. Brown, R.M. Ryan, and J.D. Creswell (2007) have revealed a significant impact of mindfulness meditation on mental health, encompassing both clinical and psychological dimensions.

Turner J.A. (2016) identified several psychological effects of mindfulness practices related to psychological well-being, such as improved capacity to solve cognitive tasks, greater ease in making ethical decisions, and an enhanced ability to regulate one's emotional states.

P. Sedmeier, D. Zimmermann, F. Haarig, Y.-Y. Wang, W. Zheng, and J. Eberth (2012) confirmed the effectiveness of mindfulness meditation in reducing stress levels and improving cognitive functioning.

Nevertheless, despite its wide popularization, the scientific substantiation of the effectiveness of various forms of mindfulness interventions is often presented in a fragmented and isolated

manner. In this regard, there is a pressing need for a systematic review and analysis of empirical evidence obtained in the context of controlled experiments.

To address this, we examine experimental studies on the effectiveness of mindfulness interventions in reducing symptoms of stress, anxiety, and depression.

Main part

Research materials and methods

As objects of analysis, ten experimental studies published between 2020 and 2025 were selected; each described the mindfulness interventions employed.

We considered studies that assessed changes in levels of stress and anxiety and that enrolled adult participants, including both clinical and nonclinical samples.

The analysis drew on data concerning intervention effectiveness, allowing us to identify methodological features of the experiments: study design, types of interventions, outcome measures, sampling, methods of data collection and processing, program duration, modes of delivery, and the longer-term effects of the interventions. The authors' conclusions and recommendations, as presented in the respective studies, were also examined.

1. G.G. Gallo, D.F. Curado, M.P. Machado, M.I. Espíndola, V.V. Scattone, and A.R. Noto (Brazil, 2020) conducted a randomized controlled study of mindfulness and mental health among Brazilian university students, examining the impact of an 8-week MBI adapted for university settings based on a mindfulness-based relapse prevention program (MBSR, as specified in the source), on symptoms of anxiety, depression, stress, and insomnia.

Sample: 136 participants, of whom 76 completed the study (37 in the experimental group, 39 in the control group).

Methods: questionnaires completed daily at the beginning of each session: Patient Health Questionnaire-9 (PHQ-9), Insomnia Severity Index (ISI), and Perceived Stress Scale-10 (PSS-10), together with an 8-week MBI protocol.

An adaptation of the MBRP (Mindfulness-Based Relapse Prevention) protocol was used, with an emphasis on managing reactivity; session length was 1.5 hours. The sessions addressed mindfulness in everyday life and "autopilot," mindfulness of problems, sensations, thoughts, and reactions; mindfulness in day-to-day contexts and in difficult situations; acceptance; self-care and a balanced lifestyle; social support; and continuation of practice.

Results: The MBI effectively reduced the severity of symptoms related to university students' mental health; improvements were observed in stress, depression, and insomnia. No effect was observed for trait anxiety (Gallo et al., 2023).

2. S. Bai, S. Elavsky, M. Kishida, K. Dvořáková, M.T. Greenberg (USA, 2020), in studying the impact of mindfulness practice on daily stress reactivity among college students, demonstrated that mindfulness practice reduces depression, anxiety, and perceived stress; however, its influence on stress and emotion regulation in real-life conditions among students remains unclear.

Sample: 52 first-year students enrolled in the "Honors College," divided into control and experimental groups, participated in an 8-week mindfulness training program.

Methods: a 10-day ecological momentary assessment (EMA) measuring stress experienced in family, school, or work settings, negative emotions, recurrent negative thoughts, and their interference, combined with 8 weeks of mindfulness practice sessions.

The group-based 8-week sessions focused on the following topics: mindfulness of the body, mindfulness of thoughts, mindfulness of emotions, integration of mindfulness of body, thoughts, and emotions, reduction of self-criticism, and the incorporation of mindfulness practice into daily life.

Results: among students in the intervention group, emotion regulation in response to family-related stress remained stable throughout the semester, whereas the control group exhibited an exacerbation of negative emotions, rumination, and stress-related interference in the family environment over the fall semester. However, no significant differences were observed between the groups in overall stress reactivity.

3. E.N. Osin and I.I. Turilina (Russia, 2020) investigated the effectiveness of a remote intervention consisting of a three-week (21-day) mindfulness meditation course and its impact on indicators of psychological and emotional well-being, reflection, and self-control.

Sample: 100 anonymous volunteers recruited via social networks (56 in the experimental group, 44 in the control group).

Methods: instruments included the Positive and Negative Affect Schedule (PANAS), the Self-Regulation Inventory (SSI) by J. Kuhl and A. Fuhrmann, the Mindful Attention Awareness Scale (MAAS), the Mental Health Continuum–Short Form (MHC-SF) by C. Keyes, the Individual Reflexivity Measure, the Differential Test of Reflection (DTR), along with a remotely delivered guided mindfulness meditation course.

The guided meditation course was developed based on meditation scripts from the application Calm: Meditation to Relax, Focus, and Sleep Better, translated into Russian and recorded as audio files ranging from 8 to 19 minutes in length, with a total duration of 2 hours and 40 minutes. The course was structured to progress from concentration meditation to mindfulness meditation, including breathing meditation, body scanning, and the cultivation of awareness of thoughts and emotions.

The study results indicated that, in the experimental group, levels of negative affect and introspection decreased, while levels of positive affect, psychological well-being, self-regulation, cognitive self-control, and volitional capacity increased. Participation in the meditation course was associated with enhanced positive affect and affective balance, reduced introspection, improved self-regulation skills, strengthened cognitive self-control, and increased capacity for concentration and volitional skills.

4. H. Zandi, A. Amirinejhad, A. Azizifar, S. Aibod, Y. Veisani, and F. Mohamadian (Iran, 2021) examined the effectiveness of mindfulness practice in overcoming stress, reducing exam-related anxiety, and enhancing happiness to promote the well-being of high school female students.

Sample: The study population comprised 2,890 high school students from the city of Sanandaj, from which 40 participants were selected through simple random sampling and assigned to an experimental group (n = 20) and a control group (n = 20).

Methods: The Oxford Happiness Questionnaire, Sarason Test Anxiety Inventory, and Andler & Parker Stress Coping Questionnaire were employed as measurement tools.

Intervention: An 8-week mindfulness-based training program (MBSR) that included the practice of mindful thoughts and feelings, breathing techniques, mindful walking, journaling of adverse events, and related activities.

Results: Statistically significant differences were found between the control and experimental groups in measures of anxiety, happiness, life satisfaction, self-esteem, active well-being, and positive outlook. Significant differences were also identified between the mean scores of the experimental and control groups for problem-focused, emotion-focused, and avoidance coping factors.

5. L. Bartlett, M.-J. Buscot, A. Bindoff, R. Chambers, C. Hassed (Australia, 2021) investigated the relationship between mindfulness, perceived stress, and work engagement.

Sample: At various stages of the study, 20,331 individuals consented to participate. Post-intervention surveys were completed by 4,681 participants, with complete datasets available for 2,105 individuals aged 18 to 65 years from the United Kingdom, Australia, the United States, Canada, Ireland, and other countries.

Methods: The Freiburg Mindfulness Inventory (FMI), the Perceived Stress Scale (PSS), and the Utrecht Work Engagement Scale (UWES) were used. Participants in the 6-week course Mindfulness for Well-being and Peak Performance (MWPP-MOOC) were invited to complete online questionnaires before and after the program.

Intervention: MWPP-MOOC is an asynchronous online course on developing mindfulness, created by Monash University in 2015. Upon registration, participants could complete pre- and post-course assessments. The course consisted of 6 weeks of study at approximately 3 hours per week. While it bears some similarity to the Mindfulness-Based Stress Reduction protocol, it features shorter meditation practices (5–10 minutes instead of the traditional 20–45 minutes).

Weekly topics progressively incorporated: weekly feedback videos; formal and informal mindfulness practice; the role of mindfulness in stress reduction; its impact on work and academic performance; the role of mindfulness in communication and relationships; and strategies for maintaining and expanding one's practice after course completion.

Results: The study found significant correlations between mindfulness, perceived stress, and work engagement. Higher mindfulness levels were associated with lower perceived stress. Following the mindfulness MOOC, participants reported increases in mindfulness, reductions in perceived stress, and small improvements in work engagement.

6. H. Franco (USA, 2021) examined the impact of an online mindfulness program on stress and anxiety levels among nursing students preparing for licensure.

Sample: The study included 19 fourth-year undergraduate nursing students at a university in Texas.

Methods: The Depression, Anxiety, and Stress Scale (DASS-21) and the Coping Strategies Inventory – Short Form (CSI-SF) were used as measurement tools.

Students completed pre-intervention testing at the start of the semester and, two weeks later, began a four-week mindfulness-based intervention delivered through Therapy Assistance Online (TAO) — an interactive website developed by Dr. Susan Benton in 2012 to address disparities in college student mental health.

Intervention: The mindfulness modules comprised 12 mindfulness exercises targeting various mindfulness strategies, such as mindful breathing, letting go, "vacation with your mind," mindful walking, and self-observation. Each week for four weeks, students engaged with and practiced three of the twelve exercises. Post-intervention testing was conducted two weeks after the program's completion.

Results: Nursing students who completed the four-week online mindfulness course reported reductions in anxiety and stress. While participants exhibited lower depression scores following mindfulness practice, no statistically significant decrease in depression was observed over the four-week period compared to baseline levels at the beginning of the semester:

Participants demonstrated lower anxiety levels after mindfulness practice compared to pre-intervention, with a statistically significant decrease in anxiety over the four weeks relative to baseline.

Mindfulness practice also led to a statistically significant reduction in stress levels during the four-week intervention compared to pre-intervention stress levels. However, no statistically significant changes were found in the reduction of maladaptive coping.

7. A. Skolzkov and E. Efremova (Russia, 2023) conducted a study on the impact of a short-term mindfulness training program on anxiety, depression, and subjective happiness among first-year psychology students in Russia, demonstrating that mindfulness training can serve as an effective tool for overcoming psychological challenges faced by students.

Sample: The study involved 118 first-year students of the Faculty of Psychology at the Ural Federal University named after B.N. Yeltsin, divided into five groups (46 students in general psychology and 72 in clinical psychology). One of the two groups studying general psychology and one of the three groups studying clinical psychology were assigned as experimental groups, while students in the remaining groups comprised the control group

Methods: The Beck Depression Inventory (BDI), the State–Trait Anxiety Inventory (STAI), the Subjective Happiness Scale by Lyubomirsky and Lepper, and a short-term mindfulness training aimed at improving students' mental and physical health were employed.

Intervention: The mindfulness training was based on the program Finding Peace in a Frantic World (FPFW) — a modified version of the MBCT program for a general audience, with a focus on addressing stressors associated with studying or working in modern conditions. The program consisted of eight 30-minute sessions, held once a week.

Results: Participants in the experimental group demonstrated a borderline statistically significant reduction in anxiety levels, a significantly lower level of depression, and a significantly higher level of subjective happiness compared to participants in the control group.

8. L. Fu, S. Wei, J. Cheng, X. Wang, Y. Zhou, Y. Li, H. Zheng (China, 2023) examined the effects of a mindfulness-based group intervention on sleep problems and emotional symptoms among university students in Beijing.

Sample: The study included 45 students, with 21 in the experimental group (presenting sleep problems) and 24 in the control group.

Methods: The Pittsburgh Sleep Quality Index (PSQI), the Five Facet Mindfulness Questionnaire (FFMQ), the Self-Rating Anxiety Scale (SAS), and the short form of the Center for Epidemiologic Studies Depression Scale (CES-D) were used.

Intervention: Participants in the intervention group attended an in-person mindfulness-based group program once per week for eight sessions, each lasting 120 minutes. The MBI incorporated both formal techniques (e.g., sitting meditation, body scan, and loving-kindness meditation) and informal practices (e.g., mindful walking, mindful eating).

Results: Significant between-group differences were observed in mindfulness and sleep quality. However, the mindfulness-based group intervention (MBI) did not produce significant effects on anxiety or depressive symptoms.

9. N. Polyvyannaya and N. Akhtayeva (Kazakhstan, 2024) conducted a study analyzing the relationship between pain, stress, and mindfulness with components of psychological and physical well-being in adults.

Sample: The study included 106 adults (23 men, 83 women).

Methods: The research employed the Perceived Stress Scale (PSS), the Mindful Attention Awareness Scale (MAAS), the Satisfaction With Life Scale (SWLS), the Subjective Happiness Scale by S. Lyubomirsky, the Numeric Pain Rating Scale (NPRS), a Sleep Quality Questionnaire, the Rosenberg Self-Esteem Scale, the Body Image Questionnaire (BIQ), and the Activity and Optimism Scale (AOS). No interventions were implemented directly; instead, the study tracked the influence of mindfulness as a variable.

Results: Mindfulness demonstrated moderate negative correlations with the experience of pain, stress, and its subscales – such as overstrain and resistance – as well as with pessimism and a negative body image. Moderate positive correlations were found between mindfulness and sleep quality, life satisfaction, subjective well-being, and self-esteem. Thus, mindfulness may be understood as a regulatory factor influencing the experience of pain, stress, and certain components of psychological and physical well-being.

10. P.A. Alvarado-García, M.R. Soto-Vásquez, G.F.M. Infantes, R.N.M. Guzman, and W.G. Castro-Paniagua (Peru, 2025) examined the impact of a mindfulness program on stress, anxiety, depression, sleep quality, social support, and life satisfaction.

Sample: The study included 128 participants, with 64 assigned to the experimental group and 64 to the control group.

Methods: Instruments included the Satisfaction with Life Scale (SWLS), the Perceived Stress Scale (PSS-10), the Medical Outcomes Study Social Support Survey (MOS-SS), the Zung Self-Rating Anxiety Scale (SAS), the Self-Rating Depression Scale (SDS), and the Pittsburgh Sleep Quality Index (PSQI).

Intervention: Participants completed a 12-session mindfulness meditation program, with each session lasting 60 minutes. The program spanned three months and included adherence reporting as well as daily audio-guided mindfulness meditation recordings.

Results: The experimental group demonstrated statistically significant improvements in life satisfaction, stress, anxiety, depression, sleep quality, and social support compared to the control group.

Discussion

Thus, an analysis of ten contemporary studies made it possible to compare the effectiveness of various mindfulness-based programs, identify the conditions under which they yield the most favorable results, determine the population groups most responsive to this approach, and formulate the following conclusions.

1. Mindfulness interventions demonstrate high effectiveness in reducing symptoms of stress, anxiety, and depression. They represent a promising avenue in clinical psychology and psychotherapy, particularly as part of comprehensive treatment or relapse prevention strategies.

2. Mindfulness practice constitutes a potentially protective and modifiable personal resource. The mechanisms of action for mindfulness include enhancing self-regulation, reducing reactivity to stress-inducing stimuli, fostering metacognitive skills and acceptance, and decreasing rumination, thereby contributing to improvements in emotional and psychological well-being.

3. The majority of studies revealed statistically significant reductions in stress symptoms in groups that underwent mindfulness interventions compared to control groups.

4. The effect of mindfulness practices on anxiety varies depending on the type of anxiety and the duration of practice: state anxiety tends to diminish more rapidly than trait anxiety, and longer programs yield better outcomes.

5. Regardless of delivery format – whether group-based or individual, in-person or remote – mindfulness practices improve subjective and emotional well-being, increase life satisfaction, and enhance feelings of happiness.

6. Several studies documented improvements in sleep parameters and reductions in insomnia following mindfulness practice.

7. For students, mindfulness training proved effective in enhancing coping styles, reducing test anxiety, and increasing happiness.

8. Mindfulness interventions appear especially effective for individuals with moderate symptom severity. However, despite the overall positive trend, studies differ in methodology, sample composition, duration, and intensity of practice.

9. The studies reviewed also revealed differences in assessment instruments; nevertheless, certain tools were most frequently employed, such as the Perceived Stress Scale (PSS-10), the Zung Self-Rating Anxiety Scale (SAS), the Mindful Attention Awareness Scale (MAAS), the Pittsburgh Sleep Quality Index (PSQI), and the Five Facet Mindfulness Questionnaire (FFMQ). Self-report questionnaires were widely used, which is typical for such interventions but increases the risk of response bias.

10. Sample sizes in the reviewed studies were generally moderate (50–130 participants) and largely student-based, with a predominance of female participants.

11. The primary study designs were randomized controlled trials or quasi-experimental studies with both control and experimental groups.

12. The most frequently examined formats were MBSR – an 8-week program with weekly sessions and home practice – and MBCT with modifications. Online interventions, short-format programs, asynchronous courses, and mobile applications were also evaluated and showed moderate effectiveness. These findings highlight the flexibility of mindfulness programs and the wide variety of researcher-driven adaptations.

13. Short-term online interventions (e.g., MOOC, TAO) produced results comparable to in-person programs and were particularly effective in settings with limited access to psychological services. Three- to four-week programs improved well-being, although their effects may be less durable than those of 8–12-week programs, a difference warranting further investigation.

1. The MOOC format offers a cost-effective and accessible way to extend the reach and potential benefits of mindfulness training to a large audience.

14. Combining traditional in-person delivery with remote, online programs and mobile applications enables adaptation of mindfulness practices to diverse groups and contexts, ensuring moderate to high effectiveness.

2. Mindfulness, when combined with a positive outlook toward the future, exerts a substantial mediating effect on reducing burnout in learners and enhancing their productivity, suggesting new directions for developing support programs.

3. Mindfulness training helps prevent the erosion of emotion regulation capacity among student populations; however, its impact on stress and emotion regulation in real-world student contexts requires further study.

15. Finally, the analysis highlights the underrepresentation of populations with severe forms of stress, anxiety, and depression in mindfulness research, as well as limited data on the long-term sustainability of intervention effects.

Conclusion

Mindfulness is suitable both as a preventive measure for healthy individuals and as a supportive approach for those experiencing psychological difficulties, serving as a tool for enhancing psychological well-being, reducing stress, and alleviating emotional disturbances. This makes it a valuable resource in both clinical practice and in the prevention and development of personal resources.

Despite the positive results, additional longitudinal studies with extended time frames are required, incorporating diverse cultural and demographic groups, in order to assess the durability of the effects and the universality of mindfulness intervention approaches.

Funding: This research has been funded by the Science Committee of the Ministry of Science and Higher Education of the Republic of Kazakhstan (Grant No. AP26102139 «Application of MBSR (Mindfulness-Based Stress Reduction) practices for reducing stress and depression among youth in Kazakhstan»)

Contribution of the authors

A.S. Mambetalina – writing the text, approving the final version of the article for publication.

L.M. Gitikhmayeva – significant contribution to the concept or design of the work; collection, analysis and interpretation of the results of the work.

Zh. K. Aubakirova – writing the text of the article and critically reviewing its content.

Zh. Abishev – writing the text of the article and translating it into English.

S.V. Karagulakova – provided updates at every stage of manuscript processing, including submission, editing, reminders about the need for editing, and technical editing of the text.

References

1. Всемирная организация здравоохранения. Тревожные расстройства. URL: https://www.who.int/ru/news-room/fact-sheets/detail/anxiety-disorders (дата обращения: 10.08.2025).

2. Kabat-Zinn J. (2011) Some reflections on the origins of MBSR skillful means and the trouble with maps // Contemporary Buddhism. Vol.22. P.281-284.

3. Baer R.A. (2003) Mindfulness training as a clinical intervention: A conceptual and empirical review // Clinical psychology: Science and practice. Vol. 10 (2). P. 125-143

4. Chiesa A., Malinowski P. (2011) Mindfulness-based approaches: are they all the same? Journal of Clinical Psychology. Vol. 67 (4). P. 404–424.

5. Johns, S. A., Tarver, W. L., Secinti, E., Mosher, C. E., Stutz, P. V., Carnahan, J. L., Talib, T. L., Shanahan, M. L., Faidley, M. T., Kidwell, K. M., & Rand, K. L. (2021) Effects of mindfulness-based interventions on fatigue in cancer survivors: A systematic review and meta-analysis of randomized controlled trials. Critical reviews in oncology/hematology, 160. Apr;160:103290. doi: 10.1016/j.critrevonc.2021.103290.

6. Ives-Deliperi V., Solms M., and Meintjes E.M. (2011). The neural substrates of mindfulness: An fMRI investigation. Social Neuroscience. Vol. 6. P. 231-242.

7. Brown K.W., Ryan R.M., Creswell J.D. (2007) Mindfulness: Theoretical foundations and evidence for its salutary effects // Psychological Inquiry. Vol. 18, № 4. P. 211–237.

8. Turner J.A. et al. (2016) Mindfulness-based stress reduction and cognitive behavioral therapy for chronic low back pain: similar effects on mindfulness, catastrophizing, self-efficacy, and acceptance in a randomized controlled trial. Pain. Vol.157. P.2434–2444.

9. Sedlmeier, P., Eberth, J., Schwarz, M., Zimmermann, D., Haarig, F., Jaeger, S., et al. (2012) The Psychological Effects of Meditation: A Meta-Analysis. Psychological Bulletin, 138, 1139-1171

10. Gallo G.G., Curado D.F., Machado M.P., Espíndola M.I., Scattone V.V., Noto A.R. (2023). A randomized controlled trial of mindfulness: effects on university students' mental health// Int J Ment Health Syst. Oct 13;17:32. doi: 10.1186/s13033-023-00604-8

11. Bai S., Elavsky S., Kishida M., Dvořáková K., Greenberg M.T. (2020) Effects of mindfulness training on daily stress response in college students: Ecological momentary assessment of a randomized controlled trial // Mindfulness. Vol. 11, № 6. P. 1433–1445. DOI: 10.1007/s12671-020-01358-x.

12. Osin E., Turilina, I.I. (2020) Short-term effects of an online mindfulness meditation intervention. Experimental Psychology (Russia). 13. P. 51-62. DOI:10.17759/exppsy.2020130104

13. Zandi H., Amirinejhad A., Azizifar A., Aibod S., Veisani Y., Mohamadian F. (2021). The effectiveness of mindfulness training on coping with stress, exam anxiety, and happiness to promote health. // J Educ Health Promot. May 31;10(1):177. doi: 10.4103/jehp.jehp_616_20.

14. Bartlett L., Buscot M.-J., Bindoff A., Chambers R., Hassed C. Mindfulness. (2021) Is Associated With Lower Stress and Higher Work Engagement in a Large Sample of MOOC Participants// Front. Psychol., 10 September 2021 Sec. Psychology for Clinical Settings Volume 12 https://doi.org/10.3389/fpsyg.2021.724126

15. Franco H. (2022) Testing the impact of an online mindfulness program on prelicensure nursing students stress and anxiety. Nurs Forum. Mar;57(2):288-297. doi: 10.1111/nuf.12679.

16. Skolzkov A., Efremova E. (2023) Impact of a Brief Mindfulness Training on Anxiety, Depression, and Subjective Happiness of the First-Year Psychology Students in Russia: Pilot Case Study of Ural Federal University. // SAGE Open. Vol. 13. DOI: 10.1177/21582440231166601.

17. Fu L, Wei S, Cheng J, Wang X, Zhou Y, Li Y, Zheng H. (2022) Effectiveness of a Mindfulness-Based Group Intervention for Chinese University Students with Sleep Problems. Int J Environ Res Public Health. Jan 10;19(2):755. doi: 10.3390/ijerph19020755.

18. Polyvyannaya N., Akhtayeva N. (2023). How pain, stress and mindfulness are interconnected with components of psychological and physical well-being of adults//BULLETIN Series Psychology 77(4) December 2023 DOI:10.51889/2959-5967.2023.77.4.001

19. Alvarado-García PAA, Soto-Vásquez MR, Infantes Gómez FM, Guzmán Rodríguez NM, Castro-Paniagua WG. (2025) Effect of a mindfulness program on stress, anxiety, depression, sleep quality, social support, and life satisfaction: a quasi-experimental study in college students. Front Psychol. Feb 12;16:1508934. doi: 10.3389/fpsyg.2025.1508934.

А.С. Мамбеталина[1], Л.М. Гитихмаева[2], Ж.К. Аубакирова[3], Ж. Абишев[4], С.В. Карагулакова[5]
[1,2,3,4,5]Евразийский национальный университет имени Л.Н. Гумилева,
Астана, Казахстан

Экспериментальные исследования эффективности майндфулнесс-интервенций в снижении симптомов стресса, тревоги и депрессии: систематический обзор

Аннотация. Систематический обзор актуальных экспериментальных исследований осознанности направлен на анализ эффективности майндфулнесс-интервенций в снижении симптомов стресса, тревоги и депрессии у различных групп населения. На основе анализа 10 исследований (S. Bai, S.Elavsky, M.Kishida, G.G. Gallo, D.F. Curado, M.P. Machado, Н. Полывянная, Н. Ахтаева. H. Franco, P.A. Alvarado-García, M.R. Soto-Vásquez, G.FM. Infantes, Е.Н.Осин, И.И. Турилина и др.), опубликованных в период с 2020 по 2025 годы в Бразилии, Перу, Иране, США, Австралии, Казахстане, Китае, России, выявлено, что практики осознанности оказывают положительное влияние на психоэмоциональное состояние участников. Рассматриваются механизмы действия, формы интервенций (включая MBSR, MBCT и их модификации), методы экспериментальных исследований, критерии формирования выборок и ограничения существующих исследований. Во всех исследованиях зафиксировано статистически значимое снижение уровня воспринимаемого стресса тревожности и депрессивных симптомов у участников, прошедших майндфулнесс-интервенции, по сравнению с контрольными группами. Особое внимание уделено влиянию майндфулнесс на повышение когнитивного контроля, развитию навыков саморегуляции и позитивному влиянию осознанности на эмоциональное благополучие, качество сна и субъективное восприятие жизни после прохождения программ осознанности. Рассмотрены различные форматы вмешательств: классические программы MBSR, дистанционные и онлайн-курсы, адаптированные протоколы, а также короткие медитации и мобильные приложения. Программы показали универсальную эффективность для различных групп: студентов, школьников, работающих взрослых, а также лиц с повышенным уровнем тревожности или хроническим стрессом

Ключевые слова: майндфулнесс, осознанность, медитация, стресс, тревога, депрессия, удовлетворенность жизнью, интервенции, MBSR.

А.С. Мамбеталина[1], Л.М. Гитихмаева[2], Ж.К. Аубакирова[3], Ж. Әбішев[4], С.В. Карагулакова[5]
[1,2,3,4,5]Л.Н. Гумилев атындағы Еуразия ұлттық университеті
Астана, Қазақстан

Майндфулнес-интервенциялардың стресс, мазасыздық және депрессия белгілерін төмендетудегі тиімділігі туралы эксперименттік зерттеулер: жүйелі шолу

Аңдатпа. Саналыққа негізделген өзекті эксперименттік зерттеулердің жүйелі шолуы халықтың әртүрлі топтарында стресс, мазасыздық және депрессия симптомдарын төмендетудегі майндфулнес-интервенциялардың тиімділігін талдауға бағытталған. 2020-2025 жылдары Бразилия,

Перу, Иран, АҚШ, Австралия, Қазақстан, Қытай және Ресейде жарияланған 10 зерттеуді (S. Bai, S. Elavsky, M. Kishida, G. G. Gallo, D. F. Curado, M. P. Machado, Н. Полывянная, Н. Ахтаева, H. Franco, P. A. Alvarado-García, M. R. Soto-Vásquez, G. F. M. Infantes, Е. Н. Осин, И. И. Турилина және т.б.) талдау негізінде майндфулнес практикалары қатысушылардың психоэмоционалдық жағдайына оң әсер ететіні анықталды. Шолуда әсер ету тетіктері, интервенциялардың түрлері (MBSR, MBCT және олардың модификациялары), эксперименттік зерттеу әдістері, іріктемені қалыптастыру критерийлері және қолданыстағы зерттеулердің шектеулері қарастырылады. Барлық зерттеулерде майндфулнес-интервенциялардан өткен қатысушылардың қабылданатын стресс деңгейі, мазасыздық және депрессия симптомдары бақылау топтарымен салыстырғанда статистикалық тұрғыдан мәнді төмендегені анықталды. Ерекше назар майндфулнестің когнитивтік бақылауды арттыруына, өзін-өзі реттеу дағдыларын дамытуына, сондай-ақ зерделіліктің эмоционалдық әл-ауқатқа, ұйқы сапасына және осындай бағдарламалардан кейін өмірді субъективті қабылдауға тигізетін оң ықпалына аударылды. Интервенциялардың әртүрлі форматтары қарастырылды: классикалық MBSR бағдарламалары, қашықтан және онлайн курстар, бейімделген хаттамалар, сондай-ақ қысқа медитациялар мен мобильді қосымшалар. Бағдарламалар әртүрлі топтар үшін әмбебап тиімділігін көрсетті: студенттер, мектеп оқушылары, жұмыс істейтін ересектер, сондай-ақ мазасыздық деңгейі жоғары немесе созылмалы стресске ұшыраған тұлғалар.

Кілт сөздер: майндфулнес, саналық, медитация, стресс, мазасыздық, депрессия, өмірге қанағаттану, интервенциялар, MBSR.

Information about the authors:

A.S. Mambetalina – Candidate of Psychological Sciences, associated professor, L.N. Gumilyov Eurasian National University, 6 Yanushkevich str., Astana, Kazakhstan mambetalina@mail.ru +7 775 550 2418

L.M. Gitikhmayeva **–** corresponding author, Master of Psychology, Senior Lecturer, Department of Psychology, L.N. Gumilyov Eurasian National University, 6 Yanushkevich St., Astana, Kazakhstan Enu. psichologists@gmail.com +77772813783

Zh.K. Aubakirova – Candidate of Psychological Sciences, L.N. Gumilyov Eurasian National University, 6 Yanushkevich str., Astana, Republic of Kazakhstan. aubakirova_zhk@enu.kz +7 705 509 3918

Zh. Abishev **–** Certified MBSR Teacher, Senior Trainer, and Mindfulness Supervisor at Mindful Academy Solterreno (Spain); PhD student, L.N. Gumilyov Eurasian National University, Kazakhstan, Astana. abishev.zhassulan@gmail.com +7 747 367 8238

S.V. Karagulakova **–** Master of Psychology, Lecturer, Department of Psychology Department of Psychology, Faculty of Journalism and Social Sciences, L.N. Gumilyov Eurasian National University, 6 A. Yanushkevich St., 010008, Astana, Kazakhstan; e-mail: karagulakova77@gmail.com

Сведения об авторах:

А.С. Мамбеталина **–** ассоциированный профессор Евразийского национального университета им. Л.Н. Гумилева, кандидат психологических наук, ул. Янушкевича, 6, г.Астана, Казахстан mambetalina@mail.ru +7 775 550 2418

Л.М. Гитихмаева **–** автор-корреспондент, старший преподаватель кафедры психологии Евразийского национального университета им. Л.Н.Гумилева, магистр психологии, ул. Янушкевича, 6, г. Астана, Казахстан Enu.psichologists@gmail.com +77772813783

Ж.К. Аубакирова **–** профессор кафедры психологии Евразийского национального университета имени Л.Н. Гумилева, кандидат психологических наук, Республика Казахстан. г. Астана, улица Янушкевича, 6, aubakirova_zhk@enu.kz +7 705 509 3918

Ж. Абишев **–** сертифицированный преподаватель MBSR, старший тренер, майндфулнес супервайзер в Mindful Academy Сольтеррено (Испания), докторант, Евразийский Национальный Университет имени Л.Н. Гумилёва, Казахстан, Астана. abishev.zhassulan@gmail.com +7 747 367 8238

С.В. Карагулакова **–** преподаватель кафедры психологии Евразийского национального универ-ситета имени Л.Н. Гумилева, магистр психологии, улица Янушкевича, 6, 010008, г. Астана, Казахстан; e-mail: karagulakova77@gmail.com

Авторлар туралы мәліметтер:

А.С. Мамбеталина **–** Л.Н. Гумилев атындағы Еуразия ұлттық университетінің психология кафедрасының қауымдастырылған профессоры, психология ғылымдарының кандидаты, Янушкевич көшесі 6, Астана қ., Қазақстан mambetalina@mail.ru +7 775 550 2418

Л.М. Гитихмаева **–** корреспондент-автор, Л.Н. Гумилев атындағы Еуразия ұлттық университетінің психология кафедрасының аға оқытушысы, психология магистрі, Янушкевич көшесі, 6, Астана, Қазақстан Enu.psichologists@gmail.com +77772813783

Ж.К. Аубакирова **–** Л.Н. Гумилев атындағы Еуразия ұлттық университетінің психология кафедрасының қауымдастырылған профессоры, психология ғылымдарының кандидаты, Астана, Акмешит 5А, aubakirova_zhk@enu.kz +7 705 509 3918

Ж. Әбішев **–** сертификатталған MBSR оқытушысы, аға тренер және Mindful Academy Solterreno (Испания) ұйымының майндфулнес-супервизоры; докторант, Л.Н. Гумилёв атындағы Еуразия ұлттық университеті, Қазақстан, Астана. abishev.zhassulan@gmail.com +7 747 367 8238

С.В. Карагулакова **–** Л.Н. Гумилев атындағы Еуразия ұлттық университетінің психология кафедрасының оқытушысы, психология магистрі, Янушкевич көшесі, 6, 010008, Астана, Қазақстан; e-mail: karagulakova77@gmail.com