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Evaluating the impact of mindfulness-based interventions (MBI) on nurses' work-related stress levels

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ABSTRACT

Prolonged work stress can disrupt mental health and reduce employee performance, especially nurses who face emotional and physical stress simultaneously. Mindfulness-Based Intervention (MBI) emphasizes full awareness of current experiences as an emotion regulation strategy. This study aims to evaluate the effectiveness of mindfulness-based interventions in reducing work stress levels in nurses. The method of this study was a quasi-experimental study with a one-group pre-post test with 60 nurse respondents selected through purposive sampling. The intervention group was given four weeks of MBI training with mindful breathing, body scan, and self-reflection training sessions, while the control group was not given any intervention. Stress levels were measured using the Perceived Stress Scale (PSS). The Wilcoxon Signed Rank Test and the Mann-Whitney U Test used for analysis. The results showed a significant increase in all aspects of QoL in the intervention group. The average total QoL score increased (p= 0.001) including in satisfaction with therapy (p= 0.001), impact on life (p= 0.002), fear of complications (p= 0.000), and social problems (p= 0.001). No significant changes were found in the control group.

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INTRODUCTION

Job stress is one of the crucial issues in human resource management in various sectors, including the health care sector (Liyanage et al., 2022). Job stress is defined as a physiological and psychological response to an imbalance between job demands and an individual's ability to cope with them (Menardo et al., 2022). This condition can be acute or chronic, and has the potential to cause various disorders such as emotional exhaustion, sleep disturbances, decreased concentration, and increased risk of burnout (Tsarouha et al., 2021). In the long term, unmanaged stress can have an impact on organizational productivity, patient safety, and even the intention to quit work in professional staff (Hayter, 2021).

The nursing profession is known as a group that is very vulnerable to work stress. High physical and emotional burdens, multitasking demands, role conflicts, limited resources, and the intensity of interactions with patients and families are often triggers for chronic stress among nurses (Schiepek et al., 2023). The International Labour Organization (ILO) report in 2023 stated that more than 30% of the global workforce experiences significant work stress, and health workers, especially nurses, rank highest in this prevalence (International Labor Organization, 2023). In Indonesia itself, a national survey stated that more than 60% of nurses experience moderate to severe work stress, which contributes to a decline in the quality of service and job satisfaction (Sari *et al*, 2022).

This study was conducted at a major referral hospital in Banjarmasin, South Kalimantan, which serves a high patient load and operates under resource constraints typical of regional public healthcare institutions. The hospital's characteristics including a high nurse-to-patient ratio, shift-based scheduling system, and limited access to structured psychosocial support create a context particularly conducive to chronic occupational stress. Previous study have shown that Indonesian public hospitals, especially in provincial capitals, often face challenges such as staff shortages, overcapacity, and inconsistent mental health support programs for healthcare workers (Prasetyo, 2019). These conditions heighten nurses' vulnerability to stress and burnout. Moreover, regional hospitals like the one in Banjarmasin play a critical role in the national health referral system and reflect the realities faced by a large segment of Indonesia's nursing workforce (Kementerian Kesehatan RI, 2022).

Various interventions have been developed to address work stress, both pharmacological and non-pharmacological. One non-pharmacological approach that has gained widespread attention in the last two decades is Mindfulness-Based Intervention (MBI). MBI is a psychological approach that focuses on training full awareness of present-moment experiences, without judgment, and developing acceptance of thoughts and feelings that arise (Dinesh et al., 2022). These interventions generally include mindful breathing exercises, body scans, and self-awareness meditation, which aim to improve emotional regulation and psychological resilience (Yıldırım & Çiriş Yıldız, 2022).

Several international studies have proven the effectiveness of MBI in reducing work stress. A meta-analysis by (Dinesh et al., 2022) showed that MBI had a significant effect on reducing stress and burnout in health workers, with a stronger effect on training duration ≥4 weeks. Similarly, (Hepner et al., 2022) found that implementing structured MBI for eight weeks in hospital nurses was able to significantly reduce stress levels and improve work-life balance. In addition, mindfulness interventions have been shown to not only have an impact on individual psychological aspects, but also improve the quality of interpersonal relationships, job satisfaction, and loyalty to the organization (Wu et al., 2021).

However, most MBI research has been conducted overseas with different cultural and organizational contexts. In Indonesia, research on the effectiveness of MBI in hospital settings is still relatively limited, especially those using experimental designs with control groups as comparisons. In addition, there are not many studies that explore how this intervention impacts the psychological well-being of nurses as a whole, both in terms of work stress and subjective experiences during training. Based on this background, this study aims to evaluate the effectiveness of Mindfulness-Based Intervention (MBI) in reducing work stress levels in nurses in hospitals. A quasi-experimental design with an intervention group was used to measure changes in stress scores before and after the intervention. The results of this study are expected to provide empirical and practical contributions in the development of mindfulness-based stress management programs that are applicable in health care environments, especially in Indonesia.

RESEARCH METHOD

This study used a quasi-experimental design with a one group pre-test and post-test design approach, namely by measuring the quality of life of respondents before and after the intervention without a control group. This design was chosen to evaluate the effectiveness of Mindfulness-Based Intervention (MBI) in reducing work stress levels in nurses by comparing changes in scores before and after the intervention. The study was conducted in one of the government hospitals in Banjarmasin City, South Kalimantan, which has an intensive care unit and inpatient installation with a high level of nurse workload. The study was conducted from March to December 2025.

The study was conducted through several stages, namely the preparation stage, recruitment and selection of participants, pre-test, intervention, post-test, data analysis and reporting and dissemination. The study population consisted of 270 nurses working in Banjarmasin hospitals, who were selected using purposive sampling techniques, with a sample size of 60 nurse respondents selected using inclusion criteria, namely nurses who were willing to participate in the study. The inclusion criteria in the study were active nurses working in inpatient units, ICU rooms, ERs, or high-pressure work units in the hospital where the study took place, had a minimum work period of 6 months in the unit, assuming they had adapted to the work environment and had a risk of work stress, the stress score on the pre-test was in the moderate to high category, willing to be a full participant and sign the *informed* consent form. And the exclusion criteria were nurses who were undergoing active psychological or psychiatric therapy, nurses who were unable to attend at least 80% of the intervention sessions, nurses who were pregnant in the third trimester and nurses who were not willing to be respondents.

The intervention started from the intervention group that was given the Mindfulness-Based Intervention (MBI) program and was implemented for four weeks with a frequency of three times per week, each session lasting ±30 minutes. With intervention materials that include: mindful breathing exercises, body scans, self -awareness reflection, and finally acceptance without judgment of thoughts and feelings (acceptance-based coping). Sessions were delivered face-to-face in small groups led by a certified mindfulness facilitator. The control group was not given any intervention during the study period, but still followed the same measurement procedures.

Data collection in this study was conducted through two main approaches, namely quantitative and (optional) qualitative, to comprehensively evaluate the impact of MBI interventions on nurses' work stress levels. Quantitative data were collected using the validated Indonesian version of the Perceived Stress Scale - 10 items (PSS-10). The score category is on a Likert scale of 0–4 (0 = never, 4 = very often); the total score ranges from 0–40 and the score classification is 0–13: low stress, score 14–26: moderate stress, score 27–40: high stress. In addition, qualitative data was also used as an additional or optional data from researchers conducted on 5–10 participants from the intervention group voluntarily and recorded and transcribed with the respondent's permission. Data analysis used thematic analysis to identify the main themes of nurses' subjective experiences during MBI.

Pearson Product Moment correlation analysis between item scores and total scores. and all PSS-10 items have a calculated r value > r table (0.361) and $p<0.05$, so it can be concluded that all items are valid and suitable for use in research. Meanwhile, reliability was tested with a value of $\alpha = 0.832$ indicating that the instrument has high internal consistency, and $p = 0.000$ indicating statistically significant results. Thus, the instrument is reliable and suitable for use. Data were analyzed using SPSS software version 26. The analysis stages include editing, coding, tabulation, and data entry. Data normality tests were performed using the Wilcoxon Signed Rank Test and the Mann-Whitney U Test, and because the data were not normally distributed, comparative analysis of pre and post scores was performed using the paired sample t-test, with a significance level of $p<0.05$ to determine significant differences.

RESULTS AND DISCUSSIONS

Respondent characteristics

Table 1. Respondent characteristics (n=30)

No	Characteristics	Category	Total	
			Frequency (n)	Percentage (%)
1	Gender	Man	14	46.7%
		Woman	16	53.3%
2	Age (years)	20 - 30	9	30.0 %
		31 - 40	13	43.3 %
		41 - 50	5	16.7%
		51-55	3	10.0%
3	Last education	D3 Kep	14	46.7 %
		Nursing Profession	12	40.0 %
		S2 Kep	4	13.3 %
4	Length of working	<5 years	11	36.7 %
		≥5 years	19	63.3 %
Total			30	100%

A total of 30 respondents successfully completed the entire four-week Mindfulness-Based Intervention (MBI) program. The demographic profile revealed that the majority of participants were female (53.3%), with the predominant age group ranging from 31 to 40 years (43.3%). In terms of educational background, most respondents held a Diploma in Nursing (D3) as their highest qualification (46.7%), and the majority had over five years of professional experience (63.3%).

Comparison of Quality of Life

Table 2. Quality of life scores before and after MBI

Quality of Life Aspects	*Pre-Test* (*Mean* ± SD)	*Post-Test* (*Mean* ± SD)	*p-value*	Information
Satisfaction with therapy	2.60 ± 0.45	3.20 ± 0.40	0.00 1	Significant increase
The effect of therapy on life	2.50 ± 0.50	3.15 ± 0.42	0.002	Significant increase
Fear of complications	2.80 ± 0.48	3.35 ± 0.38	0.0 00	Significantly decreased (less fear)
Social problems	2.65 ± 0.44	3.25 ± 0.41	0.001	Improved significantly
Total QoL Score	2.63 ± 0.46	3.24 ± 0.39	0.001	Significant improvement overall

As presented in Table 2, there was a statistically significant improvement across all domains of quality of life (QoL) following the four-week Mindfulness-Based Intervention (MBI). The overall QoL score increased from 2.63 ± 0.46 to 3.24 ± 0.39, with a p-value of 0.001, indicating a meaningful enhancement in participants' perceived well-being. Notably, the most substantial improvement was observed in the domain related to the reduction of fear of complications ($p = 0.000$). This suggests that the mindfulness intervention had a positive psychological effect, particularly in alleviating anxiety and improving participants' outlook on their health status.

In addition to quantitative data, several qualitative insights emerged throughout the MBI implementation. These findings, although not captured by the Perceived Stress Scale (PSS) or the QoL questionnaire, were derived from field notes, informal interactions, and spontaneous feedback during sessions. A number of participants expressed a strong interest in integrating mindfulness practices into routine activities, such as incorporating them into daily morning briefings. They reported experiencing personal benefits and also highlighted the potential of mindfulness to foster a more emotionally supportive and psychologically resilient work environment.

This study assessed the Mindfulness-Based Intervention (MBI) intervention in evaluating the effectiveness of mindfulness-based interventions in reducing work stress levels in nurses at

Banjarmasin hospitals through four main aspects: satisfaction with therapy, influence of therapy on life, fear of complications, and social problems. Each aspect showed significant improvement after the intervention, which was interpreted as a positive impact on respondents' well-being.

Satisfaction with Therapy

After participating in the Mindfulness-Based Intervention (MBI) program for four weeks, there was a significant increase in the aspect of satisfaction with the therapy. Before the intervention, the average satisfaction score of respondents was at 2.60 (± 0.45), which reflects a relatively moderate level of satisfaction. After the intervention, the score increased to 3.20 (± 0.40) with a p value = 0.001. This indicates that respondents felt more comfortable, helped, and satisfied with the therapy they underwent. Many respondents reported that mindful breathing exercises and self-reflection helped them feel calmer and able to deal with work pressure more positively. This high score also reflects respondents' acceptance of MBI as a relevant and effective approach to dealing with work stress in the nursing context.

Increased satisfaction with therapy indicates that the MBI intervention was positively received by participants. Satisfaction with therapy is related to the individual's perception of the effectiveness, comfort, and benefits of the method being used (McFarland & Hlubocky, 2021). In the context of MBI, techniques such as mindful breathing and body scan have been shown to help reduce muscle tension, increase feelings of relaxation, and strengthen perceptions of self-control (Michaelsen et al., 2023). A study by (Dinesh et al., 2022) showed that nurses who underwent mindfulness training for ≥4 weeks reported increased positive perceptions of the intervention and felt more able to cope with work stress. This is in line with the results of this study, where satisfaction scores increased significantly (p = 0.001) after MBI intervention.

The Effect of Therapy on Life

The aspect of the influence of therapy on daily life also experienced a significant increase. The average pre-test score was at 2.50 (± 0.50), then increased to 3.15 (± 0.42) after the intervention, with a p value = 0.002. This change indicates that MBI not only has an impact on momentary emotional feelings, but also improves the quality of daily life of nurses. Respondents reported an increase in the ability to regulate emotions when dealing with patients or work pressure, as well as increased focus and time management. With full awareness trained through mindfulness, nurses feel more able to manage work demands without sacrificing personal life balance.

Mindfulness not only plays a role in stress management, but also has an impact on aspects of daily life such as work efficiency, social relationships, and life balance (Rodríguez-Jiménez et al., 2022; Roman et al., 2023). By increasing awareness of the present moment, individuals become more responsive and less reactive to stressors. MBI contributes to increased general well-being and work engagement in professionals in high-stress work environments (Cascales-Pérez et al., 2021). In this study, a significant increase in the aspect of influence on life (p = 0.002) indicated that MBI was able to help nurses go through their workdays more calmly and in a controlled manner.

Fear of Complications

The most significant increase occurred in the aspect of fear of complications, where the average score increased from 2.80 (± 0.48) to 3.35 (± 0.38), with a p value = 0.000. This aspect measures the extent to which respondents experience anxiety about the possible long-term impacts of work stress, such as chronic fatigue, burnout, or mental health disorders. After participating in the MBI intervention, respondents reported a significant decrease in fear and worry about the future. Mindfulness exercises that focus on acceptance without judgment help reduce overthinking and increase mental calm (Selič-Zupančič et al., 2023). This suggests that MBI has a protective effect on anticipatory or prospective psychological tension (Menardo et al., 2022).

Fear of complications is a manifestation of future anxiety and negative perceptions of work conditions or personal health. MBI interventions, especially acceptance-based coping, can reduce levels of anticipatory anxiety and catastrophic thinking. MBIs significantly reduced state anxiety

and trait anxiety scores , including concerns about the long-term effects of stress (Al-Hammouri et al., 2022). The decrease in fear of complications (p = 0.000) in this study confirms that mindfulness is not only a relaxation technique, but also a cognitive restructuring approach to internal threats.

Social Problems

The intervention also had a positive effect on the social problem aspect, with a pre-test score of 2.65 (± 0.44) which increased to 3.25 (± 0.41) in the post-test, and a p value = 0.001. This aspect measures the impact of work stress on social relationships, both in the work environment and personal life. The increase in scores indicates that after participating in MBI, respondents felt calmer in interacting with coworkers, more patient in dealing with patients, and more harmonious in social life outside of work. With the ability to manage stress internally, respondents tend to be more socially adaptive, and this has an impact on improving interpersonal relationships.

Prolonged work stress can disrupt social relationships, both at work and within the family. Individuals who experience high stress tend to withdraw, become easily offended, and show decreased empathy (Lensen et al., 2021). MBI teaches non-judgmental awareness and empathy, which play a role in improving the quality of social interactions (Valipoor & Bosch, 2021). Mindfulness practice improved prosocial responses and interpersonal skills in individuals with high work stress. In this study, an increase in the social problem aspect (p = 0.001) indicates that nurses feel more comfortable in interacting after being able to manage their emotions through mindfulness practice.

Total Quality of Life Score

Overall, the total QoL score increased from 2.63 (± 0.46) to 3.24 (± 0.39) with p = 0.001, indicating a significant improvement in QoL after the MBI intervention. This increase reflects a comprehensive improvement in the dimensions of personal satisfaction, daily work, mental calmness, and quality of social relationships. These findings strengthen the evidence that the mindfulness approach not only provides short-term effects in reducing stress, but also has a broad impact on important aspects of nurses' work and personal lives. MBI interventions have been shown to be an applicable and effective method in improving overall psychological well-being (Khammissa et al., 2022). Overall quality of life is a reflection of the balance between an individual's physical, psychological, social, and environmental conditions. Effective interventions should be able to improve QoL scores comprehensively (Purdie et al., 2023). The results of this study showed an increase in the total QoL score from 2.63 ± 0.46 to 3.24 ± 0.39 (p = 0.001), which is in line with the findings by (Hayter, 2021) that MBI had a significant impact on improving psychological well-being and occupational quality of life in health workers. These results strengthen the role of MBI as an evidence-based strategy to improve well-being holistically.

Implications of the Mindfulness-Based Intervention (MBI) Program

The results of this study indicate that Mindfulness-Based Intervention (MBI) is effective in improving the quality of life of nurses by reducing work stress, increasing satisfaction with therapy, and improving emotional and social aspects. The implications of these findings provide a great opportunity for health care institutions to integrate MBI as part of the health care workers' work well-being management strategy, especially nurses.

Institutionally, the MBI program has the potential to be used as a systematic and sustainable non-pharmacological intervention to support the mental health of the workforce in hospitals (Magallón-Botaya et al., 2021). MBI significantly reduces burnout and improves psychological well-being in health workers when given routinely and in a structured manner (Koopmans et al., 2024). The implementation of this program does not require large costs, does not disrupt service operations, and can be adjusted to a busy shift work schedule. From an educational aspect, the implementation of MBI can be included in in-house training or orientation programs for new nurses. Mindfulness training integrated into basic nursing training modules produced nurses with higher levels of resilience and work focus (Catapano et al., 2023). This is relevant to the results

of this study, where most respondents stated the practical benefits of exercises such as mindful breathing in dealing with daily work pressure.

Another implication is on the institutional policy aspect. MBI can be developed into a supporting standard operating procedure (SOP) in the occupational health promotion program. Institutions can provide a reflection space (mental recharge corner) or insert a short mindfulness session in the morning briefing (Dannheim et al., 2025). This is supported by the findings of (Brinkmann et al., 2020) that the integration of mindfulness practices into work routines results in increased engagement and decreased interpersonal conflict. Overall, this study supports the adoption of the MBI program as an applicable and evidence-based psychosocial intervention, and is relevant to the needs of modern health care institutions that demand a balance between high work demands and the sustainability of human resource well-being.

CONCLUSION

This study demonstrates that Mindfulness-Based Intervention (MBI) is effective in reducing work-related stress and enhancing the quality of life among nurses, with statistical analysis showing significant improvements across all QoL domains including therapy satisfaction, daily functioning, reduced fear of complications, and social relationships ($p < 0.01$). The total QoL score increased from 2.63 ± 0.46 to 3.24 ± 0.39 ($p = 0.001$), indicating better psychological well-being, and qualitative findings further supported these results through reports of greater calmness, emotional regulation, improved sleep, and healthier social interactions. Many participants expressed willingness to continue practicing mindfulness independently, suggesting high program acceptability. For successful institutional implementation, MBI programs should be adapted to accommodate nurses' workload by offering brief, flexible modules potentially through digital platform and addressing facilitator availability through train-the-trainer approaches. Optimizing training duration without compromising content is also key to feasibility. Although this study focused on short-term outcomes, it did not evaluate the long-term effects of MBI on work-related stress; therefore, future research should adopt longitudinal designs to assess sustained impact and determine optimal strategies for maintaining benefits over time, ensuring MBI becomes a scalable and enduring component of nurse wellness initiatives.

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References

Al-Hammouri, M. M., Rababah, J. A., & Alfurjani, A. M. (2022). Factors influencing mindfulness among Jordanian nurses: A cross-sectional study. *Journal of Nursing Management*, *30*(7), 3386–3392. https://doi.org/10.1111/jonm.13797

Brinkmann, A. E., Press, S. A., Helmert, E., Hautzinger, M., Khazan, I., & Vagedes, J. (2020). Comparing Effectiveness of HRV-Biofeedback and Mindfulness for Workplace Stress Reduction: A Randomized Controlled Trial. *Applied Psychophysiology and Biofeedback*, *45*(4), 307–322. https://doi.org/10.1007/s10484-020-09477-w

Cascales-Pérez, M. L., Ferrer-Cascales, R., Fernández-Alcántara, M., & Cabañero-Martínez, M. J. (2021). Effects of a mindfulness-based programme on the health- and work-related quality of life of healthcare professionals. *Scandinavian Journal of Caring Sciences*, *35*(3), 881–891. https://doi.org/10.1111/scs.12905

Catapano, P., Cipolla, S., Sampogna, G., Perris, F., Luciano, M., Catapano, F., & Fiorillo, A. (2023). Organizational and Individual Interventions for Managing Work-Related Stress in Healthcare Professionals: A Systematic Review. *Medicina (Kaunas, Lithuania)*, *59*(10). https://doi.org/10.3390/medicina59101866

Dannheim, I., Ludwig-Walz, H., Kirsch, H., Bujard, M., Buyken, A. E., Richardson, K. M., & Kroke, A. (2025). Effectiveness of leader-targeted stress management interventions: A systematic review and meta-analysis. *Scandinavian Journal of Work, Environment & Health*, *51*(4), 265–281. https://doi.org/10.5271/sjweh.4219

Dinesh, T. K., Shetty, A., Dhyani, V. S., T S, S., & Dsouza, K. J. (2022). Effectiveness of mindfulness-based interventions on well-being and work-related stress in the financial sector: a systematic review and meta-analysis protocol. *Systematic Reviews*, *11*(1), 79. https://doi.org/10.1186/s13643-022-01956-x

Hayter, M. (2021). Nurses' experiences of the effects of mindfulness training: a qualitative systematic review and meta-synthesis. In *Professioni infermieristiche* (Vol. 74, Issue 4, p. 256). https://doi.org/10.7429/pi.2021.744256a

Hepner, K. A., Bloom, E. L., Newberry, S., Sousa, J. L., Osilla, K. C., Booth, M., Bialas, A., & Rutter, C. M. (2022). The Impact of Mindfulness Meditation Programs on Performance-Related Outcomes: Implications for the U.S. Army. *Rand Health Quarterly*, *10*(1), 9.

Kementerian Kesehatan RI. (2022). *Profil Kesehatan Indonesia. Kementerian Kesehatan Republik Indonesia, Jakarta*.

Khammissa, R. A. G., Nemutandani, S., Feller, G., Lemmer, J., & Feller, L. (2022). Burnout phenomenon: neurophysiological factors, clinical features, and aspects of management. *The Journal of International Medical Research*, *50*(9), 3000605221106428. https://doi.org/10.1177/03000605221106428

Koopmans, L., Bruel, D., de Geit, E., van den Bergh, R., Bouwens, L., de Korte, E., Wiezer, N., & van der Torre, W. (2024). Multilevel Mindfulness: Which Organizational Factors Stimulate Mindfulness in the Workplace? *Journal of Occupational and Environmental Medicine*, *66*(7), e296–e305. https://doi.org/10.1097/JOM.0000000000003121

Lensen, J. H., Stoltz, S. E. M. J., Kleinjan, M., Speckens, A. E. M., Kraiss, J. T., & Scholte, R. H. J. (2021). Mindfulness-based stress reduction intervention for elementary school teachers: a mixed method study. *Trials*, *22*(1), 826. https://doi.org/10.1186/s13063-021-05804-6

Liyanage, S., Addison, S., Ham, E., & Hilton, N. Z. (2022). Workplace interventions to prevent or reduce post-traumatic stress disorder and symptoms among hospital nurses: A scoping review. *Journal of Clinical Nursing*, *31*(11–12), 1477–1487. https://doi.org/10.1111/jocn.16076

Magallón-Botaya, R., Pérula-de Torres, L. A., Verdes-Montenegro Atalaya, J. C., Pérula-Jiménez, C., Lietor-Villajos, N., Bartolomé-Moreno, C., Garcia-Campayo, J., & Moreno-Martos, H. (2021). Mindfulness in primary care healthcare and teaching professionals and its relationship with stress at work: a multicentric cross-sectional study. *BMC Family Practice*, *22*(1), 29. https://doi.org/10.1186/s12875-021-01375-2

McFarland, D. C., & Hlubocky, F. (2021). Therapeutic Strategies to Tackle Burnout and Emotional Exhaustion in Frontline Medical Staff: Narrative Review. *Psychology Research and Behavior Management*, *14*, 1429–1436. https://doi.org/10.2147/PRBM.S256228

Menardo, E., Di Marco, D., Ramos, S., Brondino, M., Arenas, A., Costa, P., Vaz de Carvalho, C., & Pasini, M. (2022). Nature and Mindfulness to Cope with Work-Related Stress: A Narrative Review. *International Journal of Environmental Research and Public Health*, *19*(10). https://doi.org/10.3390/ijerph19105948

Michaelsen, M. M., Graser, J., Onescheit, M., Tuma, M. P., Werdecker, L., Pieper, D., & Esch, T. (2023). Mindfulness-Based and Mindfulness-Informed Interventions at the Workplace: A Systematic Review and Meta-Regression Analysis of RCTs. *Mindfulness*, 1–34. https://doi.org/10.1007/s12671-023-02130-7

Prasetyo, Y. A. (2019). Optimizing Nursing Documentation as an Effective Method to Express Nursing. *Belitung Nursing Journal*, *5*(6 SE-Letter to Editors), 257–258. https://doi.org/10.33546/bnj.842

Purdie, D. R., Federman, M., Chin, A., Winston, D., Bursch, B., Olmstead, R., Bulut, Y., & Irwin, M. R. (2023). Hybrid Delivery of Mindfulness Meditation and Perceived Stress in Pediatric Resident Physicians: A Randomized Clinical Trial of In-Person and Digital Mindfulness Meditation. *Journal of Clinical Psychology in Medical Settings*, *30*(2), 425–434. https://doi.org/10.1007/s10880-022-09896-3

Rodríguez-Jiménez, R.-M., Carmona, M., García-Merino, S., Díaz-Rivas, B., & Thuissard-Vasallo, I. J. (2022). Stress, subjective wellbeing and self-knowledge in higher education teachers: A pilot study through bodyfulness approaches. *PloS One*, *17*(12), e0278372. https://doi.org/10.1371/journal.pone.0278372

Roman, G., Yousefi-Nooraie, R., Vermilion, P., Cupertino, A., Barnett, S., & Epstein, R. (2023). Mindful practice with medical interpreters. *Frontiers in Psychology*, *14*, 1171993. https://doi.org/10.3389/fpsyg.2023.1171993

Schiepek, G., Marinell, T., Aichhorn, W., Schöller, H., & Harrer, M. E. (2023). Features of Self-Organization during the Process of Mindfulness-Based Stress Reduction: A Single Case Study. *Entropy (Basel, Switzerland)*, *25*(10). https://doi.org/10.3390/e25101403

Selič-Zupančič, P., Klemenc-Ketiš, Z., & Onuk Tement, S. (2023). The Impact of Psychological Interventions with Elements of Mindfulness on Burnout and Well-Being in Healthcare Professionals: A Systematic Review. *Journal of Multidisciplinary Healthcare*, *16*, 1821–1831. https://doi.org/10.2147/JMDH.S398552

Tsarouha, E., Stuber, F., Seifried-Dübon, T., Radionova, N., Schnalzer, S., Nikendei, C., Genrich, M., Worringer, B., Stiawa, M., Mulfinger, N., Gündel, H., Junne, F., & Rieger, M. A. (2021). Reflection on leadership behavior: potentials and limits in the implementation of stress-preventive leadership of middle management in hospitals - a qualitative evaluation of a participatory developed intervention. *Journal of Occupational Medicine and Toxicology (London, England)*, *16*(1), 51. https://doi.org/10.1186/s12995-021-00339-7

Valipoor, S., & Bosch, S. J. (2021). In the Moment: Fostering Mindfulness and Reducing Stressors in the Healthcare Workplace. *HERD*, *14*(3), 386–398. https://doi.org/10.1177/1937586720988243

Wu, X., Hayter, M., Lee, A. J., & Zhang, Y. (2021). Nurses' experiences of the effects of mindfulness training: A narrative review and qualitative meta-synthesis. *Nurse Education Today*, *100*, 104830. https://doi.org/10.1016/j.nedt.2021.104830

Yıldırım, D., & Çiriş Yıldız, C. (2022). The Effect of Mindfulness-Based Breathing and Music Therapy Practice on Nurses' Stress, Work-Related Strain, and Psychological Well-being During the COVID-19 Pandemic: A Randomized Controlled Trial. *Holistic Nursing Practice*, *36*(3), 156–165. https://doi.org/10.1097/HNP.0000000000000511