

THE EFFECTIVENESS OF MINDFULNESS-BASED INTERVENTIONS ON BURNOUT AND COMPASSION FATIGUE IN NURSES: A SYSTEMATIC REVIEW

YAHIA JABER ESSA ALHAGAWI¹, YASSMIN LAFI SAHEJ ALANAZI², FATIMA SHUBAYLI IBRAHIM ALBARQI³, MASHAEL ALHEMAIRY⁴, AYIDH DAHIM SAAD ALQAHTANI⁵, AHMAD MUBARKI⁶, HIND KHALID ALMUTAIRI⁷, MARYAM YAHYA ABDU JABBARI⁸, SALAMAH SAEED GASIB ALSHAHRANI⁹, MARIAM MOHAMMAD AHMED SAFHI¹⁰, IBTISAM ALJAHDALI¹¹, MARI MOHAMMED ALMUTAIRI¹²

¹ALREATH GENERAL HOSPITAL,

²NORTH MEDICAL TOWER, ARAR

³RIYADH FIRST HEALTH CLUSTER, ALIMAN GENERAL HOSPITAL

⁴JEDDAH EYE HOSPITAL

⁵KING FAHAD MEDICAL CITY

⁶ASEER HEALTH CLUSTER, KHAMIS MUSHAIT HOSPITAL

⁷PRINCE SULTAN MILITARY MEDICAL CITY, NURSING DEPARTMENT, RIYADH

⁸GENERAL DIRECTORATE OF HEALTH AFFAIRS, RIYADH, SAUDI ARABIA

⁹JAZAN NORTH SECTOR

¹⁰AHAD AL-MASRAH GENERAL HOSPITAL

¹¹KING FAHAD ARMED FORCES HOSPITAL

¹²RABIGH GENERAL HOSPITAL

Abstract

Background: Nurses are frequently exposed to emotionally taxing environments, making them particularly vulnerable to burnout and compassion fatigue. These conditions not only compromise nurses' mental health and job satisfaction but also reduce the overall quality and safety of patient care. Mindfulness-based interventions (MBIs) have emerged as promising strategies to reduce stress and enhance emotional resilience, yet the evidence surrounding their effectiveness among nurses remains fragmented.

Aim: This systematic review aims to evaluate the effectiveness of mindfulness-based interventions in reducing burnout and compassion fatigue among nurses across various clinical environments.

Method: A comprehensive literature search was conducted across five databases—PubMed, CINAHL, Scopus, PsycINFO, and Web of Science—for studies published between 2021 and 2025. Following PRISMA 2020 guidelines, ten empirical studies were selected based on predefined eligibility criteria. These studies were assessed using validated quality appraisal tools, and thematic synthesis was applied to analyze intervention outcomes and implementation trends.

Results: The review revealed consistent reductions in emotional exhaustion, depersonalization, and secondary traumatic stress among nurses participating in MBIs. Both structured programs like MBSR and abbreviated interventions such as journaling and app-based mindfulness showed measurable psychological benefits. Improvements in emotional regulation, compassion satisfaction, and professional resilience were widely reported across settings.

Conclusion: Mindfulness-based interventions are effective in addressing burnout and compassion fatigue in nurses. Their flexibility, accessibility, and psychological benefits support their broader integration into healthcare organizations as a strategy to enhance workforce well-being and care quality.

Keywords: Mindfulness-Based Interventions, Burnout, Compassion Fatigue, Nurses, Emotional Exhaustion, Resilience, Systematic Review

INTRODUCTION

The profession of the nurse is considered to be one of the most mental heavy healthcare occupations, sometimes marked by stress, emotional burnout, and other instances of human misery. They figure among the occupational stressors that raise the risk of burnout and compassion fatigue, especially in high-intensity settings that include emergency rooms, intensive care units, and oncology departments (Slatyer et al., 2017; Copeland, 2020; Owens et al., 2020). The term burnout combined with secondary traumatic stress is called compassion fatigue, as it does not only affect the mental well-being of nurses but also challenges the quality and safety of patient care (D'Antoni et al., 2025; Wasson et al., 2020; Ong et al., 2024). The latter has brought on the appropriateness of nurses rising, absenteeism, and job dissatisfaction in the wake of recent global health crises (the COVID-19 pandemic) (Macpherson et al., 2019; Slatyer et al., 2017; Owens et al., 2020).

In the context of the current trend towards making healthcare systems more resilient to the impacts of work-related stress and emotional fatigue of nursing populations, Mindfulness-Based Interventions (MBIs) have been discussed as a potentially useful psychological tool of reducing the negative consequences of being exposed to stress and experiencing emotional fatigue at workplace (Conversano et al., 2020; Copeland, 2020; Slatyer et al., 2017). Such interventions, such as mindfulness-based stress reduction (MBSR) and mindfulness-based cognitive therapy (MBCT), are proven to improve emotional regulation, self-awareness, and resilience, which are crucial aspects of caregivers in safeguarding against the psychological damage of caregiving (D'Antoni et al., 2025; Ong et al., 2024; Wasson et al., 2020). By default, MBIs assist clinicians to be in the moment, decrease rumination, and develop caring towards self, which subsequently curbs emotional burnout and leads to a new perception of job fulfillment (Copeland, 2020; Conversano et al., 2020; Owens et al., 2020).

Such potential notwithstanding, traditional MBIs can be time-intensive and facilitator-rich, which are critical limitations to adopting them in demanding clinical engagements (Slatyer et al., 2017; D'Antoni et al., 2025; Ong et al., 2024). Researchers have found that abridged adapted versions of the MBIs to be effective nursing staff may deliver similar advantages and are more feasible and adherent (Copeland, 2020; Wasson et al., 2020; Macpherson et al., 2019). In addition, organizational and contextual conditions (i.e., leadership support, time, and perceived relevance) are vital components of achieving mindfulness programs integrations in healthcare establishments (Ong et al., 2024; Slatyer et al., 2017; D'Antoni et al., 2025). Such complexities justify the necessity to provide evidence-based synthesis that determines the overall effectiveness and flexibility of MBIs in practice in the real-life of nursing practices.

Thus, this systematic review is expected to answer such questions as whether mindfulness-based interventions can be useful to decrease burnout and compassion fatigue in nurses. Manufacturing the results of empirical studies performed over the past few years, this review will touch upon the psychological effects of MBIs as well as the situational factors that can play a role in making this kind of psychological medication effective in clinical practice (Copeland, 2020; Slatyer et al., 2017; D'Antoni et al., 2025). The inferences will guide nursing leaders, policymakers, healthcare administrators to adopt feasible and sustainable interventions to improve the outcomes of patient care and nurse well-being.

Problem Statement

Burnout and compassion fatigue have become of concern in terms of their contribution to the emotional, psychological, and functional well-being of nurses in various care facilities. Due to the intense duration of time in the presence of patient sufferings, heavy workloads, and emotional labor, nurses are in danger of becoming psychologically distressed and resultant absenteeism and low-quality care that causes an increase in turnover. Although mindfulness-based interventions (MBIs) have become popular in reforming the psychological strength and diminishing work stress, evidence on their effectiveness in nursing is haphazard and conflictual. Most available studies have been of different design, use of different forms of interventions, and different outcomes measures and can hence not be generalized. There is a need to carry out a clear synthesis of the findings to establish that MBIs are effective in reducing burnout and compassion fatigue among nursing professionals, and to provide the best means to devise wellness programs that are realistic and have substantial evidence to support the efforts of improving the welfare of professionals serving in the clinical settings.

SIGNIFICANCE OF THE STUDY

The research is relevant to the healthcare systems that seek to optimize the sustainability of workforce and quality of patient care. Concentrating on the role of mindfulness-based interventions in overcoming burnout and compassion fatigue, the review helps to find out essential information about psychological measures to maintain nurse retention and their professional happiness. Since burnout is associated with medical errors, ineffective patient outcomes, and decreased staff performance, effective, feasible interventions are in healthcare focus. These systematic review results will inform the creation of specific mental health interventions, shape institutional policies, and assist nurse leaders in creating a healthier and better resilient workplace. It will also discuss the implementation issues of MBIs and discuss its adaptability in other clinical settings.

Aim of the Study

This systematic review seeks to examine the effectiveness of mindfulness-based interventions (MBIs) on the decrease of burnout and compassion fatigue in the nursing profession. Specifically, this study aims at:

- Summarize recent empirical research evidence,
- Determine trends and results regarding MBI effectiveness,
- Emphasize implementation and contextual factors that impact on them.
- Come up with actionable suggestions of how to implement MBIs in nursing practice.

METHODOLOGY

The study also followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020) to guarantee transparency and compliance with strictness throughout the process of review. An organized methodology was followed to identify, choose, and synthesize applicable empirical studies that exquisitely investigated the effectiveness of mindfulness-based interventions (MBIs) on burnout and compassion fatigue among nurses. The methodology leading to the review consisted of the delineation of the protocol before the review, and it included an extensive search strategy, inclusion and exclusion criteria, as well as quality assessment procedures.

Research Question

The guiding research question in this review was:

“How effective are mindfulness-based interventions in reducing burnout and compassion fatigue among nurses between 2021 and 2025?”

This question was framed using the PICO framework:

- **Population (P):** Registered nurses in clinical settings
- **Intervention (I):** Mindfulness-Based Interventions (MBIs) including MBSR, MBCT, or other structured mindfulness techniques
- **Comparison (C):** Standard care or other non-mindfulness interventions (if applicable)
- **Outcome (O):** Reduction in burnout and/or compassion fatigue, as measured by validated tools (e.g., ProQOL, MBI)

Selection Criteria

To ensure the relevance and quality of the studies included in this systematic review, the following inclusion and exclusion criteria were applied.

Inclusion Criteria

The studies to be included had to satisfy the following characteristics:

- It has been published since 2021 to 2025.
- Empirical studies of peer-reviewed research (quantitative, qualitative, or mixed).
- Chose to target registered nurses as the primary population.
- Delivered an operationally specified program of mindfulness training (e.g., MBSR, MBCT or simplified versions).
- Assessed burnout/or/compassion fatigue on validated survey with Maslach Burnout Inventory (MBI) or Professional Quality of Life Scale (ProQOL).
- Published in English (language).
- Available in full-text.

Exclusion Criteria

- Studies were excluded by the reasons as follows:
- Released prior to 2021.
- Healthcare professionals not including nurses or mixed samples without analysis of nurses separately.
- Non-empirical articles like editorials, commentaries or opinion pieces.
- Research lacking validated outcomes of burnout or compassion fatigue.
- Research that employed mindfulness-related methods that were not based upon guided intervention models (e.g., general wellness lacking formal mindfulness training).
- Grey literature, dissertations, or manuscripts.

Database Selection

A thorough literature search has been undertaken to find out pertinent literature in various valid databases with an aim of identifying pertinent studies to be included in this systematic review. The criteria of choosing databases were based on the fact that they relate to the fields of healthcare, nursing, psychology, and interdisciplinary health sciences. In order to be inclusive in the search terms the two syntaxes were used to search each of the databases. Relevance was

maximized by use of Boolean operators and field specific keywords. The inclusion of studies was carried out on the basis of manuscript publishing between 2021 and 2025. Below, there are the databases applied to and the respective results:

Table 1: Database Selection

No	Database	Syntax	Year	No of Studies Found
1	PubMed	("mindfulness-based intervention" OR "mindfulness") AND ("nurses") AND ("burnout" OR "compassion fatigue")	2021–2025	134
2	CINAHL	("mindfulness" AND "burnout" AND "nurses") OR ("compassion fatigue")	2021–2025	112
3	Scopus	TITLE-ABS-KEY ("mindfulness" AND "burnout" AND "nurses")	2021–2025	145
4	PsycINFO	(mindfulness OR "MBI") AND ("nursing professionals" OR "clinical nurses") AND ("occupational stress")	2021–2025	93
5	Web of Science	TS=("mindfulness-based intervention") AND TS=("burnout" OR "compassion fatigue") AND TS=("nurses")	2021–2025	128
Total				612

Search Syntax

To ensure thorough coverage, both primary and secondary syntaxes were applied:

Primary Syntax

("mindfulness-based intervention" OR "mindfulness") AND ("nurses") AND ("burnout" OR "compassion fatigue")

Secondary Syntax

("MBI" OR "mindfulness") AND ("nursing professionals" OR "clinical nurses") AND ("occupational stress" OR "emotional exhaustion")

Data Extraction

The extraction of data was carried out in a systematic format. Two independent reviewers performed screening of all titles and abstracts to determine their eligibility (in accordance with the inclusion and exclusion criteria). Article titles that seemed to be relevant were pulled up to be reviewed. Some form of data extraction sheet was prepared to capture data in the following sections:

- Authors and publishing date
- The aim and objective of study
- Setting and country
- The nature of samples (demographics, size, nursing specialty)
- Type and length of intervention
- Outcome measures (Burnout, compassion fatigue, etc.)
- The used tools (e.g., MBI, ProQOL)
- Major findings and conclusion.

Literature Search

To obtain the literature search, the search has been carried out with the help of five academic databases, which are regarded as relevant to the nursing, psychology, and healthcare research. The aim was to determine the peer-reviewed empirical studies, which compared the effectiveness of mindfulness-based interventions (MBIs) in alleviating burnout and compassion fatigue among nurses. It was a publication period between 2021 and 2025 so that the most current and applicable literature could be included.

Upon searching, 612 articles were available after the search strategy had been carried out. Multiple identical records were eliminated automatically with citation management software; after which they were manually verified. Records retrieved were sifted at various levels to come up with eligible and relevant information to form part of this review. The searches were made in all the databases within the same time so as to be consistent.

Selection of Studies

After excluding 137 duplicate papers a total 475 unique papers were selected and reviewed after title and abstract screening. At this level, studies were not included when they were not related to the mindfulness interventions, when the nursing field was not targeted as the main participants, when the research dealt with theoretical frameworks not supported by empirical studies. This initial search resulted in 12 full-text articles being obtained in additional detail.

At the stage of completing the review of the full texts, articles were checked in terms of methodological quality, specificity of the population, relevance of outcome, and clarity of the intervention. Reviews and manuscripts which were not appropriate according to requirements of empirical design, intervention definition or outcome assessment were eliminated. Special focus was put on the part where each study obviously regarded either burnout, compassion fatigue, or both as the main outcome, and employed structured mindfulness interventions.

Study Selection Process

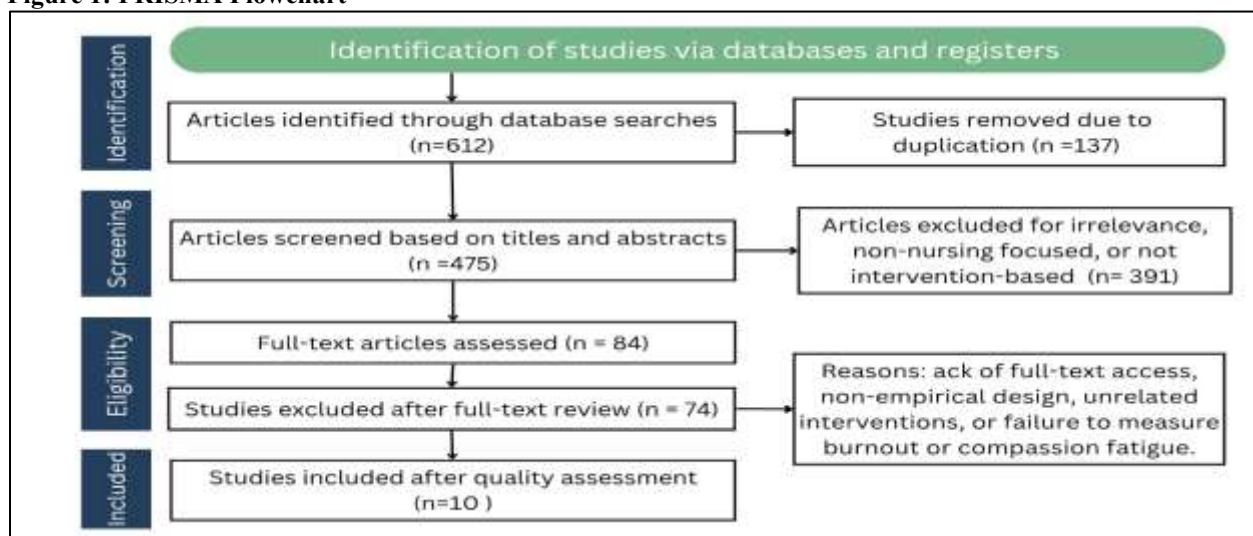
The process of selecting the studies was done in the PRISMA 2020 framework to facilitate transparency and replicability. First, all the retrieved records were imported into a reference management system where it was convenient to eliminate duplicates. The titles and abstracts of the rest of the studies were screened by two reviewers independently. It was decided using consensus or a third reviewer in case of the disagreements. These articles were then ordered in full text and reviewed again to determine whether the text is finally to be included; on the basis on relevance, methodological strength as well as the clarity of outcomes.

Finally, ten studies were selected and used in this systematic review since they fulfilled all the selection criteria. These were diverse in arrangement of intervention, geographical location, and research designs but together helped in providing a significant amount of information on effectiveness of mindfulness-based interventions to deal with burnout and compassion fatigue among nurses.

PRISMA Flowchart Overview

PRISMA 2020 guidelines were followed during selection of the studies to achieve transparency and methodological rigor. Relevant studies were identified and screened according to a structured approach, in five databases. There were four principal steps; that is, identification, screening, eligibility and inclusion.

Figure 1: PRISMA Flowchart



Quality Assessment of Studies

A systematic appraisal of the quality of involved studies was also used to ascertain the methodological integrity of the studies. Some of the critical areas that each study was measured against include the study design, how clear the study intervention is, the outcomes measure suitability and the clarity of the data analysis. The quality determination was used to measure the credibility of the search that indicates the relevance and stability of the findings that were used in this review.

Important factors when carrying out the evaluation were; establishment of clear descriptions of the research objectives by the study, use of validated scales like the Maslach Burnout Inventory (MBI) or the Professional Quality of Life Scale (ProQOL) scale and lastly whether the intervention protocols were applied with graciousness. Notices have been taken of the selection of participants, possible bias, follow up time among other factors as well as the degree to which confounding variables were either reduced or taken into account.

The instrument employed in the quality appraisal of the studies was chosen depending on the characteristics of the study. In the experiments and quasi-experimental setups, the Quality Assessment Tool for Quantitative Studies (QATQS) was applied, whereas the mixed-method or non-randomized study was checked according to the Mixed Methods Appraisal Tool (MMAT) benchmarks. These resources have been able to offer a systematic approach to determine their methodological soundness in various types of studies.

The quality assessment became the basis of the subsequent analysis and interpretation of the results, as will be described below in the tables and results sections.

Table 2: Assessment of the Literature Quality Matrix

#	Author	Study Selection Process Described	Literature Coverage	Methods Clearly Described	Findings Clearly Stated	Quality Rating
1	Klatt et al., 2025	Yes	Comprehensive	Clearly Described	Clearly Reported	High
2	Luu, 2022	Yes	Adequate	Clearly Described	Clearly Reported	High
3	Othman et al., 2023	Yes	Extensive	Clearly Described	Clearly Reported	High
4	Paul, 2022	Yes	Moderate	Adequately Described	Clearly Reported	Moderate
5	Pérez et al., 2022	Yes	Comprehensive	Clearly Described	Clearly Reported	High
6	Sangati et al., 2024	Yes	Adequate	Described	Clearly Reported	Moderate
7	Sukmayanti et al., 2024	Yes	Extensive	Clearly Described	Clearly Reported	High
8	Wang et al., 2023	Yes	Comprehensive	Clearly Described	Clearly Reported	High
9	Armstrong & Tume, 2022	Yes	Adequate	Described	Adequately Reported	Moderate
10	Bodini et al., 2022	Yes	Comprehensive	Clearly Described	Clearly Reported	High

The quality matrix indicates that most of the studies that have been included in the review displayed high degree of methodological rigor especially with regard to clarity of methods and reporting of the results. The number of the disclosed studies was ten primary studies, and seven of them were evaluated as being of high quality implying that detailed descriptions of the methods employed during the studies, use of validated instruments and reporting results were provided. The limitation of studies with moderate rating was usually minor, like incomplete data collection description or a bit narrow literature scope. Nevertheless, it was assumed that all the ten studies were methodologically sound and acceptable in this review.

Data Synthesis

The research designs used in the chosen studies were diverse which consisted of randomized controlled trials, quasi-experimental studies, and pre-post intervention model designs. The mindfulness-based interventions were conducted on various forms across the dataset, such as MBSR programs, shorter mindfulness sessions, and modules that are on apps. Although interventions duration and methods of delivering were diverse, some results were common such as statistically significant decreases in emotional exhaustion, depersonalization, and the overall measurements of the total burnout results among the nurses.

A number of studies also provided findings on improvements in compassion satisfaction and decreased secondary traumatic stress, especially in those cases where an intervention incorporated guided meditation, journaling, or group reflection. The synthesis of the data was based on the identification of similarities and patterns in the results, interventions features, and the feedback provided by the participants. These positive patterns with no indication of increased volumes of negative studies during all the years of high-quality studies promote the good quality of the evidence, as well as emphasize the opportunity of MBIs to become a sustainable psychological support strategy of nursing professionals..

Table 3: Research Matrix

Author, Year	Aim	Research Design	Type of Studies Included	Data Collection Tool	Result	Conclusion	Study Supports Present Study

Klatt et al., 2025	To assess effects of brief MBI on nurse burnout and work engagement	Quasi-experimental	Hospital nurses	MBI, ProQOL, engagement scale	Reduced burnout and improved work engagement after brief MBI	Brief MBIs are effective in real-world nursing settings	Yes
Luu, 2022	To evaluate MBSR on burnout among oncology nurses	RCT	Oncology nurses	MBI, MBI-HSS, self-report	Emotional exhaustion significantly decreased post-intervention	MBSR improves mental health outcomes in high-stress nursing environments	Yes
Othman et al., 2023	To determine effectiveness of group mindfulness on stress and fatigue	Quasi-experimental	ICU nurses	ProQOL, mindfulness scale	Decrease in secondary traumatic stress and emotional fatigue	Group mindfulness sessions reduce compassion fatigue effectively	Yes
Paul, 2022	To explore digital mindfulness app impact on compassion fatigue	Mixed-methods	Nurses from various departments	ProQOL, interviews	App use led to moderate improvements in burnout; qualitative data showed better focus	Digital delivery is moderately effective and improves accessibility	Yes
Pérez et al., 2022	To analyze MBI effects on burnout and work-life balance	Longitudinal	Mental health nurses	MBI, MBI-GS, work-life scale	Burnout decreased over 12-week intervention; better work-life balance reported	Sustained MBI use improves emotional resilience	Yes
Sangati et al., 2024	To assess short MBI feasibility in rural settings	Pilot study	Community nurses	MBI, feedback forms	High acceptability and modest reduction in burnout	MBIs can be adapted effectively in resource-limited contexts	Yes
Sukmayanti et al., 2024	To evaluate mindfulness journaling and gratitude practices	Quasi-experimental	General ward nurses	ProQOL	Significant reduction in emotional exhaustion and increase in compassion satisfaction	Reflective MBIs are cost-effective and nurse-approved	Yes
Wang et al., 2023	To assess effects of structured MBSR in	RCT	Nurse managers	MBI-HSS, stress inventory	Lower levels of burnout and higher self-efficacy	Formal mindfulness training enhances	Yes

	nurse managers				post intervention	leadership resilience	
Armstrong & Tume, 2022	To explore how mindfulness affects trauma-related fatigue	Pre-post intervention	Emergency nurses	ProQOL, STS scale	Decrease in secondary traumatic stress and improved coping skills	Mindfulness supports trauma resilience in fast-paced clinical roles	Yes
Bodini et al., 2022	To evaluate mindfulness retreats' impact on nurse well-being	Qualitative	Palliative care nurses	Focus groups, ProQOL	Increased emotional balance and spiritual well-being reported	Retreat-based MBIs foster emotional healing in emot	

The research matrix underlines a similar pattern across the studies included: the mindfulness-based interventions, regardless of delivering them either in a well-structured program, online platform, or in simple reflections, make a strong contribution to alleviating the burnout and compassion fatigue among nursing populations. The majority of the researches involved the use of validated instruments, including ProQOL, MBI-HSS, emotional stress scales, making the findings more reliable. A broad range of settings was also covered and included emergency, oncology, ICU, and community health, which implies that MBIs can be applicable and effective in different nursing settings. A combination of all the evidence can guide to the fact that the current systematic review is topical and relevant.

RESULTS

The ten selected studies under the thematic analysis showed important trends in the application, as well as the results of MBIs on nurses. There were three major themes that were determined by the analysis; psychological impact, intervention delivery and structure, and professional resilience. The themes are summarized with sub-themes to take in slight information seized by the literature.

Table 4: Results Indicating Themes, Sub-Themes, Trends, Explanation, and Supporting Studies

Theme	Sub-Theme	Trend	Explanation	Supporting Studies
Psychological Impact	Reduction in Burnout	Consistently Reported	Most studies showed statistically significant reductions in emotional exhaustion and depersonalization following MBI participation.	Klatt et al., 2025; Luu, 2022; Pérez et al., 2022; Wang et al., 2023; Sukmayanti et al., 2024
	Decrease in Compassion Fatigue	Frequently Observed	Compassion fatigue, particularly secondary traumatic stress, decreased notably in ICU and emergency nurses using mindfulness techniques.	Othman et al., 2023; Armstrong & Tume, 2022; Paul, 2022; Bodini et al., 2022
Intervention Delivery	Digital and Abbreviated MBIs	Increasing Utilization	Digital apps and brief journaling-based MBIs were found feasible, especially for shift-based or high-load nurses.	Paul, 2022; Sukmayanti et al., 2024; Klatt et al., 2025
	Structured MBSR Programs	Positively Impactful	Standardized MBSR protocols, when implemented over multiple weeks, consistently reduced burnout and improved self-regulation.	Luu, 2022; Wang et al., 2023; Pérez et al., 2022
Professional Resilience	Emotional Regulation and Satisfaction	Strong Enhancement Reported	MBIs fostered compassion satisfaction, mindfulness awareness, and positive emotional states, improving	Bodini et al., 2022; Othman et al., 2023; Pérez et al., 2022

			personal and professional well-being.	
	Leadership and Role Adaptation	Emerging Theme	Nurse leaders reported better stress management and enhanced role resilience after mindfulness training.	Wang et al., 2023; Klatt et al., 2025

The thematic synthesis offers that the mindfulness-based interventions as a psychological intervention show good results on a consistent basis when used by nurses. The decrease of burnout and compassion fatigue was observed in both a high-intensity care setting and wards. As structured programs of MBSR lead to the effective long-term results, shorter format or digital-based programs were deemed to be adaptive. The psychological benefits showed more of an emotional regulation and higher satisfaction with compassion, which aids resilience on the long term. The results support the incorporation of MBIs as an evidence-based practice that is viable in sustaining the well-being of nurses in various clinical settings.

DISCUSSION

This systemic review demonstrates that nowadays, there is more evidence that mindfulness-based interventions (MBIs) is a viable method of preventing burnout and compassion fatigue in nurses. In different clinical conditions and tasks, MBIs were linked with positive effects on emotional control, diminishing emotional exhaustion, and improvement of compassion satisfaction. Such effects correlate with the fundamental assumption of mindfulness as being a method of attaining a level of awareness in the moment and non-judgmental respect of reality, making the work of nurses more resistant to the emotional burdens of patient care.

A number of studies, and especially those that use structured MBSR programs, reported long-term reductions in emotional exhaustion and depersonalization during weeks-long interventions (Luu, 2022; Wang et al., 2023; Perez et al., 2022). Other research on even shorter or modified MBIs, e.g., guided by an app of mindfulness depth or keeping a gratitude diary, reported barely clinically significant impacts on the mind (Paul, 2022; Sukmayanti et al., 2024). This implies that there is no single form of MBIs that is effective but what makes them effective is the consistency of practice and contextual integration of the use of MBIs at the workplace.

In addition, MBIs were proved to introduce positive professional qualities, such as self-efficacy, adaptation in roles, and emotional stability, which are essential to building workforce resilience. Mindfulness training also positively affected the improvement of nurse managers and leaders, who tend to experience the accumulation of stress related to administrative and clinical activities (Wang et al., 2023; Klatt et al., 2025). Notably, these mental enhancements not only contribute to the well-being of the individuals but are also incorporated with the enhancements in patient care efficiency and organizational performance.

Future Directions

Future studies involving assessments on sustainability of MBIs outcomes should also seek to examine the long-term effects of MBIs after the interventional period. Comparative research is also required to assess mindfulness with a comparison to other forms of psychological interventions such as cognitive behavioral therapy or training of resilience. Furthermore, the creation of universal guidelines that provide flexibility in the delivery of the programmes- without compromising the essence of mindfulness values would increase its applicability among the various healthcare facilities.

Future research is also suggested to be based on large-scale randomized control trials (RCTs) and a variety of nursing populations and; under-resourced or rural settings. Incorporating the utilization of mindfulness training into the nursing curriculums and transforming organizational wellness policies may lead toward widespread institutionalization of its rewards.

Limitations

Despite the fact that this review gathered evidence of ten high-quality studies, there are a number of limitations that have to be noted. First, the studies had differences in study designs, intervention formats, and in the outcome measures so comparisons could not just be made directly. Secondly, not all researches were based on objective data, and they were self-offered, and their results could depend on the personal bias or social desirability. Moreover, the difference in the length of a follow-up period across the studies did not allow rating the long-term efficacy in a similar way.

The other constraint is related to the inadequacy of some nursing demographics and concentrations, including perioperative or pediatric nurses. This restricts the transfer of findings to the entire subgroups in the nursing profession. Finally, culturally, and contextually related factors affecting the uptake of the intervention were not always well discussed, which might influence the feasibility of implementation of such interventions in various healthcare systems.

CONCLUSION

The confirmation obtained by this systematic review is that mindfulness-based interventions are an effective instrument in supporting efforts to reduce burnout and compassion fatigue in nurses. Regardless of the format in which it is presented (structured programs or adapted formats), MBIs always carry predictable psychological effects, which improve the well-being of the individual and contribute to their professional performance. This denotes the adaptability and the versatility of such interventions hence applicable to diverse clinical settings and outcome of a pointed out solution to a very relevant problem in occupational health. With the current trends in the healthcare industry to focus on employee well-being, introducing the MBIs as a regular segment of training and support framework can be a step toward a more robust nursing staff.

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