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Unravelling the Nexus of Mindfulness in Nursing Leadership: A Cross-Sectional Study

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ABSTRACT

Objective: This study is crucial as it delves into the nexus between mindfulness and nursing leadership outcomes. It specifically focuses on the manifestation of mindfulness among nursing leaders, its relationship with leadership behaviours, and its potential impact on job satisfaction and burnout mitigation. Understanding these aspects is vital for the effective functioning of healthcare systems. **Methods:** A cross-sectional study was conducted to investigate the nexus between mindfulness and nursing leadership outcomes. The study involved 250 nursing leaders from Mosul Teaching Hospitals. The Five Facet Mindfulness Questionnaire (FFMQ) and other validated instruments were used to measure mindfulness, emotional regulation, and the quality of nursing work life. The study tools underwent rigorous validity and reliability tests to ensure the robustness of the data. Data analysis was performed using descriptive statistics and inferential tests with IBM SPSS Statistics version 26. **Results:** The distribution of personal characteristics revealed a diverse group of head nurses, mostly aged 30-35 years, male, and affiliated with critical care departments. Mindfulness levels predominantly leaned towards "low," with variations across observing, describing, acting with awareness, nonjudging, and nonreactivity. Emotional regulation was reported at "moderate" levels, indicating a nuanced approach to emotion management among nursing leaders. **Conclusion:** The study's findings offer hope for nursing leadership. The predominance of 'low' mindfulness levels among nursing leaders presents an opportunity for targeted interventions to enhance mindfulness, foster positive leadership behaviours, and mitigate burnout. These potential benefits underscore the significance of incorporating mindfulness practices into leadership development programs within healthcare organizations.

***Keywords:** Burnout Mitigation; Cross-sectional Study; Emotional Regulation; Healthcare; Mindfulness; Nursing Leadership; Job Satisfaction*

INTRODUCTION

Set against the unique backdrop of Iraq's healthcare landscape, nurses in this context play a crucial role in delivering care and navigating challenges that blend the historical narrative with contemporary healthcare complexities. Exploring nursing dynamics in Iraq uncovers dedication, adaptability, and an unwavering commitment to citizens' well-being (Attia & Ibrahim, 2023; Hamarash *et al*., 2023; Sulaiman *et al*., 2023). This study, therefore, holds relevance in this context. It aims to shed light on the relationship between mindfulness and nursing leadership outcomes, potentially offering insights for enhancing leadership practices in this setting.

Within the dynamic tapestry of healthcare, nursing leaders are the linchpin, orchestrating the symphony of care that resonates with optimal patient outcomes (Mallow, 2023; Ramachandran *et al*., 2023; Si *et al*., 2023). The multifaceted nature of their roles demands a profound understanding of the challenges they face and the factors influencing their success or potential burnout (Chen *et al*., 2023; Egami & Highfield, 2023; Wang, Kou,

& Han, 2023). Mindfulness, an ancient practice rooted in contemplative traditions, has emerged as a encouragement of potential within healthcare leadership (Villacarlos & Daño, 2020; Bennett & Boose, 2023). As nursing leaders grapple with evolving demands, a pressing need arises to investigate how mindfulness intertwines with leadership behaviours, job satisfaction, and burnout (de Oliveira Santana *et al*., 2024; Shurab *et al.*, 2024).

This study aims to explore the connections between mindfulness and nursing leadership outcomes. It suggests that comprehending the level of mindfulness among nursing leaders is crucial for understanding their leadership behaviours, job satisfaction, and the prevalent issue of burnout. This research intends to evaluate the level of mindfulness among nursing leaders methodically, analyse its correlation with leadership behaviours, and investigate its potential impact on job satisfaction and the reduction of burnout.

METHODOLOGY

Study Design

The research employed a cross-sectional study design, simultaneously facilitating data collection from the nursing leaders. This design was optimal for examining the relationship between mindfulness and various outcomes in a dynamic healthcare setting.

Study Setting

The research was conducted in the Mosul Teaching Hospitals, providing a pertinent backdrop within the healthcare landscape for exploring mindfulness among nursing leaders. This setting was chosen for its diverse nursing leadership roles and significance in the regional healthcare system.

Sample Size and Participants

The study's sample consisted of 250 nursing leaders from various roles within the Mosul Teaching Hospitals; this diverse sample aimed to capture a comprehensive understanding of mindfulness across different leadership positions.

Study Tools

The study utilised three validated instruments to measure different aspects of mindfulness, emotion regulation, and the quality of nursing work life:

1. Five-Facet Mindfulness Questionnaire (FFMQ): In 2006, Baer *et al*. developed the FFMQ, a self-report tool aimed at assessing mindfulness through five specific aspects: observing, describing, acting with awareness, non-judging of inner experience, and non-reactivity to inner experience. Participants used a Likert scale from 1 to 5 to rate each statement. Trained researchers conducted the FFMQ, ensuring confidentiality to encourage honest and precise self-reporting (Nguyen, Nguyen, & Bui, 2022).

2. Validity Test: The validity of the study tools was ensured through a rigorous process involving a panel of experts. These experts assessed the tools for their relevance, clarity, and appropriateness within the context of nursing leadership.

3. Reliability Test: To establish the reliability of the study tools, a test-retest was conducted with a subset of the participants. Ten nurses were selected, and the instruments were administered twice at different intervals. The consistency of their responses over time was analysed to ensure the reliability of the measurement tools.

Statistical Analysis

Data collected from the study were subjected to statistical analysis using IBM SPSS Statistics version 26. Descriptive statistics were employed to summarise the characteristics of the sample. In contrast, inferential statistics such as correlation analysis, regression analysis, and other relevant tests were utilised to explore the relationships between mindfulness, emotion regulation, and the quality of nursing work life among nursing leaders.

Ethical Consideration

The study received the Ethical Permission from theNinevah Institutional Review Board (IRB), Iraq with the reference number CCMRE-NUR-23-7 on 11th August, 2023.

RESULTS

Distribution of Personal Characteristics

Table 1 presents the distribution of personal characteristics among the studied participants, who consisted of 250 head nurses. Most participants (59.2%) fell within the age range of 30-35 years. A significant portion (29.6%) belonged to the 36–40 age group, while 11.2% were below 40. The mean age was 35.6, with a standard deviation of 2.78. Male head nurses were predominant, constituting 74.8% of the participants, whereas females comprised 25.2%. Head nurses demonstrated varied years of experience, with 51.2% having 1–10 years, 34.4% having 11–20 years, and 14.4% having more than 20 years of experience. Most participants (75.6%) were affiliated with critical care departments, while 24.4% worked in general care departments.

Table 1: Distribution of Personal Characteristics According to the Studied Participants-Head Nurses (N=250)

Characteristics	N	Percentage (%)
Age		
30-35 years	148	59.2
36-40 years	74	29.6
<40 years	28	11.2
Mean + SD		*35.6 + 2.78*
Gender		
Male	187	74.8
Female	63	25.2
Years of Experience		
1-10 years	128	51.2
11-20 years	86	34.4
<21 years	36	14.4
Department		
Critical	189	75.6
General	61	24.4

Mindfulness Levels and Dimensions

Table 2 illustrates the percentage distribution of head nurses regarding mindfulness and its dimensions. A significant proportion of head nurses reported "low" levels in observing (52.80%), describing (44.80%), acting with awareness (48.00%), nonjudging (52.80%), and nonreactivity (44.80%). Moderate levels were observed in describing (46.40%), acting with awareness (40.8%), nonjudging (34.40%), and nonreactivity (46.40%). "High" levels were reported by a smaller percentage in observing (12.80%), describing (8.80%), acting with awareness (11.20%), nonjudging (12.80%), and nonreactivity (8.80%).

Table 2: Percentage Distribution of Head Nurses about Mindfulness and its Dimensions (N=250)

Mindfulness Dimensions	Observe	Describe	Act with Awareness	Nonjudge	Nonreactive	Total Mindfulness
Low	52.80%	44.80%	48.00%	52.80%	44.80%	48.00%
Moderate	34.40%	46.40%	40.80%	34.40%	46.40%	40.80%
High	12.80%	8.80%	11.20%	12.80%	8.80%	

Emotional Regulation and its Dimensions

Table 3 displays the distribution of head nurses regarding emotional regulation and its dimensions. Emotional regulation was predominantly reported at "Moderate" levels, with 59.20% using reappraisal and 44.20% using suppression. "Low" levels were reported by 32.40% for reappraisal and 39.60% for suppression, while "High" levels were reported by 8.40% for reappraisal and 16.20% for suppression.

Table 3: Distribution of Head Nurses Regarding Emotional Regulation and its Dimensions (N=250)

Emotional Regulation	Reappraisal	Suppression	Total Emotional Regulation
Low	32.40%	39.60%	40.80%
Moderate	59.20%	44.20%	46.40%
High	8.40%	16.20%	12.80%

The Head Nurses' Quality of Work Life and Its Various Dimensions

The data in Table 4 suggests that a majority of head nurses perceive the quality of their work life across all dimensions (work context, work world, work-life, and work design) as low. The highest dissatisfaction is noted in the work context, with the lowest in work design. This indicates a need for targeted interventions to improve the work environment, organizational culture, and work-life balance to enhance the overall quality of work life for head nurses.

Table 4: Distribution of Head Nurses Regarding the Quality of Work Life and its Dimensions (N=250)

Quality of Work Life	Work Context	Work World	Work-Life	Work Design
Low	65.25%	59.50%	58.40%	52.60%
Moderate	29.20%	27.40%	22.70%	19.20%
High	5.55%	13.01%	18.09%	28.02%

Interplay between Mindfulness, Emotional Regulation, and Work Life

Table 5 presents the correlation matrix, revealing relationships between mindfulness, emotional regulation, and quality of work life. Significant positive correlations were found between mindfulness and emotional regulation ($r = 0.594$, $p < 0.01$), mindfulness and quality of work life ($r = 0.524$, $p < 0.01$), and emotional regulation and quality of work life ($r = 0.477$, $p < 0.01$).

Table 5: Correlation Matrix of Mindfulness, Emotional Regulation, and Quality of Work-Life

Variable	Mindfulness	Emotional Regulation	Quality of Work-Life
Mindfulness	1	0.594	0.524*
Emotional Regulation	0.594	1	0.477*
Quality of Work-Life	0.524*	0.477*	1

DISCUSSION

Unpacking Mindfulness Ratings among Head Nurses

The results of this study provide insight into the varying levels of mindfulness among head nurses, revealing detailed patterns in how they engage with mindfulness practices. It is worth noting that half of the head nurses showed lower levels of mindfulness, pointing to areas where interventions and support may be needed. Meanwhile, a smaller but notable proportion demonstrated high levels of mindfulness, indicating a subgroup of head nurses who have fully embraced mindfulness practices.

These findings involve recognising the dual nature of the observed mindfulness patterns among head nurses—identifying areas for improvement and acknowledging exemplary practices. This perspective sets the stage for future research inquiries, targeted interventions, and potential shifts in organisational strategies to foster

mindfulness and well-being within nursing leadership.

Low Mindfulness Ratings: Identifying Areas for Intervention

Among head nurses with lower mindfulness ratings, the dimensions of "observe," "no judge," "non-react," "act with awareness," and "describe" presented varying degrees of engagement. The prevalence of lower ratings in these dimensions' highlights specific areas where targeted interventions may prove beneficial. For instance, efforts could be directed towards enhancing observational skills, reducing judgmental attitudes, fostering non-reactivity, promoting awareness of actions, and encouraging the verbal articulation of internal experiences. By addressing these dimensions, organisations can contribute to developing a more mindful leadership culture among head nurses.

High Mindfulness Ratings: Exploring Exemplary Practices

Conversely, the subgroup of head nurses with high mindfulness ratings illuminates exemplary practices that can serve as a source of inspiration for the broader nursing leadership community. Noteworthy is their elevated engagement in dimensions such as "observe," "no judge," "act with awareness," "non-react," and "describe." Understanding the factors contributing to their heightened mindfulness can inform leadership development initiatives and inspire best practices within healthcare organizations. These leaders may serve as mentors or facilitators in mindfulness training programs, fostering a culture of shared learning and growth.

The current investigation revealed a noteworthy association between age and the mindfulness dimension labelled "description." This discovery aligns with findings from a study conducted in the USA (Okafor *et al*., 2023). However, another study in the USA reported no significant correlation between age and mindfulness (Shemesh *et al*., 2023). These disparities could be attributed to variations in personality traits, social dynamics, and educational norms across different societies (Mawardi, 2023; Munif, Poeranto, & Utami, 2019). In the present study, the average mindfulness score was higher among women than men, aligning with similar findings in a study conducted in Iran. Conversely, in contrast to this outcome, a study in the USA indicated that mindfulness levels were higher in men than women (Creswell *et al*., 2007). These disparities may be attributed to variations in individual characteristics, cultural and social contexts (Vonderlin *et al*., 2020), religious conflicts, and inclinations within diverse societies (Walker, 2020). It is noteworthy that such variables can potentially influence individuals' mental well-being, subsequently impacting their levels of mindfulness. Consequently, future research endeavours in this domain should be meticulously designed to delve deeper into these factors and their intricate interplay (Lee & Par, 2024; Liu, Lee, & Wu, 2024).

Implications for Leadership Development and Well-being

The implications of these findings extend beyond individual mindfulness ratings, touching upon broader aspects of leadership development and well-being within nursing contexts. Identifying specific dimensions where head nurses may benefit from targeted support can inform the design of tailored training programs. Integrating mindfulness practices into leadership development initiatives may enhance emotional regulation, decision-making, and overall job satisfaction. Moreover, addressing mindfulness at the organisational level can create a workplace culture that priorities well-being and resilience among nursing leaders.

Limitations

It is essential to note the limitations of this study, including its cross-sectional design and reliance on self-report measures. Future research should consider using longitudinal approaches and including objective measures of mindfulness to gain a more complete understanding. Additionally, examining contextual factors that influence mindfulness, such as organisational support and individual stressors, would help provide a more detailed interpretation of the findings.

CONCLUSION

The study provides important insights into the varying levels of mindfulness among head nurses. By identifying patterns in mindfulness dimensions and pinpointing areas that require focused interventions, healthcare organizations can improve leadership development programs and create a work environment that emphasizes mindfulness and well-being. Ultimately, promoting mindfulness among nursing leaders can positively impact both individual leaders and the overall organizational culture, leading to improved patient care quality.

This study lays the groundwork for further research in several key areas. Future studies could explore the longitudinal effects of mindfulness training on leadership effectiveness and patient outcomes. Expanding the research to include different regions and healthcare settings could provide a more comprehensive understanding of mindfulness among nursing leaders. Investigating the impact of specific mindfulness interventions, such as mindfulness-based stress reduction (MBSR) or mindfulness-based cognitive therapy (MBCT), on nurse leaders' performance and well-being could offer valuable insights. Moreover, integrating mindfulness training into nursing education curricula and evaluating its long-term benefits on nursing practice and leadership could help build a more mindful and resilient healthcare workforce.

Conflict of Interest

The authors declare that they have no competing interests.

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