INSIGHTS-JOURNAL OF
HEALTH AND REHABILITATION

INSIGHTS-JHR
INSIGHTS-JOURNAL OF HEALTH AND REHABILITATION

PREVALENCE OF BURNOUT SYNDROME AND ITS IMPACT ON QUALITY OF LIFE; A CROSS-SECTIONAL STUDY

Original Research

Nisar Fatima[1], Rubina Zulfqar[1]*, Nawal Amjad[2], Ayila Mouzam[2], Zaraq Qamar[2], Jasia Bibi[2]
[1]Assistant Professor, The University of Faisalabad, Pakistan.
[2]Physiotherapist, The University of Faisalabad, Pakistan.
Corresponding Author: Rubina Zulfqar, Assistant Professor, The University of Faisalabad, Pakistan. drrubinazulfqar355@gmail.com

Conflict of Interest: None
Grant Support & Financial Support: None

ABSTRACT

Background: Burnout syndrome is a psychological condition resulting from prolonged exposure to occupational stress, characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment. Medical officers are particularly vulnerable to burnout due to their demanding work schedules, high emotional burden, and stressful environments. This syndrome negatively affects their quality of life, leading to diminished job performance and well-being, and poses risks to the healthcare system and patient care quality.

Objective: The study aimed to assess the prevalence of burnout syndrome and its impact on the quality of life among medical officers.

Methods: A cross-sectional study was conducted from February 17, 2024, to June 17, 2024, across eight major hospitals in Faisalabad, Pakistan. Using purposive sampling, 111 medical officers aged 24–40 years with at least one year of clinical experience and working over 8 hours per day were included. Participants with congenital disorders, post-traumatic stress disorder, diagnosed anxiety or depression, prior medication use, or non-clinical roles were excluded. Data were collected using a socio-demographic questionnaire, the Maslach Burnout Inventory (MBI), and the SF-36 Quality of Life (QOL) scale. Statistical analyses were conducted using SPSS version 26, and the association between burnout domains and quality of life was determined through correlation analysis.

Results: Burnout levels were high in 45.9% for emotional exhaustion, 66.7% for depersonalization, and 79.3% for low personal accomplishment. Moderate burnout levels were observed in 41.4%, 23.4%, and 11.7% for these domains, respectively. Correlation analysis showed a significant negative association between personal accomplishment and quality of life ($p = 0.01$), with weaker negative correlations for emotional exhaustion ($p = 0.507$) and depersonalization ($p = 0.510$).

Conclusion: Burnout syndrome is highly prevalent among medical officers and significantly impacts their quality of life. Targeted interventions focusing on stress management, work-life balance, and resilience-building are crucial to mitigate burnout and improve healthcare outcomes.

Keywords: Burnout syndrome, cross-sectional studies, Maslach Burnout Inventory, medical officers, quality of life, resilience, work-life balance.

INTRODUCTION

Burnout syndrome (BOS) has emerged as a critical issue within the healthcare industry, reflecting the pervasive influence of healthcare providers' mental health on patient safety. While the concept of burnout among healthcare professionals is not new, its significance has grown exponentially, driven by the relentless pressures of clinical work, time constraints, competing demands, and limited control over work processes (1). These challenges, coupled with intricate relationships within leadership structures, contribute to a multifaceted problem affecting nurses, physicians, physical therapists, nurse practitioners, and physician assistants. Burnout compromises not only the safety and well-being of healthcare providers but also the communities they serve. First described in the 1960s as emotional and psychological stress experienced by clinic staff caring for vulnerable patients, BOS has since evolved into a recognized occupational hazard in healthcare and other professions (2, 3).

The symptoms of BOS are extensive, including altered immune and endocrine functions, elevated allostatic load, neuroexcitotoxicity, suppression of immune responses, metabolic syndrome, and cardiovascular disease. These physiological changes underscore the complex interplay of social, cultural, and professional factors that contribute to its development (4, 5). To quantify burnout, Maslach and Jackson introduced the Maslach Burnout Inventory (MBI), which evaluates emotional exhaustion, depersonalization (cynicism toward patients), and reduced personal accomplishment—three core dimensions that encapsulate the syndrome's impact. Although initially observed in healthcare, burnout's prevalence extends to various professions, including educators, service workers, and financial professionals, reflecting its widespread implications (6, 7).

Among healthcare professionals, medical officers and residents face heightened risks due to long working hours, frequent exposure to suffering, and significant emotional strain. These stressors, compounded by personal challenges such as geographical separation from family and the demands of early adulthood, amplify the risk of burnout. The intersection of professional stressors and personal circumstances creates a uniquely vulnerable population, necessitating targeted interventions (8, 9).

Quality of life (QOL) measures have become essential in healthcare outcome assessments, reflecting an individual's overall well-being beyond functional status, symptoms, and disease processes. Defined as a broad spectrum of human experiences, QOL serves as a crucial lens for evaluating the physical, emotional, and psychological impacts of burnout (10). Studies reveal gender-specific patterns in burnout, with women more prone to emotional exhaustion and men more likely to experience depersonalization. Marital status and family dynamics also influence burnout, though findings are inconsistent; while some research indicates that marriage and parenting provide emotional support, others suggest these roles exacerbate stress. Additionally, personality traits and individual coping capacities significantly shape susceptibility to burnout, highlighting the importance of psychological resilience (11, 12).

This study explores the prevalence of burnout among medical officers, focusing on how extended working hours and the emotional toll of patient care affect their quality of life. By emphasizing the interconnected nature of psychological and physical well-being, this research aims to inform interventions that foster a resilient healthcare workforce capable of delivering optimal care. The ultimate objective is to holistically address the therapeutic and psychological needs of those affected, improving not only their quality of life but also the well-being of the communities they serve.

METHODS

The study employed a cross-sectional design conducted over two months, from April 12, 2024, to June 12, 2024, utilizing a non-probability purposive sampling technique to recruit participants. A sample of 111 medical officers, comprising 45 males and 66 females, was drawn from various healthcare institutions in Faisalabad, Pakistan, including Allied Hospital 1, Allied Hospital 2, Faisal Hospital, Faisalabad Institute of Cardiology, Aziz Fatima Hospital, Sahil Hospital, MTH, and Chiniot Hospital. Participants included medical officers with a minimum of one year of clinical experience, aged between 24 and 40 years, and working over eight hours daily. Exclusion criteria encompassed individuals with congenital disorders such as Duchenne muscular dystrophy or multiple sclerosis, those diagnosed with post-traumatic stress disorder, depression, or anxiety, individuals on related medications, or those in non-clinical roles like administrative, teaching, or research positions without direct patient care.

INSIGHTS-JHR
INSIGHTS-JOURNAL OF HEALTH AND REHABILITATION

Participants provided written informed consent after receiving a detailed explanation of the study's purpose, procedures, and potential benefits. Confidentiality and privacy were strictly maintained, and participation was voluntary, ensuring that data were used exclusively for research purposes. Ethical approval was obtained from the relevant institutional review boards, including a data collection letter from the University of Faisalabad and consent from the Head of the Department of Physical Therapy. The study was conducted in adherence to the Revised APTA Code of Ethics for Physical Therapists.

Data collection involved a structured sociodemographic questionnaire to gather information on factors such as education, housing, income, and healthcare coverage. Burnout was assessed using the Maslach Burnout Inventory (MBI), a widely validated tool that measures emotional exhaustion, depersonalization, and personal accomplishment through 22 items rated on a seven-point Likert scale. Quality of life was evaluated using the Medical Outcome Study Questionnaire Short Form 36 Health Survey (SF-36), a reliable instrument comprising 36 questions across eight domains, providing physical and mental health summary measures. Both tools are recognized for their robustness and effectiveness in assessing burnout and quality of life. The study also aimed to raise awareness among participants about burnout syndrome, providing them with insights into their own well-being and highlighting the importance of work-life balance and mental health support.

Statistical analysis was performed using IBM SPSS version 26 to examine associations between burnout components and quality of life scores. Correlation coefficients were calculated to identify relationships between the domains of the MBI and the overall quality of life. Results were presented as correlation coefficients with significance levels determined through two-tailed tests. Efforts were made to ensure robust data analysis and interpretation.

RESULTS

The study findings provided comprehensive insights into the prevalence of burnout syndrome among medical officers and its relationship with quality of life. Among the 111 participants, 45 were male (40.5%) and 66 were female (59.5%). The majority (74.8%) held an MBBS degree, with the remaining 25.2% holding higher qualifications such as FCPS. Regarding living arrangements, 44.1% owned their homes, 38.7% lived with family, 7.2% rented housing, 4.5% resided with friends, 3.6% had no permanent residence, and 1.8% lived in housing without payment. Most participants (93.7%) paid for healthcare out-of-pocket, with 2.7% relying on private insurance and 3.6% using other forms of coverage. Full-time employment was predominant (91.0%), with participants working shifts of 50–60 hours per week, while 9.0% were part-time employees. Income data indicated that the most frequent range fell between Rs. 80,000 and Rs. 90,000 per month.

Burnout levels varied across the three domains assessed. Emotional exhaustion was high in 51 participants (45.9%), moderate in 46 (41.4%), and low in 14 (12.6%). Depersonalization scores were high in 74 participants (66.7%), moderate in 26 (23.4%), and low in 11 (9.9%). In contrast, personal accomplishment was predominantly low, with 88 participants (79.3%) reporting low scores, 13 (11.7%) reporting moderate scores, and only 10 (9.0%) achieving high scores. These findings highlighted a high prevalence of burnout, particularly in the depersonalization and personal accomplishment domains.

Correlation analysis revealed significant relationships between burnout components and quality of life scores. Emotional exhaustion and depersonalization showed weak negative correlations with quality of life, while personal accomplishment had a significant negative correlation, suggesting that higher burnout levels were associated with diminished quality of life. Missing from the results were detailed subgroup analyses based on gender, employment type, or income, which could provide deeper insights into demographic-specific trends.

INSIGHTS-JHR
INSIGHTS-JOURNAL OF HEALTH AND REHABILITATION

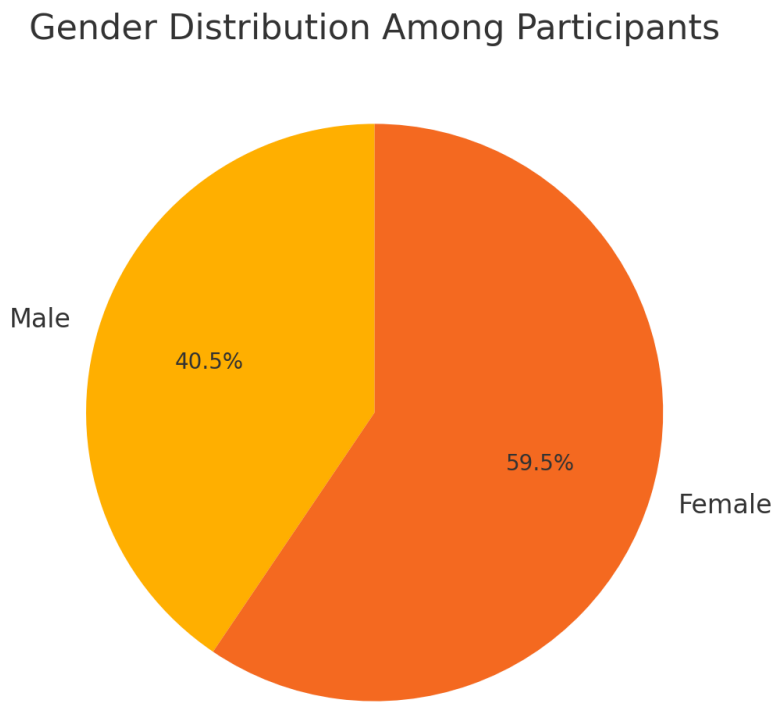

Figure 1 Gender Distribution Among Participants

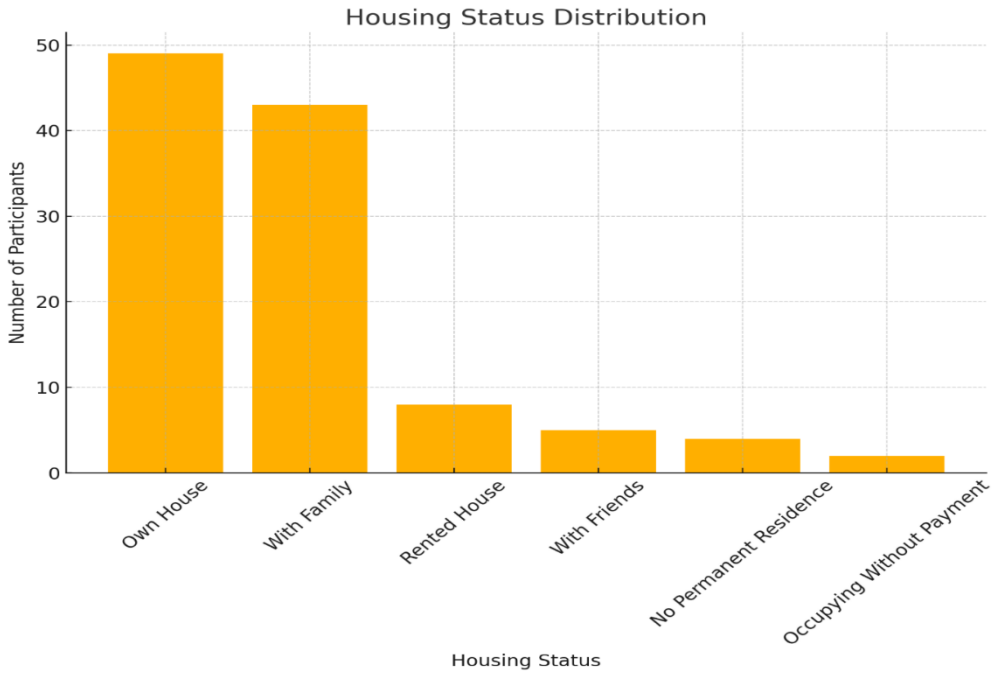

Figure 2 Housing Status Distribution

The bar chart titled "Housing Status Distribution" depicts the housing situations of the 111 medical officers participating in the study. Among them, 44.1% (49 participants) owned their homes, while 38.7% (43 participants) lived with family. A smaller proportion resided in rented houses (7.2%, 8 participants) or with friends (4.5%, 5 participants). Additionally, 3.6% (4 participants) reported no permanent residence, and 1.8% (2 participants) lived in accommodations without payment. This distribution highlights that most participants had stable living arrangements, predominantly through home ownership or family support.

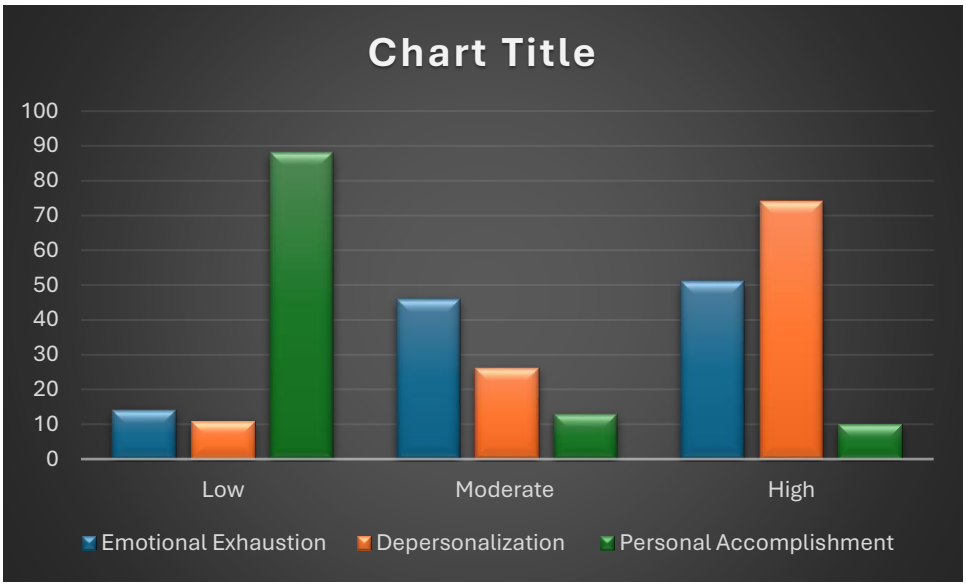

Figure 3 Prevalence of different domains of MBI among medical officers

The bar chart illustrates the prevalence of burnout across the three domains of the Maslach Burnout Inventory (MBI)—emotional exhaustion, depersonalization, and personal accomplishment—among the 111 medical officers. Emotional exhaustion was reported as high in 51 participants (45.9%), moderate in 46 participants (41.4%), and low in 14 participants (12.6%). Depersonalization was high in 74 participants (66.7%), moderate in 26 participants (23.4%), and low in 11 participants (9.9%). Conversely, personal accomplishment was predominantly low in 88 participants (79.3%), moderate in 13 participants (11.7%), and high in only 10 participants (9.0%). This chart highlights significant burnout levels, particularly in emotional exhaustion and depersonalization, while low personal accomplishment was the most commonly observed domain.

Table 1 Non-parametric correlation between the three domains of MBI and quality of life score of medical officers

		Emotional Exhaustion (MBI)	Depersonalization/loss of empathy (MBI)	Personal accomplishment assessment (MBI)	Total quality of life at SF_36 score
Emotional Exhaustion (MBI)	Correlation Coefficient	1.000	.506**	.084	-.064
	Sig. (2-tailed)	.	.000	.382	.507
	N	111	111	111	111
Depersonalization/loss of empathy (MBI)	Correlation Coefficient	.506**	1.000	-.099	-.063
	Sig. (2-tailed)	.000	.	.304	.510
	N	111	111	111	111
Personal accomplishment assessment (MBI)	Correlation Coefficient	.084	-.099	1.000	-.199*
	Sig. (2-tailed)	.382	.304	.	.036
	N	111	111	111	111
Total quality of life at SF_36 score	Correlation Coefficient	-.064	-.063	-.199*	1.000
	Sig. (2-tailed)	.507	.510	.036	.
	N	111	111	111	111

The table presents the non-parametric correlations between the three domains of the Maslach Burnout Inventory (MBI) and the total quality of life score from the SF-36 among 111 medical officers. Emotional exhaustion showed a moderate positive correlation with

INSIGHTS-JHR
INSIGHTS-JOURNAL OF HEALTH AND REHABILITATION

depersonalization (r = 0.506, p < 0.001) but had a weak negative correlation with quality of life (r = -0.064, p = 0.507). Depersonalization also demonstrated a weak negative correlation with quality of life (r = -0.063, p = 0.510). Personal accomplishment showed a significant negative correlation with quality of life (r = -0.199, p = 0.036), indicating that lower personal accomplishment was associated with poorer quality of life. These findings highlight the interplay between burnout components and their collective impact on quality of life.

DISCUSSION

The current study, conducted among 111 medical officers, including 45 males and 66 females, demonstrated that burnout syndrome is a prevalent condition within this population in major hospitals in the Faisalabad region of Pakistan. Burnout levels, measured using the Maslach Burnout Inventory, were notably high across all domains, with emotional exhaustion and depersonalization being particularly elevated, while personal accomplishment scored slightly lower (13). The study further identified a significant negative association between burnout levels and quality of life, as assessed using the SF-36 scale, revealing that higher burnout levels correlated with a reduction in participants' quality of life. These findings underscore the pervasive nature of burnout and its detrimental impact on the well-being of medical professionals (14, 15).

Comparative analysis with previous research supports these findings. Studies in various regions, including Myanmar, Spain, and the United States, have highlighted similar trends in burnout among healthcare professionals, emphasizing its adverse effects not only on the professionals' mental and physical health but also on patient safety and care quality (16). Notably, a study from Myanmar identified the role of rewards as a mitigating factor for burnout, while research from Spain highlighted the disparity in mental health-related quality of life between healthcare workers and the general population (17, 18). These studies collectively validate the present findings, illustrating the global prevalence of burnout among healthcare professionals. However, conflicting evidence exists, as demonstrated by a study on junior doctors in their first year, which reported no significant association between burnout, mental health, or quality of life in that population. Such contrasting findings highlight the need to consider contextual and demographic differences in understanding burnout (19).

This study is strengthened by its focus on medical officers actively involved in clinical practice, offering valuable insights into a critical segment of the healthcare workforce (20, 21). The use of validated tools such as the Maslach Burnout Inventory and SF-36 adds to the study's robustness. However, certain limitations must be acknowledged. The cross-sectional design limits the ability to infer causality, and the use of non-probability purposive sampling may restrict generalizability (22, 23). Moreover, cultural, institutional, and systemic factors unique to the study region may influence the findings, necessitating caution in extrapolating results to other settings (24).

The findings emphasize the urgency of addressing burnout in healthcare environments. Structural interventions, such as reducing excessive work hours, providing adequate mental health support, and fostering a supportive work culture, are crucial to mitigating burnout and improving quality of life. Additionally, promoting work-life balance and implementing targeted programs to enhance resilience among healthcare professionals are vital strategies. Addressing these factors can significantly improve the well-being and performance of medical officers, ultimately enhancing the quality of care delivered to patients. The study highlights the importance of systemic changes to reduce burnout, underscoring the need for sustained attention to this critical issue in healthcare settings (25).

CONCLUSION

In conclusion, this study underscores the high prevalence of burnout syndrome among medical officers and its profound negative impact on their quality of life. Burnout, manifesting through emotional exhaustion, depersonalization, and diminished personal accomplishment, significantly affects their mental and physical health, job satisfaction, and professional relationships. To address these challenges, healthcare systems must prioritize systemic interventions, including mental health support, resilience-building programs, and strategies to foster a healthier work-life balance. Future research should explore longitudinal approaches to assess the effectiveness of such interventions while examining demographic and contextual factors that contribute to burnout. A comprehensive strategy to mitigate burnout will not only enhance the well-being of medical officers but also improve the quality of patient care they provide.

INSIGHTS-JHR
INSIGHTS-JOURNAL OF HEALTH AND REHABILITATION

AUTHOR CONTRIBUTIONS

Author	Contribution
Nisar Fatima	Substantial Contribution to study design, analysis, acquisition of Data Manuscript Writing Has given Final Approval of the version to be published
Rubina Zulfqar	Substantial Contribution to study design, acquisition and interpretation of Data Critical Review and Manuscript Writing Has given Final Approval of the version to be published
Nawal Amjad	Substantial Contribution to acquisition and interpretation of Data Has given Final Approval of the version to be published
Ayila Mouzam	Contributed to Data Collection and Analysis Has given Final Approval of the version to be published
Zaraq Qamar	Contributed to Data Collection and Analysis Has given Final Approval of the version to be published
Jasia Bibi	Substantial Contribution to study design and Data Analysis Has given Final Approval of the version to be published

REFERENCES

1. Zahednezhad H, Zareiyan A, Jame SZBJBnj. Relationship between quality of work-life, resilience and burnout among nursing professionals during COVID-19 pandemic in Iran: A cross-sectional study. 2021;7(6):508.

2. Kocatepe M, Kocatepe V, Yildirim DJIJoHM. Work-life balance and burnout among emergency healthcare professionals during the COVID-19 pandemic: A cross-sectional study. 2024;17(3):498-504.

3. Pradhan S. Occupational Stress, Burnout, Work Family Conflict and Quality of Life Among Police Personnel Working in Ranchi: Central Institute of Psychiatry (India); 2021.

4. Saygili M, Avci K, Sönmez SJJoHM. Quality of work life and burnout in healthcare workers in Turkey. 2020;22(3):317-29.

5. Surawattanasakul V, Kiratipaisarl W, Siviroj PJBS. Burnout and Quality of Work Life among Physicians during Internships in Public Hospitals in Thailand. 2024;14(5):361.

6. Seo H-Y, Lee D-W, Nam S, Cho S-j, Yoon J-Y, Hong Y-C, et al. Burnout as a mediator in the relationship between work-life balance and empathy in healthcare professionals. 2020;17(9):951.

7. Urban A, Agus M, Aru N, Corona F, Cantone E, Cortese CG, et al. Double-Duty Caregiving, Burnout, Job Satisfaction, and Work–Life Balance Among Italian Healthcare Workers: A Descriptive Study. 2024.

8. Mu H, Deng Y, Li Y, Xie Q, Na J, Mao C, et al. Cross-sectional study of the association between burnout and work overload and work-life imbalance among medical personnel in Liaoning, China: role of specialty. 2024;14(6):e079304.

9. Kabunga A, Kigongo E, Okalo P, Udho S, Grace AA, Tumwesigye R, et al. Burnout and quality of life among healthcare workers in central Uganda. 2024;19(8):e0305713.

10. West CP, Dyrbye LN, Sinsky C, Trockel M, Tutty M, Nedelec L, et al. Resilience and burnout among physicians and the general US working population. 2020;3(7):e209385-e.

11. Stanley S, Sebastine AJJJoSW. Work-life balance, social support, and burnout: A quantitative study of social workers. 2023;23(6):1135-55.

12. Kasemy ZA, Abd-Ellatif EE, Abdel Latif AA, Bahgat NM, Shereda HMA, Shattla SI, et al. Prevalence of workaholism among Egyptian healthcare workers with assessment of its relation to quality of life, mental health and burnout. 2020;8:581373.

13. Gribben L, Semple CJJEJoON. Factors contributing to burnout and work-life balance in adult oncology nursing: an integrative review. 2021;50:101887.

14. Tomar A, Singh AP. Unraveling the Burnout-Work-Life Balance Nexus: A Secondary Data Analysis. 2023.

15. Lovell L-MP, Atherley AE, Watson HR, King RDJTLRHA. An exploration of burnout and resilience among emergency physicians at three teaching hospitals in the English-speaking Caribbean: A cross-sectional survey. 2022;15.

16. Duarte I, Alves A, Coelho A, Ferreira A, Cabral B, Silva B, et al. The mediating role of resilience and life satisfaction in the relationship between stress and burnout in medical students during the COVID-19 pandemic. 2022;19(5):2822.

17. Boamah SA, Hamadi HY, Havaei F, Smith H, Webb FJIjoer, health p. Striking a balance between work and play: The effects of work–life interference and burnout on faculty turnover intentions and career satisfaction. 2022;19(2):809.

18. Permarupan PY, Al Mamun A, Samy NK, Saufi RA, Hayat NJS. Predicting nurses burnout through quality of work life and psychological empowerment: A study towards sustainable healthcare services in Malaysia. 2020;12(1):388.

19. Abdelhadi Ibrahim B, Mostafa M, Hussein SMJJoPHR. Professional quality of life among physicians of tertiary care hospitals: An Egyptian cross-sectional study. 2022;11(2):jphr. 2021.436.

20. Zakiyah A, Basuki DJTMJoN. Burnout Syndrome Associated with Nurses' Quality of Life During the Covid-19 Pandemic. 2023;15(2):134-42.

21. O'Connor P, Lydon S, O'Dowd E, Byrne DJIJoMS. The relationship between psychological resilience and burnout in Irish doctors. 2021;190:1219-24.

22. Jain PJIJoIAiP. Quality Of Life And Burnout: A Study On Caregivers Of Elderly. 2024;2(4):1368: 99-: 99.

23. Qi H, Hongyan S, Song H, Zhihang Z, Ruiyin H, Youjia M, et al. The relationship between effort-reward imbalance and quality of working life among medical caregivers: mediating effects of job burnout. 2024;15:1375022.

24. Li X, Jiang T, Sun J, Shi L, Liu JJBn. The relationship between occupational stress, job burnout and quality of life among surgical nurses in Xinjiang, China. 2021;20:1-11.

25. Huan-Fang L, Chiang H-Y, Chang Y-J, Chang M-Y, Chiu-Hsiang L, Hsiu-Chuan W, et al. Effects of Resilience and Personal Accomplishment on the Relationship Between Quality of Work Life and Turnover Intention Among Newly Employed Nurses. 2024:10.1097.