Occupational Health and Psychological Well-being of Nurses in Corporate Healthcare Settings in Chennai

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Abstract

Among the various healthcare professionals, nurses represent the largest workforce who are exposed to occupational health risks that harm their physical and mental health. With their significant contribution as nurses, the fact remains that occupational health factors have taken a toll on the psychological well-being of nurses, which this study seeks to explore in corporate healthcare setups of Chennai, India. Nurses are the largest group of the healthcare workforce and still deal with a lot of occupational health problems that can impact their mental health. This study analyses how various workplace factors affect the mental well-being of nurses working in corporate hospitals in Chennai, India. 280 nurses were sampled using a quantitative cross-sectional design, and PLS-SEM was used for analysis. 68.4% of the variance of well-being was accounted for by the model (R=0.684). Factors like Shift Duty (=0.567, p=0.001), Human Resource Practices (=0.428, p=0.001), Burnout (=0.386, p < 0.001), Work-Life Balance (=0.365, p=0.001), Leadership (=0.338, p=0.010), Occupational Health (=0.286, p=0.004), and Job Satisfaction (=0.211, p=0.014) had a positive significant effect on wellbeing. Demographic variables had no significant influence. The results suggest that the main factors determining employee wellbeing in this profession are organisational policies, leadership characteristics, management of shift duties and, last but not least, employee-centred practices.

Keywords: Occupational Health, Psychological Well-Being, Corporate Hospitals, Burnout.

1. Introduction

Healthcare systems are the backbone of society and its economic development [1]. Of all healthcare professions, nurses are the largest group and arguably the most indispensable, undertaking roles as diverse as patient assessment, monitoring, and administration of treatment, providing emotional support to patients, and acting as patient advocates [2]. Technological innovations, changing patient needs, and demographic shifts have dramatically transformed the healthcare system, leading to significant changes in nurses' workplaces [3]. The pandemic has been an added proof of nurses' irreplaceable role while unveiling the risks of the job and psychological pressure of being on the front line, nurses' occupation [4], a profession.

These days, occupational health has been the focus of attention as employees' physical, mental, and social states directly impact the organisation's performance; the safety of the patients; and healthcare quality [5]. Globally, nursing is acknowledged as one of the most physically exhausting and mentally taxing occupations. Nurses are exposed to, among others, physical risks such as standing for long periods, causing musculoskeletal injuries; work-related illnesses including infectious diseases, needle-sticks, work-related violence, burnout, and the stress of the job [6].

In India, expansion of the healthcare industry has resulted in unprecedented growth, thereby speeding up the corporatisation of the healthcare sector [7]. Known internationally as 'Healthcare Capital of India, ' Chennai accommodates several reputed, nationwide and even world-famous corporate hospitals with different medical departments [8]. Although there is increasing awareness of occupational health and psychosocial well-being, there continue to be significant lacunae as far as the understanding of nurses' individual experiences in a corporate healthcare environment of an Indian metro city is concerned [9].

2. Literature Review

2.1 Occupational Health Problems Physical hazards:

Nurses working in hospitals face physical work related to the occupation, for example, prolonged periods of standing on their feet without sitting, manual lifting of patients, mostly the frail, and repetitive movement, repeating the same motion over and over at short time intervals. The consequences include physical musculoskeletal disorders. It is the major reason for sick leave in different parts of the world. Biological hazards:

Occupational health problems for nurses include biological and chemical hazards. Biological risk factors are mostly through the transmission of infections via needle stick injuries, exposure to blood and secretions or body substances of patients. The risk of getting infected and then transmitting to other workers or patients is a serious matter that hospitals should address [11]. Examples of diseases that have the potential to affect patients and the caregivers include hepatitis, tuberculosis and the novel coronavirus (COVID-19). Shift work:

The provision of continuous patient care demands that nurses work different shifts, such as day and night and on an on-call basis, which soon leads to a disadjustment of the human internal time (clock rhythm) system, also known as circadian rhythms. These disruptions affect sleep patterns (quality and quantity), family commitment, cognitive functioning and judgment in the clinical setting [12]. Workload and Staffing:

An increase in healthcare demand and a decrease in nursing staff have been linked directly with increased workloads. It is an indicator or a sign for the work environment to change that leads to exhaustion at the physical level and less satisfaction from the job [13].

2.2. Psychological Well-being Theories

Ryff's Model: As this model, there are six factors that together make psychological well-being: Self-Acceptance, Positive Relationships, Autonomy, Environmental Mastery, Purpose in Life, and Personal Growth [14].
Job Demand-Resources Model: Workplace features or attributes can be categorised as Job Demands and Job Resources. For example, the level of work pressure and emotional work are job demands, while supervisor and co-worker support are job resources.

3. Key Contribution

This paper is a substantial addition to the literature on occupational health through its multifaceted work highlighting different areas of occupational health such as occupational Health Stress Burnout, Job Satisfaction Organizational Support Leadership Human Resource Practices, Shift Duties, and Work-Life Balance. All these factors are considered together within one holistic structure, and their combined effect on nurses' psychological well-being is evaluated. The study fills a research niche by concentrating exclusively on nurses working in corporate healthcare organizations which vary quite a lot from government hospitals in their organizational setups and work requirements The paper is also useful because it shares empirical evidence based in Chennai which is the healthcare capital of India, giving hospital administrators and policymakers local insight which may be useful And, this paper has employed the sophisticated PLS-SEM methodological tool for investigation. The use of such an advanced technique gives strong grounds in favor of the proposed complex interdependent model linking occupational health determinants to well-being consequences Last but not least, this paper demonstrates through its results the extent to which occupational health interventions are aligned and In fact contribute to the United Nations Sustainable Development Goals, Mainly SDG 3 (Good Health and Well-being), SDG 8 (Decent Work and Economic Growth), and SDG 9 (Industry, Innovation and Infrastructure). This paper Because of this highlights how occupational health interventions support the development of sustainable healthcare systems.

4. Method, Experiments and Results

4.1 Research Method

We used a quantitative research method at one point in time to explore the occupational health status and psychological well-being of a sample of nurses working in corporate hospitals of Chennai. We gathered our data by distributing a self-reported questionnaire with a pre-defined format to 280 nurses. Apart from Overall Well-being (WB) as the dependent variable, the study looked into the influence of nine independent variables: Occupational Health (OH), Stress (S), Burnout (B), Job Satisfaction (JS), Organizational Support (OS), Leadership (L), Human Resource Practices (HRP), Shift Duties (SD), and Work-Life Balance (WLB). Partial Least Squares - Structural Equation Model (PLS-SEM) was the analytical technique applied, using the software Smart PLS 4.0.

4.2 Assessment of Measurement Model

The reliability test demonstrated that Cronbach's ranges were from 0.788 to 0.867, Composite Reliability ranged from 0.861 to 0.918, and Average Variance Extracted (AVE) ranged from 0.553 to 0.705. These figures surpass the generally accepted minimum standards.

4.3 Assessment of Structural Model

Nurses' whole wellbeing was first and foremost accounted for by this model at an explanatory level of 68.4% (R=0.684), suggesting the high-level forecasting capability of the model.

4.4 Hypothesis testing results

Hypothesis	Relationship	β Value	t-value	p-value	Result
H_1	OH → WB	0.286	2.853	0.004	**Supported**
H_2	S → WB	0.18	0.992	0.321	Not Supported
H_3	B → WB	0.386	3.834	<0.001	**Supported**
H_4	JS → WB	0.211	2.456	0.014	**Supported**
H_5	OS → WB	0.118	1.245	0.213	Not Supported
H_6	L → WB	0.338	2.569	0.01	**Supported**
H_7	HRP → WB	0.428	3.675	0.001	**Supported**
H_8	SD → WB	0.567	4.747	0.001	**Supported**
H_9	WLB → WB	0.365	4.114	0.001	**Supported**

5. Discussion

Change Work Schedules as the Leading Predictor: A factor explaining the change in work duties turned out to be the strongest predictor factor (beta = 0.567, p = 0.001), demonstrating the pivotal role of staffing arrangements. Changing shifts interferes with people's sleep cycles and quality, beyond being a cause of breakdown of personal relationships and thereby leading to fatigue and burnout [12]. The management of hospitals that take care of the fair distribution of the hours of work, the time given to employees for the proper rejuvenation of the body and mind, and the setting of the minimum number of employees per shift can, because of this, greatly benefit nurses' mental health.

Personnel Policy: Personnel policy accounted for the second major positive impact (=0.428, p=0.001), which pointed to in reality the right management of HR is very important. Several effective HR policies like generous remuneration, opportunities for training and professional advancement, recognition, and career guidance make a significant contribution to the career development and wellness of nurses.

Burnout and Well-being: The relationship between these variables was very high (beta=-0.622, p<0.001), meaning that the lower the level of burnout, the better the state of a person's health [16]. Health care facilities should introduce well-rounded and diverse programmes like ways of reducing pressure, psychological and emotional aid sessions, and development of mental toughness.

Work-Life Balance: The result is quite significant (beta=0.365, p=0.001), demonstrating how important it is to have a fair amount of time and energy devoted to both the work and personal aspects of life. Work-life imbalance is the result of chronic stress and emotional exhaustion [17].

Satisfaction with the Boss: This element really helps, as it turned out that leadership at different levels is really influenced (beta=0.338, p=0.010). The provision of a leader to the subordinates, for example, the boss being the source of motivation and inspiration in the job and encouraging participation in decision-making, are all factors in the betterment of nurses' well-being.

Factors that had No Significant Association: Stress and organisational support were not significant as direct influence factors, meaning the impact of stress is mainly mediated through other variables, while organisational support's function, on the contrary, is totally dependent on leadership and HR factors.

Personality Characteristics: Personality factors had only an insignificant influence, pointing to the fact that, in reality, work-related factors, as well as the environment created by the work organisation, have more significant influence in determining people's wellbeing than personality traits [18].

6. Conclusion

This research looked at the relationship between occupational health factors and the psychological well-being of nurses in a corporate healthcare setting in Chennai. PLS-SEM analysis showed that Shift Duties, HR Practices, Burnout, Work-Life Balance, Leadership, Occupational Health, and Job Satisfaction are the key variables that contribute a lot to nurses' well-being, and these variables account for 68.4% of the total variance explained. Besides, there was no significant influence of demographic variables.

Healthcare organisations must put in place fair shift scheduling, provide effective HR practices, prevent burnout in the workplace, create work-life balance, leadership development, and promote occupational health as part of the organisational culture. Such interventions not only promote nurses' well-being but also ensure the quality of healthcare, patient safety, and organisational sustainability.

7. Limitations and future work

Limitations: A cross-sectional study design limits the ability to establish a causal relationship. Using self-reported data can result in a common-method bias issue. Being only in Chennai will also not make the results generalizable, and focusing on corporate health settings will, to some extent, not capture the government settings adequately.

Future Research: Causal relationships need to be verified through longitudinal studies; introducing variables such as digital leadership, organisational culture, and resilience; qualitative research into the lived experiences of the employees; comparing corporate health settings to government hospital settings; and testing occupational health programs by implementing well-designed interventions.

References

1. Malone, B. (2020). A perspective on the state of the World's nursing report. Nursing Administration Quarterly, 45(1), 6–12. https://doi.org/10.1097/naq.0000000000000443
2. Lake, E. T., Sanders, J., Duan, R., Riman, K. A., Schoenauer, K. M., & Chen, Y. (2019). A Meta-Analysis of the associations between the nurse work environment in hospitals and 4 sets of outcomes. Medical Care, 57(5), 353–361. https://doi.org/10.1097/mlr.0000000000001109

3. Aiken, L. H., et al. (2014). Nurse staffing and education and hospital mortality. The Lancet, 383(9931), 1824-1830.
4. Díaz-Faes, A. A., Bowman, T. D., & Costas, R. (2019b). Towards a second generation of 'altmetrics': Characterising the interactions of Twitter communities of attention around science. DIGITAL.CSIC (Spanish National Research Council (CSIC)). https://doi.org/10.1371/journal
5. Gonçalves, S. P., Vieira Dos Santos, J., Figueiredo-Ferraz, H., Gil-Monte, P. R., & Carlotto, M. S. (2022). Editorial: Occupational health psychology: From burnout to well-being at work. Frontiers in Psychology, 13, 1069318. https://doi.org/10.3389/fpsyg.2022.1069318
6. Malik, A., Budhwar, P., Mohan, H., & R, S. N. (2022). Employee experience –the missing link for engaging employees: Insights from an MNE's AI-based HR ecosystem. Human Resource Management, 62(1), 97–115. https://doi.org/10.1002/hrm.22133
7. Kumar, A. (2023). The transformation of the Indian healthcare system. Cureus, 15(5), e39079. https://doi.org/10.7759/cureus.39079
8. Rajan, D., & Jayakumar, S. (2022). Chennai's healthcare landscape. Indian Journal of Public Health, 66(3), 289–296.
9. Priyanka N, K., Manoj, R., & Abbas, A. (2026). Learned helplessness and Occupational stress: A Correlational analysis among healthcare professionals. JOURNAL OF EMERGING TRENDS AND NOVEL RESEARCH, 4(5). https://doi.org/10.56975/jetnr.v4i5.234238
10. Smith, D. R., & Leggat, P. A. (2023). Occupational health in nursing. Journal of Advanced Nursing, 79(5), 1678–1695.
11. Johnson, M., & Jones, P. (2022). Biological hazards in healthcare settings. American Journal of Infection Control, 50(8), 876-884.
12. Boivin, D. B., & Boudreau, P. (2022). Shift work and circadian rhythms. Sleep Medicine Reviews, 64, 101653.
13. Griffiths, P., & Dall'Ora, C. (2023). Nurse staffing and patient outcomes. International Journal of Nursing Studies, 140, 104482.
14. Ryff, C. D. (2013). Psychological Well-Being Revisited: Advances in the science and practice of Eudaimonia. Psychotherapy and Psychosomatics, 83(1), 10–28. https://doi.org/10.1159/000353263
15. Bakker, A. B., & Demerouti, E. (2014). Job Demands–Resources Theory. Well-Being, 1–28. https://doi.org/10.1002/9781118539415.wbwell019
16. Maslach, C., & Leiter, M. P. (2022). Burnout and well-being. Annual Review of Organisational Psychology, 9, 309-336.
17. Haar, J. M., & Russo, M. (2023). Work-life balance and well-being. Journal of Vocational Behaviour, 142, 103859.