

Economic Challenges and Financial Burden among Nurses in Pakistan: A Narrative Review

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ABSTRACT

Although substantial part of health workforce in Pakistan is constituted by nurses, yet they are confronted with adverse socioeconomic factors and financial hardships. This narrative review is done by using eminent search engines and relevant Pakistani literature published during 2017 and 2026 in accordance with Scale for the Assessment of Narrative Review Articles (SANRA). This review integrates evidences from relevant peer-reviewed studies, organizational reports from nursing schools and health policy evidence to explore the trends in the economic and financial vulnerability of nurses in Pakistan. The review revealed five major themes that were inadequate remuneration relevant to workload and limited social protection, declining job satisfaction, occupational stress and burnout and overseas migration of skilled nursing professionals. Despite the scarcity of published evidence, escalating financial pressure among nurses is attributed to stagnant salary progression, marked wage disparities between public and private sector nurses, weak pension and social security benefits and persistent inflation. Some nurses therefore resigned from regular jobs and migrated abroad in search of better employment opportunities. This economic strain not only drastically impacts their job satisfaction but also comprises the quality of healthcare. Policy changes deemed necessary for financial security of nurses will take time because they need sustained political commitment, institutional reforms and coordination of multiple stakeholders. Addressing the financial hardship of Pakistani nurses is crucial for their economic well-being, their retention in the country and to achieve a resilient and sustainable health systems.

Keywords: Nurses; Socioeconomic Factors; Job Satisfaction; Burnout; Inflation; Health System

Introduction

Nurses are foundation of health systems that encompass preventive, curative, rehabilitative and emergency care services. However, their workforce shortage across the globe emphasizes the need for sustained investment in nursing education, supportive employment and capacity building for their professional competence [1]. Pakistan has faced substantial economic and health challenges with inflation, devaluing of currency and fiscal constraints profoundly affecting the low- and middle-income households. Rising cost of basic necessities of life may diminish the purchasing powers of nurses and intensify their financial hardship [2]. The quality of nursing care has become one of the prime challenges worldwide that directs the attention of

key stakeholders towards its contributing factors [3]. In Pakistan, there have been consistent reporting of insufficient salary package for nurses, inadequate financial rewards, excessive workloads and limited benefits that are strongly illustrative of malalignment of their remuneration with their job description [4]. About 65.57% and 83.82% of the nurses' migration in Pakistan are attributed to various push and pull factors respectively [5]. In short, unstable economy and political turmoil are determined to be the prime factors contributing to cross-border migration of nurses [6].

Analyzing the migration of skilled and educated workers from Pakistan in 2024, nurses were tiered 5th amongst the highly qualified personnel. The Compound Annual Growth Rate (CAGR) of the nurs-

es (2014-2914) illustrates the registration of 31.4% of the Pakistani nurses abroad [7]. Approximately 30% of the Pakistani nurses were reported with severe occupational stress particularly in Karachi that directs our attention towards their psychological well-being [8]. However, pooled prevalence of occupational burnout among our nurses was estimated to be 68% [9]. This narrative review is intended to synthesize evidence on the economic and financial challenges faced by nurses in Pakistan, including remuneration, cost-of-living pressures, employment insecurity, social protection, workload, and psychosocial well-being. This review would enable us to identify policy and health-system strategies to strengthen nurses’ economic security and retention in Pakistan.

Methods

Review Design

This narrative review was planned to synthesize the literature pertaining to the nurses’ economic scenario in Pakistan. Various cross-sectional studies, qualitative and mixed method studies, systematic reviews, meta-analyses and policies formulated by provincial finance department were analyzed. Studies directly emphasizing the financial burden are relatively limited, requiring synthesis across related domains rather than statistical pooling. This review was structured in accordance with the Scale for the Assessment of Narrative Review Articles (SANRA) checklist [10], particularly justification of the review, literature search strategy, appropriate citation of the sources, scientific reasoning and illustration of the relevant outcomes.

Literature Search

A focused search was undertaken using PubMed/MEDLINE, Scopus, Web of Science, CINAHL and Google Scholar alongside targeted searches of Pakistani medical and nursing journals. The search strate-

gy employed Boolean operators “OR” to combine search. Search terms encompassed the concepts related to:

- “nurses” OR “nursing workforce”;
- “Pakistan” OR “Pakistani”;
- “salary” OR “remuneration” OR “income” OR “compensation”;
- “economic burden” OR “financial stress” OR “financial insecurity”;
- “job satisfaction” OR “job dissatisfaction”;
- “employment insecurity” OR “job insecurity”;
- “occupational stress” OR “burnout”;
- “workload” OR “staffing”;
- “turnover” OR “retention”; and
- “migration” OR “brain drain”.

Literature published from January 2017 to August 2026 was reviewed. Studies directly examining the Pakistani nurses were prioritized. However; international systematic reviews were evaluated where Pakistani evidence was inadequate.

Eligibility and Synthesis

Peer-reviewed empirical studies, qualitative studies, mixed-methods studies, systematic reviews, meta-analyses and relevant scholarly analyses were considered. Studies were narratively synthesized according to major thematic domains rather than subjected to quantitative meta-analysis. The key emerging themes were as follows” (Figure 1).



Figure 1.

Salary Inadequacy as a Central Economic Challenge: Although economic well-being of the nurses worldwide is judged by their level of education, workload, occupational hazards and cost of living they face; their salary is considered one of the key indicators of their economic wellness [11]. Pakistani studies are suggestive of job satisfaction among nurses with the compensation given to them for their excessive workload. A study of Pakistani nurses examining communication, job clarity, supervisor support and fairness identified compensation among the factors associated with job satisfaction [12]. A cross-sectional study by Ahmad MS et al among nurses working in public and private sector hospitals elucidated that environmental and organizational attributes are the key determinants of their job satisfaction [13]. Evidences from international studies are suggestive of the positive correlation between remuneration and employee retention [14]. Consistent with these, job satisfaction and organizational commitment have been documented with a pivotal role in nurses' intention to remain in their current employment [15].

Inflation and Declining Real Income: Dramatic increase in economic burden is felt when nominal salary rise fails to keep pace with inflation. The rising costs of basic necessities of life seems to erode the purchasing power of nurses [16]. Pakistan's inflationary pressure has intensified the financial burden on the nurses. As nurses have to deal with human lives so their clinical responsibilities cannot be accomplished without their physical presence and extended duty hours. Despite their strict job description, nominal salary is offered to them that make them highly vulnerable to resultant economic challenges [17]. The economic consequences of insufficient remuneration may extend beyond immediate financial hardship and include reduced capacity to save, greater dependence on household or family income, increased reliance on borrowing. The financial catastrophe may also lead to postponement of educational and home-ownership plans [18].

Direct household-level studies of these consequences among Pakistani nurses remain limited, representing an important evidence gap.

Employment Security & Social Protection: Economic security is determined not only by the level of income but also by how predictable that income is over a period of time. Human resource hired on contract or adhoc basis often face greater uncertainty about future earnings and minimal access to the benefits like increments or pensions [19]. When healthcare systems face simultaneous shortage of workforce and financial constraints, organizations often turn short-term employment arrangements to keep services running [20]. This creates a paradox: nurses are indispensable to resilient and sustainable health system, yet the employment conditions they receive frequently fail to reflect that significance [21]. Organizational support plays vital role for job satisfaction among nurses in Pakistan. In a study of 352 nurses across public and private sector hospitals, both organizational support and the perceived work environment were associated with job satisfaction and quality of patient care. Hence, organizational commitment is a crucial mediating factor in this relationship [13].

Leadership and psychological empowerment were found to be strongly correlated with workplace commitment and dedication to the organization among Pakistani nurses [22]. Transformational leadership is of paramount significant in leading nursing staff and has been recognized as one of the precursors of positive organizational outcomes. It enhances the chances of workforce retention and facilitates smooth executive of official work [23]. During economic instability and healthcare collapse, nurses often do additional shifts, have long working hours, or tolerate unfavorable work environment just for basic necessities of life [24]. This creates job insecurity cycle as depicted below. Interrupting this cycle demands stronger labour protections rather than reliance on individual coping capacity (Figure 2).

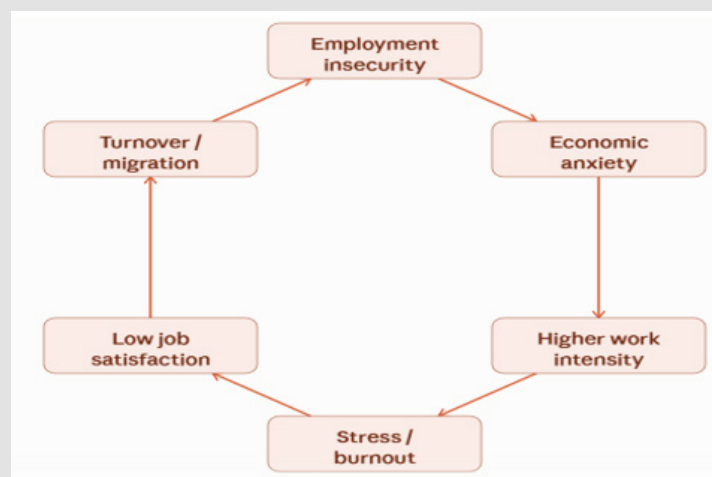


Figure 2.

Workload, Occupational Stress & Burnout

Staffing Shortages

Both public and private sector healthcare facilities may confront with shortage of nurses. When fewer nurses are available to provide care, existing workforce are subjected to additional workload [25]. This may manifest as overtime, missed breaks, extended shifts, high patient-to-nurse ratio. This enhances the likelihood of nervous and mental exhaustion [26]. Pakistani studies consistently highlight workload and staff shortage as fundamental operational difficulties. International evidences are strongly suggestive of the association between nurse staffing levels and nurse-related outcomes in terms of burnout and job dissatisfaction [27]. Meta-analyses have illustrated the associations between nurse staffing levels and nurse outcomes, while systematic reviews indicate that staffing models and approaches can substantially improve both nurse and patient outcomes [28,29].

Systematic review of cohort studies with prospective study design revealed positive association between staffing of less qualified nurses and suboptimal health indices [30]. When nurses perform additional tasks without remuneration, excessive workload effectively becomes a form of uncompensated labour intensity. Beyond this direct cost, high workload may result in indirect cost through sickness absenteeism and reduced work productivity [31]. Investing in adequate nurse staffing shouldn't be seen as just another line item on a budget. It's an investment - one that pays off in a more productive workforce, safer patients, and a health system that runs better for the long haul.

Occupational Stress and Burnout: The Financial-Psychological Interface

Earlier studies among Pakistani nurses point to the same conclusion. Of 288 nurses caring for COVID-19 patients, nearly half revealed the signs of burnout. More than a third experienced severe emotional exhaustion (37.2%) and severe depersonalization (36.8%), and almost half (46.9%) reported a diminished sense of personal accomplishment. These grave consequences were substantially attributed to the heavier patient loads [32]. The COVID-19 pandemic made us very clear about how deeply financial and psychological pressures can adversely affect the well-being of an individual. Healthcare workers in Pakistan weren't just afraid or anxious of getting infected most of them were also worrying about money due to their predisposition to cumulative weight of fear, stress, and psychological strain [33]. Pakistani nurses were subjected to considerable psychological challenges and coping difficulties during the pandemic [34]. The consequences of nurse burnout worldwide extend beyond individual well-being.

A systematic review and meta-analysis by Li LZ et al were illustrative of not only the positive association of nurse burnout with their impaired healthcare but also highlighted the resultant compromised patient safety and quality of care. This factor also adversely affected

the degree of patient satisfaction [35]. Burnout is a critical problem that cannot be managed at individual level. It is related to poor human resource management and fiscal challenges of an organization. Tackling the issue of burnout is not simple. Apart from multi-sectoral approach, there is need of coordinated efforts from all relevant stakeholders.

Job Satisfaction, Turnover and Organizational Consequences

Job satisfaction isn't shaped by any single factor - it's the cumulative effect of multiple factors operating together. How well a nurse is paid, how heavy their workload is, how they're managed, whether their contribution is recognized, how they get along with colleagues, whether there's room for their professional growth, and whether the workplace treats them fairly - all of these feed into how satisfied a nurse ultimately feels at the workplace [36]. A study examining Pakistani nurses' perception of calling also found relationships among career commitment, organizational commitment and job stress, demonstrating that intrinsic motivation does not eliminate the grave consequences of poor working climate [37]. This is of utmost importance specifically in Pakistan where nursing profession is perceived to have strong affiliation with service and sacrifice. Professional commitment can encourage nurses to work in unfavorable or unsupportive work environment, but sole reliance on professional altruism cannot substitute for fair remuneration and safe working conditions.

International literature emphasize that interventions directed toward improving nurse job satisfaction can be effective in improving the patient care [38]. Job satisfaction is closely associated with nurses' career intentions, including their disposition to remain in or leave primary healthcare employment [39]. Therefore, improving financial security should be accompanied by improvements in organizational climate, acknowledgment and career development. Hence, Nurse turnover epitomizes one of the most critical economic consequences of poor employment settings. In Pakistan, several studies have delineated the issues correlated with turnover intention. When someone experiences bullying at work, apart from hurting it builds up as stress, and that stress is often what steers them to leave their job altogether [40]. when workplace become irritating for the employees and there is little support from management, or when gender discrimination is part of the everyday experience - it's no surprise that people start thinking seriously about walking away. [41] More recent research continues to identify workplace bullying, job satisfaction and self-efficacy as important factors contributing to nurses' turnover intentions [42]. Hospitals often pour money into recruiting new nurses to fill the gaps - but if they never stop to ask why their experienced nurses left in the first place, they're just treating the symptom while the underlying problem keeps repeating itself [43].

International Migration and Health System Sustainability

International migration represents one of the most visible economic responses to the challenges encountered by Pakistani nurses. A qualitative study looking into why Pakistani nurses consider migrating found a mix of reasons behind that pull. Pay gaps mattered, but so did the country's political instability, difficult working conditions, and a lack of opportunities to grow professionally. Personal safety was a real concern for many, and on top of all that, active recruitment efforts from other countries made leaving feel like a genuine, accessible option rather than just a distant idea [44]. The scale of this problem becomes clearer when you look at the numbers. Between 1971 and 2022, nearly 12,900 Pakistani nurses left the country -making up roughly a quarter of all healthcare professionals who migrated during that period. Researchers point to the same underlying drivers again and again: too few job opportunities, poor salaries, weak infrastructure, and a political climate that made staying feel unsustainable [45]. A study by Rizwan R et al on nurses' brain drain in Pakistan correspondingly detects the socioeconomic and professional factors as contributors to international migration [5].

Global research backs this up too. A systematic review looking at nurse migration around the world found that whether nurses stay in the countries they move to often comes down to things like how well organizations prepare for and support incoming staff, how welcoming the social and cultural environment feels, and whether there are real opportunities to grow professionally and truly integrate into the new workplace [29]. A scoping review of migrant nurse retention identified personal, organizational, financial, political and environmental factors [46]. This perspective is not intended to question nurses' right to seek opportunities abroad. Rather, it highlights the importance of improving the working and economic conditions at home, so that migration becomes a genuine personal choice rather than a necessity driven by financial hardship or limited professional opportunities [44].

Strengths and Limitations of the Review

This review has real strengths, but it's worth being upfront about its limits too.

On the strengths side: rather than treating financial burden as simply a question of salary, this review pulls together economic, occupational, organizational and migration evidence to build a fuller picture. It also draws on recent Pakistani systematic reviews and meta-analyses, alongside Pakistan-specific studies and relevant international evidence on workforce economics. That said, a few limitations deserve honest acknowledgment. First, there simply isn't much direct research measuring how financial strain plays out in Pakistani nurses' households - so some conclusions here lean on indirect signals like job dissatisfaction, stress, burnout, turnover and migration, rather than on hard financial data. Second, most of the available Pakistani

studies are cross-sectional and hospital-based, which makes it hard to draw firm causal conclusions or generalize findings nationally [47].

Third, the studies themselves aren't always comparing like with like - instruments, populations and even how burnout, job satisfaction and turnover are defined vary considerably. The recent burnout meta-analysis, for instance, showed very high heterogeneity between studies. Fourth, salary data isn't consistently reported in the peer-reviewed literature, which makes it genuinely difficult to compare public- and private-sector pay with much precision. And finally, since this is a narrative review rather than a systematic one, the synthesis presented here is interpretive by nature - it shouldn't be read as a quantitative estimate of how widespread financial hardship actually is.

Conclusion

The economic struggles facing Pakistani nurses aren't just about paycheck dissatisfaction - they're a symptom of something bigger. Nurses are navigating rising inflation, shrinking purchasing power, insecure jobs, thin social protections, heavy workloads, chronic stress, burnout, workplace violence, and growing career frustration - all while opportunities to work abroad keep multiplying. None of these pressures exist in isolation. Financial insecurity pushes nurses to work harder and absorb more stress. Poor conditions feed burnout and dissatisfaction. Dissatisfaction pushes nurses toward the exit - whether that means leaving the profession or leaving the country. And every departure adds more weight onto the nurses who stay behind, closing the loop. Recent evidence showing how widespread stress and burnout have become among Pakistani nurses makes the case even harder to ignore. Global research tells the same story: staffing levels, organizational support, job satisfaction, and working conditions all shape whether nurses stay and how well patients fare. Investing in the economic security of nurses is not merely an employment intervention; it is an investment in patient safety, health-system sustainability and the future of Pakistan's healthcare workforce.

References

1. (2023) World Health Organization. The International Year of the Nurse and the Midwife: Taking stocks of outcomes and commitments. World Health Organization.
2. Khabir Y (2023) Pakistan's economic and health crisis: calls for urgent action. *Lancet* 402(10405): 849-850.
3. Vinckx MA, Bossuyt I, Dierckx de Casterlé B (2018) Understanding the complexity of working under time pressure in oncology nursing: a grounded theory study. *Int J Nurs Stud* 87: 60-68.
4. Yasir S, Majeed S, Khan A (2022) Factors affecting performance of professional nurses in a tertiary care hospital, Rawalpindi. *Int J Sci Res Publ* 12(2): 622.
5. Rizwan R, Baig MK, Sehrish (2024) Nurses' Brain drain in Pakistan: The determinants and reasons pertaining to nurses leaving Pakistan to overseas territories in health system. *Qlantic Journal of Social Sciences* 5(4): 390-405.
6. Meo SA, Eldawlatly AA, Sultan T (2024) Impact of unstable environment on the brain drain of highly skilled professionals, healthcare workers, re-

- searchers, and research productivity in Pakistan. *Saudi Journal of Anaesthesia* 18(1): 48-54.
7. (2024) The Pakistan Business Council. Pakistan's Nursing workforce – Export, potential, challenges, and Recommendations.
 8. Ghanei Gheshlagh R, Mukhtar M, Asmat K, Sharafi S (2025) The silent strain: a systematic review and meta-analysis on the prevalence of occupational stress among Pakistani nurses. *BMC Nurs* 24(1): 347.
 9. Mukhtar M, Ebrahimi H, Ali M (2026) Burnout among Pakistani nurses: a systematic review and meta-analysis. *BMC Nurs* 25(1): 356.
 10. Baethge C, Goldbeck Wood S, Mertens S (2019) SANRA – A scale for the quality assessment of narrative review articles. *Research Integrity and Peer Review* 4(1): 5.
 11. (2020) World Health Organization. State of the World's Nursing 2020: Investing in Jobs, education and leadership. Geneva: WHO, p. 47.
 12. Brohi NA, Abdullah MMB, Khan AM, Dahri AS, Ali R, et al. (2018) Communication quality, job clarity, supervisor support and job satisfaction among nurses in Pakistan: the moderating influence of fairness perception. *Int J Acad Res Bus Soc Sci* 8(5): 1-7.
 13. Ahmad MS, Barattucci M, Ramayah T, Ramaci T, Khalid N (2022) Organizational support and perceived environment impact on quality of care and job satisfaction: a study with Pakistani nurses. *Int J Workplace Health Manag* 15(6): 677-693.
 14. Bimpong KAA, Khan A, Slight R, Tolley CL, Slight SP (2020) Relationship between labour force satisfaction, wages and retention within the UK National Health Service: a systematic review of the literature. *BMJ Open* 10(7).
 15. Pressley C, Garside J (2023) Safeguarding the retention of nurses: a systematic review on determinants of nurses' intentions to stay. *Nurs Open* 10(5): 2842-2858.
 16. Barry J (2021) Real wage growth in the U.S. health workforce and the narrowing of the gender pay gap. *Hum Resour Health* 19(1): 105.
 17. Hamid S, Malik AU, Kamran I, Ramzan M (2013) Job satisfaction among nurses working in the private and public sectors: a qualitative study in tertiary care hospitals in Pakistan. *J Multidiscip Healthc* 7: 25-35.
 18. Ullah H, Ather S, Ch A, Meerub, Saleem RM (2018) Factors influencing job satisfaction of nurses in public and private sector's hospitals: A cross sectional study. *Pak J Public Health* 8(3): 147-151.
 19. Kalleberg AL (2009) Precarious Work, Insecure Workers: Employment Relations in Transition. *American Sociological Review* 74(1): 1-22.
 20. Hult M, Halminen O, Mattila Holappa P, Kangasniemi M (2022) Health and work well-being associated with employment precariousness among permanent and temporary nurses: A cross-sectional survey. *Nordic Journal of Nursing Research* 42(3): 140-146.
 21. Hult M, Ring M (2024) The impact of precarious employment on the commitment of registered nurses. *Int Nurs Rev* 71(4): 942-948.
 22. Iqbal K, Fatima T, Naveed M (2020) The impact of transformational leadership on nurses' organizational commitment: a multiple mediation model. *Eur J Investig Health Psychol Educ* 10(1): 262-275.
 23. Boamah SA, Laschinger HKS, Wong C, Clarke S (2018) Effect of transformational leadership on job satisfaction and patient safety outcomes. *Nurs Outlook* 66(2): 180-189.
 24. Granero Lázaro A, Blanch Ribas JM, Roldán Merino JF, Torralbas Ortega J, Escayola Maranges AM (2017) Crisis in the health sector: Impact on nurses' working conditions. *Enfermería Clínica* 27(3): 163-171.
 25. Haddad LM, Annamaraju P, Toney Butler TJ (2023) Nursing Shortage. In *StatPearls*. StatPearls Publishing.
 26. Bae SH (2024) Nurse Staffing, Work Hours, Mandatory Overtime, and Turnover in Acute Care Hospitals Affect Nurse Job Satisfaction, Intent to Leave, and Burnout: A Cross-Sectional Study. *International Journal of Public Health* 69: 1607068.
 27. Aiken LH, Sloane DM, Bruyneel L, Van den Heede K, Griffiths P, et al. (2014) Nurse staffing and education and hospital mortality in nine European countries: a retrospective observational study. *Lancet* 383(9931): 1824-1830.
 28. Shin S, Park JH, Bae SH (2018) Nurse staffing and nurse outcomes: a systematic review and meta-analysis. *Nurs Outlook* 66(3): 273-282.
 29. Twigg DE, Whitehead L, Doleman G, Ei Zaemey S (2021) The impact of nurse staffing methodologies on nurse and patient outcomes: a systematic review. *J Adv Nurs* 77(12): 4599-4611.
 30. Dall'Ora C, Saville C, Rubbo B, Turner L, Jones J, et al. (2022) Nurse staffing levels and patient outcomes: a systematic review of longitudinal studies. *Int J Nurs Stud* 134: 104311.
 31. Al Ismail H, Herzallah NH, Al Otaibi ST (2023) What are the predictors and costs of nurse absenteeism at select multicenter government hospitals? A cross-sectional study. *Front Public Health* 11: 1073832.
 32. Andlib S, Inayat S, Azhar K, Aziz F (2022) Burnout syndrome and psychological distress among Pakistani nurses providing care to COVID-19 patients: a cross-sectional study. *Int Nurs Rev* 69(4): 529-537.
 33. Sarfraz M, Ji X, Asghar M, Larisa Ivascu, Ilknur Ozturk (2022) Signifying the relationship between fear of COVID-19, psychological concerns, financial concerns and healthcare employees job performance: a mediated model. *Int J Environ Res Public Health* 19(5): 2657.
 34. Haider AH (2020) Coping experiences of Pakistani nurses against corona stressor: a qualitative study. *Int J Adv Nurs Stud* 9(1): 37-41.
 35. Li LZ, Yang P, Singer SJ, Pfeffer J, Mathur MB, et al. (2024) Nurse burnout and patient safety, satisfaction, and quality of care: a systematic review and meta-analysis. *JAMA Netw Open* 7(11): e2443059.
 36. Lu H, While AE, Barriball KL (2005) Job satisfaction among nurses: A literature review. *Int J Nurs Stud* 42(2): 211-227.
 37. Afsar B, Shahjehan A, Cheema S, Javed F (2018) The effect of perceiving a calling on Pakistani nurses' organizational commitment, organizational citizenship behavior, and job stress. *J Transcult Nurs* 29(6): 540-547.
 38. Niskala J, Kanste O, Tomietto M, Miettunen J, Tuomikoski AM, et al. (2020) Interventions to improve nurses' job satisfaction: a systematic review and meta-analysis. *J Adv Nurs* 76(7): 1498-1508.
 39. Bae SH (2022) Noneconomic and economic impacts of nurse turnover in hospitals: a systematic review. *Int Nurs Rev* 69(3): 392-404.
 40. Malik OF, Sattar A, Shahzad A, Faiz R (2020) Personal bullying and nurses' turnover intentions in Pakistan: a mixed methods study. *J Interpers Violence* 35(23-24): 5448-5468.
 41. Noor N, Rehman S, Ahmed Y, Rizwan S, Sarmad M (2024) Why do nurses leave their jobs? Understanding person-related hostility in the healthcare sector of Pakistan. *PLoS One* 19(6).
 42. Souza Costa AC, Oliveira HC, Guirardello EB (2026) Relationship Among Workplace Bullying, Job Satisfaction, Burnout, and Turnover Intention: The Mediating Role of Nurses' Resilience. *Nursing Research and Practice* 2026: 8868659.
 43. Pascale A, Welch TD, Smith TB, Warshawsky NE (2026) Reducing Nurse

- Turnover: A Key Strategy for Lowering Patient Falls and Costs. Nurs Adm Q 50(2): 119-122.
44. Khowaja Punjwani S, Macer D, Rafique N (2023) A qualitative study exploring perceptions of Pakistani nurses about nursing workforce migration: analysis and policy implications. Liaquat Natl J Prim Care 5(3): 174-182.
45. Meo SA, Sultan T (2023) Brain drain of healthcare professionals from Pakistan from 1971 to 2022: Evidence-based analysis: Brain drain from Pakistan. Pakistan Journal of Medical Sciences 39(4): 921-925.
46. Villamin P, Lopez V, Thapa DK, Cleary M (2024) Retention and turnover among migrant nurses: a scoping review. Int Nurs Rev 71(3): 541-555.
47. (2019) National Academies of Sciences, Engineering, and Medicine. Taking Action Against Clinician Burnout: A Systems Approach to Professional Well-Being. The National Academies Press (US).

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