

Wellbeing Programmes and Workforce Retention in Hospitals: Evidence, Gaps, And Relevance for Health Systems in Low- And Middle-Income Countries

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ABSTRACT:

Background: The problem of workforce shortages, migration, burnout and increasing care complexity have placed the issue of hospital retention on the frontlines. Wellbeing programmes have been presented as part of the solution, yet the evidence is dispersed and not necessarily interpreted in a manner that can be helpful in lower-resource contexts.

Objective: To review the evidence on hospital wellbeing programmes and their relationship with workforce retention, with a specific focus on low- and middle-income countries (LMICs).

Methods: This narrative review was drawn from targeted search of peer-reviewed articles, WHO reports and reference lists, with a focus on systematic reviews, large-scale hospital studies, and LMIC or African evidence published between 2010 and January 2026.

Results: Short-term psychological outcomes may be enhanced by individual interventions (mindfulness, resilience training and brief psychoeducational programmes), although the best retention indicators are found in more organisational interventions: supportive leadership, healthier practice environments, sufficient staffing, early-career transition support, schedule control, recognition and professional development. The evidence in LMICs is less and methodologically imbalanced but it is also consistent that poor working conditions, burnout, fatigue and low job satisfaction are associated with intention to leave.

Conclusion: Wellbeing programmes are most likely to aid retention when they are part of staffing, supervision, workload management and career support, as opposed to being an independent add-on.

KEYWORDS: wellbeing programmes, workforce retention, hospitals, burnout, job satisfaction, LMICs, health systems.

Abbreviations: HCWs, healthcare workers; LMICs, low- and middle-income countries; NRP, nurse residency programme; TI, turnover intention; WHO, World Health Organisation.

INTRODUCTION

Hospitals all over are struggling to keep staff in an environment that is becoming increasingly hostile. Care demand is increasing, patients are becoming more demanding, and the available workforce is becoming increasingly strained to cope with the demand. The World Health Organisation now projects that the shortage in the health and care workforce by 2030 will have increased to 11 million workers on the global stage, with the overall pool of health workers numbering over 70 million, and with women making up about two-thirds of the workforce.³ Nursing, the largest occupation in most hospital systems, has increased worldwide, although the benefits have been unevenly distributed, with most vulnerabilities still concentrated in lower-resource settings.²

That larger context is important since retention ceases to be a backburner of a workforce issue. It is at the heart of service continuity, patient safety, financial stability and institutional memory. Understaffed units in hospitals fail not only to recruit staff but also to retain experienced clinicians and lose them faster; they are more dependent on temporary staffing and subject those who stay to increasing workload, fatigue and emotional exhaustion. Previous research on the nursing practice environment demonstrated that management style, job stress and professional job satisfaction directly affect retention,³ and large-scale studies in hospitals have consistently reported that higher patient-to-nurse ratios are directly associated with burnout, job dissatisfaction and poor patient outcomes.⁴

It is against that backdrop that wellbeing programmes have been more noticeable. Practically, the word is employed quite loosely. It is sometimes called mindfulness sessions, access to counselling or resilience workshops. In other cases, it incorporates mentorship, leadership, flexibility of schedule, rest areas, peer-support systems, secured breaks, or early-career transition

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programmes. The scope of such a label poses a challenge to both academics and practitioners: it may cause very different interventions to seem similar when they are not. A broad yet practical definition is thus adopted in this review. Here, a wellbeing programme is any planned hospital-level or unit-level intervention aimed at enhancing the psychological, emotional, social or occupational wellbeing of workers, where it is anticipated that enhancement of wellbeing can be used to enhance retention.

This paper is aimed at analysing what the evidence really indicates, what the gaps still exist and why the question is particularly significant in hospitals of the low- and middle-income countries. The review is written with Nigeria and similar health systems in mind but based on international evidence where the literature is more developed.

METHODS

This article has been created as a narrative review instead of a formal systematic review. The search was done using PubMed, Google Scholar and publicly available WHO documents, and supplementary articles were located via citation chaining of key reviews. The search was limited to material published since 2010 to January 2026, but a few older landmark studies have been retained as they continue to be foundational to the current understanding of hospital work environments and retention.^{3,4}

Four types of evidence were prioritised: first, systematic reviews and meta-analyses of burnout reduction, resilience, work environment and retention; second, empirical studies of hospitals that provided a more contextually relevant evidence on the workforce challenge in Nigeria; third, LMIC and African studies that helped to situate the workforce challenge within the current global reality; and fourth, recent WHO documents that helped to contextualise the work.^{1,2,5-11}

The central argument of the review was shaped by papers that had a clear relevance to the hospital workforces or health professional retention. Research that was exclusively student-based, non-health care or with a limited scope of clinical outcomes, but without workforce consequences were not given priority. Since the review is of a narrative nature, it does not purport to be comprehensive. It is an interpretive and not an inventory-like goal: to compile the most policy-relevant strands of evidence and evaluate what they imply to hospitals that face sustained workforce pressure.

Table 1: Main categories of wellbeing programmes and what the evidence suggests

Programme area	Typical components	Main outcomes reported	Overall message
Individual-focused supports	Mindfulness, resilience training, stress management, psychoeducation, coaching	Improved stress, resilience or emotional wellbeing in the short term	Useful as supportive measures, but retention effects are seldom measured directly and appear modest when organisational conditions remain unchanged.
Team and leadership support	Mentorship, peer support, reflective debriefing, supportive supervision, recognition, communication routines	Better teamwork climate, lower emotional strain, higher job satisfaction and intent to stay	These interventions matter because staff often experience wellbeing through the quality of day-to-day relationships, not through policy statements alone.
Organisation and work-environment supports	Adequate staffing, schedule flexibility, role clarity, participatory management, rest and recovery spaces, safe workload design	Lower burnout, better quality of care, stronger retention signals	This is where the strongest workforce evidence sits. Programmes that reshape the work environment tend to outperform stand-alone individual coping interventions.
Early-career transition supports	Orientation programmes, preceptorship, residency, protected learning time, career development pathways	Improved confidence, professional belonging and retention among newer staff	Transitional support is especially valuable where hospitals lose staff early in their careers or struggle to stabilise new recruits.

Sources: include references ^{5-15,25,28}

FROM WELLBEING TO RETENTION: HOW THE PATHWAY WORKS

The fact that wellbeing and retention are interrelated in multiple ways simultaneously is one of the reasons why the literature may seem confusing. Employees do not tend to quit a job due to a single factor. They quit when they become fatigued, when they feel unsafe or unjustified at work, when they no longer feel respected, when growth seems to be stunted, or when the effort to continue working exceeds that which the organisation returns. This is why the older language of the practice environment is useful yet.^{3,4}

The same logic is generally supported by the intervention literature. Both West et al. and Panagioti et al. report in their landmark reviews of physician burnout that the effects of interventions on burnout are generally small to moderate and greater when the interventions focus on the work environment, teamwork and role organisation, as opposed to the individual coping better.^{5,6}

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Recent syntheses indicate a consistent trend across healthcare settings: interventions focused on the work environment, teamwork, and role organisation are more likely to yield significant improvements in job satisfaction and occupational well-being compared to standalone awareness campaigns or singular training sessions.^{8,9,11}

It does not imply that individual supports are not important. Interventions based on resilience-building, for example, tend to enhance self-reported resilience and psychological wellbeing, and even light-touch programmes can be effective when time and funds are tight.¹⁰ The problem is that hospitals tend to overestimate the effect of such interventions. A nurse who quits due to chronic understaffing, frequent missed breaks, unfriendly supervision or an untenable schedule is not likely to be retained by a mindfulness session alone. Practically, the most plausible impact of wellbeing programmes on retention is through the decrease in job demands, reinforced local support, augmented professional control and the job-made to feel more sustainable.

WHAT THE REVIEW EVIDENCE SHOWS

The literature review has become quite coherent with the broader picture. To begin with, burnout reduction interventions are effective, with their mean impacts being small and uneven. The results of West et al. Showed small yet significant decreases in burnout following individual-focused and structural interventions and Panagioti et al. Showed that organisation-directed strategies related to larger changes than physician-focused strategies alone are significant as they warn against simplistic claims.^{5,6} The question is not whether wellbeing programmes are effective in the abstract, but what types of programmes are effective, for whom are they effective, and in what organisational circumstances.

Second, the evidence devoted to the nursing work environment is becoming increasingly convincing. Prior systematic review efforts had already indicated that interventions aimed at improving practice environment were linked to staff experience benefits, although the literature is still quite heterogeneous.^{7,8} A scoping review of systematic reviews indicates that the same interventions can be linked to mental health outcomes, with much less evidence going all the way to retention or long-term employment outcomes.⁹

Third, early-career transition support in the early career phase appears to be more robust than it is acknowledged. Brook et al. discovered that effective retention programs in early-career nurses often involved both structured transition support and teaching, preceptorship and mentorship over a few months, as well as found that organised residency support often enhances retention among new nurses and may reduce early attrition, which is frequently one of the costliest types of workforce losses in hospitals.^{12,13}

Fourth, supportive leadership is a facilitating condition that recurs as an enabling condition and not a peripheral one. Hospital practice environment studies indicate that the leader support can affect the perceptions of the staff in terms of workload, perceived fairness, voice, perceived teamwork and perceived psychological safety.¹⁴ More recent studies indicate that leadership style can directly influence turnover intention, with supportive organisational climates and perceived organisational support helping to dilute the relationship between strain and turnover intentions.^{24,25}

THE RETENTION ENDPOINT: WHY WELLBEING STILL MATTERS

One of the most common criticisms of wellbeing programs is that they make staff feel better, but do not always make them remain. To some extent, there is some truth in that concern. Numerous intervention studies have assessed stress, burnout or resilience but failed to track staff over a time period to determine actual retention. Nonetheless, the circumstantial case is solid. Turnover intention or intent to leave is consistently linked to burnout, fatigue, emotional exhaustion, low job satisfaction and weak professional support, which is commonly the most evident early warning signal that hospital managers can have.^{4,15,16}

The research conducted in hospitals can make that relationship tangible. Aiken et al. demonstrated over 20 years ago that burnout and job dissatisfaction, both of which are known antecedents of exit, are related to heavier nurse workloads, and that a superior practice environment can enhance retention in part through its impact on burnout, work characteristics and resilience.⁴ Gensimore et al. later demonstrated that a better practice environment improves retention partly through its effect on burnout, work characteristics and resilience.¹⁴ Rutledge et al. similarly found chronic fatigue to be a strong predictor of turnover intention among hospital nurses, which suggests that the daily lived burden of work may be more decisive than abstract job commitment.¹⁵

Other more recent studies also emphasise that the relationship is not strictly linear. The network analysis by Zheng et al. demonstrated that perceived personal accomplishment and emotional exhaustion are at the core of the burnout-turnover network among nurses, which, in the practical sense, implies that hospitals should not only strive to minimize distress but also be concerned about whether staff members still experience competence, a sense of meaning, and professional efficacy in their work.¹⁶ This is one of the reasons why recognition, autonomy, mentorship and career development are found repeatedly in the retention discussions.

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Table 2: Selected LMIC and African evidence relevant to hospital wellbeing and retention

Setting / study	Main finding	Retention relevance	Implication
Sub-Saharan Africa meta-analysis	Pooled proportion of nurses intending to leave their jobs was 50.74%.	Shows how widespread intention to leave has become across the region.	Retention cannot be treated as a marginal issue in African nursing workforces.
Sub-Saharan Africa burnout review	Burnout was high across cadres and often highest among nurses; poor work environments and low support were recurrent correlations.	Suggests that wellbeing and retention pressures are likely to cluster in the same institutions.	Burnout prevention should be viewed as a workforce strategy, not only a mental health issue.
Ghana hospital nurses	A better nursing work environment was associated with lower turnover intention, partly through reduced burnout.	Strengthens the case for practice-environment interventions.	Hospitals need to treat local work climate as a retention lever.
Ghana multi-site nursing study	Higher work engagement and resilience were linked with lower turnover intention.	Shows that engagement and resilience are relevant, but they operate within the wider work context.	Programmes should build engagement while also addressing workload and support.
Kenya referral hospitals	Job turnover intention reached 81.4%; stress was moderately high and job satisfaction remained low.	Illustrates the scale of retention pressure in a resource-constrained hospital system.	High-strain hospital settings require bundled interventions rather than isolated wellness activities.
Nigeria studies	Burnout, presenteeism, organisational cynicism and limited organisational support were associated with weaker workforce outcomes.	Confirms that wellbeing-related risks are already visible in Nigerian hospital settings.	Context-sensitive hospital policies in Nigeria should combine psychosocial support with managerial and organisational reform.
LMIC doctor retention scoping review	Retention strategies in LMICs are diverse, but many studies remain weakly evaluated and context specific.	Evidence is growing, but rigorous effectiveness data are still limited.	Implementation of research and cost evaluations are urgently needed.

Sources: Include references ¹⁷⁻²⁴

RELEVANCE FOR LOW- AND MIDDLE-INCOME COUNTRIES

A retention-sensitive wellbeing approach is particularly strong in LMICs, where hospitals are frequently under several constraints simultaneously: staffing shortages, insufficient surge capacity, unpredictable supplies, skilled personnel leaving, less formal support structures and less financial space to compensate staff distress with monetary rewards. The paradox though is that even the strongest intervention evidence is still mostly high-income settings. The principles underlying it may travel well but the programmes themselves do not always.¹⁹

Evidence in Africa, though less, is becoming more and more didactic. The meta-analysis by Ayalew et al. indicates that the intention to leave among nurses in sub-Saharan Africa is already alarmingly high.¹⁷ Dubale et al. indicated that burnout is highly prevalent among healthcare providers in the area and is strongly influenced by the work environment, conflict and inadequate support.¹⁸ In Ghana, a healthier working environment among nurses seems to reduce turnover intention partly by reducing burnout while higher work engagement and resilience are associated with increased intention to leave.^{20,21} In Kenya, referral hospitals are face severe turnover pressure, with more than four in five nurses in a recent study reporting intention to leave their jobs.²²

Nigeria fits well into this discussion. The current evidence already indicates a concerning combination of burnout, presenteeism and organisational strain in healthcare workers.²³ Work from Nigeria also suggests that organisational support can soften the relationship between toxic workplace attitudes and turnover intention.²⁴ Even though these studies don't yet make up a complete body of research on interventions, they do make one thing clear: Nigerian hospitals don't have a problem with either well-being or retention. The two are very closely related.

This is also the reason why the language of 'wellness' may be misleading in LMIC contexts. When it tempts managers to consider counselling lines, motivational talks or resiliency classes, it can lead them to forget more decisive questions: Are staff numbers sufficient? Are rosters humane? Do ward managers support? Are new employees provided with transition support? Is there a possibility of professional development? Is fundamental rest safeguarded? The most plausible wellbeing programmes in resource-constrained systems might be those that render work more tolerable in practical, everyday ways.

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WHERE THE EVIDENCE IS STILL THIN

There are several limitations in the existing literature that should be highlighted. First, the over-reliance on cross-sectional research designs to measure turnover intention and not actual turnover or retention over a period of time still exists. Intent to quit is helpful, but not the same as quitting. Second, the definition of wellbeing programmes is often very wide-ranging, and it is hard to compare a mindfulness course to a staffing redesign or a structured residency programme. Third, there is a tendency to have short follow-up periods, so it is difficult to determine whether initial improvements in wellbeing can have long-term workforce impacts.^{9,12,13,19}

Important geographical imbalances also exist. It is reiterated in reviews that intervention studies in LMIC settings are few, despite workforce shortages and migration pressures being more acute in these settings.¹⁷⁻¹⁹ Cost-effectiveness evidence is also limited. This is important since interventions that are not just humane but cost effective can convince hospital leaders in Nigeria and other settings to make a change that can bring about operational payoffs such as reduced absenteeism, better retention or less dependence on agency workers.

A further gap is conceptual. Some studies define wellbeing in too limited a way as the lack of distress, whereas others define it in too broad a way such that the term loses analytical value. The most helpful papers tend to be those which consider wellbeing as a matter inseparable from the organisation of work: workload, support, voice, fairness, development and recovery. The intervention descriptions, longer follow-up, improved implementation reporting and retention outcomes would be more evident in future studies of LMIC hospitals.

IMPLICATIONS

For Nigerian hospitals, the practical lesson is that we should not give up on wellbeing programmes because evidence is imperfect; it is that they should be designed differently. A credible approach to hospital wellbeing within a constrained setting is likely to be bundled, locally owned and tightly connected to the realities of staffing and supervision. That is, it must start at the point where the staff pain is most apparent: unsafe workloads, chronic fatigue, inconsistent support to new staff, poor communication, lack of recognition and emotional load of working in high-pressure units.^{12-16,20-24}

A good model for tertiary and large secondary hospitals would include five linked elements. The first is the workload and staffing management: improved rostering, guarded breaks, tracking of high-burden units and, where feasible, staffing choices based on service demand. The second is ward-level supportive leadership: managers with effective communication, equitable work distribution, early detection of distress and respectful team atmosphere. The third is available psychosocial support: peer support, confidential counselling pathways, debriefing of difficult events and mental health literacy. The fourth is designed transition support of new employees via preceptorship, mentorship or residency-type orientation. The fifth is recognition and career support, as employees will tend to stay in a place where they can see a bright future.^{4,8,12-15,25,28}

Notably, not all these measures necessarily demand large new budgets. Others are management decisions and not capital projects. There are others that require small investment and can provide operational value in case they help to cut down the initial attrition, unplanned absence and the invisible cost of the re-recruitment. What they need is a change of attitude: to regard wellbeing as part of workforce governance and not just some extra add-on. In hospitals already carrying vacancies, such a change is no longer optional.

CONCLUSION

The evidence reviewed points toward a clear conclusion. Wellbeing programmes have the potential to help retain the workforce in hospitals, but the impact of such programmes heavily relies on the way they are conceived. Individually centred programmes can enhance coping and emotional wellbeing in the short-term, but they seldom counteract the retention harm caused by unsafe workloads, inadequate supervision, insufficient staffing or thwarted professional development. In contrast, more plausibly related to staying are interventions that enhance the work environment, facilitate the transition to the early career, and reinforce local leadership and provide staff with more sustainable conditions.^{5-8,12-15,19}

This difference is paramount to LMIC health systems, including that of Nigeria. The problem is not to bring in every health program that is used in wealthy countries. It is to figure out what can be moved, what is affordable, and what fits with the daily stresses that staff members deal with. A hospital that protects rest, improves supervision, supports new staff, and treats burnout as a systems issue instead of a personal weakness is already doing a lot to keep staff. That is the direction that the evidence, even though it is still not complete, points most clearly.

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REFERENCES

- 1) World Health Organization. Health workforce [Internet]. Geneva: WHO; 2026 [cited 2026 Apr 14]. Available from: <https://www.who.int/teams/health-workforce>
- 2) World Health Organization. State of the world's nursing 2025 [Internet]. Geneva: WHO; 2025 [cited 2026Apr14]. Available from: <https://www.who.int/publications/i/item/9789240110236>
- 3) Leveck ML, Jones CB. The nursing practice environment, staff retention, and quality of care. *Res Nurs Health*. 1996;19(4):331-43. doi:10.1002/(SICI)1098-240X(199608)19:4<331::AID-NUR7>3.0.CO;2-J.
- 4) Aiken LH, Clarke SP, Sloane DM, Sochalski J, Silber JH. Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction. *JAMA*. 2002;288(16):1987-93. doi:10.1001/jama.288.16.1987.
- 5) West CP, Dyrbye LN, Erwin PJ, Shanafelt TD. Interventions to prevent and reduce physician burnout: a systematic review and meta-analysis. *Lancet*. 2016;388(10057):2272-81. doi:10.1016/S0140-6736(16)31279-X.
- 6) Panagioti M, Panagopoulou E, Bower P, Lewith G, Kontopantelis E, Chew-Graham C, et al. Controlled interventions to reduce burnout in physicians: a systematic review and meta-analysis. *JAMA Intern Med*. 2017;177(2):195-205. doi:10.1001/jamainternmed.2016.7674.
- 7) Schalk DMJ, Bijl MLP, Halfens RJG, Hollands L, Cummings GG. Interventions aimed at improving the nursing work environment: a systematic review. *Implement Sci*. 2010;5:34. doi:10.1186/1748-5908-5-34.
- 8) Gutiérrez-Fernández E, Amo-Setién F, Leal-Costa C, Salcedo-Sampedro C, Martín-Melón R, Molina-Mula J, et al. Effectiveness of intervention programs aimed at improving the nursing work environment: a systematic review. *Int Nurs Rev*. 2024;71(1):148-59. doi:10.1111/inr.12826.
- 9) Fadel M, Roquelaure Y, Descatha A. Interventions on well-being, occupational health, and aging of healthcare workers: a scoping review of systematic reviews. *Saf Health Work*. 2023;14(1):135-40. doi:10.1016/j.shaw.2022.12.003.
- 10) Unjai S, Forster EM, Mitchell AE, Creedy DK. Interventions to promote resilience and passion for work in health settings: a mixed-methods systematic review. *Int J Nurs Stud Adv*. 2024;7:100242. doi:10.1016/j.ijnsa.2024.100242.
- 11) Belita E, Neil-Sztramko SE, Seale C, Zhou F, Ongolo Zogo C, Boamah S, et al. Organizational interventions to support and promote the mental health of healthcare workers during pandemics and epidemics: a systematic review. *BMC Health Serv Res*. 2025;25:731. doi:10.1186/s12913-025-12888-2.
- 12) Brook J, Aitken L, Webb R, MacLaren J, Salmon D. Characteristics of successful interventions to reduce turnover and increase retention of early career nurses: a systematic review. *Int J Nurs Stud*. 2019;91:47-59. doi:10.1016/j.ijnurstu.2018.11.003.
- 13) Mohamed Z, Al-Hmairat N. The effectiveness of nurse residency programs on new graduate nurses' retention: systematic review. *Heliyon*. 2024;10(5):e26272. doi:10.1016/j.heliyon.2024.e26272.
- 14) Gensimore MM, Maduro RS, Morgan MK, McGee GW, Zimbardo KS. The effect of nurse practice environment on retention and quality of care via burnout, work characteristics, and resilience: a moderated mediation model. *J Nurs Adm*. 2020;50(10):546-53. doi:10.1097/NNA.0000000000000932.
- 15) Rutledge DN, Douville S, Winokur EJ. Chronic fatigue predicts hospital nurse turnover intentions. *J Nurs Adm*. 2022;52(4):241-7. doi:10.1097/NNA.0000000000001139.
- 16) Zheng J, Feng S, Feng Y, Wang L, Gao R, Xue B. Relationship between burnout and turnover intention among nurses: a network analysis. *BMC Nurs*. 2024;23:921. doi:10.1186/s12912-024-02624-2.
- 17) Ayalew E, Workneh Y, Semachew A, Woldgiorgies T, Kerie S, Gedamu H, et al. Nurses' intention to leave their job in sub-Saharan Africa: a systematic review and meta-analysis. *Heliyon*. 2021;7(6):e07382. doi:10.1016/j.heliyon.2021.e07382.
- 18) Dubale BW, Friedman LE, Chemali Z, Denninger JW, Mehta DH, Alem A, et al. Systematic review of burnout among healthcare providers in sub-Saharan Africa. *BMC Public Health*. 2019;19:1247. doi:10.1186/s12889-019-7566-7.
- 19) Jinah N, Adnan IK, Bakit P, Sharin IA, Lee KY. Retention strategies for medical doctors in low- and middle-income countries (LMICs): are they effective? A scoping review. *BMC Health Serv Res*. 2024;24:1662. doi:10.1186/s12913-024-12154-x.
- 20) Poku CA, Donkor E, Naab F. Impacts of nursing work environment on turnover intentions: the mediating role of burnout in Ghana. *Nurs Res Pract*. 2022;2022:1310508. doi:10.1155/2022/1310508.
- 21) Poku CA, Bayuo J, Agyare VA, Sarkodie NK, Bam V. Work engagement, resilience and turnover intentions among nurses: a mediation analysis. *BMC Health Serv Res*. 2025;25:71. doi:10.1186/s12913-025-12242-6.
- 22) Kiptulon EK, Zrínyi M, Siket AU. Intentions to leave the job and nursing profession among nurses in Kenya's referral hospitals: exploring the effects of organizational culture, work-related stress and job satisfaction. *BMC Nurs*. 2025;24:823. doi:10.1186/s12912-025-03422-0.
- 23) Nwosu ADG, Ossai E, Onwuasoigwe O, Ezeigweneme M, Okpamen J. Burnout and presenteeism among healthcare workers in Nigeria: implications for patient care, occupational health and workforce productivity. *J Public Health Res*.

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2021;10(1):1900. doi:10.4081/jphr.2021.1900.

- 24) Ike OO, Chuke NN, Nnamchi OC. Organizational cynicism and turnover intention among nurses: do perceived organizational support moderates the relationship. *SAGE Open Nurs.* 2024;10:23779608241251717. doi:10.1177/23779608241251717.
- 25) Pattali S, Sankar JP, Al Qahtani H, Menon N, Faizal S, et al. Effect of leadership styles on turnover intention among staff nurses in private hospitals: the moderating effect of perceived organizational support. *BMC Health Serv Res.* 2024;24:199. doi:10.1186/s12913-024-10674-0.
- 26) Ren H, Xue Y, Li P, Yin X, Xin W, Li H, et al. Prevalence of turnover intention among emergency nurses worldwide: a meta-analysis. *BMC Nurs.* 2024;23:645. doi:10.1186/s12912-024-02284-2.
- 27) Lu X, Yang J, Bai D, Cai M, Wang W, He J, et al. The effect of psychological contract on turnover intention among nurses: a meta-analytic review. *BMC Nurs.* 2023;22:358. doi:10.1186/s12912-023-01496-2.
- 28) van Kraaij J, de Vries N, Wessel H, Vermeulen H, van Oostveen C, RN2Blend Consortium. Enhancing work environments and reducing turnover intention: a multicenter longitudinal cohort study on differentiated nursing practices in Dutch hospitals. *BMC Nurs.* 2025;24:39. doi:10.1186/s12912-024-02681-7.