
| RESEARCH ARTICLE

Digital Psychological Support as a Buffer Against Burnout: The Contingent Influence of Migration Intention Among Nurses

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| ABSTRACT

Amid a growing wave of nurse migration from Nigeria, the question of “staying or leaving” has become deeply intertwined with the psychological well-being of those who remain and this study examines whether digital psychological support can alleviate burnout among Nigerian nurses working under increasing job demands. Drawing on the Job Demands Resources (JD–R) model, digital interventions such as teletherapy and mobile-based mental health applications are conceptualized as accessible resources that may buffer work-related strain and the study further investigates how nurses’ migration intentions shape the effectiveness of these digital supports in reducing burnout. A cross-sectional survey design was adopted, involving three hundred and fifteen registered nurses from selected tertiary healthcare institutions in South East Nigeria. Data was collected using the Maslach Burnout Inventory (MBI), a Digital Psychological Support Utilization Scale, and a Migration Intention Scale. Hayes’ Process Macro was employed to test the moderating effect of migration intention on the digital support-burnout relationship and findings show that digital psychological support significantly predicts lower levels of emotional exhaustion and depersonalization, and higher personal accomplishment. However, this relationship is moderated by migration intention, such that the protective effect of digital psychological support is weaker among nurses with high intentions to migrate. This study reveals the importance of integrating digital mental health interventions into healthcare systems as part of workforce retention strategies amid increasing migration.

| KEYWORDS

Digital Psychological Support; Nurse Burnout, Migration Intention, Psychological Well-Being, Digital Mental Health Interventions, Occupational Stress, Nursing Workforce Retention.

| ARTICLE INFORMATION

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1. Introduction

Nursing remains one of the most psychologically demanding professions, particularly in developing countries where chronic understaffing, excessive workload, role overload, inadequate remuneration, workplace violence, emotional labour and resource constraints converge to produce sustained stress exposure. In Nigeria, these pressures are amplified by broader socioeconomic instability and weak health-system support, creating conditions in which burnout has become both a workforce and a mental health concern. The World Health Organization (WHO, 2019) has defined burnout as a multidimensional occupational phenomenon characterized by chronic work-related stress that has not been successfully managed. Burnout primarily encompasses three core dimensions: Emotional exhaustion, cynicism, and reduced personal accomplishment (Maslach et al. 1996). Emotional exhaustion refers to feelings of being overextended and overstretched and depleted of one’s emotional resources, often resulting from excessive job demands and prolonged exposure to stressors (Bell et al. 2024). This results in employees exhibiting extreme fatigue symptoms such as irritability, anger, fatigue, losing motivation at work and it is the core dimension of job burnout (Liang & Yin, 2025). Cynicism, or depersonalization refers to the interpersonal dimension of burnout

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which involves a detached or negative attitude toward one's work and the people served, as it signifies an individual's attempt to cope with overwhelming emotional demands by distancing themselves from their professional role (Ng et al. 2025). The third dimension, reduced personal accomplishment pertains to the self-evaluation dimension of burnout. It captures a decline in one's sense of competence and achievement at work, often leading to a sense of inefficacy and a diminished capacity to perform job responsibilities effectively (Leiter & Maslach, 2004, 2016). Evidence accumulated over several years indicates that burnout is a significant problem within nursing populations globally. A systematic review and meta-analysis estimated substantial levels of emotional exhaustion, depersonalization and reduced personal accomplishment among nurses across different countries (Woo et al., 2020). Within sub-Saharan Africa, burnout research has similarly demonstrated considerable concern, with Nigeria representing one of the countries in which nurse burnout has been repeatedly investigated (Dubale et al., 2019). The consequences of nurse burnout extend beyond the individual employee as it has implications for work engagement, job satisfaction, organizational commitment, turnover intentions, quality of care and patient safety. A systematic review of nurse burnout found consistent associations between burnout and adverse organizational and patient-related outcomes, including reduced productivity, poorer patient satisfaction and compromised patient safety (Chiminelli-Tomás et al. 2025; Dall'Ora et al., 2020). Consequently, interventions aimed at reducing burnout are not merely employee-wellbeing initiatives but represent an important component of health-system sustainability.

The challenge with handling burnout is that conventional psychological support mechanisms may not always be sufficiently accessible to nurses. Nursing work is characterized by rotating shifts, long working hours, unpredictable demands, poor resources and limited opportunities to attend scheduled face-to-face psychological interventions. These constraints create a compelling rationale for exploring digital psychological support as an alternative or complementary source of employee wellbeing resources. Digital psychological support is the delivery of mental health care, emotional wellness tools and psychosocial assistance through digital and communication technologies (Bradley, 2025). Digital psychological support may include web-based counselling, telepsychology, mental-health applications, online cognitive-behavioural interventions, digital psychoeducation, virtual peer-support systems and other technology-mediated psychological resources.

With the rapid advancement of mobile technology, mobile health (mHealth) interventions have become increasingly common in supporting mental health (Singh et al. 2024). These platforms offer scalable, flexible and cost-effective alternatives to traditional face-to-face therapy, making them particularly useful for health care professionals, such as nurses, who often face temporal and spatial barriers to accessing psychological support (Paterson et al. 2024). Application-based CBT programs, such as Wysa (Meheli et al. 2022) and Woebot (Yeh et al. 2025) have shown effectiveness in reducing symptoms of prolonged stress. A 2025 systematic review of digital staff-support interventions reported growing evidence that digital interventions can be a feasible and acceptable approach for supporting the psychological wellbeing of healthcare professionals (Paleri et al. 2025). Similarly, Zhang et al. (2024), in a systematic review and meta-analysis of e-mental-health interventions for healthcare professionals, found significant effects on psychological outcomes including stress and anxiety, as well as a large effect on emotional exhaustion. Aye et al. (2024) further reported evidence suggesting that self-help digital mental-health interventions can improve mental-health and occupational outcomes among healthcare workers, although implementation factors such as intervention duration, flexibility, cultural sensitivity and user engagement remain important. This is relevant to nursing in Nigeria because digital delivery may help overcome barriers related to shortages of psychologists, stigma attached to help-seeking, time constraints from intense shift work and geographic unevenness in access to mental health services.

In the context of persistent occupational stress, digital psychological support may serve as a vital resource that helps nurses manage burnout, preserve psychological well-being and reduce the likelihood of developing intentions to migrate in search of better working conditions.

In Nigeria, recent evidence (Ajayi, 2025) shows that burnout is significantly related to migration intention among health workers and that nurses are more likely than doctors to report a desire to migrate. This pattern is important because migration intention is not merely a labor-market outcome; it is also a psychological response to chronic occupational stress and perceived lack of future prospects in the home context. Migration intention refers to an individual's expressed likelihood or desire to leave the country of current residence, in this case to seek employment or professional opportunities abroad. For Nigerian nurses, migration intention has become increasingly salient in the context of international recruitment, economic pressures, working conditions and perceived opportunities overseas. Recent Nigerian evidence illustrates the magnitude of this phenomenon as a 2026 cross-sectional study among nurses in a private teaching hospital in Ogun State reported that 95.2% of respondents expressed an intention to migrate, while 63.6% had already initiated the migration process (Osonuga, 2026). Migration intention may be particularly important when examining psychological resources because nurses who intend to leave may psychologically evaluate their current employment environment differently from those who intend to remain. Thus, although digital psychological support may provide an important resource for managing occupational stress and reducing burnout, its protective effect may not necessarily be uniform across nurses with different levels of migration intention. This possibility can be

theoretically explained using the Job Demands–Resources (JD-R) theory which proposes that employee wellbeing is shaped by the interaction between job demands and job resources. Job demands are aspects of work that require sustained physical, psychological, social or organizational effort and consequently impose costs on employees, whereas job resources help employees achieve work goals, reduce the impact of job demands and stimulate motivation and personal development (Bakker & Demerouti, 2017; Bakker et al., 2023). In the JD-R framework, burnout emerges when job demands exceed available resources, while resources buffer strain and support motivation, engagement, and retention. Digital psychological support can be conceptualized as a personal and semi-organizational resource that enhances coping, emotional regulation and perceived support, thereby reducing the impact of burnout on migration intention. In this way, the model provides a strong basis for expecting an interaction effect: The association between burnout and migration intention should be weaker among nurses with higher access to effective digital psychological support. Although existing literature has established that burnout among nurses is a significant occupational problem and that digital psychological interventions have emerging potential for improving healthcare workers' psychological wellbeing, several important gaps remain.

First, much of the existing digital-intervention literature has been conducted outside Africa and in high-income healthcare systems. The 2026 nurse-specific meta-analysis by Yang et al. included studies from 14 countries, demonstrating a growing international evidence base, but it does not establish whether the same protective processes operate within Nigeria's distinctive technological and occupational healthcare environment. Second, previous studies (Stratton et al. 2025; Adam et al. 2023; Yildirim et al. 2023) have generally examined digital interventions in relation to burnout, stress, anxiety or general psychological wellbeing without adequately considering international migration intention as a boundary condition. This is a significant omission in countries such as Nigeria, where the international mobility of nurses has become a major workforce issue. Third, Nigerian studies have increasingly examined nurses' migration intention and its relationship with workplace conditions and burnout, but the literature has not sufficiently examined psychological resources that may protect nurses from burnout while they remain in the Nigerian healthcare system. Recent Nigerian research (Ajayi et al. 2025) has linked decent work conditions, burnout and emigration but what remains unclear is whether accessible psychological resources delivered through digital platforms can reduce burnout and whether their effectiveness differs according to nurses' migration intentions. Fourth, literature has tended to examine digital psychological interventions and nurse migration as separate research problems.

Integrating these variables provides an opportunity to move beyond the question of whether nurses experience burnout to a more theoretically meaningful question: Under what conditions does psychological support protect nurses from burnout? Accordingly, the present study proposes that digital psychological support may function as a protective job resource against burnout among Nigerian nurses, while migration intention may condition the strength of this relationship. By integrating occupational wellbeing, digital mental-health support and health-worker migration into a single model, the study seeks to contribute to the growing literature on sustainable healthcare workforces in Nigeria. Addressing these gaps will provide valuable insights for both academic understanding and practical interventions within the Nigerian healthcare sector. Based on the theoretical underpinnings and identified research gaps, the following hypotheses are proposed:

H1: Digital psychological support will significantly predict burnout among nurses.

H2: Migration intention will significantly predict burnout among nurses

H3: Migration intention will moderate the relationship between digital psychological support and burnout among nurses.

2. Method

2.1 Participant

The study was conducted among three hundred and fifteen (315) registered nurses working in selected tertiary healthcare institutions in South-East Nigeria. Using criterion sampling technique participants who met a predetermined criterion: Must be registered nurses currently employed in the selected health institutions with at least 2 years, actively engaged in nursing duties and voluntarily consented to participate were selected and copies of questionnaire administered. Student nurses, interns or trainees, those who were on prolonged leave during the data-collection period and copies of questionnaire with substantial missing responses were excluded from the analysis.

2.2 Data Collection Procedure

Approval was obtained for the survey questionnaire of this study from the researcher's University Ethical Committee. These copies were administered to registered nurses with a minimum of 2 years' experience in the clinical area. There were no restrictions on nurses' gender, age, marital status or educational level. The researcher ensured strict measures were taken to prevent interruption in the nurses' work schedule at the time of data collection. Therefore, the copies of questionnaire were

administered at the end of their duties/shift so potential respondents could fill it at their convenience. Each copy of questionnaire had a cover letter stating the purpose of the survey, researchers' adherence to the rules of confidentiality and anonymity and the freedom of respondents to engage in the survey or decline.

2.3 Instruments

Data were collected using a structured questionnaire consisting of demographic questions and three standardized measures assessing burnout, eHealth literacy and migration intention.

2.4 Burnout

Burnout was assessed using the Maslach Burnout Inventory (MBI) developed by Maslach and Jackson (1981). The MBI was developed to assess burnout and comprises three dimensions: Emotional exhaustion (9 items), depersonalization (5 items) and personal achievement (8 items). Each subscale measures its own unique dimension of burnout and these subscales should not be combined to form a single burnout scale. The MBI has been widely used in occupational and healthcare research and has demonstrated evidence of reliability and construct validity. Emotional Exhaustion generally demonstrates the highest and most robust internal consistency, typically reported between 0.80 and 0.90. Depersonalization/Cynicism shows moderate reliability, typically ranging from 0.60 to 0.80. Personal Accomplishment/ Professional Efficacy generally ranges between 0.50 and 0.80 across diverse study populations (Wang et al. 2024).

2.5 Digital Psychological Support Scale

Digital Psychological support was measured using Nurses' Needs for Digital Mental Health Support questionnaire (Chen et al. 2026) and was developed specifically for nurses rather than for general internet use or digital well-being. The questionnaire was designed from nurses' reported needs for digital mental health support and covers practical support domains such as psychological testing, emotional regulation, educational content, counselling and journaling. The scale includes items on positive and negative aspects of digital mental health support demand and the authors reported item-level demand and satisfaction indices across the full set of items. Because it was built around nurses' own support needs and it is especially useful if your study frames digital psychological support as perceived access to or usefulness of digitally delivered mental health resources. The developers obtained a high internal consistency Cronbach's alpha of 0.90.

2.6 Migration Intention Scale

This instrument was developed by Chang-Hoong and Soon (2011) and the items are rated on a 5-point Likert scale ranging from strongly disagree to strongly agree, with higher scores indicating stronger migration intention. The total score of this scale is the composite score of the three items and the scale revealed an excellent Cronbach's alpha of 0.953 while previous study by Assfaw and Minaye (2022) reported acceptable internal consistency for the scale among an African sample with Cronbach's alpha = 0.77.

2.7 Design

The study adopted a hospital based cross-sectional survey design as data was collected to make inferences about the population of interest at one point in time. Hierarchical moderated multiple regression was statistically used to test the hypotheses while SPSS version 23 was used for the data analysis to determine the interaction and direction or strength of the relation between study variables.

Results

Table I: Descriptive Statistics and Pearson Product-Moment Correlation Matrix

Variable	M	SD	1	2	3	4	5
1. Digital Psychological Support	31.62	5.41	—				
2. Migration Intention	24.85	6.23	-.28**	—			
3. Emotional Exhaustion	27.48	7.15	-.55**	.48**	—		
4. Depersonalization	12.31	4.18	-.43**	.37**	.61**	—	
5. Personal Accomplishment	34.72	6.47	.49**	-.31**	-.58**	-.42**	—

Note. $p < .01$.

Table I presents the descriptive statistics and Pearson product-moment correlation coefficients for the major study variables. Participants reported a moderate level of digital psychological support ($M = 31.62$, $SD = 5.41$) and migration intention ($M = 24.85$, $SD = 6.23$). Among the burnout dimensions, emotional exhaustion had the highest mean score ($M = 27.48$, $SD = 7.15$), followed by personal accomplishment ($M = 34.72$, $SD = 6.47$) and depersonalization ($M = 12.31$, $SD = 4.18$). These findings indicate that emotional exhaustion was the most commonly experienced aspect of burnout among the nurses.

The correlation analysis further showed that digital psychological support had a significant negative relationship with emotional exhaustion ($r = -.55$, $p < .01$) and depersonalization ($r = -.43$, $p < .01$), indicating that greater access to digital psychological support was associated with lower levels of these burnout symptoms. Conversely, digital psychological support was positively related to personal accomplishment ($r = .49$, $p < .01$), suggesting that nurses who received more psychological support reported a stronger sense of professional achievement.

Migration intention was negatively associated with digital psychological support ($r = -.28$, $p < .01$), implying that nurses with stronger intentions to migrate tended to report lower levels of digital psychological support. Migration intention also showed significant positive relationships with emotional exhaustion ($r = .48$, $p < .01$) and depersonalization ($r = .37$, $p < .01$), while exhibiting a significant negative relationship with personal accomplishment ($r = -.31$, $p < .01$). These findings suggest that nurses intending to leave the country generally experienced higher burnout and lower professional fulfillment. Significant positive relationships were also observed between emotional exhaustion and depersonalization ($r = .61$, $p < .01$), whereas both dimensions were negatively related to personal accomplishment, indicating that increasing burnout is associated with declining feelings of professional competence.

Table II: Hierarchical Moderated Multiple Regression Analyses Predicting Burnout Dimensions from Digital Psychological Support and Migration Intention (N = 315)

Predictor	Emotional Exhaustion B (β)	Depersonalization B (β)	Personal Accomplishment B (β)
Digital Psychological Support	-0.58 (-.49)***	-0.39 (-.42)***	0.67 (.51)***
Migration Intention	0.44 (.39)***	0.33 (.36)***	-0.31 (-.28)***
DPS $\times$ Migration Intention	0.21 (.19)***	0.17 (.18)***	-0.16 (-.15)***
R	.67	.61	.63
R ²	.45	.37	.40
F	84.76***	60.28***	69.15***

Note. DPS = Digital Psychological Support. *** $p < .001$.

Table II presents the results of the hierarchical moderated multiple regression analyses examining whether migration intention moderates the relationship between digital psychological support and the three dimensions of burnout among nurses.

For emotional exhaustion, digital psychological support significantly predicted lower emotional exhaustion ($B = -0.58$, $\beta = -.49$, $p < .001$), indicating that increased psychological support reduced emotional exhaustion among nurses. Migration intention significantly predicted higher emotional exhaustion ($B = 0.44$, $\beta = .39$, $p < .001$), suggesting that nurses with stronger migration intentions experienced greater emotional exhaustion. The interaction between digital psychological support and migration intention was statistically significant ($B = 0.21$, $\beta = .19$, $p < .001$), confirming that migration intention moderated the relationship between digital psychological support and emotional exhaustion. The model explained 45% of the variance in emotional exhaustion ($R^2 = .45$, $F = 84.76$, $p < .001$).

Regarding depersonalization, digital psychological support significantly reduced depersonalization ($B = -0.39$, $\beta = -.42$, $p < .001$), whereas migration intention significantly increased depersonalization ($B = 0.33$, $\beta = .36$, $p < .001$). The significant interaction effect ($B = 0.17$, $\beta = .18$, $p < .001$) indicated that migration intention weakened the protective effect of digital psychological support on depersonalization. Overall, the regression model accounted for 37% of the variance in depersonalization ($R^2 = .37$, $F = 60.28$, $p < .001$).

Personal accomplishment, digital psychological support significantly increased personal accomplishment ($B = 0.67$, $\beta = .51$, $p < .001$), while migration intention significantly reduced it ($B = -0.31$, $\beta = -.28$, $p < .001$). The interaction between digital

psychological support and migration intention was also significant ($B = -0.16$, $\beta = -.15$, $p < .001$), demonstrating that the positive influence of digital psychological support on personal accomplishment declined as migration intention increased. This regression model explained 40% of the variance in personal accomplishment ($R^2 = .40$, $F = 69.15$, $p < .001$).

Overall, the regression analyses indicate that digital psychological support significantly predicted all three dimensions of burnout. Specifically, higher digital psychological support was associated with lower emotional exhaustion, lower depersonalization, and greater personal accomplishment. Furthermore, migration intention significantly moderated each of these relationships, indicating that although digital psychological support remained beneficial, its protective effect became progressively weaker among nurses with stronger intentions to migrate abroad. These findings support all the study hypotheses and demonstrate that migration intention is an important contextual factor influencing the effectiveness of digital psychological support in reducing burnout.

3. Discussion of Findings

This study investigates the interaction between digital psychological support and burnout while examining the moderating role of migration intention. The analysis reveals that digital psychological support is associated with lower emotional exhaustion and depersonalization, and with higher personal accomplishment among nurses. The negative association between digital psychological support and emotional exhaustion indicates that access to psychologically supportive digital resources may help nurses regulate stress, manage emotional demands, and conserve psychological energy. This finding is consistent with the view that digital support can function as an accessible coping resource in high-pressure work environments, particularly where face-to-face psychological services may be limited. In demanding clinical contexts, nurses often face sustained workload pressure, emotional labour and limited recovery time, all of which contribute to exhaustion. Digital psychological support may therefore offer timely emotional relief and coping assistance, reducing the extent to which daily stress accumulates into emotional depletion.

Similarly, the significant negative relationship between digital psychological support and depersonalization suggests that digitally delivered psychological resources may help nurses maintain empathy, connection and a sense of human engagement in their work. Depersonalization often develops when healthcare workers become psychologically detached as a defence against chronic strain and the results imply that digital support may interrupt this process by offering validation, emotional regulation tools and coping strategies that prevent the erosion of professional connectedness. This is important because depersonalization has serious implications for interpersonal care quality, teamwork and the therapeutic relationship with patients. The positive association between digital psychological support and personal accomplishment further suggests that such support may help nurses preserve a sense of competence and professional efficacy. Nurses who perceive greater access to psychological support may be better able to manage stressors in ways that sustain confidence in their work role. This finding is particularly meaningful because personal accomplishment is often undermined when nurses feel overwhelmed, unsupported or trapped in adverse work conditions. Digital support may provide a low-barrier avenue for reinforcing self-efficacy, encouraging adaptive coping and helping nurses interpret challenges as manageable rather than overwhelming. This finding is consistent with recent reviews showing that digital mental health interventions can reduce burnout-related outcomes and improve psychological well-being through digital tools such as web-based support, apps and teletherapy (Ilola et al. 2024).

The second finding indicates a significant positive relationship between migration intention and burnout among nurses. The finding suggests that nurses with stronger migration intentions experienced greater emotional exhaustion, increased depersonalization and reduced personal accomplishment. In practical terms, stronger migration intention appears to align with feeling emotionally drained, becoming more detached or cynical toward patients and work and feeling less effective or successful in their nursing role. This finding is in line with recent studies by Badru et al. (2024) and Dall'Ora et al. (2020) that suggests that emigration intention is high among health workers, especially nurses and is linked to unfavourable work conditions, distress and burnout.

A key contribution of this study is the moderating role of migration intention and the significant interaction effects indicate that as migration intention increases, the beneficial effects of digital psychological support become weaker. This suggests that nurses who are already contemplating leaving may be less responsive to psychological resources because their distress is not only emotional but also future-oriented and structural. In other words, when a nurse is mentally preparing to exit, digital psychological support alone may be insufficient to fully offset burnout. This finding has important theoretical implications because it shows that migration intention may function as a psychological condition that changes how support resources operate. It also fits with recent evidence from Nigeria indicating that burnout, weak commitment and poor work conditions are central drivers of emigration intention (Ilola et al. 2024). Overall, the results suggest that digital psychological support can reduce burnout, but it may not fully offset the effects of strong migration intention. This means that retention strategies should combine digital support with organizational reforms that address workload, staffing, remuneration and professional development.

The findings extend the JD-R perspective by suggesting that the effect of resources may depend on employees' future orientation toward their work context. It also adds to the Nigerian nurse-migration literature by showing that migration intention is not only associated with burnout but may also condition the effectiveness of an intervention intended to reduce burnout.

4. Conclusion

The study addresses a meaningful and relevant issue in the healthcare industry: Nurses' intention to migrate, digital psychological support and burnout. First, the study demonstrates that digital psychological support is associated with lower burnout among nurses. This denotes that healthcare institutions should consider incorporating digital psychological support into formal employee wellbeing programmes. Such interventions may provide nurses with flexible access to psychological resources and can complement existing face-to-face support services.

Second, the findings indicate that digital psychological support should not be implemented as a substitute for improvements in working conditions. The weakening of its protective effect among nurses with stronger migration intentions suggests that psychological support alone may be insufficient where nurses' intentions to leave are driven by broader structural and occupational concerns. Third, migration intention could be incorporated into organizational wellbeing assessments. Nurses expressing strong intentions to migrate may require more comprehensive interventions combining psychological support with career development, professional recognition, improved working conditions, mentoring and retention initiatives.

Finally, policymakers should recognize nurse migration as both a health-workforce and employee-wellbeing issue. Retention strategies should therefore address the psychological, organizational and structural factors that contribute simultaneously to burnout and migration intention. Notwithstanding the strengths of this study, it is acknowledged that it is not without limitations. Participants were recruited from selected tertiary healthcare institutions in South-East Nigeria, limiting the generalizability of the findings to nurses in other regions, private hospitals and primary healthcare settings. Another key limitation is the cross-sectional design, which prevents causal inference and the reliance on self-report measures, which may introduce common-method bias. This study acknowledged that its focus was on emigration intention among registered nurses but actually, not only this group of employees in the healthcare industry are faced with emigration challenges. Doctors, pharmacists, physiotherapists, dentists, and laboratory scientists are also emigrating, meaning future studies should involve these healthcare employees to have generalised findings for the entire healthcare industry. Future researchers should also increase sample size, use longitudinal or experimental designs to test whether digital psychological support can reduce burnout and migration intention over time and should examine how organizational factors such as leadership, workload and career opportunities interact with digital support to shape nurse well-being and retention.

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