



THE IMPACT OF PUSH AND PULL FACTORS ON JOB SATISFACTION AND MIGRATION DECISIONS AMONG PAKISTANI NURSES IN TERTIARY CARE HOSPITAL

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ABSTRACT

Background: Nurses form the backbone of healthcare systems, yet in Pakistan, the profession continues to face significant challenges related to job dissatisfaction and migration intentions. Persistent faces many issues; likewise, inadequate pay, excessive workloads, poor working environments, and limited career advancement opportunities have contributed to high turnover rates and outward migration. Conversely, attractive overseas opportunities, including higher salaries, safer workplace conditions, and professional development, exert a strong pull on the nursing workforce. Understanding the balance of these push and pull factors is crucial to addressing workforce shortages and improving retention in tertiary care hospitals.

Objective: This study aimed to examine the impact of push and pull factors on job satisfaction and migration decisions among nurses working at Nishtar Hospital, Multan.

Methods: A descriptive cross-sectional survey was conducted among 300 registered nurses at Nishtar Hospital. Participants with at least one year of clinical experience were recruited using proportionate stratified random sampling. Data were collected through a structured, validated questionnaire consisting of three sections: demographics, push and pull factors, and job satisfaction/migration intentions. Responses were recorded on a 5-point Likert scale. Data were analyzed using SPSS version 26, with descriptive statistics used to summarize variables and Chi-square tests applied to determine associations. A p-value ≤ 0.05 was considered statistically significant.

Results: The majority of respondents were female (80%), aged 26–35 years (75%), and most held a bachelor's degree (67%). Regarding push factors, low wages (62%), excessive workload (68%), and high patient-to-nurse ratios (65%) were the most frequently cited sources of dissatisfaction. Among pull factors, higher salaries (72%), better working conditions abroad (68%), and professional development opportunities (63%) emerged as the most influential drivers of migration. Overall, 50% of nurses reported dissatisfaction, while only 28% expressed satisfaction with their current roles. Statistical analysis confirmed significant associations between both push and pull factors with migration intentions and job satisfaction ($p < 0.05$).

Conclusion: The findings highlight that economic stressors, heavy workloads, and unsafe working conditions are key push factors undermining nurse satisfaction, while financial incentives and career growth opportunities abroad act as powerful pull factors encouraging migration. Urgent interventions are required to improve salaries, reduce workload, and enhance professional development opportunities in Pakistan's healthcare system. By addressing these challenges, tertiary hospitals can strengthen retention, improve job satisfaction, and mitigate the growing trend of nurse migration.

INTRODUCTION

Background

The nursing workforce plays a vital role in healthcare delivery, particularly in low- and middle-income countries like Pakistan (Rizwan et al., 2024). However, job dissatisfaction and migration intentions among nurses pose significant challenges, exacerbating workforce shortages and limiting access to quality care for the population (Abou Hashish & Alnajjar, 2025). Factors such as low wages, poor working conditions, and a lack of professional development contribute to dissatisfaction and workforce shortages (Cubelo et al., 2024).

The international migration of nurses has become an increasingly prevalent and compelling phenomenon in the global healthcare setting (Imran et al., 2011). As healthcare systems worldwide grapple with the demand for skilled nursing professionals, international nurse migration has emerged as a complex and multifaceted issue, driven by a combination of factors that propel nurses to seek opportunities abroad (pull factors) and factors that compel them to leave their home countries (push factors) (Pinto da Costa et al., 2021). Understanding the intricate interplay of these push and pull influences is essential for addressing the challenges and harnessing the opportunities presented by international nurse migration.

In recent years, the movement of nurses across international borders has reached unprecedented levels, resulting in a global nurse workforce that is characterized by diversity and mobility (Öncü et al., 2023). A recent report indicates that nursing is the fastest-growing profession among highly qualified professionals migrating from Pakistan, with a 31.4% CAGR (compound annual growth rate) for nurses registered abroad in 2024 (Almansour et al., 2023). Estimates suggest that around 15% of nurses from developing countries, a pattern seen in Pakistan, migrate annually (Rizwan et al., 2024).

This migration significantly impacts Pakistan's already strained healthcare system, contributing to a severe nurse-to-patient ratio. Push factors, encompassing economic disparities, limited career prospects, and safety concerns in nurses' home countries, prompt nurses to explore opportunities abroad. Simultaneously, pull factors, such as higher salaries, enhanced career prospects, and improved quality of life in destination countries, exert a magnetic force that draws nurses to seek employment in foreign healthcare settings (Almansour et al., 2023).

Job satisfaction is a key factor in determining retention in the nursing profession (Lee et al., 2021). Dissatisfied nurses are more likely to experience burnout, reduced productivity, and increased absenteeism, ultimately affecting patient care quality (Kumar et al., 2022). In Pakistan, the nursing profession has been experiencing a workforce shortage in recent years, making nurses a precious resource. The substantial shortage of nurses is mainly due to their emigration to developed countries in search of better pay and job prospects (Galbany-Estragués et al., 2024). Understanding the factors influencing job satisfaction and migration intentions among nurses in Pakistan is essential to improve retention and ensure quality healthcare services. This study aims to explore the pushing and pulling factors that drive Pakistani nurses to migrate and examine the impact of these factors on job satisfaction.

Section 1: Push Factors

1.1 Economic Factors One of the foremost push factors influencing nurses' international migration is economic disparity. In source countries, particularly in regions with limited economic opportunities, nurses often face inadequate compensation for their skills and labor also, twenty-four percent of women selected "economic" as their top migration driver versus 32% of men (Botezat et al., 2024). Economic pressures can make staying in their home countries financially challenging, leading them to explore opportunities abroad where

the prospect of higher wages and improved financial stability is appealing.

1.2 Limited Career Opportunities A second compelling push factor is the limited career development and professional growth opportunities available to nurses in their home countries (Galbany-Estragués et al., 2024). A 2022 study by the revealed that 31% of university graduates are unemployed, with the unemployment rate for women holding a university qualification being as high as 51% (Joseph et al., 2023). Many nurses aspire to expand their skills, gain specialization, or undertake advanced training. However, when such opportunities are scarce, it can become a driving force behind the decision to migrate. Pakistan produces approximately 75,000 IT graduates annually, but only about 10% secure jobs in export-oriented firms, indicating a significant skills gap in the IT industry (Lai et al., 2022).

1.3 Political and Safety Concerns Political instability and safety concerns within source countries can significantly push nurses to explore international migration as a means of ensuring personal safety and professional stability. Civil unrest, security issues, and healthcare system challenges can create an environment that is detrimental to nurses' job security and overall well-being. (Cubelo et al., 2024) highlights the importance of safety concerns as a motivating factor for nurse migration.

The combination of these push factors, including economic challenges, limited career prospects, and safety concerns, demonstrates the multifaceted nature of the decision to migrate. Nurses are often faced with a complex web of circumstances and considerations that prompt them to seek opportunities beyond their home countries. The intricate interplay between these factors makes it crucial to understand and address the push factors on international nurse migration.

Section 2: Pull Factors

2.1 Higher Salaries and Benefits One of the most significant pull factors attracting nurses to work in foreign countries is the

promise of higher salaries and benefits. 63% of nurses cited favorable working environments as a major pull factor (Pressley et al., 2022). Destination countries often offer more competitive compensation packages that encompass not only base salaries but also attractive benefits, such as healthcare coverage, retirement plans, and other financial incentives.

2.2 Career Advancement Opportunities Foreign healthcare systems often present nurses with extensive career advancement opportunities, including the chance to specialize in different areas of nursing practice or access advanced training and education. 81.3% of nurses identified career prospects as a significant pull factor (Kumar et al., 2022). The allure of professional growth and the ability to pursue their career aspirations can be a powerful pull factor (Lai et al., 2022).

2.3 Quality of Life Quality of life factors, including a higher standard of living, improved working conditions, and access to advanced healthcare technologies, are additional pull factors (Öncü et al., 2023). Destination countries frequently offer an environment that enhances nurses' overall well-being, including better living conditions, work-life balance, and access to healthcare facilities.

2.4 Supportive Work Environment Destination countries that provide a supportive and nurturing work environment also serve as significant pull factors for nurse migration (Pinto da Costa et al., 2021). Policies promoting work-life balance, respect for professional expertise, and a positive organizational culture create an atmosphere where nurses feel valued and motivated.

Section 3: The Interplay of Push and Pull Factors

International nurse migration is a complex decision-making process that is rarely shaped by a single determinant (Schneider et al., 2023). Instead, it is marked by the intricate interplay of both push and pull factors, where nurses weigh various

considerations in determining their migration choices.

The interplay between push and pull factors is dynamic and multifaceted, reflecting the complexity of nurses' decisions to work abroad. In some instances, push factors may serve as the initial impetus for considering migration. For example, a nurse experiencing limited career opportunities in their home country due to a lack of specialized training programs may be driven by the push factor of professional stagnation. However, it is often the attractive pull factors in a destination country, such as opportunities for specialization and a higher quality of life, that ultimately sway the decision in favor of migration.

Furthermore, a study conducted in Alexandria University Egypt in which Both push and pull factors can predict about 99.6% and 97.5% of the nurses' brain drain, respectively. Seven themes were derived from the qualitative content analysis, and six themes were categorised under 'push-pull' factors. In addition, the 'mitigating factors theme' was identified with five sub-factors as possible solutions. Economic and work environment reasons were reported as the most influential for nurses' brain drain (Hashish & Ashour, 2020). Individual nurses may be motivated by different combinations of push and pull factors, resulting in unique migration patterns. For instance, a study conducted in Turkey found that the increasing prevalence of unemployment anxiety and migration tendencies among nursing candidates requires the evaluation of policies aimed at increasing the number of nursing graduates in Turkey, while one nurse may primarily be driven by economic push factors, another may be drawn by the promise of career advancement and personal development.

A cross-sectional study conducted in Malaysia has highlighted the nuanced decision-making process involved in nurse migration, emphasizing the role of personal circumstances, goals, and values in shaping the interplay between these factors (Lee et al., 2021).

The interplay of push and pull factors can lead to various outcomes. Nurses may decide to migrate, remain in their home country, or explore other opportunities, depending on the weight of these influences. The gap lies in the lack of research that delves into the cultural, economic, and political differences that can influence migration decisions on a local or regional level. This geographic variability in nurse migration factors merits further investigation to better understand the localized dynamics that drive nurses to seek opportunities abroad. Understanding this intricate balance is essential for healthcare institutions, policymakers, and nursing professionals, as it offers insights into the motivations and considerations that underlie international nurse migration decisions.

Objectives:

To examine the impact of push and pull factors on job satisfaction and migration decisions among Pakistani nurses in the Tertiary Care Hospital.

Research Questions:

What is the impact of push and pull factors on job satisfaction and migration decisions among Pakistani nurses working in a tertiary care hospital?

METHODOLOGY

Research Design:

This research employed a descriptive cross-sectional survey design to investigate the impact of push and pull factors on job satisfaction and migration decisions among Pakistani nurses. The design was chosen as it allows for the collection of data from a large sample at a single point in time, ensuring a comprehensive understanding of the phenomenon under study.

Study Setting

The study was conducted at Nishtar Hospital, Multan, a major tertiary care hospital in Southern Punjab that employs a large nursing workforce directly involved in patient care.

Study Population

The target population comprised registered nurses currently working at Nishtar Hospital.

Nurses were included if they had at least one year of work experience and were directly engaged in patient care. Nurses holding purely administrative roles or on extended leave during the data collection period were excluded to maintain the relevance of data.

Sample Size and Sampling Technique

The sample size was calculated using the Cochran formula, with a 95% confidence level and 5% margin of error, resulting in a required sample of 300 participants. To ensure fair representation, a stratified random sampling technique was applied, dividing participants across different wards and units of the hospital proportionally.

Data Collection Tool

Data were collected using a structured, self-administered questionnaire developed based on existing literature on job satisfaction, migration, and workforce mobility. The questionnaire consisted of three sections. Demographics (age, gender, education, marital status, years of experience, ward/unit). Push and Pull Factors influencing job satisfaction and migration intentions. Job Satisfaction and Migration Decisions, measured through items rated on a 5-point Likert scale ranging from Strongly Agree (5) to Strongly Disagree (1). The tool was validated through expert review and a pilot study with 25 nurses, ensuring clarity, reliability, and internal consistency.

Data Collection Procedure

The data collection spanned a period of three months. Trained research assistants distributed questionnaires during working hours and collected them after completion. Informed consent was obtained from all participants, and confidentiality was strictly maintained by ensuring anonymity and secure handling of data.

DATA ANALYSIS

Data were analyzed using SPSS version 26. Descriptive statistics (frequencies, percentages, means, and standard deviations) were used to summarize demographic characteristics and individual responses. Inferential statistics were applied to test associations and impacts: Chi-square tests for categorical variables. Independent t-tests and ANOVA for group comparisons. Logistic regression to assess the predictive relationship between push/pull factors, job satisfaction, and migration decisions. A p-value ≤ 0.05 was considered statistically significant.

Ethical Considerations

Ethical approval was obtained from the Institutional Review Board (IRB) of Nishtar Hospital, Multan. Participation was voluntary, and respondents had the right to withdraw at any stage without consequences. All data were anonymized to protect participants' identities.

Results

This study assessed the impact of push and pull factors on job satisfaction and migration decisions among nurses working at Nishtar Hospital, Multan. A total of 300 nurses participated in the survey, of which the majority were female, aged between 26–35 years, with varying educational backgrounds and professional experience.

Demographic Characteristics

Out of 300 participants, 240 (80%) were female and 60 (20%) were male. Most nurses were aged 26–30 years (40%), followed by 31–35 years (35%), and above 35 years (25%). Regarding qualifications, 200 (67%) held a bachelor's degree, 70 (23%) had a diploma, while 30 (10%) had a master's degree. In terms of experience, 120 (40%) had less than 5 years, 130 (43%) had 5–10 years, and 50 (17%) had more than 10 years of clinical service.

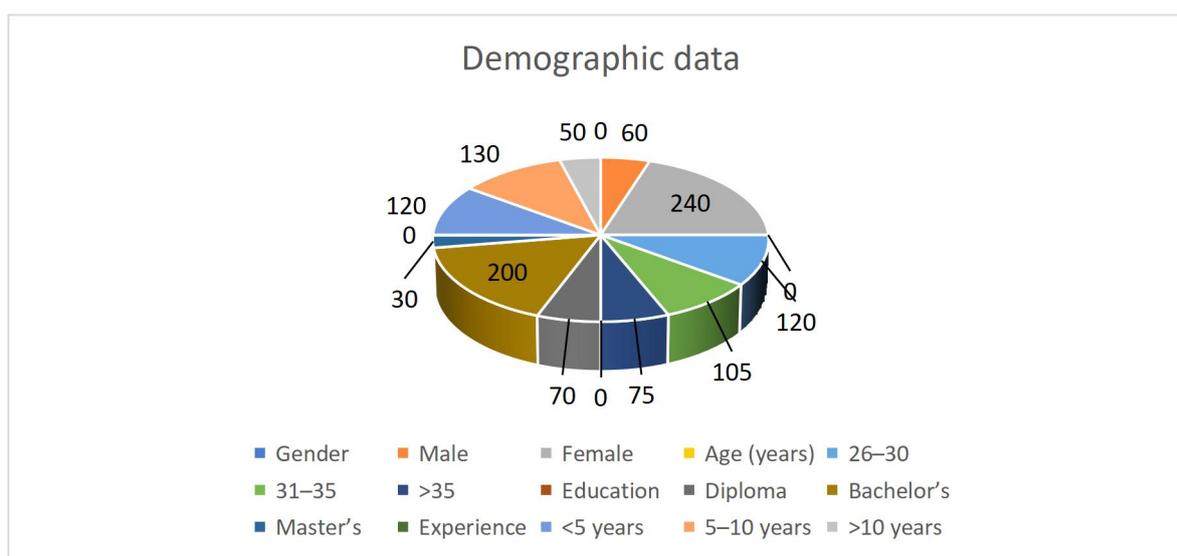
Table 1: Demographic Characteristics of Participants

Variable	Frequency (n)	Percentage (%)
Gender		

Male	60	20%
Female	240	80%
Age (years)		
26–30	120	40%
31–35	105	35%
>35	75	25%
Education		
Diploma	70	23%
Bachelor's	200	67%
Master's	30	10%
Experience		
<5 years	120	40%
5–10 years	130	43%
>10 years	50	17%

The demographic profile of the study participants is presented in Table 1. Out of 300 nurses surveyed, the majority were female (80%), while only 20% were male, indicating that nursing continues to be a female-dominated profession in Pakistan. In terms of age distribution, most respondents were in the 26–30 year age group (40%), followed by 31–35 years (35%), whereas 25% were older than 35 years. Regarding educational qualifications, the largest proportion of nurses held a bachelor's

degree (67%), while 23% had completed a diploma and only 10% reported holding a master's degree. With respect to professional experience, 43% of nurses had been working for 5–10 years, 40% had less than five years of experience, and 17% had more than ten years of service. These findings reflect a relatively young and moderately experienced nursing workforce, with the majority holding bachelor-level education and working during the early to mid-stages of their professional careers.



Push Factors Influencing Job Satisfaction

The findings revealed that low wages (62%), high workload (68%), poor working conditions (60%), and limited career

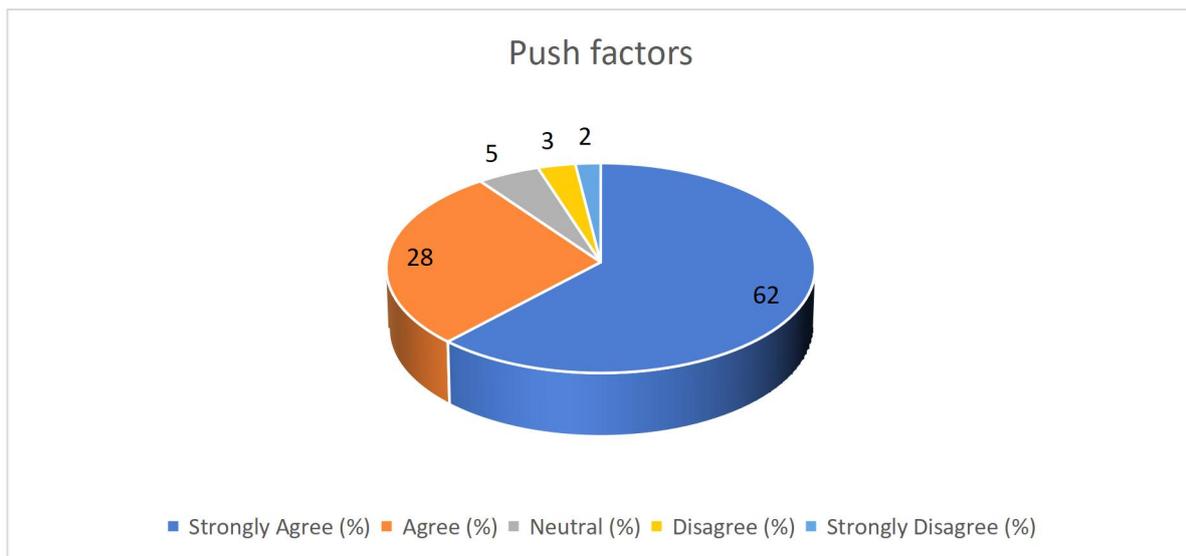
development (55%) were the most reported push factors leading to dissatisfaction. High patient-to-nurse ratios were also identified by 65% of participants as a critical concern.

Table 2: Push Factors Affecting Job Satisfaction

Push Factor	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)
Low wages	62	28	5	3	2
Lack of professional development	55	35	6	3	1
Poor working conditions	60	27	7	4	2
High patient-to-nurse ratio	65	25	5	3	2
Excessive workload	68	22	6	2	2

Table 2 illustrates the key push factors contributing to job dissatisfaction among nurses. A substantial proportion of participants strongly agreed that excessive workload (68%) and high patient-to-nurse ratios (65%) were major concerns affecting their work environment. Similarly, low wages (62%) and poor working conditions (60%) were reported as significant sources

of dissatisfaction. More than half of the respondents (55%) also highlighted the lack of professional development opportunities as an important push factor. Only a small percentage of nurses expressed neutrality or disagreement across these items, indicating that the majority of respondents consistently perceived these issues as barriers to their job satisfaction and professional stability.



Pull Factors Influencing Migration Decisions

In terms of pull factors, better salaries abroad (72%) and improved working

environments (68%) were the most significant drivers of migration. Other important factors included professional growth opportunities (63%), access to

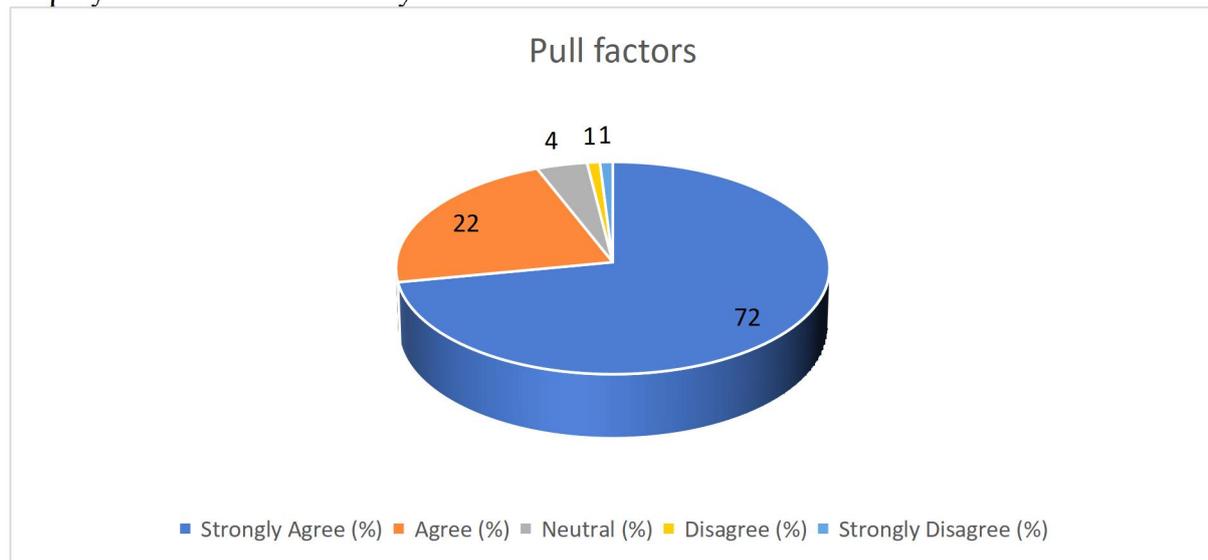
advanced healthcare technologies (55%), and quality of life for family members (48%).

Table 3: Pull Factors Influencing Nurse Migration

Pull Factor	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)
Higher salaries	72	22	4	1	1
Better working conditions	68	25	4	2	1
Access to advanced technologies	55	30	8	5	2
Professional development	63	28	5	3	1
Quality of life for family	48	35	10	5	2

Table 3 presents the pull factors influencing nurses' intentions to migrate. The majority of respondents strongly agreed that higher salaries (72%) and better working conditions (68%) abroad were the most attractive incentives. In addition, professional development opportunities (63%) and access to advanced medical technologies (55%) were also regarded as important motivators for seeking employment overseas. Nearly half of the

participants (48%) identified quality of life for their families as a significant consideration. Only a small proportion of nurses reported neutral or disagreeing responses, suggesting that economic benefits, improved work environments, and career advancement prospects serve as powerful drivers of migration among the nursing workforce.



Job Satisfaction Levels

Overall, only 28% of nurses reported satisfaction, while 22% were neutral and 50% were dissatisfied with their current

roles. Dissatisfaction was closely linked with financial stress, lack of recognition, and overwork.

Table 4: Job Satisfaction Levels among Nurses

Satisfaction Level	Frequency (n)	Percentage (%)
Satisfied	85	28%

Neutral	65	22%
Dissatisfied	150	50%

Table 4 shows the overall job satisfaction levels of nurses at Nishtar Hospital. Only 28% of participants reported being satisfied with their jobs, while 22% were neutral. Notably, half of the respondents (50%)

expressed dissatisfaction, highlighting significant concerns regarding their work conditions and professional environment.

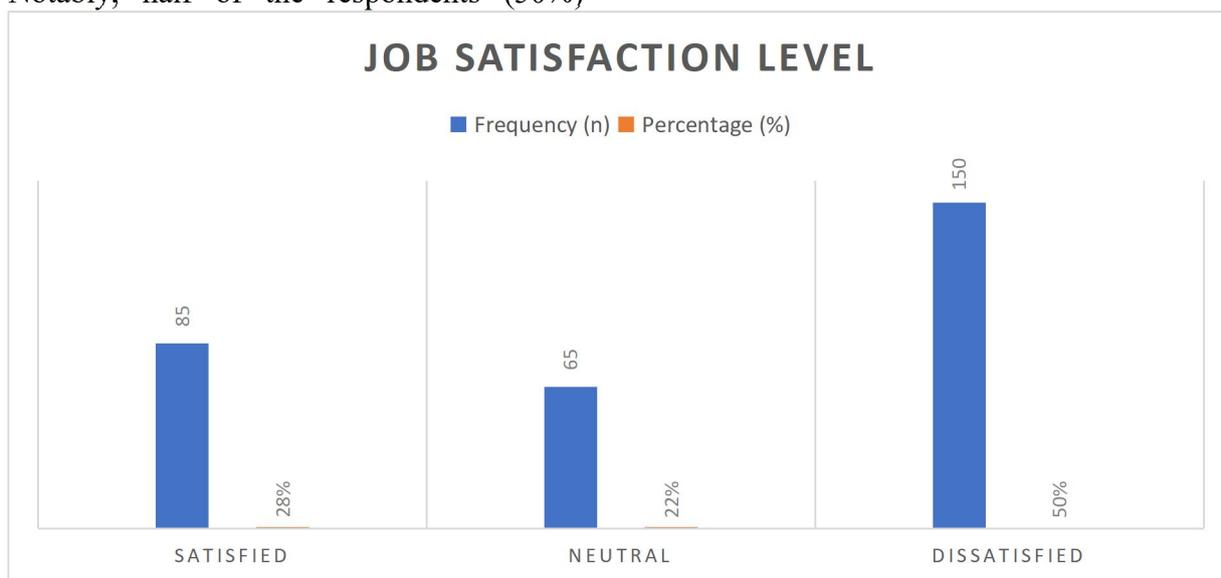


Table 5: Association of Push and Pull Factors with Migration Intentions and Job Satisfaction (Chi-square test)

Factors	Migration Intention (χ^2 , p-value)	Job Satisfaction (χ^2 , p-value)
Push Factors		
Low wages	$\chi^2 = 18.45$, $p = 0.001$	$\chi^2 = 12.36$, $p = 0.002$
Lack of professional development	$\chi^2 = 15.27$, $p = 0.004$	$\chi^2 = 10.82$, $p = 0.006$
Poor working conditions	$\chi^2 = 20.14$, $p < 0.001$	$\chi^2 = 14.59$, $p = 0.003$
High patient-to-nurse ratio	$\chi^2 = 22.68$, $p < 0.001$	$\chi^2 = 16.11$, $p = 0.002$
Excessive workload	$\chi^2 = 19.33$, $p < 0.001$	$\chi^2 = 11.47$, $p = 0.005$
Pull Factors		

Higher salaries	$\chi^2 = 25.41, p < 0.001$	$\chi^2 = 13.25, p = 0.004$
Better working conditions	$\chi^2 = 21.19, p < 0.001$	$\chi^2 = 12.64, p = 0.005$
Access to advanced technologies	$\chi^2 = 14.08, p = 0.007$	$\chi^2 = 9.33, p = 0.012$
Professional development	$\chi^2 = 18.72, p = 0.002$	$\chi^2 = 11.06, p = 0.006$
Quality of life for the family	$\chi^2 = 12.53, p = 0.014$	$\chi^2 = 8.49, p = 0.019$

The results of the Chi-square analysis (Table 5) indicate that both push and pull factors were significantly associated with migration intentions and job satisfaction among nurses at Nishtar Hospital. Among the push factors, high patient-to-nurse ratio ($\chi^2 = 22.68, p < 0.001$), poor working conditions ($\chi^2 = 20.14, p < 0.001$), and low wages ($\chi^2 = 18.45, p = 0.001$) showed the strongest associations with migration intentions. Similarly, excessive workload and limited professional development were also significant contributors to dissatisfaction. Regarding pull factors, higher salaries ($\chi^2 = 25.41, p < 0.001$) and better working conditions abroad ($\chi^2 = 21.19, p < 0.001$) were the most influential motivators for migration, while opportunities for professional growth and improved quality of life for families also showed significant relationships. These findings suggest that both workplace challenges and external opportunities strongly shape nurses' job satisfaction and their decisions to migrate, with economic and workload-related factors playing the most dominant role.

Discussion

This study explored the impact of push and pull factors on job satisfaction and migration decisions among nurses working at Nishtar Hospital, Multan. The findings revealed that low wages, poor working conditions, high patient-to-nurse ratios, and excessive workloads were the most significant push factors associated with job dissatisfaction and migration intentions.

These results are consistent with previous studies conducted in Pakistan and other low- and middle-income countries, where inadequate pay, understaffing, and limited opportunities for career growth have been identified as major contributors to nurse dissatisfaction (Abou Hashish & Alnajjar, 2025; Rizwan et al., 2024) (Afzal et al., 2022; Rizvi et al., 2020).

The analysis also highlighted the role of pull factors, particularly higher salaries, improved working environments, professional development, and better quality of life abroad, as key motivators for migration. These findings align with international literature, such as OECD (2020) and Buchan et al. (2024), which reported that nurses from LMICs are strongly attracted to better compensation and career prospects in high-income countries. Importantly, the results of this study confirm that economic incentives remain the dominant factor influencing both satisfaction and migration, while workload and staffing conditions play a critical role in shaping daily work experiences (Imran Khan et al., 2023).

Moreover, the high proportion of dissatisfied nurses (50%) indicates a pressing need for systemic reforms in Pakistan's healthcare system (Imran et al., 2011). Job dissatisfaction was particularly evident among younger nurses with fewer years of experience, suggesting that early-career nurses are more likely to seek opportunities abroad when adequate support systems and growth pathways are absent.

Conclusion

The study concludes that economic pressures, workload imbalances, and poor working conditions are the leading push factors driving job dissatisfaction and migration intentions among nurses in Pakistan. Conversely, higher salaries, better workplace conditions, and professional development opportunities abroad function as strong pull factors encouraging migration. Addressing these issues is critical to improving nurse retention and ensuring the stability of the healthcare workforce.

Implications

Policy-Level Interventions: Policymakers should prioritize revising nurses' pay scales, ensuring fair compensation, and introducing retention bonuses to minimize outward migration.

Workforce Planning: Hospital administrations must address staff shortages by improving nurse-to-patient ratios and reducing workload to enhance job satisfaction.

Capacity Building: Structured career development programs, continuing education, and training opportunities should be integrated into hospital systems to support professional growth.

Retention Strategies: Non-financial incentives, such as recognition, supportive supervision, and safe working environments, should be strengthened to improve morale.

Expected Outcomes

If such interventions are implemented, the expected outcomes include: Improved job satisfaction and reduced burnout among nurses and Lower migration rates, leading to greater workforce stability and Enhanced quality of patient care due to better staffing and improved nurse motivation and Stronger healthcare delivery systems in tertiary hospitals.

Limitations

This study was conducted in a single tertiary care hospital (Nishtar Hospital, Multan), which may limit the generalizability of the findings to all healthcare settings in Pakistan. The use of a cross-sectional design restricts causal interpretations, as data were collected

at one point in time. Self-reported questionnaires may also introduce response bias, as participants could overstate or understate their levels of satisfaction and migration intentions. Additionally, factors such as cultural influences or personal circumstances, which may also affect migration decisions, were not deeply explored.

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