



An In-Depth Analysis of Causes Behind Migration in Iranian Operating Room Nurses

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Abstract

Background: Migration among operating theatre nurses can adversely affect both the healthcare system and the quality of services provided. Therefore, researching this area is essential to gain a deeper understanding of the underlying causes.

Methods: This study employed a qualitative design with a content analysis approach. Data were collected from March 2024 to July 2024. Operating theatre nurses were selected for inclusion through purposive sampling. Semi-structured interviews were conducted with the participants, continuing until data saturation was achieved. Data were analyzed using conventional content analysis, and the validity and reliability of the findings were assessed using the Lincoln and Guba criteria.

Results: One key theme was identified: systemic dilemmas. This was further divided into three categories: economic issues, burnout, and unethical behaviors.

Conclusion: Operating room nurse migration is a complex issue for healthcare organizations, driven by economic issues, burnout, and unethical behaviors. To address this, organizations should implement strategies focused on fair financial practices, workload support, and ethical standards. This holistic approach can enhance nurse retention, improve patient care, and strengthen the healthcare system. Supporting nurses fosters a positive work environment and reduces turnover.

Keywords: Migration, Operating room technicians, Qualitative research

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Introduction

The World Health Organization (WHO) has highlighted nurse migration as a pressing global issue due to the increasing demand for nurses worldwide (1). The inclination of nurses to seek employment abroad has been fuelled by recruitment incentives offered by developed nations and facilitated through intermediary networks, such as recruitment agencies (2). The WHO reported that by 2030, the global demand for nurses will reach 9 million, with the most significant shortages occurring in developing and underdeveloped countries, particularly in Southeast Asia and Africa (3). Challenging working conditions in low-income and developing nations often drive healthcare professionals to migrate (4). Migrants are influenced by push factors in their home countries and pull factors in their host nations (5). Key reasons for leaving one's country include heavy workloads, inadequate facilities, low salaries, poor working conditions, lack of managerial support, limited promotional opportunities, and uncertain futures. Conversely, the attractions of developed countries include better wages, job security, improved living standards, and enhanced educational and career prospects for family

members (6). Nurse migration is considered when the perceived costs of relocating to another country are lower than the perceived costs of remaining in one's home country, which can involve numerous tangible and intangible costs for the country of origin (7).

Migration has both positive and negative impacts on the countries involved. For countries of origin, the emigration of nurses can lead to a reduced workforce, increased workload for remaining staff, heightened job burnout, decreased motivation and job satisfaction among those who stay, and ultimately a decline in the quality of nursing services, which can adversely affect patient care. Conversely, destination countries benefit from filling labour shortages with migrant nurses at relatively low costs (8). This trend is likely to persist until developed nations address the root causes of nurse shortages and developing countries improve conditions that compel nurses to leave. Understanding the motivations behind nurse migration is essential for potential migrants, policymakers, and society as a whole (9). It is particularly important for both developing and developed nations to forecast nursing workforce needs, comprehend the factors driving nurse migration, and formulate country-specific policies to



manage this phenomenon effectively (10). To mitigate brain drain and support international nurses, healthcare organizations should prioritize enhancing working conditions, providing sufficient support and resources, and fostering culturally sensitive environments (11). This is especially crucial in the operating theatre setting, which is currently facing significant shortages that impact quality and hospital performance (12, 13). Recognizing the challenges is the first step towards devising effective solutions. Given the dearth of information on this topic in Iran, this research aimed to identify the factors contributing to the migration of Iranian operating room nurses.

Methods

Study Design and Setting

This qualitative study employed a content analysis approach to explore the motivations behind the migration of operating room nurses. Data were collected at teaching hospitals affiliated with Hamadan University of Medical Sciences in Hamadan, Iran, spanning from March 2024 to July 2024. The objective was to identify the factors influencing the migration of Iranian operating room nurses. The study received ethical approval from the Vice-Chancellor for Research and Technology at Hamadan University of Medical Sciences, under ethics code IR.UMSHA.REC.1403.485.

Participants and Sampling

The study sample comprised operating room nurses who were selected through purposive sampling. This method, also known as judgment sampling, involves intentionally choosing informants based on specific characteristics (14). Participants included operating room nurses who met the inclusion criteria: a willingness to migrate, a minimum of one year's work experience, and voluntary participation in the study. A total of seven nurses were interviewed until data saturation was achieved.

Data Collection

After securing the necessary permissions, the researcher conducted interviews with individuals who met the inclusion criteria, having arranged appointments with them in advance. Data were collected through semi-structured interviews, which were conducted face-to-face and lasted approximately 45 minutes on average. The main guiding questions included: "Have you ever considered migrating?", "Can you describe the circumstances that influenced this decision?", and "What are your primary reasons for migrating?". Probing questions such as "Could you elaborate on that?" and "Can you provide an example?" were also used. All interviews were carried out by the same researcher, recorded, and performed in a private area within the participants' workplace to minimize interruptions. Additionally, a sociodemographic questionnaire was employed as a data

collection tool (Table 1).

Data Analysis

Conventional content analysis was conducted following the Graneheim and Lundman's method (15). Key elements of qualitative content analysis include the unit of analysis, unit of meaning, and abstraction, which involves developing codes, categories, and themes. Initially, the interviews were transcribed verbatim by hand. The analysis and coding for each interview were entered into MAXQDA software version 20 within 24 hours. For data analysis, the researcher read the interviews multiple times to gain an overview and initial interpretation. The transcripts were examined line by line and coded accordingly. Similar codes were grouped into subcategories, which were then organized into broader categories based on similarity and relevance. The analysis concluded that once the researcher reached data saturation, indicated by the repetition of previously gathered information and the absence of new categories emerging from the interviews.

Trustworthiness

To ensure the validity and reliability of the study, we employed the criteria outlined by Guba and Lincoln (1994) (16). Validity was enhanced through several strategies: increasing the number of interviews, purposefully selecting participants, engaging in long-term data collection, and allowing participants to review and verify their interview content. We utilized a participant-checking method whereby, after analyzing each interview, we provided participants with a summary of the codes and patterns identified, asking them to confirm whether these accurately reflected their expressed experiences. In instances of ambiguity or differing opinions, we promptly addressed these issues and made necessary adjustments. To establish confirmability and appropriateness, we shared our findings with several operating room staff members who were not part of the research team, allowing them to validate the relevance of the results. To bolster reliability and trustworthiness, we sought feedback from both observers and participants. This involved sending segments of the interview transcripts along with corresponding codes to participants, as well as sharing

Table 1. Socio-demographic characteristics of the study participants.

Sex	Age	Marital Status	Years Of Employment	Employment Type
Female	52	Married	17	Permanent contract
Male	41	Married	19	Permanent contract
Female	37	Married	13	Fixed-term contract
Male	24	Single	3	Apprenticeship contract
Female	25	Single	3	Fixed-term contract
Female	29	Single	2	Apprenticeship contract
Female	38	Married	14	Permanent contract

the emerging categories with a few external observers for their review and comments on the accuracy of our analysis. For transferability, we implemented strategies such as extracting and presenting comprehensive data, employing snowball sampling, and conducting reviews by two external referees.

Results

In this study, focusing on the causes behind migration among operating theatre nurses, one main theme was identified: systemic dilemmas, alongside three categories: economic issues, burnout, and unethical behaviors (Table 2).

Systemic Dilemmas

Economic Issues

Low Remuneration

The low salaries and benefits for operating room nurses represent not only a financial issue but also highlight broader systemic problems within the healthcare system. This perception of underappreciation can lead to decreased job satisfaction and higher turnover rates, prompting many to seek better opportunities abroad. For instance, one participant noted:

“...Previously, upon our recruitment, the circumstances were significantly more favorable than they currently are... I vividly recall my first salary; it was sufficient to comfortably sustain our lifestyle. For several years, life unfolded quite harmoniously. However, as time progressed, particularly with the arrival of children and the accompanying financial burdens, earnings began to feel increasingly inadequate...” (P7).

Inappropriate Distribution of Rates and Benefits

Understanding the dynamics of salary distribution and its impact on nurse migration is crucial for policymakers and healthcare managers dealing with workforce shortages. The inadequate benefits fail to reflect the demanding nature of nurses' work, often compelling them to seek better remuneration and working conditions elsewhere. A

participant remarked:

“...Take the issue of pay rates, for example... it seems quite arbitrary. For instance, someone who is in the recovery section working alongside someone in the operating room – I cannot understand on what basis this is determined... It doesn't feel fair at all... I had a personal experience where, despite being on a night shift for a code, no pay rate was applied to my work – it was simply considered regular working hours...” (P6).

High Salary Gap with Surgeons

Many nurses perceive a significant disparity between their remuneration and that of surgeons, fostering feelings of alienation and undervaluation. These perceptions have an adverse effect on job satisfaction and decisions regarding migration. One participant expressed:

“...We have many surgeons here who charge patients exorbitantly for routine procedures... meanwhile, we perform similar tasks and, in many cases, undertake responsibilities that are traditionally assigned to them... It feels profoundly unjust that their earnings from a single procedure can equal our entire monthly salary... I've heard that this is not the case in other countries at all.” (P5).

Burnout

Physical Exhaustion

Physical fatigue is not merely a consequence of long working hours; it is a significant issue that profoundly impacts the mental and emotional well-being of nurses. This cycle of fatigue leading to burnout can diminish job satisfaction and enthusiasm for their roles, ultimately prompting a desire to pursue employment opportunities that prioritize work-life balance. For instance, one participant noted:

“... Our operating theatre is part of the NHS and receives a high volume of patients. The workload is immense. In the first year or two, I thought 10 years would be manageable, but after that, the fatigue really begins to overwhelm you. It's as though your body is losing strength. I'm now experiencing all the symptoms of a herniated disc. I now have carpal tunnel syndrome and varicose veins too...” (P7).

Lack of Psychological Well-Being

Psychological well-being significantly affects the overall health and job satisfaction of healthcare professionals, particularly in high-pressure environments such as the operating theatre. One participant expressed:

“... If you work in an environment where you feel mentally stable with no stress, you can communicate freely and laugh without the fear of negative repercussions. In that case, you may feel good even though you know you're underpaid and not making any professional advancements. However, when you're

Table 2. Main themes, categories, and sub-categories related to factors contributing to the migration of operating room nurses.

Themes	Categories	Sub-categories
Systemic dilemmas	Economic issues	Low remuneration
		Inappropriate distribution of rates and benefits
		High salary gap with surgeons
	Burnout	Physical exhaustion
		Lack of psychological well-being
		Role ambiguity and task overload
		Unpleasant working conditions
	Unethical behaviors	Inappropriate interaction among staff
		Poor treatment by surgeons
		Undermining the dignity of nurses

not psychologically happy, no amount of money can change that. This aspect doesn't cost employers anything, yet they fail to address it..." (P5).

Role Ambiguity and Task Overload

Role ambiguity refers to the uncertainty that nurses frequently experience regarding their responsibilities and expectations in the operating theatre, resulting in confusion and stress. The overwhelming demands placed on nurses, exacerbated by staff shortages and increasing patient loads, further intensify this sense of burden. In this context, a participant remarked:

"... We are performing beyond our designated duties, undertaking tasks that may not even fall within our scope, such as bringing in positioning equipment and handling endoscopic devices. These responsibilities do not belong to us, and they are exhausting..." (P3).

Unpleasant Working Conditions

Unsuitable working conditions can adversely affect staff motivation and may drive employees to seek improvements in their environment or find ideal conditions elsewhere. One participant added:

"... Every now and then, one of us falls ill, and others tend to get sick quickly as well. The ventilation here is inadequate... We sometimes open a window halfway, but it's not very effective. It can be either too hot or too cold at times..." (P3).

Unethical Behaviors

Inappropriate Interaction Among Staff

In the complex and high-pressure environment of the operating room, effective communication and teamwork are crucial for ensuring optimal patient care and maintaining workplace harmony. Interactions that lack respect and professionalism lead to poor communication, resulting in job dissatisfaction and emotional distress among staff. This environment can motivate individuals to seek alternative employment opportunities or consider migration. One participant remarked:

"It is not uncommon to observe individuals vocally reprimanding others, particularly among those who come from privileged backgrounds, in the presence of residents. Given the resident's relative inexperience, we must cultivate a positive image to mitigate potential issues that may arise later on. Frequently, these residents lack essential skills, which necessitate our intervention and instruction in various areas. Then, our colleagues return with complaints, behavior like this..." (P5).

Poor Treatment by Surgeons

Disrespect, inadequate communication, and derogatory attitudes not only impact the mental and emotional well-being of operating room personnel but also undermine the collaborative atmosphere essential for effective patient

care. One participant shared their experience:

"Ultimately, we are in a third-world context, and there is a significant disparity in the treatment of physicians versus nurses regarding compensation, which fosters a false sense of superiority among doctors. Here, the disparity is palpable, and many physicians believe they are infallible, leading to situations where, despite their mistakes, we are expected to apologize..." (P2).

Undermining the Dignity of Nurses

The dignity of nurses is vital for their ability to perform effectively and empathetically in high-stress settings like the operating room. Experiences that undermine their dignity can lead to job dissatisfaction, emotional distress, and burnout, prompting many to consider migration as a viable escape from toxic working conditions. One participant noted:

"Recently, there was an incident where a patient defecated on the bed, and I was questioned as to why I hadn't cleaned it. I explained, 'That is not my responsibility'. Why should I have to do it? There is a defined level of duties here that simply aren't acknowledged... They do not value people in this environment..." (P4).

Discussion

The migration of healthcare professionals, particularly operating room nurses, has emerged as a big challenge within contemporary healthcare systems, indicating the multifaceted organizational issues these nurses confront. An in-depth analysis of interview data reveals three pivotal factors driving this migration: financial concerns, job-related burnout, and instances of unethical behavior. Foremost among these concerns is the financial aspect, which has surfaced as a principal motivator compelling operating room nurses to seek opportunities beyond their current positions. Within this domain, several subcategories emerge, including inadequate salaries, insufficient benefits, pronounced income disparities between nursing and surgical staff, and ineffective compensation structures. Numerous operating room nurses have articulated their dissatisfaction with remuneration that fails to adequately reflect their expertise, responsibilities, and the inherent demands of their roles.

For instance, a study conducted in the Philippines highlights the prevalence of low salaries and delayed benefits as structural impediments contributing to nurse burnout, ultimately prompting many to resign, transition to different careers, or migrate abroad (17). Similarly, research from Nigeria highlights the allure of higher salaries available in developed nations as a significant draw for healthcare workers, including nurses (18). Furthermore, a study by Aspden et al corroborates this perspective by identifying dissatisfaction with pay as a predominant factor influencing job resignation (19).

Consequently, it is hardly surprising that when salaries stagnate or fall short of industry standards, nurses feel compelled to pursue better-paying positions within alternative institutions or healthcare environments.

Moreover, the stark income disparity between surgical personnel and nursing staff fosters a pervasive sense of undervaluation among nursing professionals. The sentiment of being undervalued is further exacerbated by the frequent reports from nurses expressing feelings of being overworked and unsupported. This sentiment is poignantly encapsulated in the phrase “My job doesn’t love me back,” as highlighted in research involving experienced nursing professionals (20). Such perceptions contribute to a broader narrative regarding the need for systemic reforms, which aim to address these inequities and foster a more supportive work environment for nurses.

Job burnout represents a critical concern within the nursing profession, particularly in high-pressure environments such as operating theatres. The intricacies of this issue manifest through a multitude of interrelated factors, including physical exhaustion, compromised physiological well-being, role ambiguity, excessive workloads, and challenging environmental conditions. Operating room nurses are frequently confronted with physically demanding responsibilities, which encompass prolonged periods of standing and the lifting of heavy equipment. This continuous physical strain not only undermines their capacity to perform effectively but also culminates in heightened dissatisfaction and pervasive fatigue (21). In this context, findings from the study conducted by Motie et al resonate with our own research, highlighting undesirable task scope, elevated pressure, and excessive workloads as pivotal determinants influencing nurses’ decisions to migrate in pursuit of better opportunities (22). The cumulative effect of ongoing stress coupled with insufficient recovery time, detrimentally impacts both the mental and physical health of nurses. Notably, mental health nurses report experiencing higher levels of psychological distress and poorer overall health compared to their peers in other specialties, which can subsequently compromise the quality and safety of patient care (23). Chronic stress is a precursor to burnout, significantly eroding job performance and amplifying the inclination to abandon current roles in search of more supportive environments.

Moreover, environmental factors such as inadequate lighting, subpar air quality, and non-ergonomic workspaces are instrumental in shaping nurses’ job satisfaction and overall well-being. Enhancing these conditions through the implementation of health-related guidelines and certification tools holds the potential to elevate resident satisfaction, perceived productivity, and overall well-being (24), thereby aligning with our study’s findings. It is entirely rational that nurses operating under suboptimal conditions and grappling with numerous

challenges would actively seek out more favorable environments to ameliorate their work experience and alleviate their stress levels.

Additionally, the prevalence of unethical behaviors within the workplace can profoundly influence job satisfaction and employee retention. Issues such as inappropriate interactions among staff members, disrespect directed towards surgeons, and the devaluation of employees contribute to a toxic organizational culture that can ultimately drive skilled nurses away. The presence of poor communication, bullying, and harassment among colleagues can engender a hostile work environment that significantly impacts nursing professionals. The ramifications of bullying and harassment in the workplace extend far beyond immediate discomfort; they profoundly affect nurses’ job satisfaction, mental health, and overall well-being. Individuals operating in environments characterized by persistent bullying often grapple with pronounced job dissatisfaction, alongside both physiological and psychological repercussions (25). This toxic climate can precipitate increased absenteeism, heightened burnout, and a notable decline in productivity, satisfaction, and morale. In this regard, the findings from the study conducted by Klingler et al resonate with our own research, underscoring welfare issues and individual responses as critical drivers of staff migration. The authors advocate for the elimination of hierarchical distinctions among employees while emphasizing the importance of ethical values within the workplace (26).

Moreover, when operating room nurses are subjected to or witness disrespectful behaviors from surgeons or other medical personnel, it undermines the essential trust and collaboration necessary for effective teamwork. A pervasive lack of mutual respect can have profound implications for team dynamics and ultimately compromise the quality of care delivered to patients. Similarly, Teymoori et al reported that nurses frequently encounter aggression, authoritarianism, and unprofessional conduct from surgeons, all of which contribute to heightened levels of burnout and job-related stress (27). Conversely, when nurses perceive themselves as undervalued, whether due to a lack of recognition, insufficient support, or an overarching negative workplace culture, their motivation and commitment to their roles may significantly diminish. Organizations that neglect to acknowledge and appreciate their nursing staff risk losing invaluable personnel to competing hospitals or healthcare facilities. Research consistently indicates that healthcare organizations must prioritize enhancing job satisfaction and embedding nurses within the workforce to foster retention (28). Implementing distributed leadership models, such as shared governance, has been shown to enhance employee engagement, job satisfaction, and organizational commitment while concurrently reducing turnover rates among nursing staff (29). Such strategic

initiatives are essential for cultivating a healthier work environment that not only retains talent but also elevates the standard of patient care.

Conclusion

The migration of operating room nurses presents a complex challenge for healthcare organizations, driven by financial strain, job burnout, and unethical workplace behaviors that undermine retention efforts. While this study sheds light on critical factors influencing nurse migration, its findings are constrained by a small sample size and a qualitative methodology that may introduce subjective biases. The reliance on self-reported data also raises concerns about potential underreporting due to social desirability, and the exclusive focus on operating theatres limits the applicability of results to other clinical environments.

Despite these limitations, the insights underscore the urgent need for comprehensive strategies that promote equitable financial practices, robust support systems for managing stress and workload, and a steadfast commitment to ethical standards. By fostering a workplace culture that values and supports operating room nurses, healthcare administrators can not only reduce migration but also enhance patient care and build a more resilient healthcare system.

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Authors' Contribution

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Competing Interests

The authors state that there is no conflict of interest in the present study.

Ethical Approval

The research adhered to the principles outlined in the Declaration of Helsinki. Before conducting the study, approval was obtained from the Medical Ethics Committee at Hamadan University of Medical Sciences (registration number: IR.UMSHA.REC.1403.485). Participants were required to provide written informed consent before being included in the study. It is important to note that all participants had the freedom to withdraw from the study at any time.

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