



Why do male nurses choose to work in foreign countries? A qualitative study on Chinese male nurses working in Japan

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ABSTRACT

Aim: This study aimed to examine foreign-educated male nurses' motivation to emigrate for work, as well as explore the contextual factors that shape their career trajectories.

Background: To that end, we interviewed Chinese male nurses working in Japan. No previous study has examined why male nurses seek employment abroad or the problems they face.

Methods: This study employed a qualitative and inductive research design. Sixteen Chinese male nurses working in Eastern and Western Japan were recruited using convenience and snowball sampling methods and were interviewed via video calls. Co-researchers of both genders from different occupational and cultural backgrounds coded the findings and identified common themes in participants' responses. We analysed our findings vis-à-vis various theoretical perspectives and developed an explanatory model.

Results: Participants' experience as nurses in Japan ranged from six months to eight years. The findings confirmed that factors identified in earlier reports influenced nurses' motivation and work. Two new factors emerged: *influence by others* and *social reasons*. Moreover, two factors that affected male nurses' motivation to work abroad, namely, external factors and the influence of others, were identified. *Social reasons* were identified as a pull factor.

Conclusion: Our study provides valuable insights into recruiting and retaining foreign male nurses in developed countries facing issues such as ageing populations and nursing shortages.

Implications for nursing policy: This study has important implications for nursing management. Our findings highlight the importance of orienting foreign-educated nurses regarding the local work culture to increase the recruitment and retention of foreign talent. Moreover, enhanced salary packages and benefits to improve motivation can lead to improved job performance, which can positively impact patient and safety outcomes.

1. Introduction

The shortage of nurses has become a serious public health concern worldwide [1]. The World Health Organization (WHO)

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anticipates that the number of nurses and midwives will reach 40 million by 2030, depending on worldwide demand [2], while the International Council of Nurses posits that as many as 13 million additional nurses will be required [3]. In its latest 2023 editorial, The Lancet emphasises that nurses are essential caregivers with a pivotal role in healthcare systems [4]. Although the COVID-19 pandemic increased public awareness of nurses' crucial contributions to society, there is a conspicuous lack of corresponding support and protection in the workplace. The aforementioned editorial further underscores that unless stakeholders in the field of healthcare promptly and unanimously renew their dedication to nursing, the prospects for effective recovery or enhancement of future health systems will remain bleak [4]. Accordingly, the WHO has proposed various strategies to mitigate the risks of nursing shortages since 2019 [3].

Within developed countries, foreign-educated nurses (i.e. nurses who were born, raised, and educated in a country other than that of their place of work [5]) represent one potential solution to the nursing shortage. Japan has one of the fastest ageing populations in the world, with its aged population comprising more than 29 % of the total population in 2022 [6]. Due to the rapid ageing of its society, a lack of nursing personnel, and its globalisation-related expansion, Japan has accepted nurse candidates from Indonesia, the Philippines, and Vietnam, based on economic partnership agreements (EPAs) established in 2008 in an attempt to strengthen the economy. EPAs are trade agreements designed to bolster the economy by facilitating collaboration between countries [7].

Most foreign nurses migrating to Japan through non-governmental organisations (NGOs) are Chinese, even though China lacks EPAs with Japan. Their presence has significantly increased since 2010. Out of 2476 medical care residency visas granted in Japan, 1881 are held by Chinese nationals. Though data on foreign male nurses' acceptance are scarce, men hold 444 (17.9 %) of these visas, hinting at a substantial percentage of Chinese male nurses in Japan [8].

The severe shortage of male nurses is a significant problem in China [9]. Driven by gender stereotypes rooted in the influence of Confucianism in East Asian culture [10,11], men have historically been perceived as the main breadwinners in Chinese families and are usually involved in prestigious paid work outside the home. Meanwhile, heavy workloads, irregular working hours, patient and public prejudice [12], job burnout, lack of interest in nursing [13], and low payment [14] have influenced the participation of Chinese men in nursing. As of 2019, male nurses accounted for only 2.3 % of China mainland's 4.09 million registered nurses [15], a proportion considerably below that of Western countries [16], such as New Zealand (9 %), the US (9.6 %), the UK (11 %), Australia (11.7 %), and the Netherlands (23 %). This proportion is also smaller compared with South Korea (5.7 %) [17], Japan (7.8 %) [18], Hongkong (13.4 %) [19], Macau (11 %) [20], and Taiwan (3.6 %) [21]. Though comprehensive data on male nurse attrition rates in China are currently unavailable, existing hospital-based studies indicate high rates [22,23]. Given the growing elderly population in China and advancements in medical technology, the unique physical and technical skills that male nurses possess are becoming indispensable, leading to a sustained demand for their expertise.

Existing research on foreign-educated nurses in Japan has highlighted the challenges they face, including language barriers and cultural disparities [24]. The 2022 Nursing Licensure Examination reported a pass rate of only 11.9 %, attributed partly to candidates' difficulties in understanding and reading Japanese [25,26].

Few recent studies have examined why foreign nurses choose to work in other countries, while even fewer studies have specifically targeted male nurses. Partially due to a shortage of historical knowledge regarding male nurses [27], male nursing students often face isolation, role strain, sexism, and a lack of role models [28]. Further, to the best of our knowledge, no studies have been conducted on male nurses' reasons for seeking employment abroad or their problems working abroad.

This study seeks to provide a comprehensive exploration of the motivations driving foreign-educated male nurses to relocate abroad, a subject that has been largely unexplored in field-relevant literature. Specifically, this research delves into the experiences of Chinese male nurses in Japan, analysing their motivations, challenges, and the societal factors that shape their career paths. By obtaining a detailed understanding of these complex dynamics, this study aims to fill a critical gap in the literature, shedding light on an issue of growing relevance in the global healthcare landscape. Derived from these insights, this study also presents targeted policy recommendations for recruiting and retaining foreign male nurses, addressing the unique obstacles they face in Japan and globally. These findings and recommendations are poised to have a substantial impact on policy formulation and practical strategies, thereby contributing to the broader efforts to combat the global nursing shortage. This research not only adds to the academic discourse but also offers tangible solutions to a pressing global health challenge, underscoring its significance and relevance in the current context.

2. Methods

2.1. Design

This study adopted a qualitative descriptive design to examine foreign-educated nurses' professional narratives [29]. This design allowed us to preserve the accuracy and significance of the participants' voices. As the research was inductive, exploring the phenomena related to foreign-educated nurses' professional experiences enabled us to flexibly draw on theoretical constructs that could apply to the analysis [30,31]. The thematic analysis framework proposed by Braun and Clarke [32] was utilised to derive themes from the participants' narratives.

2.2. Sampling and recruitment

The participants were recruited between February and September 2022, using a combination of convenience and snowball sampling methods [33]. Convenience sampling was initially employed; through this non-random technique, three individuals were selected based on their easy accessibility and proximity to the researcher. To further diversify the sample, snowball sampling was

applied—this method is particularly useful in studies involving hard-to-reach or specialised populations, allowing initial participants (seeds) to recommend or recruit additional participants from their network or community. This sampling method progresses as a chain referral system, where new participants refer others, thereby expanding the sample like a ‘snowball’. While this method can lead to bias due to being a closed network system, it is often employed when researching specific communities or sensitive topics where participants may not be readily accessible through traditional methods. By combining these two approaches, this study was able to access a more varied and representative sample of foreign-educated nurses working in Japan. In total, 16 individuals were interviewed.

2.3. Data abstraction

2.3.1. Inclusion/exclusion criteria

The participants were required to have a Chinese and Japanese nursing licence and to have worked in Japan for at least six months. Candidates who did not meet these criteria were excluded from participating in this study.

2.3.2. Data sources/collection

The data collection process took place during the COVID-19 pandemic period. Data were collected from participants via tape-recorded semi-structured interviews lasting approximately 1.5 h each. Open-ended questions allowed for the free flow of information. [Table 1](#) displays the questions utilised; the design of the questionnaire was based on prior studies [24,34,35].

This approach facilitated a comprehensive exploration of the participants’ views. The interview process unfolded in the following phases:

1. Preparation and Design: The team formulated preliminary questions based on a literature review to ensure alignment with the core research focus.
2. Initial Exploration: The preliminary interviews enabled the exploration of the subject matter and allowed for the collection of first-hand insights from the participants.
3. Iterative Feedback: Following each interview, the researchers analysed recordings, engaging with participants to refine subsequent interview questions and focus areas.
4. Conclusion with an Open-ended Question: Each interview concluded with an open-ended question: ‘Is there anything else I have not asked you about that you feel is important and would like to discuss?’ This allowed the participants to highlight any areas they deemed significant but had not yet been addressed.
5. Data Analysis: After completing the interviews, the team undertook a systematic analysis of the collected data, coding for themes and patterns to answer the research questions.

2.3.3. Data Analysis

The data analysis was guided by the thematic analysis framework, primarily inspired by Braun and Clarke’s approach [32], emphasising a systematic process of coding and theme development. NVivo 12 software was used to facilitate the coding process, with thematic analysis following the structure delineated by Polit and Hungler [33] to ensure rigour in understanding the participants’ narratives in depth.

The specific steps taken were the following:

1. Familiarisation with the Data: The research team reviewed the transcripts to gain a deep understanding of the participants’ experiences and perspectives.
2. Initial Coding: Authors Z (a man) and S (a Japanese female nurse in Japan), both PhD candidates with experience in qualitative data collection and analysis, independently coded the transcripts line by line using NVivo 12, enhancing the reliability of the process.
3. Identifying Themes: Codes were examined and grouped to form potential themes, reflecting the core ideas within the data.
4. Reviewing and Refining Themes: Authors Z and S compared all the codes and discussed any inconsistencies until a consensus was reached. The themes were critically examined and refined as necessary.
5. Defining and Naming Themes: Clear definitions and names were developed for each theme.

Table 1

Interview guideline: Open-ended questions.

1. How and why did you choose a nursing program?
2. How did the people around you react when they found that you worked as a male nurse in your country?
3. Why did you come to Japan to work as a nurse?
4. What were your expectations when coming to Japan?
5. What are the pros and cons of working as a male nurse in Japan?
6. What situations would make you consider returning to your home country?
7. What made you stick to working as a male nurse in Japan?
8. What are your career plans?
9. What kind of support did you need in your first year working as a male nurse and what kind of support do you need now?
10. Is there anything else you think is important and would like to discuss but have not enquired about?

6. Producing the Report: The finalised themes were integrated into the broader analysis, while the analysis results were discussed among and confirmed by the researchers.

Consideration was given to the effect of the interviewer's gender, cultural background, and work experience on the interviewees, especially when discussing gender-sensitive topics [36]. Therefore, author Z, who had the same cultural background and work experience as the participants, conducted the interviews to foster an environment that encouraged candid responses.

2.3.4. Ethical considerations

This study was approved by the Ethics Committee of Kyoto University Hospital (R3261). Informed consent was obtained, in oral and written forms, from all the participants. We maintained no records regarding where the participants were employed in Japan. The participants were informed that the interviewers would not reveal their personal identities or any information that directly identified them to the research team without prior consent.

2.3.5. Rigour

As detailed above, we employed several strategies to enhance the reliability and rigour of our study. Firstly, as noted, one of the PhD students who conducted the interviews had experience in qualitative research, while another had a similar cultural background and experiences as the participants. Secondly, as described above, data analysis was carried out separately by PhD students of different genders. Thirdly, the data analysis was supervised by three professors, two of whom had extensive experience in qualitative research. Fourthly, we adhered to the Consolidated Criteria for Reporting Qualitative Research when designing the study and reporting its findings [37].

2.3.6. Findings

The study sample consisted of 16 participants with a mean age of 30 ± 2.8 years. Most participants were single ($n = 10$) and had no children ($n = 12$). Their educational backgrounds were primarily in vocational schooling for registered nurses ($n = 7$) or a baccalaureate program in nursing ($n = 8$).

Professional Experience in China: Participants had 0–2 years of experience working in China across diverse medical sections, including Internal Medicine ($n = 4$), Surgery ($n = 5$), Obstetrics and Gynaecology ($n = 1$), Operating Room ($n = 4$), Emergency

Table 2
Participants' characteristics ($n = 16$).

Variables		N (%)
Mean age (SD) in years		30 ± 2.8
Work experience in China (in years)	0	8
	0.5	1
	1	6
	2	1
	2	1
Work experience in Japan (in years)	0.5–1	2
	2	2
	3	2
	4	1
	5	3
	6	1
	7	3
	8	2
Marital status	Single	10
	Married	4
	Divorced	1
	No Answer	1
Educational background	Vocational school or junior college for registered nurses	7
	Baccalaureate program (four-year program in nursing)	8
	No Answer	1
Number of children	1+	4
	0	12
Department where experience was acquired in China	Internal Medicine	4
	Surgery	5
	Obstetrics and Gynaecology	1
	Operating Room	4
	Emergency Medicine	2
	Mixed Medicine	3
	Other	4
	Department where experience was acquired in Japan	Internal Medicine
Surgery	2	
Operating Room	2	
Emergency	1	
Mixed Medicine	1	
Other (Long-term care ward)	8	

Medicine (n = 2), Mixed Medicine (n = 3), and Others (n = 4).

Professional Experience in Japan: Participants had 0.5–8 years of experience working in Japan, mainly in the departments of Internal Medicine (n = 4), Surgery (n = 2), Operating Room (n = 2), Emergency (n = 1), Mixed Medicine (n = 1), and Others (n = 8, particularly in long-term care wards).

Comparative Insights: For Chinese male nurses working in Japan, notable differences were observed in the variety of departments in which participants had worked during their tenure in China and Japan, with a more balanced distribution in China and a focus on long-term care wards in Japan (See Table 2).

Four major themes emerged: 'Reasons Chinese male nurses chose the nursing profession', 'Factors affecting foreign-educated male nurses' work motivation', 'Support expectations', and 'Career plans'. Additionally, three minor themes emerged under one major theme ('Factors affecting foreign-educated male nurses'), including 'Factors affecting Chinese male nurses' choice to work in Japan', 'Factors affecting Chinese male nurses continuing in the profession in Japan', and 'Potential factors affecting Chinese male nurses leaving the profession in Japan'.

2.3.7. Reasons Chinese male nurses chose their profession

A previous study [34] identified two reasons Chinese male nurses choose to work in the field of nursing, while this study identified another. Twelve of the 16 nurses we interviewed chose nursing because they performed poorly in the medical school entrance exam, 11 reported that nursing was their second or third choice because of its perks, and seven chose nursing as a career due to external factors (See Table 3).

My parents had the same idea as I did. I would go to university first and then find ways to change my major after I got in. If the neighbours find out you were admitted into a famous medical school and you give them the name of that school, they will assume you were admitted into medical school and that you are a doctor. (Participant 3)

I wanted to be a medical doctor, but I received a low [exam] score. Admissions are competitive for that university because the clinical major is highly sought after, so my score was too low. I was assigned to a nursing major instead. (Participant 10)

2.3.8. Factors affecting foreign-educated male nurses' work motivation

The factors that affected nurses' work motivation were categorised as *individual priorities, personal characteristics, internal psychological factors, workplace characteristics, and working conditions*, in accordance with previous research [38]. We identified and confirmed two new factors in this study: *the influence of others* and *social reasons*. Based on the job selection process, we further categorised the factors that influenced the work motivation of foreign-educated male nurses across three main themes (See Table 4).

2.4. Factors affecting Chinese male nurses' choice to work in Japan

The influence of others was a newly identified factor in Chinese male nurses' decision to work in Japan. In total, 11 participants claimed that they had experienced patient prejudice against male nurses in China. Nine participants reported that their friends and family in China perceived the job as dishonourable and unprofitable.

The older members of my family still cannot accept it [i.e. that men can work as nurses] and think men have no future in this profession. (Participant 10)

In terms of patients ... how can I say this? ... In China, patients wonder: 'Why are there male nurses?' They are surprised because there are few male nurses; that is all. Some of the female patients are even more shocked. How can there be male nurses? And then some patients who are slightly older, those in their 60s and 70s, say: 'How could you study nursing? You have to become a doctor'. (Participant 15)

Further, nine participants came to Japan for the salary package that Japanese nurses receive, while seven participants wanted to go abroad to gain valuable career and cultural experience while they were young.

Table 3
Reasons why Chinese male nurses chose their profession.

Themes	Subthemes	Coding
Reasons Chinese male nurses chose their profession	Being assigned to a nursing major	1. Being assigned to a nursing major. 12 participants (75 %)
	Advantages of the nursing profession	1. Easy to find employment. 7 participants (44 %) 2. Easy to go abroad. 2 participants (13 %) 3. Stable job. 1 participant (6 %) 4. More promotion chances. 1 participant (6 %)
	External Factors	1. The university has a good reputation, and you are looking forward to changing majors after entering the university. 3 participants (19 %) 2. Recommended by family members. 2 participants (13 %) 3. Influence of the home medical environment. 1 participant (6 %) 4. Changed careers after coming to Japan to work as a nurse. 1 participant (6 %)

Table 4
Factors affecting foreign-educated male nurses' work motivation.

	1. Individual priorities	2. Personal characteristics	3. Internal psychological factors	4. Workplace characteristics	5. Working conditions	6. The influence of others	7. Social reasons
Factors that affect Chinese male nurses' choice to work in Japan	<ol style="list-style-type: none"> Go abroad to gain experiences while young. 7 participants (44 %) To prove my ability. 2 participants (13 %) Earn money. 2 participants (13 %) Wife is in Japan. 1 participant (6 %) Emancipate from parents. 1 participant (6 %) Emigrate. 1 participant (6 %) Work in Japan and be competitive back in my country. 1 participant (6 %) 	<ol style="list-style-type: none"> Japanese language proficiency and acquisition of nursing qualifications. 6 participants (38 %) Advancement of academic qualifications. 3 participants (19 %) Not finding a job in China. 1 participant (6 %) Poor English skills. 1 participant (6 %) Discrimination against male nurses in China (height requirement). 1 participant (6 %) Interested in foreign countries. 1 participant (6 %) Use language advantage to find other development opportunities. 1 participant (6 %) I love Japanese anime, no resistance to Japanese culture. 1 participant (6 %) Single and unattached. 1 participant (6 %) 	<ol style="list-style-type: none"> To learn Japanese nursing philosophy and experience to develop the nursing profession in China. 3 participants (19 %) Desire to learn about the work of Japanese nurses and the belief that it is meaningful. 1 participant (6 %) 	<ol style="list-style-type: none"> The doctor-nurse-patient relationship in China is complicated. 1 participant (6 %) There is no room for nurses to develop in China. 1 participant (6 %) Japanese and Chinese people are both yellow-skinne, so there will be less discrimination compared to European and American countries. 1 participant (6 %) 	<ol style="list-style-type: none"> Salary package. 9 participants (56 %) Japanese nursing work programs are less financially burdensome. 2 participants (12 %) There is a nursing program to work in Japan. 1 participant (6 %) Scope for advancement in Japan. 1 participant (6 %) Japan has a developed medical system. 1 participant (6 %) It is easier to live in Japan. 1 participant (6 %) Separation of work and life. 1 participant (6 %) Job stability. 1 participant (6 %) 	<ol style="list-style-type: none"> Prejudice from patients in China: how can a male pursue a career in nursing? 11 participants (69 %) Prejudice from family and friends that male nurses are not honourable and men have no future in nursing. 9 participants (56 %) Recommendation from friends and family to come to Japan. 4 participants (25 %) Prejudice from nurses: not recommended to stay in general wards. 2 participants (13 %) Prejudice from doctors: not a promising career. 2 participants (13 %) 	<NA
Factors that affect Chinese male nurses continuing in nursing profession in Japan	<ol style="list-style-type: none"> Family needs income support. 3 participants (19 %) Male nurses do not have complex social engagements. 1 participants (6 %) There are many women around, and it is easy to find a spouse. 1 participant (6 %) 	<ol style="list-style-type: none"> Could not find a suitable job. 4 participants (25 %) Accepted working as a nurse in Japan. 2 participants (13 %) Had adapted to Japan but found it difficult to adapt back to China. 2 participants (13 %) No restrictions on education and work 	<ol style="list-style-type: none"> Satisfaction and sense of achievement in seeing patients discharged from the hospital in good health with my contribution. 2 participants (13 %) Timely detection in changes in the patient's condition and timely treatment. 1 participant (6 %) 	<ol style="list-style-type: none"> Nice working atmosphere. 2 participants (13 %) Easy to change the workplace. 2 participants (13 %) Little difference between male and female nurses in Japan. 2 participants (13 %) Recognition from people around you. 2 participants (13 %) 	<ol style="list-style-type: none"> Salary and leave benefits better than in China. 13 participants (81 %) Easy work, no heavy work in Japan. 2 participants (13 %) Stable job. 2 participants (13 %) 	NA	<ol style="list-style-type: none"> The gap between the rich and poor in Japanese society is small and changing jobs does not lead to a significant increase in income. 2 participants (12 %)

(continued on next page)

Table 4 (continued)

	1. Individual priorities	2. Personal characteristics	3. Internal psychological factors	4. Workplace characteristics	5. Working conditions	6. The influence of others	7. Social reasons
	4. Experience working as a nurse abroad is valuable. 1 participant (6 %) 5. The purpose of coming to Japan is to earn money. 1 participant (6 %)	experience. 1 participant (6 %)	3. Feeling satisfied by interacting with patients. 1 participant (6 %) 4. Having a family in Japan and the support of family. 1 participant (6 %) 5. Not having achievements in Japan, not happy to return. 1 participant (6 %)	5. Less pressure from colleagues, patients, and their families. 1 participant (6 %) 6. The problem of insufficient nurse assistants was solved. 1 participant (6 %) 7. Low skill requirements for nurses in Japan. 1 participant (6 %) 8. Discrimination against nurses in China. 1 participant (6 %)	4. Having a work contract for five years. 1 participant (6 %)		
Potential factors that affect Chinese male nurses leaving the nursing profession in Japan	1. Dissatisfied with the workplace and looking forward to working in a large hospital. 2 participants (13 %) 2. No opportunity to increase income. 1 participant (6 %) 3. No scope for development. 1 participant (6 %)	1. Deterioration of physical condition. 1 participant (6 %) 2. Inconvenience of being a male nurse at work. 1 participant (6 %) 3. As an only child, parents need to be cared for in their old age. 1 participant (6 %)	1. Failure to demonstrate the skill of a nurse. 1 participant (6 %)	1. The amount of help for activities of daily living. 5 participants (31 %) 2. Poor interpersonal relationships (Racial discrimination). 4 participants (25 %) 3. Single patient contact and depressing workplace. 3 participants (19 %) 4. Unreasonable arrangements by leadership. 2 participants (13 %) 5. Frequent personnel transfers. 1 participant (6 %) 6. Tiring night shifts. 1 participant (6 %) 7. Promotion of people based on years of service without accounting for qualifications and abilities. 1 participant (6 %) 8. No training. 1 participant (6 %)	1. Not satisfied with income. 7 participants (44 %) 2. Poor protection of personal rights, free overtime. 1 participant (6 %) 3. Intermediary taking kickbacks in the middle. 1 participant (6 %)	NA	NA

Salary played an important role in my decision to come to Japan to work in nursing. Compensation played a significant role. (Participant 6)

I feel the wages here are okay—slightly higher than in China—the package is a little bit better. After all, it is a developed country. Besides, I can go out and see some of the customs here, the people, and so on. (Participant 11)

I came to Japan for two reasons: first, because I wanted to travel and experience new things while I am young. I could not stay in a small town forever. The other reason was that I heard that Japanese nurses were well-paid. So, I came here. (Participant 16)

2.4.1. Factors affecting Chinese male nurses continuing in their profession in Japan

In total, 13 participants continued working as nurses in Japan because the salary and leave system were better than those in China. Additionally, social reasons and the smaller wage gap between rich and poor in Japan were newly identified as factors influencing nurses' work motivation.

The Japanese government set up the social system under the Japanese colonial system. We are all working class—whether you earn 10 million or less, if your income is high, your taxes will be very high, whether it is income tax or paying for health insurance or social security—you do not get to enjoy much of it. I do not know if I can achieve that balance between what I pay and what I get at the end of the day, but if I cannot, then why should I change? (Participant 7)

And if you think about the monthly salary over here, it is nearly 300,000 yen or so now. In China, you get a nursing job for 100,000 or 120,000 yuan. Here, you work long hours and then you feel exhausted. So, I feel a significant difference. I have worked hard for so many years and came to Japan for nothing. (Participant 17)

2.4.2. Potential factors affecting Chinese male nurses leaving their profession in Japan

In total, seven participants were dissatisfied with their current income, four were unhappy with the relatively high requirements for caregiving, and four were disgruntled with interpersonal relationships (racial discrimination), among other reasons.

I work in that place every day, and it is exploitative. They assigned me assistant nurse work rather than regular nursing work. My previous job was harsh because some Japanese people bullied and harassed me, and so I had to fight back against that bullying and harassment. (Participant 5)

Recently, I have felt that I am not particularly satisfied with my income or my current life. I may no longer work as a nurse in the future because, after all, my declining health has partly to do with fatigue, and I am not as healthy as I was when I was younger. The more work you do, the higher your salary is, and it turns out that your taxes have increased. As a result, my income did not grow very much. (Participant 14)

2.4.3. Support expectations

Regarding their first year as nurses in Japan, seven participants claimed they were looking forward to assisting with nursing work and acquiring medical knowledge and techniques in Japan, while six reported that they hoped for support in learning Japanese. Further, four participants expected to be trained in their ability to handle patients' unexpected situations and their communication skills (see Table 5).

A Japanese male nurse who works with me now used to work as a visiting nurse caring for people with serious illnesses; he had more experience than I did. So, when there were cases where I did not fully understand what was going on, he taught me. (Participant 13)

Table 5
Support expectations.

Themes	Subthemes	Coding
Support expectations	First year	1. Teaching Japanese nursing and medical knowledge and techniques. 7 participants (44 %) 2. Language. 6 participants (38 %) 3. Teaching about nursing record writing. 4 participants (25 %) 4. Getting involved in the Japanese environment. 3 participants (19 %) 5. Assistance with daily living. 2 participants (13 %) 6. Support from the workplace. 1 participant (6 %) 7. Working hours. 1 participant (6 %) 8. Sufficient training time and programs for foreign nurses. 1 participant (6 %)
	Now	1. Training in work skills: ability to handle patients' unexpected situations, training in communication skills. 4 participants (31 %) 2. Platform enhancement and network expansion. 3 participants (19 %) 3. Career planning. 3 participants (19 %) 4. Salary increase. 2 participants (13 %) 5. Leave benefits. 2 participants (13 %) 6. Language. 1 participant (6 %) 7. Tolerance for foreign nurses. 1 participant (6 %)

2.4.4. Career plan

In total, nine participants chose to remain in the nursing profession, while four wanted to work in other nursing fields. Furthermore, five participants wanted to change careers, while four wished to stay in Japan and start a family (Table 6).

In the future, I would like to open a visiting nursing station. Then, if it becomes a success, I would want to introduce the model to China.
(Participant 1)

Starting a company is the current plan. It will be more sincere or professional, in marketing and trading, rather than in nursing.
(Participant 9)

3. Discussion

3.1. Reasons male nurses chose their profession

Being assigned to a nursing major at the university based on test scores and the advantages of the nursing profession for men were established in a previous study [34] as reasons men choose nursing as a profession. Such findings were confirmed in our study. Additionally, Chinese men chose the nursing profession due to external factors that were revealed for the first time in this study. In China, students choose a university and major by completing an application form for the best university they can attend based on their National College Entrance Examination (NCEE) scores, following consultation with their families. They are accepted if their NCEE scores meet the university's minimum admissions score. If their scores are not high enough for their chosen major, they will still be accepted into the university but will be assigned to a major with a lower score requirement. Nursing is a major with a moderate score requirement. To a certain extent, the mechanism of professional assignment helps increase the number of male nurses and promote a balanced gender ratio in the nursing profession. However, most male nurses in this study chose the nursing profession as a last resort. This mechanism exacerbates the negative attitudes of male nursing students towards their profession, increases their turnover rate, and poses a risk to patient safety.

Of our 16 participants, eight had not worked professionally in China, which suggests they anticipated difficulties in the work setting during their academic years. This sentiment might have influenced their decisions to either relocate or pivot away from the nursing profession. Many participants in our study did not view nursing as their first choice, echoing the intricate sentiments articulated by Ye et al. [39], whose findings depict the journey when committing to a nursing career in China as a 'zigzag path'. Our study findings align with the four transitional phases identified by Ye et al. [39]: 'venturing out with mixed feelings', 'contemplating departure', 'struggling to persist', and 'embracing the role'. These stages encapsulate the multifaceted, individualised trajectory of nurses' role, influenced by internal factors and external circumstances, such as family expectations, available opportunities, and economic incentives, rather than merely a genuine passion for the profession.

3.2. Motivations and factors influencing work in Japan

The motivations for Chinese male nurses to work in Japan are complex, comprising financial incentives, a desire for cross-cultural experiences, and respite from gender bias and discrimination. Economic, social, and personal characteristics, as well as societal perceptions of male nurses in China, play a role in this intricate process. While salary and better working conditions are important factors, the opportunity to acquire new experiences, having a good working environment, and internal psychological satisfaction are also significant. These factors align with the push-pull and stick-stay theories (Fig. 1), confirming previous research and introducing novel aspects such as *the influence of others* as a push factor.

3.3. Push-pull factors

The factors identified in this study as influencing foreign nurses' motivation to migrate were consistent with those found in previous studies. Such studies highlighted that incentives to migrate were related to economic, professional, political, social, or personal characteristics. The reasons nurses leave their home countries have been summarised in previous studies as push-pull factors—these

Table 6
Career plans.

Themes	Subthemes	Coding
Career Plans	Remaining in the nursing profession	1. To work in other areas of nursing care. 4 participants (25 %) 2. To introduce the Japanese standards for older adult care into China. 3 participants (19 %) 3. To improve their abilities. 2 participants (13 %)
	Changing career	1. Engage in international trade. 2 participants (13 %) 2. Retake exams to enter medical school as a doctor. 1 participants (6 %) 3. Become self-employed. 1 participants (6 %) 4. Have a suitable job and want to change career. 1 participants (6 %)
	Others	1. Staying in Japan and starting a family. 4 participants (25 %) 2. Upgrade education. 3 participants (19 %)

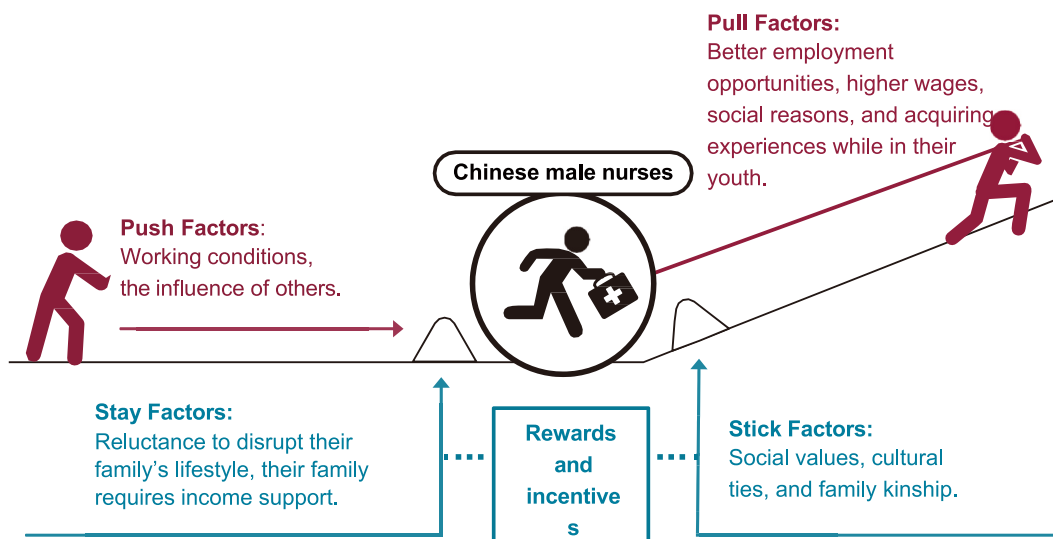


Fig. 1. Framework of the factors.

include working conditions or lack of job opportunities [40], as well as dissatisfaction with working conditions, burnout, and emotional exhaustion [40,41]. Nurses' main goals, as observed in prior studies, included finding better job opportunities and enjoying a higher quality of life [42]. Working conditions were a significant push factor in this study. For example, 13 participants claimed they left China solely because the wages were higher in Japan.

However, *the influence of others* is an important push factor newly identified in this study. As has been previously observed [27], the most prominent source of stress for male nurses is the perception that men are less suited to the nursing profession, compared with women. In Chinese feudal culture, women were usually of lower social status than men [43]. As such, nursing, a female-dominated profession, is still considered a socially inferior career path in China [44]. Participants in this study reported that they had experienced gender bias and discrimination from patients, family members, and colleagues in China, similar to what has been reported by male nurses in other countries [45,46]. Recommendations from family and friends to go abroad were coded as a factor that influenced male nurses to work overseas. It could be assumed that the participants tried to escape gender bias and discrimination by moving abroad.

Social reasons comprised a pull factor for the participants in this study; this is a newly identified factor that influences nurses' work motivation. Pursuing better employment opportunities and higher wages are primary pull factors for migrating to a new country [41, 47], as was confirmed in this study. Furthermore, nine and 13 participants, respectively, claimed that they chose to work as nurses in Japan and remained there because Japan offers higher salaries and has better leave policies than China. Having additional educational opportunities [48] was another factor influencing nurses' work motivation. Additionally, seven participants claimed that they chose to work as nurses in Japan to gain career and life experiences while young, while three participants claimed that they wanted to learn Japan's nursing philosophy and help develop the nursing profession in China.

More importantly, economic factors such as salary motivated participants to continue working as nurses in Japan and explained why they left their home country. Working conditions comprised another essential factor that influenced male nurses to move abroad and continue working as nurses in Japan; they were also a key reason for participants to leave China. However, with the development of the Chinese economy and the devaluation of the yen, the economic gap between China and Japan has narrowed; accordingly, working in Japan no longer guarantees income satisfaction. This suggests that overseas employers need to consider benefits other than salary to attract and retain male nurses. Additional factors that could attract male nurses to work overseas are shown in Table 4.

3.4. Stick-stay factors

Stick factors comprise reasons why people choose to remain in their place of origin, as opposed to emigrating. By contrast, stay factors prevent people from returning to their country or area of birth after emigrating [49]. Specifically, stick factors include rewards and incentives [50], family kinship, social values, cultural ties, and patriotism [51]. Conversely, stay factors include the risk of disruption to children's education or unique lifestyles, the development of new social and cultural ties, and insufficient knowledge of job opportunities in the destination or home country [52].

This study identified rewards, incentives, and family kinship as the main stay factors reported by the participants. The difficulty of returning to the home country after having adapted to the Japanese environment was also recognised as a stay factor. Moreover, income entitlement was found to be simultaneously a stay-and-stick factor. There were differences in the content of nursing work between Japan and China. For example, five participants thought that the proportion of daily living care in Japanese nursing was more significant. Four participants claimed that poor interpersonal relations (mainly due to racial discrimination) could potentially drive

male nurses to leave. As such, an introduction to Japanese nursing culture must be provided to foreign male nurses in advance to reduce the proportion of cultural differences as a factor leading to their departure.

3.5. Support expectations, career plans, and recommendations

In the context of EPAs, nurse programs are comprehensively provided by governmental departments and welfare organisations that are registered and approved by the Ministry of Health, Labour and Welfare. However, Chinese nurses are managed by NGOs, and no single organisation oversees the program as a whole.

For nurses arriving in Japan from countries without EPAs, passing the Japanese Language Proficiency Test (JLPT, which has a 30 % pass rate) and reaching N1 level (equivalent to B2 to C1 in the Common European Framework of Reference for Languages) is required to take Japan's national nursing qualification exam. Accordingly, participants in this study, after arriving in Japan, spent their mornings in Japanese language schools and their afternoons working as nursing aides in hospitals or nursing homes provided by NGOs.

Only after passing the JLPT N1 were the participants eligible to prepare for the Japanese national nursing qualification exam in language schools. The N1 and the national nursing qualification exams have to be passed within two years, as participants face the possibility of visa expiration and returning to their home country.

This study sheds light on the ongoing support needs, including linguistic and technical support, and the diverse career aspirations of Chinese male nurses working in Japan. Entrepreneurial ambitions and varied future perspectives were identified, suggesting a dynamic workforce. The recognition of unique stick-stay factors, such as family kinship and the difficulty of returning home after adapting to the Japanese environment, emphasises the complexity of international workers' motivation. Recommendations that can be derived from this study's findings include providing an introduction to Japanese nursing culture to reduce cultural differences as a factor leading to nurses' departure from the country and considering benefits other than salary to attract and retain male nurses in the current workplace.

4. Conclusion

To our knowledge, this is the first study to focus on foreign male nurses' work motivation, filling a research gap in the field-relevant literature. Meanwhile, this study's results validate previous studies' findings on factors that affect nurses' work motivation. Further, one of its key contributions is the identification of two new influential factors that enrich the literature on the factors affecting nurses' work motivation.

Furthermore, our study provides valuable insights into the recruitment and retention of foreign male nurses for other developed countries facing issues such as population ageing and nursing shortages. It also provides a better understanding of gender-specific norms and theories within the nursing profession in different social and cultural contexts and across career horizons.

4.1. Recommendations for further research

Based on our findings, we suggest that providing foreign-educated nurses with an introduction to nursing culture is essential when they arrive in Japan. Hence, the nursing administration in Japan should provide the necessary training or information to newly arrived foreign nurses to help them become accustomed to cultural differences. This may reduce turnover. Furthermore, when recruiting overseas employees, especially those from countries with a similar economic background, employers should consider additional benefits and bonuses rather than just the salary to attract and retain employees. A salary similar to that available in their own country may not motivate nurses to emigrate and work overseas.

4.2. Strengths and limitations of this study

This study examined the work experiences of Chinese male nurses working in Japan. Although there are many male nurses from EPA countries working in Japan, our study did not include male nurses from other EPA countries. We anticipate that male nurses from EPA countries are more likely to face barriers and experience gender discrimination when they enter the nursing profession in Japan. Future research could fill this gap by analysing the case of male nurses from other EPA countries to help develop incentives to promote the recruitment and retention of male nurses in EPA regions. Our findings were limited due to the study's small sample, which may not reflect country-wide developments. Consequently, the transferability of our results may be restricted. Therefore, the historical context and lifestyle of the region should be considered when extending our results to other contexts.

The better working conditions, salary, and social balance in Japan encourage Chinese male nurses to persevere in the profession, with an emphasis on social equality and more balanced wealth distribution. This highlights the global competitiveness of nursing benefits. However, racial discrimination, dissatisfaction with income, caregiving requirements, and cultural differences are potential deterrents. The challenges of adapting to Japanese nursing culture and the changing economic gap between China and Japan may further complicate retention. These insights contribute to a broader understanding of international workforce dynamics and multi-cultural nursing workforce management.

Ethics approval and consent to participate

This investigation was sanctioned by the Ethics Committee of Kyoto University Hospital (R3261) and was conducted in compliance

with the ethical principles outlined in the Declaration of Helsinki. The data collection methods, objectives, and procedures of the study were approved by the institutional manager. Prior to conducting the interviews, the participants were briefed on the aims of the study and were provided with assurances regarding the confidentiality of their data. Informed consent was duly obtained from all participants, both in oral and written form.

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Consent for publication

Not applicable.

Data availability statement

Due to the ethical restrictions stipulated by the Ethics Committee of Kyoto University Hospital, direct sharing of the collected data is not permissible. However, researchers who fulfil the necessary criteria for access to confidential data may request access through the Ethics Committee itself. Data inquiries should be directed to the Ethics Committee of Kyoto University Hospital at the following email address: 060kensui@mail2.adm.kyoto-u.ac.jp.

CRedit authorship contribution statement

Derong Zeng: Writing - review & editing, Writing - original draft, Visualization, Validation, Supervision, Software, Resources, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization. **Momoyo Shimosaka:** Writing - review & editing, Formal analysis, Data curation. **Xiaoyu Wu:** Writing - review & editing, Formal analysis, Data curation. **Despoina Anagnostou:** Writing - review & editing, Data curation. **Kyoko Asakura:** Writing - review & editing, Methodology, Formal analysis, Data curation. **Ayae Kinoshita:** Writing - review & editing, Methodology, Formal analysis, Data curation.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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