This chapter should be cited as
Tsujita, Y., H. Oda and S. Irudaya Rajan (2022) 'Domestic Labour Market and International Migration The Case of Indian Nurses,' in Tsujita, Y. (ed.) *International Migration and Career Development of Nurses and Care Workers: The Case of Asia,* BRC Report No. 31 Bangkok Research Center, JETRO Bangkok / IDE-JETRO, pp. 61-82.

Chapter 4

Domestic Labour Market and International Migration: The Case of Indian Nurses

Yuko Tsujita[∫], Hisaya Oda[♣] and S. Irudaya Rajan[♦]

Abstract
This chapter discusses Indian nurses' domestic labour market and international migration, based on two nurse surveys. In India, government hospitals generally offer better salaries and working conditions than private hospitals. This is why nurses in private hospitals are more willing to go abroad than their counterparts in government hospitals are. However, some nurses in private hospitals still work at the less-than-minimum salaries. The COVID-19 pandemic brought a positive change of the general public's perception on nurses. When migration reasons are further analysed, we observe marginally different reasons to emigrate by religion and destination in addition to economic reasons. The policy implications are also discussed.

Keywords：Nurses, International Migration, India

1. Introduction

India has suffered from a shortage of healthcare workers even before the onset of the COVID-19 pandemic. The number of physicians per 1,000 people in 2017 was 0.78, and the corresponding numbers of nurses and midwives were 2.11 (World Bank, 2022a; 2022b). These figures are much lower than the average for low- and middle-income countries.[1] What is worse, the country had the second-highest number of confirmed COVID-19 cases by the end of January 2022 (WHO, 2022), requiring more healthcare workers to sustain the country's healthcare system. Ironically, the country is one of the healthcare worker global 'export' countries. There were 94,862 physicians and 87,821

[∫] IDE-JETRO
[♣] Ritsumeikan University
[♦] International Institute of Migration & Development

[1] Physicians per 1,000 people are 1.39 in low- and middle-income countries, 3.79 in OECD countries, 1.76 in the world (World Bank, 2022a). Nurses and midwives are 2.55 in low- and middle-income countries, 10.42 in OECD countries, 3.96 in the world (World Bank, 2022b).

nurses who were born in India and worked in Organisation for Economic Cooperation and Development (OECD) countries in 2015/16 (OECD, 2020). India is the highest sending country for physicians and the second-highest for nurses. The nurse outflow appears to be constant in the post-COVID-19 era.

Against this background, this chapter, focusing on Indian-educated nurses, discusses the domestic nurse labour market and the international migration of nurses. The state of Tamil Nadu is taken as a case study. Section 2 summarizes the context and data collection, and Section 3 analyses the domestic nurses' labour market. Section 4 examines Indian nurses' international migration. Section 6 summarises this chapter.

2. Context and Data Collection

2.1 Context

The state of Tamil Nadu is located in the south-east of the Indian subcontinent. The state's population is approximately 72.1 million, and the proportions of Hindus, Christians, and Muslims are 87.6%, 6.1%, and 5.9%, respectively (Government of India, 2011). The number of nurses per 10,000 people is 21.08 (without adjusting for adequate qualification), which is more than double that in India as a whole (10.3) (World Health Organization, 2021). Today, to become a registered nurse, a three-year diploma, locally termed General Nursing, and a four-year bachelor's degree course are offered in the country. Tamil Nadu has provided BSc courses (13,550 seats in 216 institutions) and diploma courses (6,975 seats in 198 institutions) as of the end of 2020 (Tamil Nadu Nurses and Midwifery Council, 2022). However, the state has suffered from the shortage of nurses (Josephine, 2021).

2.2.Data Collection

This chapter mainly refers to two surveys conducted in the southern state of Tamil Nadu. These surveys were jointly conducted by the Institute of Developing Economies (IDE-JETRO) and the Loyola Institute of Social Science Training and Research (LISSTAR) in Chennai. Both are funded by the IDE-JETRO. Apart from these two surveys, this chapter also refers to the results of other studies conducted on Indian nurses. Where relevant, the text contains appropriate references.

The first survey was conducted between September and November 2020. During this period, the number of new COVID-19 cases decreased. The sample comprises 267

nurses working in Chennai, the capital city of the state and other 15 cities[2]: 149 (55.8%) nurses who took care of COVID-19 patients, while 118 (44.2%) nurses did not.

The second survey interviewed graduates of diploma courses at two nursing schools. One is a nursing school run by the state government (‘government school’), and the other is a private nursing school established by a Christian organization (‘private school’). Both schools are in Chennai. The sample participants in this chapter comprised 100 graduates from the government school and 194 graduates from the private school. A total of 294 nurses (22 males) were surveyed. The years of graduation ranged from 1990 to 2012; nurses who graduated after 2012 were also interviewed but were not included in this study because they needed at least two to three years of nursing experience to migrate abroad. Of the 294 nurses, 72 (24.5%) had migrated abroad and were either back home or were still away from India at the time of the survey.

Snowball sampling was used to collect data in both surveys. The questionnaire was conducted online in the first survey following the COVID-19 protocol and in-person in the second survey. Survey enumerators asked questions and filled in their answers, whether online or in person. Interviews were conducted via telephone, e-mail, or social networking service applications if respondents were living abroad during the second survey.

3. Domestic Labour Market

3.1 Background

Compared to private hospitals in India, government hospitals offer higher basic pay, other benefits and allowances, annual salary increments, job security, and better working conditions. A study found that high-end private hospitals with the latest facilities and equipment did not pay as much as state hospitals (Oda et al., 2018). Indeed, the salary gap between government and private hospitals is considerable.[3] Although government hospitals were an attractive option, those desiring to work there had to pass a civil service examination. In India, the proportion of nurses working in the public sector is 49.2%, while that in Tamil Nadu is only 25.3% (World Health Organization, 2021).

The Indian Nursing Council has stipulated that the minimum wage for nurses in private hospitals should be INR 20,000 per month (Government of India, 2016).

---

[2] These cities include Vellore, Krishangiri, Dharmapuri, Salem Erode, Coimbatore, Tiruppur, Namakkal, Salem, Kumbakonam, Tiruvallur, Tiruchirappalli, Dindigul, Thanjavur, and Madurai.
[3] For example, in the case of Mumbai, many nurses in private hospitals receive INR 2500-6000, while senior nurses in government hospitals earn INR 88,000 per month (Times of India, 2016).

Accordingly, in 2018, the Government of Tamil Nadu set the minimum wage as INR 14,127 per month for diploma holders and INR 15,664 per month for BSc degree holders (Government of Tamil Nadu, 2018). These figures depend on the bed capacities of the hospitals. It was reported that some hospitals paid this amount while others did not (New Minutes, 2020).

3.2. Experiences of Nurses during the COVID-19 Pandemic

We note if the COVID-19 pandemic resulted in any changes for nurses? Table 4.1 shows the respondents in the first survey. Of the 267 respondents, 263 (98.5 %) worked in hospitals with COVID-19 patients. A total of 149 nurses (55.8%) took care of COVID-19 patients. How did each hospital assign who took care of COVID-19 patients? According to 149 nurses on COVID-19 duties, this was decided by senior nurses (60 nurses), rotation by all (55 nurses), random selection (21 nurses), voluntary basis (eight nurses), assigned to hospital hostel residents (four nurses), and undisclosed (one nurse). Some nurses who were not assigned included those who contracted COVID-19, were pregnant, had infant children and older parents, and had a chronic illness. A total of 112 (75.2%) nurses on COVID-19 duty were able to turn down the request to care for COVID-19 patients; however, there was a slight difference between them. The ratio is higher among those working in government hospitals in Chennai (39 nurses, 86.7%), while the ratio is lower among those working in private hospitals (24 nurses, 51.1%). All nurses in charge of COVID-19 patients received in-house training and new personal protective equipment (PPE) are provided for every duty. Some participants stated that they had to change their PPE every few hours.

Table 4.1 Respondents

	Type of hospital	No. of respondent nurses	No. of hospitals nurses work in	No. of specialities	No. of nurses who care for COVID-19 patients	No. of nurses who do not care for COVID-19 patients
Chennai	Government	87	18	67	45	42
	Private	75	26	51	47	28
Other cities/	Government	56	18	46	32	24
towns	Private	40	18	45	25	15
Total		267	80	209	149	118

Source: Authors' survey.

Regarding the sample nurses' background, 135 nurses (50.6%) completed a three-year diploma in nursing, and the proportion of diploma holders was higher in government hospitals than in private hospitals (Table 4.2). This is attributable to nursing education in the government sector being primarily a diploma until recently. Until 2012, only those who completed their education in government nursing schools/colleges were eligible to work in state government hospitals.

Table 4.2 Educational background of nurses

	Type of hospital	Diploma	Post Basic BSc	BSc	MSc	Not disclosed	Total
Chennai	Government	58	3	15	11	0	87
	Private	28	2	42	2	1	75
Other cities/	Government	33	0	21	2	0	56
towns	Private	16	0	26	7	0	40
Total		135	5	104	22	1	267

Note: Post-Basic BSc is a two-year course after obtaining a diploma.
Source: Authors' survey.

The average work experience is 9.2 years (Table 4.3). This includes 22 nurses (8.2%) working abroad, including in Singapore (7 nurses), the United Arab Emirates (4 nurses), Malaysia (3 nurses), Fiji (2 nurses), Australia (1 nurse), Germany (1 nurse), Qatar (1 nurse), the United States (1 nurse), the United Kingdom (1 nurse), and Italy (1 nurse). Interestingly, when the sample was disaggregated, nurses in government hospitals in

Chennai tended to have longer work experience than those in other hospitals.

Table 4.3 Work experience in months

	N	Mean	SD	Minimum	Maximum
India	267	110.41	72.78	6	408
Overseas	267	2.13	8.06	0	60
Overseas (only those who have worked abroad)	22	25.91	13.27	12	60
Total	267	112.55	73.1	6	408
Government hospitals in Chennai	87	153.84	85.25	24	408
Private hospitals in Chennai	75	65.52	56.18	6	204
Government hospitals outside Chennai	56	110.71	49.15	36	288
Private hospitals outside Chennai	49	113.31	49.09	36	240

Source: Authors' survey.

The survey found that nurses on COVID-19 duty tend to work less in terms of working days per month than those on non-COVID-duty (Table 4.6). This is due to the mandatory quarantine period during which nurses have to be self-isolated for at least one week in government hospitals and for a few days in private hospitals, after continuously working for some days. Nurses on COVID-19 duty also tended to be assigned fewer working hours per day than their counterparts on non-COVID-19 duty (Table 4.4). Nurses on COVID-19 duty should have PPE, and they cannot work for a long time. Some nurses on COVID-19 duty indicated that it always took time to don and doff PPE, and they reported a feeling of exhaustion working with PPE, and found it difficult or impossible to drink water and go to the bathroom during their duty.

Table 4.4 Working days and hours

	N	Mean	Difference
No. of working days per month			
Nurses on COVID-19 duty	149	19.21	-6.42 ***
Nurses not on COVID-19 duty	118	25.63	
Maximum working hours per day			
Nurses on COVID-19 duty	149	6.77	-1.26 ***
Nurses not on COVID-19 duty	118	8.03	
Minimum working hours per day			
Nurses on COVID-19 duty	149	6.03	-1.72 ***
Nurses not on COVID-19 duty	118	7.75	
No. of night shifts per month			
Nurses on COVID-19 duty	148	5.00	1.79
Nurses not on COVID-19 duty	117	3.21	

Notes: *** indicates that the differences between the two groups are significant at the 1% level.
Source: Authors' survey.

We hypothesize that nurses on COVID-19 duties would feel more anxious and stressed than those who were not. The questions' How anxious do you feel working as a nurse after the COVID-19 pandemic broke out in March 2020 in India' and 'How stressful do you feel working as a nurse after the COVID-19 pandemic broke out in March 2020 in India' both required respondents to grade their answers according to a five-point scale '1=much less anxious/stressful, 2=less anxious/stressful, 3=about the sa since me, 4=more anxious/stressful, or 5 much more anxious/stressful'. The results were not significantly different between the two groups (Table 4.5). One reason is that nurses on COVID-19 duty accustomed to coping with COVID-19 by the time of the survey, according to additional comments by the respondents. Instead, those in government hospitals were more anxious and stressed than their counterparts in private hospitals. This is partially attributable to the higher nurse– patient ratios in government hospitals (13.2) than those in private hospitals (8.2). After the COVID-19 pandemic broke out, some nurses were hired in government hospitals in response to the healthcare manpower shortage (Josephine, 2021). However, this still exceeds the recommendations of the Indian Nursing

Council[4].

Table 4.5 Anxiety and Stress among Sample Nurses

		Anxiety			Stress		
	N	Mean	SD		Mean	SD	
Caring for COVID-19 patients							
Nurses on COVID-19 duty	149	3.44	0.57		3.34	0.70	
Nurses not on COVID-19 duty	118	3.51	0.67		3.47	0.70	
Workplace							
Chennai	162	3.35	0.57	***	3.33	0.76	*
Other cities and towns	105	3.66	0.86		3.50	0.65	
Type of hospital							
Government hospitals	143	3.59	0.71	***	3.31	0.70	*
Private hospitals	124	3.34	0.71		3.47	0.69	
Employment type							
Permanent	251	3.49	0.73		3.41	0.70	
Contract	16	3.25	0.45		3.19	0.66	
Overseas experiences							
Worked abroad	22	3.95	0.65	***	3.64	0.66	*
Not worked abroad	245	3.43	0.71		3.38	0.70	
Nursing education							
BSc & above	131	3.34	0.72		3.33	0.72	
Diploma	135	3.46	0.68		3.46	0.68	
Working years							
Experience more than mean years)	113	3.54	0.74		3.38	0.71	
Experience less than mean years)	154	3.42	0.69		3.41	0.69	

Notes: *** and * indicate that the differences between the two groups are significant at the 1% and 10% levels, respectively.
Source: Authors' survey.

What are some problems nurses on COVID-19 duty face in the workplace and home? In the workplace, as mentioned earlier in this chapter, it is difficult to work with PPE, which, according to nurses, affects their quality of nursing. Moreover, some nurses pointed out, 'Some patients accept the positive result of the PCR test, but many were upset with us.' At home, four nurses did not tell their families that they were caring for COVID-19 patients, and the other two nurses were told by their families to resign from their jobs.

The open-ended question,“ How do you cope with COVID-19 as a nurse?' Many

[4] See Indian Nursing Council (no date).

of the respondents answered that they got used to how to treat COVID-19 patients, and at the same time, they were depressed, and some reported that their health had deteriorated since they started to care for COVID-19 patients. Some even suffered from hypertension at the beginning of the pandemic. One of the crucial reasons their health, particularly mental health, has deteriorated is that they stay separately from their family. Seventy-one nurses (47.4%) stayed in a hospital hostel, newly rented room, or sent their family members to their parents' or parents-in-law's house. Many nurses indicated that they had not met their families in person for a long time.

Since the outbreak of COVID-19, it has been reported that some healthcare workers have experienced assault, attack, criticism, prejudice, or negative reactions from the public (Pandey, 2020; Safeguarding Health in Conflict, 2021). In our sample, 15 nurses on COVID-19 duty and one nurse on non-duty faced negative reactions. These include, 'During the initial period of the pandemic, shopkeepers in the neighbourhood sold me nothing', 'Nobody talks to me on the street', 'Friends and relatives avoid me', 'Husband told me to stay at the hospital hostel', 'Friends do not even pick up my calls', 'Flat owner told me to vacate the flat, as he is afraid of contracting COVID-19 from me', and 'Neighbours warned me not to take care of COVID-19 patients'.

Simultaneously, a positive change caused by the COVID-19 pandemic was observed. Some respondents, particularly those who work outside Chennai, disclosed, 'People appreciate nurses' work' and 'Nurses are regarded as important contributors of the health system and society'.[5] Traditionally, the occupational status of nurses has not been high; however, it has been gradually improving over the years, and the COVID-19 pandemic has increased awareness of the importance of nurses in the healthcare system.

Finally, Table 4.6 presents the statistical analysis of willingness to work abroad among the respondents. Of these, 77 (28.8%) nurses wanted to work abroad, and 26 nurses delayed their departure from India due to the COVID-19 pandemic. Those who work in private hospitals are more willing to work abroad than their counterparts in government hospitals. This is consistent with the results of our previous studies (e.g. Oda et al., 2018). Only 12 respondents (9.7%) in private hospitals received minimum wage,

[5] These are also pointed out by nurses in the state of Kerala, according to our survey in 2020-2021.

Table 4.6 Analysis of Intention to Emigrate

	No. of sample nurses	No. of sample nurse who were willing to work abroad	Proportion	Difference	
Caring for COVID-19 patients					
Yes	149	45	0.302	0.031	
No	118	32	0.271		
Workplace (city)					
Chennai	162	49	0.302	0.036	
Other cities/towns	105	28	0.267		
Workplace (Type of hospital)					
Government	143	4	0.028	-0.561	***
Private	124	73	0.589		
Education Background					
BSc and above	131	50	0.382	0.189	***
Diploma	135	26	0.193		
Previous work experiences abroad					
Yes	22	13	0.591	0.330	***
No	245	64	0.261		
Experience as a nurse (in months) #					
Wiling to work abroad	77		74.29	-53.76	***
Not willing to work abroad	190		128.05		
Stress level #					
Wiling to work abroad	77		3.31	-0.12	
Not willing to work abroad	190		3.43		
Anxiety level #					
Wiling to work abroad	77		3.35	-0.17	*
Not willing to work abroad	190		3.52		

Note: *** and * indicate that the differences between the two groups are significant at the 1% and 10%, respectively. Fisher's exact test was employed to analyse the difference between two groups, while # used an independent test of the difference between two sample means.

Source: Authors' analysis.

while 47 nurses (37.9%) did not, and 65 nurses (52.4%) in private hospitals did not know the minimum wage. This indicates that the rewards and working conditions of nurses in private hospitals are still poorer than those of their counterparts in government hospitals. Moreover, some nurses are not aware and concerned about their rights because they regard current work as meeting the minimum working experiences for overseas employment opportunities.

Those who had worked abroad before were more inclined to work abroad than those who had not. Nurses with a BSc expressed a desire to work abroad more than their counterparts with a diploma. This result is mainly because many overseas employment opportunities are increasingly confined to BSc holders. Those who desired to work abroad tended to be younger. This is related to the age limit generally imposed by overseas hospitals, and the life cycle in which nurses might face difficulties in going abroad when they have families.

4. International Nurse Migration from Tamil Nadu, India: Revisited

India, along with the Philippines, is the world's largest exporter of nurses. It is estimated that the number of Indian nurses working outside India was around 640,000 in 2011 (Irudaya Rajan and Nair 2013). Since this data is slightly outdated, it is believed that more Indian nurses are now working abroad.

When it comes to the overseas migration of Indian nurses, the case of Kerala is well known. The reasons for the high labor migration of nurses from Kerala are Christianity, proximity to the Gulf countries in which the majority of Indian workers including nurses migrate, the social advancement of women due to the influence of the traditional maternal lineage of Kerala society, and higher levels of education for girls. The overseas labor migration of nurses from Kerala has been discussed in many previous studies.

Despite the fact that there are also flows of nurse migration from many other states in India, current research regarding these flows is lacking. One such state is Tamil Nadu, which is located to the east of Kerala. Tamil Nadu is one of the southernmost states in India, and nursing education is quite active here. There were 317,219 registered nurses and midwives in Tamil Nadu at the end of 2019 (Indian Nursing Council 2020). This number is the largest in India and accounts for about 13.6% of all Indian nurses and midwives. While many Tamil nurses migrate abroad from India, very few studies have dealt with Tamil nurses; thus, this study focuses on the migration of Tamil nurses to fill the gap in the existing study.

We will mainly analyze who migrates, where they migrate, and why they migrate. The data will be taken from the survey, Tamil Nadu Nurse Migration Survey 2016–2017, a joint study of IDE-JETRO and Loyola College. The survey covers 294 students (22 boys and 272 girls) who graduated from two nursing schools in Chennai, the capital city of Tamil Nadu, in or before 2012. Since nurses are usually required to have at least three years of nursing experience before migration, those who graduated in or before 2012 are also included (Garner et al. 2015; Timmons et al. 2017). Additional details can be found in the data section of this report.

Research results covering these data have already been published by Oda et al. (2018) and others, and this study will explore this further by focusing on points not touched on in previous studies. This section is organized as follows. First, an overview of the labor migration of Tamil nurses from the data is provided. This is followed by an analysis of the purpose of migration and the determinants of migration.

4.1. Overview

In terms of nurses' migration experience, out of a sample of 294 nurses, 72 had experience working abroad as nurses, which is about a quarter of the total. In this study, both those who migrated and returned and those who were still abroad were defined as those who had migration experience.

Migration experience was analyzed by categorizing nurses according to the type of hospital they work in (public or private) and their religion (Hindu, Christian, or Muslim). Previous studies have shown that the type of hospital a nurse belongs to influences their choice to migrate abroad (e.g., Thomas 2006; Timmons et al. 2016; Walton-Roberts et al. 2017; Oda et al. 2018). With respect to religion, nursing has traditionally been a predominantly Christian profession (Percot 2006; Nair and Percot 2007), and we determined whether this factor of religion influences the choice to migrate.

Table 4.7 shows the ratio of migration experience by the hospital in which they worked. Of the 131 nurses who worked in public hospitals, 19 (14.5%) had worked or were working abroad at the time of the survey. This tendency is consistent with the findings of existing studies (e.g., Thomas 2006; Timmons et al. 2016; Walton-Roberts et al. 2017; Oda et al. 2018).

This result clearly indicates that low salaries are a motivating factor for nurses in private hospitals to migrate abroad.[6] There are only a few high-end private hospitals that

[6] According to a nurse recruitment and placement agency in Tamil Nadu, the average basic salary

pay salaries comparable to those of government hospitals, and while salaries vary depending on location, duties, and experience, in general, the salaries paid to nurses in private hospitals are low.

On the other hand, 53 (32.5%) of the 163 nurses working in private hospitals had migration experience. In terms of religion, 28 out of 139 Hindu nurses (20.1%) compared to 40 out of 143 Christian nurses (28.0%) experienced migrant work abroad (Table 4.8). It seems that Christian nurses tend to have more migration experience.

Table 4.7 Migration Experience by Type of Hospital

	Hospital Type		
Migration status	Gov	Private	Total
No	112	110	222
Yes	19	53	72
Total	131	163	294
Ratio (Yes/Total)	14.5%	32.5%	24.5%

Source: Authors' analysis.

Table 4.8 Migration Experience by Religion

	Religion			
Migration status	Hindu	Christian	Muslim	Total
No	111	103	8	222
Yes	28	40	4	72
Total	139	143	12	294
Ratio (Yes/Total)	20.1%	28.0%	33.3%	

Source: Authors' survey.

Tables 4.9 to 4.11 show the destinations of Tamil nurses. In general, the most preferred destination for migrant Tamil including nurses seems to be countries in the Malay Peninsula. While the largest labor migration destination for Indian workers is the Gulf States, the reason for the large number of Tamil migrants to the Malay Peninsula may be historical factors and geographical proximity. Between 1840 and 1940, during the British Raj, four million Tamils migrated to this region to work on plantations or perform

in private hospitals is around Rs. 16,000 per month (This salary figure was available at https://in.indeed.com/career/nurse/salaries/Tamil-Nadu accessed on June 24, 2021). This figure is probably an average for a relatively large hospital in an urban area; nurses working in small hospitals or clinics may earn less than this amount. Even Rs. 16,000 per month is less than half of the salary of a state government nurse (Rs. 30,000–40,000 per month). Some nurses in private hospitals work without pay in order to gain the experience needed to migrate abroad.

agricultural and domestic work (Amrith 2010; Irudaya Rajan et al. 2017). Most of the Indians in Malaysia and Singapore are descendants of these Tamil workers and have established Tamil communities.[7] Tamil workers, including nurses, may not feel stressed about migrating to these areas because of the prominent Tamil presence in these countries.

Table 4.9 shows the destinations of Tamil nurses by the type of hospital in which they work, and Table 4.10 shows the destinations of nurses by their religious affiliation. No significant trends can be found in these tables. Table 4.11 categorizes the destinations into Muslim and non-Muslim countries. Although the sample size is small and should be interpreted with caution, all four Muslims who had migrated chose a Muslim country as their destination, which may suggest that there is some relationship between destination and religion.

Table 4.9 Migration Destinations by Type of Hospital

	Destination by area				
Category by hospital	Gulf	SEAsia	OECD	Others	Total
Government	5	8	6	0	19
Private	13	23	12	5	53
Total	18	31	18	5	72

Source: Authors' survey.

Table 4.10 Migration Destinations by Religion

	Destination by area				
Religion	Gulf	SEAsia	OECD	Others	Total
Hindu	7	11	8	2	28
Christian	8	19	10	3	40
Muslim	3	1	0	0	4
Total	18	31	18	5	72

Source: Authors' survey.

[7] Tamil is one of the four official languages in Singapore.

Table 4.11 Migration Destinations by Islamic vs. Non-Islamic Classification of Countries

Religion	Destination by Religion: Islamic countries	Non-Islamic Countries	Total
Hindu	15	13	28
Christian	19	21	40
Muslim	4	0	4
Total	38	34	72

Source: Authors' survey.

4.2. Reasons for Migration

In this section, we examine the reasons for labor migration among Tamil nurses. Out of 72 nurses who had migration experience, 68 responded. The two most common reasons for migration were (1) for higher income and a better life, and (2) to acquire professional skills, with 15 out of 68 respondents citing each reason. The next two reasons were to find a good spouse (14 respondents) and for the education and future of their children (11 respondents).

Next, we will examine the reasons for migration, which are categorized by the type of hospital where the nurses work and by religion. First, Table 4.12 shows the reasons for migration by hospital type. It shows the number of answers and the ratios, which are obtained by dividing the answer in each cell by the total number of migrant nurses by category. From this table, several interesting findings emerged. First, the reason for migration to acquire professional skills is a common trend among both public and private hospital nurses. However, nurses in public hospitals place more importance on two reasons: the education and future of their children and finding a good spouse. Second, the most important reason cited by private hospital nurses for migration was to find a higher income and a better life. The reason why nurses in private hospitals cite income and standard of living as the most important purposes of their migration, which nurses in public hospitals place less importance on, reflects the lower salaries in private hospitals and the higher salaries and benefits in public hospitals. Thus, there seems to be a difference in the reasons for migration between those working in public hospitals and those working in private hospitals.

Table 4.13 shows the reasons for migration by religion of nurses. The most important reason for Hindu nurses to go to work abroad is to find a good marriage partner. For Christians, the most common reason is for income and a better life, followed by the acquisition of professional skills as a nurse. Thus, there seems to be a difference in the reasons for migration by religion. Table 4.14 shows the reasons for migration by

destination. No significant trends can be found in this table.

It is interesting to note that the major reason for Hindu migrants is to find a better spouse. Hindu nurses are likely attempting to increase their value in the marriage market and find a better partner by migrating abroad. In the past, nursing in India was perceived as an impure profession and something for Christians to become; however, due to an increase in income resulting from migration, the economic status of nurses has risen, which in turn has improved the social status of nurses. For Hindus, whose social class mobility is limited by caste, there may be a strong desire to improve mobility by becoming nurses and increasing their economic and social status. Becoming a nurse is now perceived as a ticket to success because of the prospect of international migration (Percot and Irudaya Rajan 2007). Consequently, people, regardless of their religion, have pursued nursing jobs.

Table 4.12 Most Important Reason for Migration by Type of Hospital

Hospital type	High social status/recognition		More income and good life to family		Future of children/children's education		Education and skill development		Better spouse		Get more self-confidence in decision making		Improvement of professional skill		Total
Government	0	0.0%	2	11.8%	5	29.4%	1	5.9%	5	29.4%	0	0.0%	4	23.5%	17
Private	5	9.8%	13	25.5%	6	11.8%	5	9.8%	9	17.6%	1	2.0%	11	21.6%	51
Total	5	7.4%	15	22.1%	11	16.2%	6	8.8%	14	20.6%	1	1.5%	15	22.1%	68

*Percentage figures are derived by diving the number in each cell by the total number of nurses by type of hospital.

Source: Authors' survey.

Table 4.13 Most Important Reason for Migration by Religion

Religion	High social status /recognition		More income and good life for family		Future of children/children's education		Education and skill development		Better spouse		Get more self-confidence in decision making		Improvement of professional skill		Total
Hindu	2	7.7%	3	11.5%	8	30.8%	0	0.0%	9	34.6%	0	0.0%	4	15.4%	26
Christian	3	7.9%	12	31.6%	2	5.3%	6	15.8%	3	7.9%	1	2.6%	10	26.3%	38
Muslim	0	0.0%	0	0.0%	1	25.0%	0	0.0%	2	50.0%	0	0.0%	1	25.0%	4
Total	5	7.4%	15	22.1%	11	16.2%	6	8.8%	14	20.6%	1	1.5%	15	22.1%	68

*Percentage figures are derived by diving the number in each cell by the total number of nurses by religion cateory.

Source: Authors' survey.

Table 4.14 Most Important Reason for Migration by Destination

Destintination	High social status/recognition		More income and good life to family		Future of children/children's education		Education and skill development		Better spouse		Get more self-confidence in decision making		Improvement of professional skill		Total
Gulf	0	0.0%	0	0.0%	4	26.7%	0	0.0%	5	33.3%	1	6.7%	5	33.3%	15
South East Asia	3	10.0%	10	33.3%	3	10.0%	4	13.3%	4	13.3%	0	0.0%	6	20.0%	30
OECD	2	11.8%	4	23.5%	2	11.8%	1	5.9%	5	29.4%	0	0.0%	2	11.8%	17
Others	0	0.0%	1	20.0%	2	40.0%	0	0.0%	0	0.0%	0	0.0%	2	40.0%	5
Total	5	7.5%	15	22.4%	11	16.4%	5	7.5%	14	20.9%	1	1.5%	15	22.4%	67

*Percentage figures are derived by diving the number in each cell by the total number of nurses by destination.

Source: Authors' survey.

4.3. Analysis of the Determinants of Labor Migration

As seen in Tables 4.7 to 4.14, we can imagine that the labor migration of nurses is influenced by factors such as the type of hospital they work in and the religion to which they belong.

Therefore, we classify nurses into six categories: (1) Hindu nurses working in public hospitals, (2) Christian nurses working in public hospitals, (3) Muslim nurses working in public hospitals, (4) Hindu nurses working in private hospitals, (5) Christian nurses working in private hospitals, and (6) Muslim nurses working in private hospitals. This was done to identify which groups had higher labor mobility preferences and to analyze their backgrounds.

Table 4.15 shows the experience of labor migration when classified into six categories. Probit estimation was used to estimate the choice of labor migration. We set the binary variable of migration experience as the dependent variable; the value is 0 if the nurse has no migration experience, and the value is 1 if the nurse has migration experience. As for the explanatory variables, we employ the year of graduation from nursing school as the variable indicating experience as a nurse, as well as dummy variables that account for the difference that may exist between the six categories above. For this, Hindu nurses working in public hospitals were used as the reference. The estimation results are shown in Table 4.16.

Table 4.15 Migration Experience by Type of Hospital and Religion

Migration status	gov hospital & hindu	gov hospital & christian	gov hospital & muslim	prvt hospital & hindu	prvt hospital & christian	prvt hospital & muslim	Total
	Type of hospital and religion						
No	62	46	4	49	57	4	222
Yes	9	8	2	19	32	2	72
Total	71	54	6	68	89	6	294
Ratio (Yes/Total)	12.7%	14.8%	33.3%	27.9%	36.0%	33.3%	24.5%

Source: Authors' survey.

Table 4.16 Probit Estimation Results

Variables	Coefficients	Std. errors	
year_of_graduation_Degree	-0.055	0.012	***
gov hospital & hindu (reference)			
gov hospital & christian	0.118	0.298	
gov hospital & muslim	1.020	0.601	*
private hospital & hindu	0.988	0.278	***
private hospital & christian	1.182	0.263	***
private hospital & muslim	1.258	0.598	**
constant	109.485	23.552	***
Pseudo R2 = 0.117			
Log likelihood = -144.45806			
No. of obs =294			

***, **, * indicate statistical significance at 1%, 5%, and 10% levels.

Source: Authors' analysis.

The coefficient for the year of graduation is negative and significant at the 1% level. This means that the less nursing experience and the younger the age of the nurse, the stronger their intention to migrate abroad. In terms of religion and hospital type, as confirmed in Table 1, regardless of the religion to which they belong, nurses working in private hospitals generally tend to migrate abroad than Hindu nurses working in public hospitals, who are used as the reference in this estimation.

On the other hand, there was no statistical difference between Christian nurses and Hindu nurses working in public hospitals with respect to their choice of working abroad.

The descriptive figure in Table 4.8, which shows that Christian nurses have a higher percentage of migration than Hindu nurses, is not a difference caused by religion but is derived from whether the hospital to which the nurse belongs is either public or private. In other words, as shown in existing studies, the high incidence of labor migration of nurses working in private hospitals is again confirmed.

5. Concluding Remarks

This chapter describes the domestic nursing labour market and the international migration of nurses. Government hospitals generally offer better salary and working conditions than private hospitals in the domestic labour market. This affects nurses' intentions to emigrate. Nurses in private hospitals are more willing to go abroad than their counterparts in government hospitals. The COVID-19 pandemic brought a positive change, particularly outside a metropolitan city, in that nurses are now regarded as an essential contributor to the health system. However, nurses in most private hospitals still work at less-than-minimum salaries. When migration reasons are further analysed, there are slightly different reasons to emigrate by religion and destination, in addition to economic reasons.

Recently, there are growing number of 'contract' workers in government hospitals who work for much lower wages and under conditions inferior to formal nurse employees.[8] During the COVID-19 pandemic, contract nurses in government hospitals were hired to sustain the health care system. Unless decent pay is guaranteed to nurses across all hospitals and employment contracts, the country will continue to lose its workforce, exacerbating the nurse shortages.

Acknowledgement

The surveys were funded by IDE-JETRO. We thank Loyola Institute of Social Science Training and Research for data collection.

References

Amrith S. 2010. ‘Indians Overseas? Governing Tamil Migration to Malaya 1870–1941’, *Past & Present*, 208 (1) pp. 231–261.

Garner Z.L., Conroy S.F. and Bader S.G. 2015. ‘Nurse migration from India: A literature review’, *International Journal of Nursing Studies,* 52 (12) pp.1879-90.

Government of India 2011. *Population by Religious Community*, Office of the Registrar General & Census Commissioner, India Ministry of Home Affairs, Available at: https://censusindia.gov.in/2011census/C-01.html (Accessed: 18 January 2022).

Government of India 2016. *Constitution of the Committee constituted in Compliance with Hon’ble Supreme Court’s judgement in W. P. No. 527/2011 – Protection and Safeguarding the Interest of Nurses Working in Private Hospitals/Clinical*

[8] It is reported that the salaries of formal nurse employees are approximately three times higher than those of contract nurses in the state of Tamil Nadu (The Hindu, 2019).

Establishments- Forwarding of Recommendations -regarding, F. No. -29011/15/2013-N (Vol. II) Ministry of Health & Family Welfare (Nursing Section). Available at: https://www.indiannursingcouncil.org/uploads/pdf/1629364836200459787611e2264271e0.pdf (Accessed: 18 January 2022).

Government of Tamil Nadu 2018. *The Minimum Wage Act, 1948 (Central Act XI of 1948)- Revision of Minimum Rates of Wages for Employment in Hospitals and Nursing Homes (Other than Government and Employees' State Insurance Hospitals and Dispensaries)- Order-Issued*, dated 2 March 2018. Available at: https://www.cmchistn.com/circular/21.%2002-03-2018%20-%20G.O%202D%20No.24%20G.O%20Minimum%20wages-min.pdf (Accessed: 18 January 2022).

Hindu, 2019. Contract Nurses Seek Equal Pay for Equal Work, 10 October 2019, Available at: https://www.thehindu.com/news/national/tamil-nadu/contract-nurses-seek-equal-pay-for-equal-work/article29630600.ece (Accessed: 19 January 2022).

Indian Nursing Council 2020. *Annual Report 2019-2020*.

Indian Nursing Council no date. *Recommendations of Nursing Staffing Norms by the Staff Inspection Unit*, Available at: https://www.indiannursingcouncil.org/uploads/pdf/16001723668133537865f60b14e8d657.pdf (Accessed: 21 January 2022).

Irudaya Rajan, S., and Nair S. 2013. Assessment of Existing Services for Skilled Migrant Workers: Indian Project Site, ILO promoting decent work across borders: a pilot project for migrant health professionals and skilled workers, draft report submitted to International Labour Organization.

Irudaya Rajan, S., D'Sami, B., and Raj, S.A. 2017. 'Tamil Nadu Migration Survey 2015', *Economic and Political Weekly*, 52 (21) pp. 85-94.

Josephine, S. M. 2021. Government Hospitals in Tamil Nadu Battle Manpower Shortage, 18 May 2021, the Hindu.

Nair, S. and Percot, M. 2007. Transcending Boundaries: Indian Nurses in Internal and International Migration, CWDS Occasional Papers No. 47, New Delhi: Centre for Women's Development Studies.

News Minutes 2020. In the Frontline of COVID-19 battle but Underpaid and Overworked: TN Nurses Speak Out, 14 May 2020, Available at: https://www.thenewsminute.com/article/frontline-covid-19-battle-underpaid-and-overworked-tn-nurses-speak-out-124561 (Accessed: 15 January 2022).

Oda, H., Tsujita, Y., and Irudaya Rajan, S. 2018. 'An Analysis of Factors Influencing

the International Migration of Indian Nurses', *Journal of International Migration and Integration,* 19 (3), pp. 607-624.

Organisation for Economic Cooperation and Development (OECD) 2020. *Contribution to Migrant Doctors and Nurses to Tackling COVID-19 Crisis in OECD Countries*, OECD, 13 May 2020, Available at: https://read.oecd-ilibrary.org/view/?ref=132_132856-kmg6jh3kvd&title=Contribution-of-migrant-doctors-and-nurses-to-tackling-COVID-19-crisis-in-OECDcountries&_ga=2.153352062.737392158.1621558430-1976862443.1618713511 (Accessed: 15 January 2022).

Pandey, V. 2020. Coronavirus: India Doctors 'Spat at and Attacked', BBC News, 3 April 2020, Available at https://www.bbc.com/news/world-asia-india-52151141 (Accessed: 19 January 2022).

Percot, M. 2006. 'Indian Nurses in the Gulf: Two Generations of Female Migration', *South Asia Research,* 26 (1) pp. 41–62.

Percot, M. and Irudaya Rajan, S. 2007. 'Female Emigration from India: Case Study of Nurses', *Economic and Political Weekly*, 42 (2) pp. 318-325.

Safeguarding Health in Conflict 2021. *New Map Depicts 412 Acts of Pandemic Related Violence and Threats to Health Workers and Services around the World in 2020*, Available at: https://www.safeguardinghealth.org/new-map-depicts-412-acts-pandemic-related-violence-and-threats-health-workers-and-services-around (Accessed: 19 January 2020).

Tamil Nadu Nurses and Midwives Council 2022. Total No. of Institutions and Intake of Students Permitted (Tamil Nadu Only) Govt. Institutions & Pvt Institutions as on 31.12.2020.
Available at: http://www.tamilnadunursingcouncil.com/programme_wise.php (Accessed: 15 January 2022).

Thomas, P. 2006. 'The International Migration of Indian Nurses', *International Nursing Review,* 53 (4) pp. 271-283.

Times of India 2016. Now, Equal Pay for Private and State-run Hospital Nurses, Recommends Committee set up by the Indian Nursing Council, 23 September 2016, Available at: https://timesofindia.indiatimes.com/city/mumbai/now-equal-pay-for-private-and-state-run-hospital-nurses-recommends-committee-set-up-by-the-indian-nursing-council/articleshowprint/54471610.cms (Accessed: 19 January 2022).

Timmons, S., Evans, C. and Nair, S. 2016. 'The Development of the Nursing Profession in a Globalized Context: A Qualitative Case Study in Kerala, India', *Social Science &*

Medicine 166, pp. 41-48.

Walton-Roberts, M., Runnels, V., Irudaya Rajan, S., Sood, A., Nair, S. et al. 2017. 'Causes, Consequences, and Policy Responses to the Migration of Health Workers: Key Findings from India', *Human Resources for Health,* 15, 28.

World Bank 2022a. *Nurses and Midwives (per 1,000 people)* Available at: https://data.worldbank.org/indicator/SH.MED.NUMW.P3 (Accessed: 15 January 2022).

World Bank 2022b. *Physicians (per 1,000 people)* Available at: World Bank 2022. *Nurses and Midwives (per 1,000 people)* Available at: https://data.worldbank.org/indicator/SH.MED.PHYS.ZS (Accessed: 15 January 2022).

World Health Organization 2021. *Health Workforce in India: Why, Where and How to Invest*, New Delhi: World Health Organization, Country Office for India.

World Health Organization 2022. *WHO Coronavirus (COVID-19) Dashboard*, Available at https://covid19.who.int/ (Accessed: 31 January 2022).