Chapter 4

Human Resource Development, Employment, and Awareness of Nurses in Viet Nam of Working Abroad

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Chapter 4

Human Resource Development, Employment, and Awareness of Nurses in Viet Nam of Working Abroad

Le Thanh Sang*
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1. Introduction

In recent decades, international migration of nurses and caregivers has increased rapidly as demand for them in developed countries increases because of ageing populations, the shift from family care to institutional care for the elderly, and health tourism, amongst others. Demand is higher for professional quality than quantity. Although the number of nurses migrating from developing countries, most notably from India and the Philippines, to Organisation for Economic Co-operation and Development countries has increased rapidly, the shortage of nurses remains high (Dumont and Lafortune, 2017).

Over the past decades, Viet Nam's government has issued healthcare policies to meet the country's Sustainable Development Goals in the context of the ageing population and deeper international integration. The government has signed agreements with Association of Southeast Asian Nations (ASEAN) countries (ASEAN, 2006) and developed countries such as Japan (Ministry of Foreign Affairs of Japan (2008); Embassy of Japan in Viet Nam) and Germany (Ministry of Labor, War Invalids and Social Affairs [MOLISA], 2019) to improve capacity, standardise training quality, and send nurses to work abroad.

Although nursing universities and colleges in Viet Nam have increased rapidly over the past 2 decades, the nurse workforce has yet to meet national and international needs. The extent of the gap between supply and demand, and the professional development of nurses needed to meet demand must be explored. This report provides an overview of Viet Nam's nurse workforce, including its human resource development, career development, nurses' intent to migrate internationally associated to their socio-demographic and professional characteristics, and possible impact and policy implication of such migration on the health sector in Viet Nam.

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2. Data Sources and Research Methods

The study is based on data from sample survey questionnaires, analysis of secondary documents, and in-depth interviews with experts in nursing education and management in Ho Chi Minh City (HCMC).

The survey was carried out by the research team of the Southern Institute of Social Sciences, mainly from July to October 2020. Some of the 200 interviews were conducted later because of practical difficulties of finding nurses who met the interview criteria, and the prolonged effects of the coronavirus disease (COVID-19) pandemic in HCMC.

Initially, the research aimed to survey at least 200 alumni of more than three nursing institutions, excluding those who had completed their nursing studies since 2018. To increase the sample representation, the research team applied a vertically stratified sampling method for health facilities (central, city, district) and a horizontally stratified one (public, non-public). The research team then interviewed nursing staff who met the study's criteria.

However, the research team found that only a small number of nurses had graduated from college or university and were working at local health facilities, and that many were not working in nursing care but were doing administrative or other jobs. Most of the nurses in nursing care had only intermediate qualifications (defined in section 3), especially those at district health facilities and non-public health facilities. Many had graduated from college or university only since 2018 or were in a college or university programme but had not graduated yet.

Before Circular No. 26/2015/TTLT-BYT-BNV (Ministry of Health [MOH] and Ministry of Home Affairs [MOHA], 2015), only intermediate qualifications were required for nursing care. The circular requires that from 1 January 2021, public employees recruited for the initial professional title of grade IV nurse must have a college degree in nursing. Public employees with intermediate qualifications who were recruited and appointed to this professional title before the said date must obtain a college degree in the right major before 1 January 2025. Non-public health facilities, however, can refer to but are not governed by the circular and can still hire nurses with intermediate qualifications so as not to increase salary costs.

The situation made it impossible for the research team to find enough nurses who met the initial criteria. Thus, the team had to expand the survey population to nurses with less than 3 years of nursing education and to large hospitals around HCMC, mainly in Bien Hoa city (Dong Nai province), about 30 kilometres from central HCMC.

The COVID-19 pandemic and the prolonged blockade in HCMC made it difficult to access health facilities and nursing staff. Because nurses were busy with stressful epidemic-prevention activities, and COVID-19 prevention regulations at health facilities were strict, most of the survey questionnaires were sent to be filled in by the nurses and later collected by the research team. Besides distributing paper questionnaires, the research team conducted online interviews with 39 of 200 respondents.

Secondary statistics on the nurse workforce were synthesised from the health statistical year books of MOH. Although incomplete, nurse workforce data provided some statistical indicators related to the number, professional qualifications, and distribution of nurses by type of health facilities over time.

Viet Nam has two specialised journals on nursing: *Journal of Nursing Science,* managed by Nam Dinh University of Nursing, a specialised nursing training institution established in 1960; and *Vietnam*

Nursing Journal, managed by the Viet Nam Nursing Association. The research team reviewed a number of articles related to the research topic from the journals.

The analytical method used was mainly based on descriptive statistics and binary logistics models. The variables measuring the degree of relevance to the respondents' assessments were based on a 4-point Likert scale, where 1 = very irrelevant, 2 = irrelevant, 3 = relevant, and 4 = very relevant. Because of the small sample size, to increase the number of observations in the groups and the validity of the model, the independent variables were recoded into binary variables. Categories (1) and (2) were grouped into 'not relevant' and categories (3) and (4) into 'relevant'. Binary logistics models were used to evaluate the influence of socio-demographic and occupational factors on nurses' intention to work abroad. The results of in-depth interviews contributed to the interpretation of the findings from the quantitative analysis.

3. Human Resource Development of Nurse Workforce in Viet Nam

3.1. Human Resource Development of Nurse Workforce from a Macro Perspective

The nursing training system in Viet Nam has four professional qualifications: elementary: 3–12 months; intermediate: 2 years; college: 3 years; and university: 4 years. Continuous learning allows nurses with lower degrees to participate in higher training programmes, such as from intermediate to college or from college to university, to meet the requirements of higher professional qualifications.

In 2020, Viet Nam had 185 training institutions on human health resources, including nursing, at intermediate, college, and university levels. Nursing was taught at 35 university training institutions and 83 college training institutions nationwide, of which public institutions accounted for 40% and 56.63%, respectively (MOH, 2020b).

Table 4.1 shows that the number of nurses in Viet Nam increased by about 40% and the ratio of nurses to population increased by about 24% from 2009 to 2020. In the same period, the proportion of nurses with university qualifications increased from 3.6% to 15.9% whilst the proportion of nurses with elementary qualifications decreased from 10.9% to only 0.5% of the total number of nurses.

Nurses with college and intermediate degrees accounted for about 85% of all nurses, and hardly changed over time despite constant internal movement caused by the addition of newly graduated nurses, the internal shift of nurses studying continuously from the intermediate level to college, and the exit of nurses from this group after continuing education and graduating from universities. Women make up most of those who study and work in nursing care and about 90% of the total number of nurses (MOH, 2018).

Table 4.1: Nurses in Viet Nam by Professional Qualification

Year	Total number of nurses (n)	of which (%)			No. of nurses per 10,000 inhabitants (n)
		Nurses graduated from university	Nurses graduated from college and intermediate school	Nurses graduated from elementary school	
2009	75,891	3.6	85.5	10.9	8.8
2010	81,248	4.6	86.6	8.8	9.4
2011	88,019	5.7	87.2	7.1	10.0
2012	92,201	6.6	87.1	6.3	10.4
2013	96,689	8.3	86.2	5.5	10.7
2014	97,790	9.6	85.7	4.7	10.8
2015	101,386	10.6	85.5	3.9	11.1
2016	104,483	11.9	84.8	3.3	11.3
2017	106,099	13.9	83.4	2.7	11.3
2018	108,113	15.7	82.2	2.1	11.4
2019	106,346	16.0	83.6	0.5	11.0
2020	106,361	15.9	83.6	0.5	10.9

Sources: Ministry of Health (2013, 2016, 2018, 2020a).

Before 2000, 85% of the nurse workforce in Viet Nam had an intermediate degree, 10% had an elementary degree, less than 5% had a college degree, and a few had a university degree (Phạm Đức Mục, 2020). However, by 2020, 16,963 nurses had a university degree. Nurses who graduated with a university degree were 3,346 in 2016, 3,472 in 2017, and 3,589 in 2018 (MOH, 2016, 2017, 2018), including those who had previously graduated with a college degree. The number of nurses who graduated from university in 2016–2018 accounted for about 60% of all nursing university graduates.

Although no official data are found on the percentage of nurses with a college degree in the group of nurses with intermediate and college degrees, the number of nurses with an intermediate degree may be proportionally high because the number of people graduating from nursing colleges in recent years is still limited. Circular No. 26/2015/TTLT-BYT-BNV (MOH and MOHA, 2015), stipulating the qualifications of nurses for public employment from 1 January 2021 and a standardised road map by 1 January 2025 for nurses recruited before 1 January 2021, has forced nurses with an intermediate degree who are working in public health facilities to continue their education to college level. In 2020, nursing university enrolment was 5,780 and college enrolment was 15,900 nationwide (MOH, 2020a), showing that training of highly qualified nursing personnel has increased rapidly in recent years.

Non-public and multidisciplinary training institutions have increased significantly to meet market demand. Colleges have been established and many former vocational colleges have changed their names and participated in health training programmes. Many training institutions have joined others with relevant functions or have opened branches in other localities, creating a diverse training network nationwide. The number of intermediate schools has fallen sharply because of mergers with community colleges. Others were dissolved because of a sharp decrease in demand for elementary nursing training.

The Vietnam Nursing Association (VNA) is important in developing nurses and nursing care policies. Established in 1990, VNA has developed a nationwide system of organisations and actively participated in many policy advocacy activities, training programme development, publishing, and dissemination of nursing knowledge (Phạm Đức Mục, 2020).

To ensure the quality of training, MOH (2012) issued a set of professional competency standards for nursing, including training in (i) practical capacity, (ii) care management and professional development, and (iii) law and professional ethics, divided into 25 standards and 110 indicators. The structure and content of the professional competency standard show that professional nursing standards in Viet Nam are compatible with nursing in Asia and the Pacific and ASEAN, reflecting regional integration efforts and the internationalisation of Viet Nam's nursing industry.

Regarding the output standards, Circular No. 54/2018/TT-BLDTBXH stipulates the minimum amount of knowledge and competency requirements that nurses must achieve upon graduating from college or earning an intermediate degree in nursing (MOLISA, 2018). However, the output standard is still general and MOH (2012) has not linked it to the professional competency standard. As of 2020, Viet Nam had no specific standards and criteria in accrediting nursing institutions (MOH, 2020b). As of 2019, nursing training institutions lacked lecturers and experts in nursing science, so nearly 70% of nursing teaching staff were medical doctors (Aungsuroch et al., 2019).

The capacity of training institutions in nursing has yet to meet the nurse workforce requirements per policy objectives. Resolution No. 20/NQ-TU of the Communist Party of Vietnam (2017) on strengthening the protection, care, and improvement of people's health states that there should be 25 nurses per 10,000 inhabitants by 2025 and 33 nurses per 10,000 inhabitants by 2030. Decision No. 2992/QD-BYT of MOH (2015) on human resource planning in the medical examination and treatment system had forecast that demand for nurses by 2020 would be about 225,000, or 84,000 more. MOH (2022) reported that the whole country needs 304,200 nurses in 2021–2030 and 1.2 million nurses in 2031–2050.

Compared with the statistics (Table 4.1), the number of nurses per 10,000 inhabitants has increased only from 8.8 to 10.9 after more than 10 years, with only 5–10 years left to reach the target of 25 and 33 nurses per 10,000 inhabitants by 2025 and 2030, respectively, as set in Resolution No. 20/NQ-TU. The number of nursing staff increased from about 76,000 in 2009 to about 106,000 in 2020 or only about 50% of MOH's target (2015).

3.2. Human Resource Development of Nurse Workforce from a Micro Perspective

This section presents results from our sample survey. Table 4.2 presents the socio-demographic characteristics of nurses; most (71.3%) were 35 years old and under, the age when they are recruited for overseas work. Men made up a small proportion (15%), close to the gender structure of nursing profession at that time.

Nearly 40% of respondents were single; the rest were either married, widowed, or divorced. A fairly high percentage (37%) of nurses had family members or relatives working as nurses. However, only 5% (10) had family members or relatives working as nurses abroad. Different socio-demographic characteristics might have different relationships to the motivations and professional activities of the nurses. However, whether or not family members or relatives were working abroad as nurses might have little influence on the decision of those who were interviewed to work as nurses abroad.

Table 4.2: Socio-demographic Characteristics of Nurses

	n	%
Age	174	100.0
23–35	124	71.3
Above 35	50	28.7
Gender	200	100.0
Men	30	15.0
Women	170	85.0
Marital status	200	100.0
Single	77	38.5
Married	123	61.5
Member of family/relative is a nurse	200	100.0
Family/Relatives	74	37.0
No	126	63.0
Member of family/relative is a nurse abroad	200	100.0
Family/Relatives	10	5.0
No	190	95.0

Source: Authors.

Table 4.3 shows that most interviewees had just graduated from nursing colleges and universities. Those who graduated in 2014 or earlier accounted for 41%; those who graduated in 2015,[†] 2016, and 2017 for 30%; and those who graduated since 2018 for 29%. In addition to improving capacity to meet the requirements of ASEAN and international integration, Circular No. 26's binding regulations on qualifications for recruitment and standardisation requirements associated with job positions and salaries in the public sector have been important in supporting more participation in training programmes at colleges and universities in recent years.

Because of increasing demand for nurses, public institutions with a long medical tradition such as HCMC University of Medicine and Pharmacy and Pham Ngoc Thach Medical University, and non-public universities such as Hong Bang University and Nguyen Tat Thanh University have opened undergraduate programmes. Other institutions such as Tra Vinh University, Hanoi Medical University, Hue Medical University, Military Medical Academy, University of Public Health, and others have undergraduate programmes in HCMC. HCMC has many colleges, mainly non-public, that offer 3-year nursing programmes.

Table 4.3 indicates that 62% of respondents graduated from universities and 53.5% from public institutions. Most of them studied in HCMC because of the many universities and colleges there; a few graduated from institutions elsewhere.

[†] When Circular No. 26 (MOH and MOHA, 2015) was issued.

Table 4.3: Training Profile of Nurses

	n	%
Nursing graduation year	200	100.0
2014 and earlier	82	41.0
2015–2017	60	30.0
2018–2020	58	29.0
Nursing programme level	200	100.0
University (4 years)	124	62.0
College (3 years)	76	38.0
Name of university/college	198	100.0
Hong Bang University	48	24.0
HCMC University of Medicine and Pharmacy	47	23.5
Nguyen Tat Thanh University	29	14.5
Tra Vinh University	11	5.5
Other universities/colleges	63	31.5
Ownership of university/college	200	100.0
Public	107	53.5
Private	93	46.5
Place of nursing education	200	100.0
Ho Chi Minh City	155	77.5
Dong Nai province	9	4.5
Nam Dinh province	7	3.5
Tra Vinh province	6	3.0
Other provinces	22	11.0
Missing	1	0.5
Sources of information about university/college	242	100.0
Family/relatives	53	21.9
Friends/neighbours/acquaintances	53	21.9
Enrolment counselling of universities/colleges	62	25.6
Websites/internet	56	23.1
Teachers at high school	18	7.4
Current highest education level	200	100.0
Graduated from college/university	194	97.0
Studying a master's degree	4	2.0
Graduated a master's degree	2	1.0

Source: Authors.

Regarding the sources of information about nursing institutions, the many choices show that enrolment advertising, websites, and the internet play the most important role, confirming the

advantages of information technology. Networks of family, relatives, and friends, however, are also significant in searching for the most suitable institutions.

Only a few nurses graduated with or were studying for a master's degree in nursing, indicating limitations in training more qualified nurses for research, teaching, and nursing care.

The results show that the nurses themselves (87.5%) decided on their own to study nursing, with insignificant influence from family, relatives, and high school teachers (Table 4.4). The nurses' showed initiative and responsibility, which could advance their career.

Table 4.4: Person Deciding on Nursing Study of Learners

	200	**100.0**
Herself/himself	175	87.5
Father	2	1.0
Mother	11	5.5
Siblings	5	2.5
Relatives	6	3.0
High school teachers	1	0.5

Source: Authors.

To quantify the reasons for choosing a nursing career, the interviewees rated the best fit for themselves across various aspects. Table 4.5 shows the three reasons with the highest mean value for choosing a nursing career: (i) to help patients (3.16 on a scale of 4), (ii) to get a job easily in the domestic market (2.89), and (iii) to support the family (2.56). The three reasons with the smallest mean values were (i) to work abroad (1.62), (ii) to easily find work abroad (1.71), and (iii) to follow the family's wishes (1.72). These choices reflect the professional ethics and the practical view of the interviewees. They wanted to work at domestic health facilities and earn to support their family, not to have a high income and good benefits or to work abroad. The mean values of working abroad were very low, indicating that it was not an option for many nursing students.

Table 4.5: Reasons for Choosing Nursing Career

	Levels: 1 (lowest) to 4 (highest) (%)				n	Mean
	1	2	3	4		
Work abroad	57.5	25.0	15.5	2.0	200	1.62
Easily find domestic jobs	9.5	19.5	43.5	27.5	200	2.89
Easily find jobs abroad	49.0	33.5	15.0	2.5	200	1.71
High salary and benefits	15.0	46.5	32.5	6.0	200	2.30
Support family	13.5	32.0	40.0	14.5	200	2.56
Family wants me to work in nursing	26.5	30.0	31.5	12.0	200	2.29
Have better social status	28.5	36.0	27.5	8.0	200	2.15
Help patients in need	5.5	11.5	45.0	38.0	200	3.16
Follow nursing occupation of family	54.5	25.5	13.5	6.5	200	1.72
Nursing is a respected profession	18.0	34.5	31.5	16.0	200	2.46

Source: Authors.

Financing nursing studies can affect occupational motivation. Table 4.6 shows that 12% of respondents received scholarships or financial support from universities or colleges, health facilities where they are working, and the state, but mostly scholarships from universities or colleges. To support students with good academic standing or students in difficult economic conditions, such as those from poor households, ethnic minority households, poor areas, ethnic minority areas, and others, public and non-public institutions grant scholarships, mainly in the form of tuition fee exemption or reduction. Depending on specific conditions, some health facilities help nurses with advanced professional qualifications from intermediate to college and university meet the requirements of Circular No. 26. The state helps health workers, including nurses, in poor areas and ethnic minority areas attend education institutions to improve their qualifications.

Although such support is helpful, the interviewees reported that the costs of food, accommodation, transportation, and other expenses during their studies were much larger. The main financial sources for their studies were income from their job (42.2%), parents (40.9%), and loans (15.5%). Many nurses studying at colleges and universities are those who had graduated from intermediate school and continue to study at a higher level according to the state's regulations. Others who are not yet employed rely on their parents' support. Viet Nam's Prime Minister (2007) issued Decision No. 157/2007/QD-TTg to lend money to orphaned and poor students to study.

Table 4.6: Financial Sources for Nursing Study

Scholarship or financial support	200	100.0
Yes	24	12.0
No	176	88.0
Sources of scholarship or financial support	24	100.0
School scholarship	21	87.4
Government budget	2	8.4
Health facilities employing them	1	4.2
Financial sources for study	232	100.0
Parents	95	40.9
Loans	36	15.5
Working whilst studying	98	42.2
Relatives	3	1.3

Source: Authors.

4. Career Development of Nurse Workforce in Viet Nam

4.1. Human Resource Development of Nurse Workforce from a Macro Perspective

Public health facilities are divided mainly into two management levels: (i) the central level (top-level research institutes and hospitals managed by MOH) and the local level (hospitals managed by the provincial departments of health); and (ii) institutes and hospitals managed by non-health ministries or their branches, e.g. Ministry of National Defence, Ministry of Public Security, and others. Since the implementation of the reform policy (Đổi Mới), Viet Nam has had private and foreign health facilities, although most are small hospitals and health centres in large cities, serving foreigners or people who can pay the high fees.

Table 4.7 presents the number of nurses in Viet Nam by university or college level and classification of health facilities where they were working in 2013, 2016, and 2020. Most nurses were working in local health facilities. For university graduates, the employment rate at local institutions increased steadily from 85% in 2013 to 93% in 2020, whilst that at central institutions decreased correspondingly.

Table 4.7: Nurses in Viet Nam by Professional Qualification and Health Facility Classification

	2013	2016	2020
Nurses graduated from university			
Total (n)	7,981	12,467	16,963
of which (%)			
Central	13.2	8.5	6.2
Local	85.3	90.6	93.1
Other branches	1.4	0.9	0.7
Nurses graduated from college and intermediate school			
Total (n)	83,369	88,582	88,868
of which (%)			
Central	9.4	8.9	8.9
Local	85.3	86.2	86.2
Other branches	5.2	4.9	4.9

Sources: Ministry of Health (2013, 2016, 2020a).

As of 2020, 86.8% of the nurse workforce was in the public sector and 13.2% in the non-public sector, 90.6% under a provincial department of health, 8.3% managed by the central government, and 1.1% managed by training institutions (MOH, 2020b).

As of 2020, the ratio of nurses per 10,000 inhabitants in Viet Nam was three times lower than in Thailand, four times lower than in Malaysia, and nine times lower than in Japan (Phạm Đức Mục, 2020). The lack of nurses is a disadvantage to patients as they do not receive the best care from nurses and are at increased risk of errors and hospital infections. Many key departments of hospitals are overloaded, with working shifts of up to 24 hours. Based on international recommendations, one nurse should be in charge of fewer than seven patients per working shift. However, in Viet Nam's hospitals, one nurse in charge of 10–15 patients per working shift was common. The ratio of nurses–doctors in Viet Nam was 1.4 (MOH, 2020b), one of the lowest in the world. Similarly, the ratio of nurses–patients was very low, with usually one nurse having to take care of 20–30 patients (Aungsuroch et al., 2019) and work a 12-hour even a 24-hour shift. Inadequate equipment and poor working conditions should be noted. About 70% of nurses held a secondary-level qualification, focusing mainly on medical techniques and being task oriented (Aungsuroch et al., 2019). This raises the issue of quality of healthcare.

4.2. Human Resource Development of Nurse Workforce in Viet Nam from a Micro Perspective

This section presents some issues on the professional development of nurses from our sample survey. Table 4.8 shows that up to 90.5% worked in public health facilities, the rest in private and foreign-invested medical facilities. The health facilities were concentrated mainly in HCMC, a few in Dong Nai and Binh Duong provinces, which are adjacent to HCMC. Although the study tried to sample by type of health facility, few working nurses had college degrees or higher, so the sample structure depended on the actual situation. Central hospitals, in which Cho Ray is the most important in HCMC, have a higher concentration of nurses with nursing degrees from universities or colleges (55.7%), followed by provincial and district health facilities, with the rest accounting for a negligible proportion. As no

specific data on the number of nurses with college and university degrees working in different health facilities are available, the research team found from some health facility leaders that the lower-level health facilities, especially non-public ones not bound by Circular No. 26, usually recruited intermediate nurses for a low salary.

Table 4.8: Characteristics of Current Working Places of Nurses

	n	%
Sector	200	100.0
Public	181	90.5
Non-public	19	9.5
Province	191	100.0
HCMC	162	84.8
Dong Nai	24	12.6
Others	5	2.6
Level of hospital	192	100.0
Central	107	55.7
Provincial	34	17.7
District	29	15.1
Private and foreign	9	4.7
Industrial	4	2.1
Health centres and others	9	4.7

Source: Authors.

In general, the interviewed nurses felt satisfied in their profession. Table 4.9 shows that significantly more women seemed to be more satisfied (3.00) than men (2.77). Married nurses had a slightly higher level of satisfaction (3.00) than single nurses (2.91). However, no significant difference in satisfaction level was found in the remaining socio-demographic characteristics, indicating high homogeneity.

Table 4.9: Feeling Satisfied about Choosing Nursing, by Socio-demographic Characteristic

	n	Mean	SD
Age			
23–35	124	2.99	0.43
Above 35	50	2.92	0.60
Gender			
Men	30	2.77	0.63
Women	170	3.00	0.46
Marital status			
Single	77	2.91	0.40
Marred	123	3.00	0.54
Nursing graduation year			
2014 and earlier	82	2.98	0.521
2015–2017	60	2.92	0.53
2018–2020	58	3.00	0.419
Type of university/college			
Public	107	2.96	0.513
Non-Public	93	2.97	0.477
Nursing programme level	200		
University	124	2.96	0.5
College	76	2.97	0.489
Working place			
Central and provincial hospitals	141	2.96	0.52
Others	51	3.00	0.45
Motivation of finding job abroad			
Yes	35	3.00	0.485
No	165	2.96	0.498
Motivation of high salary and benefits			
Yes	77	3.08	0.532
No	123	2.89	0.458

SD = standard deviation.
Source: Authors.

The research explored the occupational attributes that contributed to the satisfaction level of the interviewees (Table 4.10). Corresponding to the reasons for choosing a nursing career, nurses were most satisfied by being able to help patients who needed them (mean = 3.38 on a maximum scale of 4). The second aspect was relationships with superiors and colleagues (3.00). Aspects that resulted in high satisfaction were self-esteem (2.88) and ease of finding a job (2.87). The opportunity to find job abroad had the lowest mean (2.11). Social status, income and benefits, and working conditions did not provide high levels of satisfaction, reflecting the reality of stressful working conditions.

Table 4.10: Aspects of Career that Contribute to Satisfaction or Dissatisfaction

Aspects of career	Levels: 1 (very unsatisfied) to 4 (very satisfied) (%)				n	Mean
	1	2	3	4		
Help patients	1.0	4.5	50.0	44.4	198	3.38
Social status of nurses	6.6	45.4	42.3	5.6	196	2.47
Possibility of working abroad	27.2	38.5	30.3	4.1	195	2.11
Ease of finding a job	1.5	22.4	63.3	12.8	196	2.87
Self-esteem	3.6	22.8	55.8	17.8	197	2.88
Salary and benefits	3.0	34.5	54.8	7.6	197	2.67
Relationship with superiors and colleagues	1.5	10.7	74.0	13.8	196	3.00
Opportunities for advancement	5.1	27.6	59.7	7.7	196	2.70
Working conditions	7.7	31.8	52.8	7.7	195	2.61

Source: Authors.

5. Factors that Influence Nurses' Intention to Work Abroad

In recent years, cooperative agreements on training and sending nurses abroad have been signed by governments, training institutions, and companies. Since 2012, the Viet Nam–Japan Economic Partnership Agreement has implemented 10 courses and selected and trained 2,012 Vietnamese nurse and caregiver candidates to work in Japan. In 2022, nearly 1,700 nurses were working in hospitals and elderly institutions in Japan (Hồng Kiều, 2022). The project—Triple-win Nurses: Recruiting Vietnamese Students to Become Future Nurses in Germany—started in Viet Nam in mid-2019 as agreed between MOLISA and the Federal Labour Agency of Germany. In 2020, the project selected 230 candidates and provided them a 12-month German-language course (MOLISA, 2019). The two programmes funded 12 months of foreign-language training, airfare, and other related expenses, although the number of selected nurses was limited, showing that Vietnamese nurses do not commonly work abroad.

None of the interviewees was working or had ever worked as a nurse abroad. The percentage of respondents intending to work abroad was only 9.5% (19 people) of the total number of respondents. This number is consistent with the reasons for choosing a nursing career and satisfying career aspects; studying nursing to work abroad or to easily apply for a job abroad has the lowest mean value.

5.1. Factors Influencing Nurses' Intention to Work Abroad

To assess the impacts of socio-demographic and occupational characteristics on nurses' intention to work abroad, we selected independent variables after recoding them into dummy variables (Table 4.11):

i. Age: 35 and under versus over 35. Hypothesis: Those 35 and under had a greater intention to work abroad because they were younger and suitable for training and sending to work abroad.

ii. Gender: men versus women. Hypothesis: Men had a greater intention to work abroad because they were family breadwinners and could more easily adapt to a new living environment abroad.
iii. Marital status: single versus married. Hypothesis: Single people had a greater intention to work abroad because they had fewer family responsibilities than married people.
iv. Graduation year: 2017 and earlier versus 2018 and later. Hypothesis: Those who graduated 2017 and earlier had a greater intention to work abroad because they had more experience and skills.
v. Ownership of university or college: public versus non-public. Hypothesis: Those who graduated from public institutions had a greater intention to work abroad because of the higher quality of their training.
vi. Working organisation: central and provincial hospitals versus others. Hypothesis: Those working in central and provincial hospitals were less likely to intend to work abroad because of their better status and income.
vii. Motivation of finding jobs abroad: yes versus no. Hypothesis: Those who studied nursing with the intention to work abroad had a greater intention to work abroad than the others.
viii. Motivation of high salary and benefits: yes versus no. Hypothesis: Those who studied nursing because they wanted a high salary and good benefits had a greater intention to work abroad because salary and benefits abroad were often better than in Viet Nam.

Table 4.11: Intent to Work Abroad by Socio-demographic and Occupational Characteristics of Nurses

	n	Yes %	No %
Age			
23–35	124	11.3	88.7
Above 35	50	6.0	94.0
Gender			
Men	30	13.3	86.7
Women	170	8.8	91.2
Marital status			
Single	77	15.6	84.4
Married	123	5.7	94.3
Graduation year			
2017 and earlier	142	11.3	88.7
2018 and later	58	5.2	94.8
Ownership of university/college			
Public	107	10.3	89.7
Non-public	93	8.6	91.4
Working organisation			
Central and provincial hospitals	141	8.5	91.5
Others	51	13.7	86.3
Motivation of finding job abroad			
Yes	35	28.6	71.4

No	165	5.5	94.5
Motivation of high salary and benefits			
Yes	77	11.7	88.3
No	123	8.1	91.9

Source: Authors.

The binary logistics models below show some socio-demographic and occupational characteristics of nurses that may explain their intention to work abroad. The full regression model confirms that most of the independent variables are statistically significant in the regression models of each independent variable.

The intention of single nurses to work abroad was much greater than that of married nurses. After controlling for other independent variables in the model, the ratio of odds between the single and the married groups was 6.3, a statistically significant difference ($p<0.01$). The year of graduation had no statistically significant gross effect, but when included in the full regression model, the magnitude of the effect increased and was statistically significant. The odds ratio of intention to non-intention between the group graduating from 2017 and earlier and the group graduating after 2017 was 5,933 ($p<.05$). Another independent variable that had a strong influence on the intention to work abroad was the reason for choosing to study nursing. Nurses with the motivation to work abroad when they chose nursing for their profession are now more numerous than those in the control group. The ratio of odds between the two groups was 6,539 and statistically significant ($p<0.01$).

Men were more likely to intend to work abroad than women, but their intention was only statistically significant at $p<0.1$. Although jobs of men and women are highly dependent on international labour markets, and women are dominant in nursing care, it is possible that international migration is riskier and more disadvantageous to women than to men.

The remaining variables did not have a statistically significant effect on nurses' intention to work abroad. Although the younger age group might have had a greater intention to work abroad than the older age group, the difference was not statistically significant. The first group's opportunity to work abroad was feasible because the current programmes to recruit nurses to work abroad are limited to those 35 or younger. Choosing a nursing career for high income and good benefits was not a significant motivation for intending to work abroad because it was not the primary reason of many surveyed nurses for studying nursing.

The variables in the model can explain about 28.1% of the variation of the dependent variable. However, since the number of respondents intending to work abroad was small, some subgroups had a small number of cases (<5), so they may not be valid for reference.

Table 4.12: Binary Logistic Regression of Intention to Work Abroad by Socio-demographic and Occupational Characteristics and Motivation of Nurses: Viet Nam, 2020

EX(B): ODDS RATIO OF INTENTION/NON–INTENTION

Independent variables	Gross effects[a]		Net effects[b]	
Age				
23–35	1.99		1.336	
Above 35	-		-	
Chi-square	3.09	+		
Gender				
Men	1.59		3.703	+
Women	-		-	
Chi-square	0.603			
Marital status				
Single	0.327	*	6.332	**
Married	-		-	
Chi-square	5.391	*		
Graduation year				
2017 and earlier	2.3		5.933	*
2018 and later	-		-	
Chi-square	1.8			
Ownership of university/college				
Public	1.22		1.398	
Non-Public	-		-	
Chi-Square	0.2			
Working organisation				
Central and provincial hospital	0.59		0.546	
Others	-		-	
Chi-square	1.142			
Motivation of finding job abroad				
Yes	6.933	***	6.539	**
No	-		-	
Chi-square	17.9	***		
Motivation of high salary and benefits				
Yes	1.496		1.587	
No	-		-	
Chi-square	0.7			
Nagelkerke R Square			**0.281**	

Note: +, *, **, *** means statistically significant at 0.1, 0.05, 0.01, 0,001 (2-tailed).
a Gross effects are based on bivariate regressions of the dependent variable on each independent variable.
b Net effects are based on saturated regressions with all independent variables.
Source: Authors.

5.2. Perception of Nurses Intending to Work Abroad

The research aimed to uncover the 'pull' and 'push' factors underlying nurses' reasons for wanting to work abroad as well as working conditions they experienced in Viet Nam. The fact that the number of nurses intending to work abroad accounted for only 9.5% of the total number of interviewees showed that not many nurses were aware of the possibility of working abroad. Those who meet the criteria to work abroad as nurses usually had certain professional and foreign language abilities and were under 35. Therefore, they may have had a better job than others in Viet Nam. This may lead to an assumption that 'pull' factors are important in the intention to work abroad. The mean values for the questions in Table 4.13 show the preferences of the 'pull' factors selected by the respondents. Amongst the factors, 'high salary' had the highest relevance (mean = 3.16 on a scale of 4), followed by 'good relationship between that country and Viet Nam' (2.95) and 'level of skill and technology was higher' (mean = 2.89). Factors related to 'culture and people', 'being able to get a nursing degree abroad', 'becoming a citizen', or 'being able to bring family' had high degrees of relevance to the intent to work abroad. However, except for 'my relatives living there' factor (1.84), the remaining factors were relevant and the differences between them were not significant (2.42–3.16).

Table 4.13: Most Relevant Reasons for Wanting to Work Abroad

Reason	Levels: 1 (very irrelevant) to 4 (very relevant) (%)				n	Mean
	1	2	3	4		
My relatives living there	52.6	26.3	5.3	15.8	19	1.84
Level of skill and technology is higher	5.3	5.3	84.2	5.3	19	2.89
Kind people and fascinating culture	5.3	36.8	52.6	5.3	19	2.58
High salary	0.0	10.5	63.2	26.3	19	3.16
Geographically close to Viet Nam	10.5	31.6	52.6	5.3	19	2.53
Able to become a citizen of that country	5.3	26.3	63.2	5.3	19	2.68
Able to bring family	0.0	31.6	52.6	15.8	19	2.84
Good relationship between that country and Viet Nam	0.0	15.8	73.7	10.5	19	2.95
Able to speak the language of that country	5.3	52.6	36.8	5.3	19	2.42
Able to get a foreign nursing certificate	5.3	15.8	68.4	10.5	19	2.84
Low recruitment fees and easy job application	15.8	26.3	52.6	5.3	19	2.47

Source: Authors.

'Low salary and few benefits' and 'connection/corruption in getting employed and in promotion' were the two biggest difficulties (mean = 2.95), followed by 'danger of the nursing profession' and 'high patient/nurse ratio' (mean = 2.89) and 'bad working conditions' (mean = 2.68). The most significant difficulties reflected the reality of nurses' working environment.

Table 4.14: Levels of Experience that Best Describe Difficulties as a Nurse in Viet Nam

Aspects of difficulty	Levels: 1 (not difficult at all) to 4 (very difficult) (%)				n	Mean
	1	2	3	4		
Communication with domestic patients	47.4	31.6	15.8	5.3	19	1.79
Danger of the nursing profession	0.0	26.3	57.9	15.8	19	2.89
Limited advancement opportunities	5.3	47.4	47.4	0.0	19	2.42
High patient/nurse ratio	5.3	26.3	42.1	26.3	19	2.89
Low salary and little benefits	0.0	31.6	42.1	26.3	19	2.95
Connection/corruption in getting employed and in promotion	5.3	21.1	47.4	26.3	19	2.95
Poor medical facilities	10.5	52.6	31.6	5.3	19	2.32
Bad working conditions	5.3	42.1	31.6	21.1	19	2.68
Difficult relationship with superiors and colleagues	21.1	47.4	26.3	5.3	19	2.16
Insufficient nursing skills and knowledge	26.3	31.6	36.8	5.3	19	2.21
Gender discrimination	36.8	57.9	5.3	0.0	19	1.68

Source: Authors.

The limited number of nurses intending to work abroad wanted to work mostly in developed countries, with Germany and Japan as the most favoured (Table 4.15). The choice was consistent with the fact that the two countries have cooperated with Viet Nam for many years in recruiting nurses and have opened prospects for employment.

Table 4.15: Countries Selected by Respondents to Work as Nurses Abroad

Respondent	1st choice	2nd choice	3rd choice
No.1	Germany		
No.2	Germany		
No.3	Germany	Denmark	
No.4	Japan		
No.5	Japan	Republic of Korea	
No.6	Japan	Cambodia	Singapore
No.7	Australia		
No.8	Australia	Singapore	
No.9	England		

Source: Authors.

Despite the great demand for nurses in developed countries, those who intend to work abroad were aware of the difficulties they may face. The biggest was the 'limited capacity for foreign language' (mean = 2.96) (Table 4.16). The limitation can be said to be one of the biggest, even at the graduate level, and not just for nurses. Of the 200 surveyed nurses, 69.5% said they could use a foreign language, most choosing English, with 88.5% at a basic level, 7.9% relatively proficient, and 3.6% proficient.

Another big difficulty was the 'costs of applying for a job and migration' (mean = 2.95). The low average income in Viet Nam means that the cost of preparing before and during migration is high and beyond many people's ability. Most surveyed nurses had to pay for their education from their salary and family support. The biggest advantage of the two programmes is they solve the two biggest limitations of nursing candidates: foreign language ability and travel costs.

'Lack of confidence when working abroad' was a difficulty that the surveyed nurses mentioned (mean = 2.46) because of limitations in soft skills and cultural adaptation. The respondents felt they had less difficulty with 'limitation of professional knowledge' (mean = 2.22) and were more confident about 'limitation of practical skills' (2.02) or 'lack of working experience' (2.08). Perhaps the intense work in Viet Nam's health facilities had given them confidence in their practical experience.

Table 4.16: Degrees of Difficulty of Nurses Finding Jobs Abroad

	Levels: 1 (not difficult at all) to 4 (very difficult) (%)				n	Mean
Difficult areas	1	2	3	4		
Limitation in foreign language	3.5	18.2	57.1	21.2	170	2.96
Limitation in professional knowledge	18.3	49.7	23.7	8.3	169	2.22
Limitation in practical skills	28.2	45.3	22.9	3.5	170	2.02
Lack of working experience	23.7	49.1	22.5	4.7	169	2.08
Lack of brokerage companies	18.3	46.7	28.4	6.5	169	2.23
Costs of applying for a job and migration	3.0	27.8	40.8	28.4	169	2.95
Health is not guaranteed	28.6	44.0	23.8	3.6	168	2.02
Lack of confidence when working abroad	13.1	41.1	32.7	13.1	168	2.46

Source: Authors.

The COVID-19 pandemic has greatly affected international migration, including of nurses. The survey examined their perceptions of the difficulties they may face when searching for jobs abroad. They were most concerned about 'increased risk of infection from COVID-19' (the pandemic was still a big problem in Viet Nam at the time of survey) (Table 4.17). They were similarly aware of difficulties such as those related to migration restrictions, connection to other people in the destination, possibility of stigma, and employment and income.

Table 4.17: Difficulties in Finding Jobs Abroad Because of COVID-19

Difficult aspects	Levels: 1 (not difficult at all) to 4 (very difficult) (%)				n	Mean
	1	2	3	4		
Entry restrictions	7.5	12.2	41.5	38.8	147	3.12
Limited recruitment of nurses from abroad	6.8	23.8	40.1	29.3	147	2.92
Increased costs for migration	7.5	24.5	48.3	19.7	147	2.80
Reduced salary and benefits	6.2	21.2	46.6	26.0	146	2.92
Increased risk of COVID-19 infection	3.4	10.9	42.2	43.5	147	3.26
Increased risk of being stigmatised	8.2	17.0	47.6	27.2	147	2.94
Difficulty in social communication and life	3.4	25.2	51.0	20.4	147	2.88

Source: Authors.

6. Expected Impacts of International Migration of Nurses on the Health Sector in Viet Nam, and Policy Recommendations

6.1. Expected Impacts of International Migration of Nurses on the Health Sector in Viet Nam

Viet Nam has 11 nurses per 10,000 inhabitants. To achieve the goal of 33 nurses per 10,000 inhabitants by 2030 as per Resolution No. 20/NQ-TU, Viet Nam needs to add at least twice the current number of nurses: It needs to add more than 200,000 nurses. With results of training over the past 10 years and current training capacity, providing so many nurses is a big challenge for training institutions. Many nurses now need to acquire a college or university degree in nursing to meet the standards by 1 January 2025, as per Circular No. 26. /2015/TTLT-BYT-BNV. But training institutions still have limitations such as poor training quality because of the shortage of advanced lecturers who hold doctorates in nursing science, limited foreign-language ability of nursing students, limited nursing knowledge, and limited soft skills.

Although no official statistics on the number of nurses sent to work abroad are available, nurses trained and sent to work in Japan and in Germany through the two programmes signed between government agencies numbered more or less 2,000 or about 200 from each programme per year. Of the many obstacles, the biggest was probably candidates' foreign-language and professional capacity. Because employers were highly selective, the number of people who met their requirements was small. The selected nurses must undergo additional training. The number of nurses sent to work abroad now and the increasing number in the future are smaller than the number of nursing graduates. Most nurses do not even meet the requirements to work abroad. Therefore, the trend of nurses working abroad, although reducing the supply of nurses, has not increased and will not increase demand for nurses in Viet Nam. The trend has had a positive impact on training institutions, encouraging them to improve their training capacity and quality so that foreign employers can employ the nurses they trained. International migration of nurses creates healthy competition in the health sector.

6.2. Policy Recommendations

Viet Nam has issued many policies on human resource development and career development of the nurse workforce that serve the national goals of healthcare and the regional and international integration of Viet Nam. However, many of the goals have not been achieved and a big gap exists between reality and expectation. Thus, our policy recommendations focus primarily on human resource development to meet national targets for quantity and quality of the nurse workforce. Low salaries are a reality for nurses, as they are for those in most public sectors, including other health workers. Therefore, salary reform requires a more holistic policy not only for nurses. The work stress of nurses varies greatly across health facilities, as commune health stations and district hospitals do not have many patients. To a certain extent, only a small number of nurses intend to work abroad as driven by 'pull' factors and by their ability and expertise rather than by 'push' factors. Based on the above standpoints, the research proposes the following:

i. Improve the capacity of training institutions, where developing highly qualified faculty staff in nursing science is key to ensuring quality of training.
ii. Ensure comprehensiveness in training practice, including (a) practical competence, (b) care management and professional development, and (c) law and professional ethics according to the professional competency standards for nursing issued by MOH (2012).
iii. Evaluate the training quality of training institutions according to professional competency standards for nursing.
iv. Develop assessment criteria on knowledge and competency requirements for working nurses according to professional competency standards for nursing.
v. Build policies that bind health facilities to recruit enough nurses based on set targets to reduce the pressure on current nurses.

7. Discussion

Our research attempts to provide a preliminary analysis of the national situation and issues in training and professional development of nurses and of nursing practice in Greater HCMC. The survey encountered difficulties in meeting sample selection criteria that reflected practical nursing problems.

The nurse workforce has yet to meet current quantity requirements and policy objectives. The quality of the nursing profession, especially in foreign-language proficiency and some specific nursing areas, is still limited, reflecting the gap between standards in the country and the high requirements in developed countries.

The tension between domestic and international nursing demand may not be a serious problem in the medium term, assuming that the markets have different selection criteria. However, in the long term, once demand in high-end markets increases, domestically and internationally, it will lead to a shortage of qualified human resources and pose great challenges to training institutions that provide limited training quality.

The above analysis shows that Vietnamese nurses work hard, have practical experience, and can work intensely. But the number of nurses is low compared with the needs of nursing markets. The nursing industry will contribute to the development of Viet Nam and other countries as the population ages and globalisation continues.

In addition to the difficulties mentioned, the limitation of this research is that information from nurses working abroad and who have worked abroad is not available. The number of nurses intending to work abroad is small in the survey sample, leading to certain shortcomings, reducing the validity of the results.

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