

*Examining the Nursing Workforce Shortage in Vietnam:
Implications for Nursing Education*

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Abstract

This study examines the nursing human resource crisis in Vietnam that emerged in the wake of the COVID-19 pandemic. A literature review encompassing policy documents, statistics, reports, guidelines, news, media, and academic publications was conducted. Even before the pandemic, Vietnam grappled with a nursing shortage, with a nurse-to-population ratio significantly below the global average. The shortage of nurses jeopardizes nurse-to-patient ratios, patient safety, and equitable access to high-quality healthcare services. The nursing human resource crisis in Vietnam is further exacerbated by the limited capacity of nursing education institutions. Without substantial investments in nursing education, projections indicate that Vietnam may face a crisis of lacking nursing professionals in the near future. The post-COVID-19 nursing crisis in Vietnam underscores the urgent need for reforms in nursing education. Policy interventions should prioritize strategic workforce planning and increased financial investments in nursing education and training programs.

Keywords: Nursing Human Resource, Nursing Education, Workforce Shortage

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Introduction

The shortage of nurses has emerged as a critical global concern, posing significant challenges to healthcare systems worldwide (Drennan & Ross, 2019; Maré et al., 2019). The demand for skilled healthcare professionals, particularly nurses, has consistently outpaced the available supply. The demanding nature of the profession, coupled with insufficient resources for education and training, has hindered the ability to attract and retain a sufficient number of nursing professionals. The consequences of this shortage are far-reaching, affecting not only the quality of patient care but also placing an immense burden on existing healthcare staff, leading to burnout and decreased job satisfaction (Lu et al., 2012). In the aftermath of the unprecedented global challenge posed by the COVID-19 pandemic, nations around the world have grappled with the profound impact on healthcare systems, unveiling pre-existing vulnerabilities and triggering new crises (Al Thobaity & Alshammari, 2020).

This study delves into the nursing human resource crisis unfolding in Vietnam, a crisis that has been significantly exacerbated by the pandemic. The investigation draws attention to a persistent issue predating COVID-19 – the critical shortage of nursing professionals in Vietnam, characterized by a nurse-to-population ratio well below the global average. Even prior to the pandemic, Vietnam was contending with the ramifications of an insufficient nursing workforce (Einhellig et al., 2020), a circumstance with profound implications for nurse-to-patient ratios, patient safety, and the equitable accessibility of high-quality healthcare services. This article synthesizes insights gleaned from an extensive literature review comprising policy documents, statistics, reports, guidelines, news, media, and academic publications, shedding light on the multifaceted dimensions of the nursing human resource crisis in Vietnam.

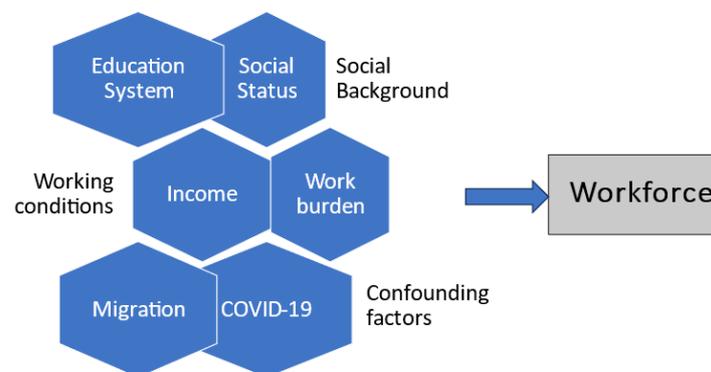


Figure 1: Conceptual Framework (by the authors)

The conceptual framework proposed by the authors illustrates the interconnected factors contributing to the nursing human resource crisis in Vietnam, particularly in the wake of the COVID-19 pandemic.

Development of Nursing Education in Vietnam

Nursing education is a vital component of healthcare systems, providing the necessary knowledge, skills, and competencies to produce competent and compassionate nurses. Vietnam, like many other developing countries, has experienced significant progress in nursing education in recent years, but still faces numerous challenges. Here we also discuss the current situation of nursing education in Vietnam, including the history and development

of nursing education, the current status of nursing education, and the future prospects of nursing education in Vietnam.

Nursing education in Vietnam has a relatively short history. Before the 1970s, nurses in Vietnam were trained on the job, with no formal nursing education programs. During the French period, numerous hospitals were established by the French in Vietnam. Prior to the year 1900, they implemented an apprenticeship system for individuals interested in working in hospitals. The training provided was informal, resembling more of an "on-the-job training" approach. These individuals, often referred to as assistants, were adept at technical skills, proficient in their craft, and primarily assisted French physicians (Children Hospital, 2023). During the war time, since 1954, the Ministry of Health (MoH) established a comprehensive primary-level nurse training program to supplement the rapid training of nurses during the war. In 1968, the MoH further expanded the program by introducing intermediate-level nurse training, admitting students who had completed secondary education for a 2-year and 6-month duration of training in intermediate-level nursing. In the South Vietnam, in 1956, the Chief Nurse School was established in Saigon, providing a 3-year training program for nursing supervisors. In 1968, due to a severe shortage of nurses, a 12-month basic nursing program was introduced (Children Hospital, 2023).

In the early 1970s, the Vietnamese government recognized the need for formal nursing education programs and established the first nursing school in Hanoi, followed by the establishment of several other nursing schools throughout Vietnam. These nursing schools provide basic nursing education programs, including diploma programs and bachelor's degree programs. The nursing education programs were typically three to four years in duration and included both theoretical and clinical components.

In 1975, the country was reunified. The MoH unified the guidance for patient care and treatment in both regions. Consequently, the nursing training program was standardized, focusing on training high school-level nurses for a duration of 2 years and 6 months (Children Hospital, 2023; Vietnam Ministry of Health, 2020). In 1982, the MoH issued titles for head nurses of hospitals and head nurses of departments. In 1985, the MoH established a nursing research team, and some hospitals experimented with separating nursing units from medical units, with a pilot project at the National Pediatrics Hospital and the General Hospital of Uong Bi.

In the 1980s, a part-time Bachelor of Nursing Science (BSN) program was introduced at Hanoi Medical School. In 1986, regarding nursing education at the university level, the MoH, in agreement with the Ministry of Education and Training (MoET), initiated the first Bachelor of Nursing program at Hanoi Medical University in 1985. In 1986, a similar program was introduced at Ho Chi Minh City University of Medicine and Pharmacy, and by 1996, regular Bachelor of Nursing programs were established (Ly & Elderton, 2016).

The training of nursing professionals at the college level began in 1993, and currently, the MoH is gradually elevating junior colleges into health colleges. Since 2003, the duration of the intermediate nursing training program has been reduced from 2 years and 6 months to 2 years. In 2006, Ho Chi Minh City University of Medicine and Pharmacy, under the approval of the MoH and MoET, commenced the first Master of Nursing program in Vietnam. Regarding the training of nursing administrators, classes for nurse administrators have been organized since 1982. By 2005, the Nursing Management program was restructured by the

MoH into a training program for nursing administrators, providing unified training for nursing administrators at the department and hospital levels nationwide.

In the 1990s, the Vietnamese government began to place greater emphasis on nursing education, recognizing the critical role of nurses in providing quality healthcare. The government began to increase funding for nursing education programs and worked to improve the quality of nursing education (Duong et al., 2021; Fan et al., 2012; Ly & Elderton, 2016). There are currently over 140 nursing schools in Vietnam, offering diploma programs, bachelor's degree programs, and master's degree programs in nursing. The nursing education programs in Vietnam are regulated by the MoH and MoET (Vietnam Ministry of Health, 2020). Figure 2 shows the health professionals education system with all types of education program from elementary to the doctoral level.

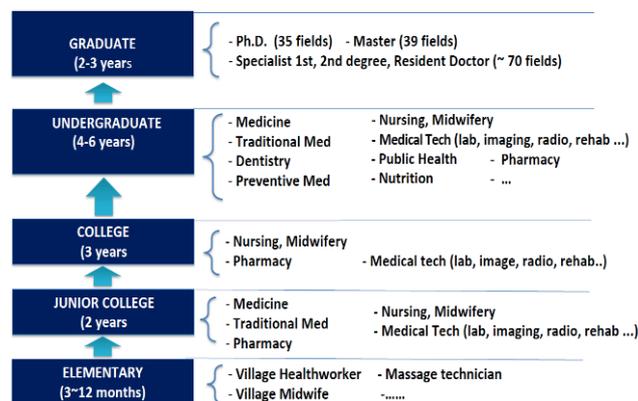


Figure 2: Healthcare Professional Education System (Source: MoH, 2020)

Social Perception About Nurses as Healthcare Professionals

In the Vietnamese language, the term "y tá" translates directly to "a helper of the doctor." However, the Vietnamese word for "nurse" has recently transitioned to "điều dưỡng," signifying "carer" in official documents. Despite this official change, the original term "y tá" continues to be widely used in everyday life. The historical perception of nursing as a subordinate to physicians prevailed until the early 1990s, relegating nurses to mere assistants in healthcare settings (Huynh & Windsor, 2022). This deeply ingrained hierarchy resulted in nursing being seen as a less prestigious profession, leading to an unappealing career choice (Jones et al., 2000). Until the 2000s, government documents still classified the nursing role as a "doctor's assistant" as they need to follow the physicians' orders (Ministry of Health, 2011, 2015).

Nursing Workforce

Low priority and interest towards nursing education compared to medical education. Very few enrollments in Nursing Bachelor program (4 year) compared to college (3 year) or junior college (2 year) program. For example, the bottom-up training project (MOH, 2012) has produced 1,448 physicians, but only 24 nurses. Figure 3 compares the enrollment of Nursing and Pharmacy in 2020, where there is a clear lower number of enrollments in bachelor (4-year) nursing program but higher in college (3-year) nursing program.

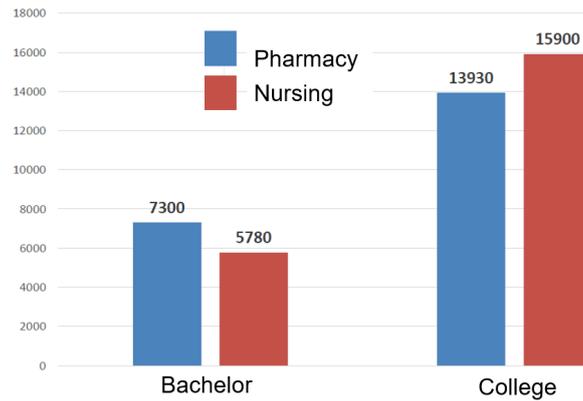


Figure 3. Number of enrollments in 2020 (Source: MoH 2020)

The country has grappled with strikingly low ratios of nurses to the population as well as nurses to physicians, exacerbating the strain on healthcare systems (Figure 4, 5).

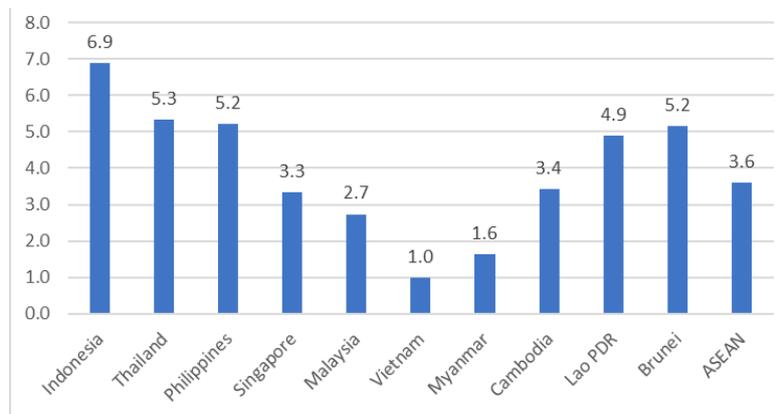


Figure 4. Nurses/Physicians ratios of ASEAN countries (Source: WHO, 2014)

Figure 4 shows the nurses/physicians ratio of Vietnam was the lowest among ASEAN countries in 2014 (Efendi et al., 2018). It was improved substantially in 2020 as shown in Figure 5, but still the lowest among the countries of comparison.

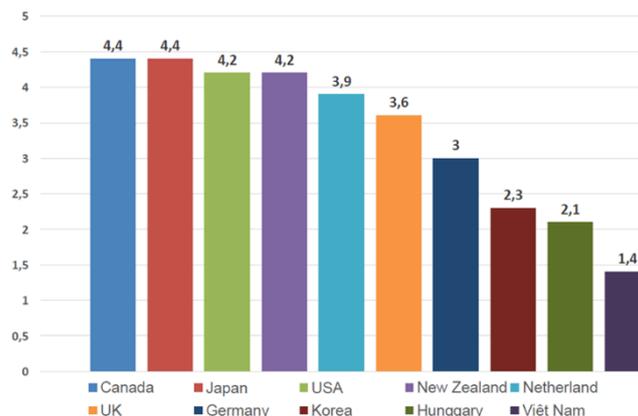


Figure 5. Nurses/Physicians ratios prior to COVID-19 (Source: *Health at glance: OECD indicator, OECD, 2020*)

According to a report in 2015, the nurse-to-physician ratio remains low and impractical, standing at 1.8 nurses to 1 physician. The lowest ratio is observed in hospitals under the MoH

(1.22 nurses to 1 physician), while the highest is in provincial hospitals (1.56 nurses to 1 physician) (HSPH, 2015). This ratio has not been improved in recent years (Figure 4). The number of nurses with bachelor and higher degrees is still less than 20% of the total nursing workforce (Figure 6).

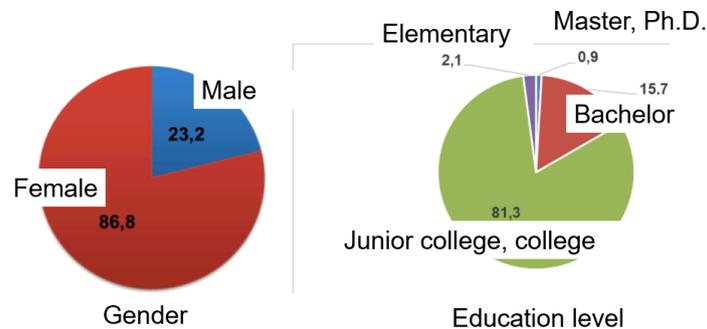


Figure 6. Characteristics of Nursing professionals (Source: MoH 2020)

Accreditation and Migration of Nurses

In the health workforce, nurses are active players in international migration. In ASEAN, the international migration of nurses is led by the Philippines followed by Indonesia (Efendi et al., 2018). On the other hand, uneven distribution and shortages in the health workforce in ASEAN countries has been reported by some researchers. The ASEAN region is very diverse in terms of health systems, disease burdens, population, and health transitions. ASEAN agreement to recognize those who have trained for at least 3 years and license issued by the host country (2007). Nevertheless, migration of nurses from and to Vietnam to ASEAN countries is still not reported.

The global scarcity of nurses has given rise to a notable trend of nurse migration across borders. One such migration pattern has been towards Japan, facilitated by the Economic Partnership Agreement (EPA) program established in 2008 (Hirano & Komazawa, 2022). This initiative has provided opportunities for foreign nurses to fill gaps in Japan's healthcare system (Otomo, 2022). Similarly, Germany has also been attracting nurses since 2013 through efforts promoted by the GIZ (Hillmann et al., 2022). Since a decade, the many healthcare universities have established specialized programs in language and skills for students interested in working in these countries.

Shift from the public sector to the private sector among nurses seeking better opportunities and compensation. Furthermore, a significant migration trend involves nurses moving from rural to urban areas, often in pursuit of improved career prospects and higher standards of living (Vietnam Ministry of Health, 2020).

Impact of COVID-19

There are significant challenges faced by the nursing workforce during the pandemic, including increased workloads (T. T. Nguyen et al., 2022; T. T. H. Nguyen et al., 2022), heightened infection risks, burnout (Duong-Quy et al., 2022; P. T. Nguyen et al., 2022; T. Van Nguyen & Liu, 2022), and attrition rates. Official reports highlight a concerning trend of healthcare personnel leaving their positions or resigning. In 2021 and the first half of 2022, there were 9680 health professionals, including 2,874 nurses quitted their job (Ministry of Health, 2022). In HCMC in the first half of 2022, there were 874 health professionals,

including 391 nurses quitted their job (HCMC Health Department, 2022). The shortage of professionals has led to the mobilization of healthcare students to volunteer during the COVID-19 pandemic (Tran et al., 2022). The reasons for quitting the job include a stressful working environment with job stress, high responsibility, endless night shifts, a high risk of infection, and insufficient time to care for family and small children; a low income of only about 7-9 million VND (300 USD) per month, which is not enough to cover living needs; attractive offers from the private sector prompting a shift from the public sector; and the difficulty of handling professional duties due to low-quality materials won through bids to enter the hospital.

The number of nursing student enrollment decreased. In 2022, the number of students enrolled has decreased by more than 60% compared to 2021 (Pham Ngoc Thach Medical University, 2022). Difficulty in recruiting students. Many schools that offer nursing training also face many difficulties in enrolling in this field. Tuition fees for nursing bachelor's and nursing college programs are quite high (35-40 million VND/year), but when they graduate, the work is hard, the salary is low, and there is no incentive scheme. Without increased investment in nursing education, projections indicate a shortage of 50,000 nursing professionals in Vietnam by 2030 (WHO, 2022).

To response to the situation, efforts have been made by the government to elevate the payment system for healthcare professionals to the highest level. The MoH is in the process of formulating a master plan aimed at renewing the nursing policy to encompass comprehensive care until the year 2030. At the local level, initiatives are being implemented to increase income, incentives and extend the recruitment for mid-level nurses, midwives, and medical technicians. Furthermore, policies concerning tuition fee exemption have been introduced to attract more students to the nursing field (Phong, 2022).

Conclusion

As we navigate the complex terrain of healthcare challenges, this article aims to illuminate the critical importance of addressing the nursing human resource crisis in Vietnam, emphasizing the imperative for education reform to fortify the nation's healthcare infrastructure and ensure the well-being of its citizens.

References

- Al Thobaity, A., & Alshammari, F. (2020). Nurses on the Frontline against the COVID-19 Pandemic: An Integrative Review. *Dubai Medical Journal*, 3(3), 87–92. <https://doi.org/10.1159/000509361>
- Children Hospital. (2023). *Nursing in the world and Vietnam*. Children Hospital. <https://bvndtp.org.vn/lich-su-nganh-dieu-duong-the-gioi-va-viet-nam/>
- Drennan, V. M., & Ross, F. (2019). Global nurse shortages—the facts, the impact and action for change. *British Medical Bulletin*, 130(1), 25–37. <https://doi.org/10.1093/bmb/ldz014>
- Duong, D. B., Phan, T., Trung, N. Q., Le, B. N., Do, H. M., Nguyen, H. M., Tang, S. H., Pham, V. A., Le, B. K., Le, L. C., Siddiqui, Z., Cosimi, L. A., & Pollack, T. (2021). Innovations in medical education in Vietnam. *BMJ Innovations*, 7, S23–S29. <https://doi.org/10.1136/bmjinnov-2021-000708>
- Duong-Quy, S., Tran-Duc, S., Hoang-Chau-Bao, D., Bui-Diem, K., Vu-Tran-Thien, Q., & Nguyen-Nhu, V. (2022). Tiredness, depression, and sleep disorders in frontline healthcare workers during COVID-19 pandemic in Vietnam: A field hospital study. *Frontiers in Psychiatry*, 13. <https://doi.org/10.3389/fpsyt.2022.984658>
- Efendi, F., Nursalam, N., Kurniati, A., & Gunawan, J. (2018). Nursing qualification and workforce for the Association of Southeast Asian Nations Economic Community. *Nursing Forum*, 53(2), 197–203. <https://doi.org/https://doi.org/10.1111/nuf.12243>
- Einhellig, K., Parker, C., McNeill, J., Dunem, K., & Hummel, F. (2020). Addressing the Global Nursing Shortage: An International Collaboration. *International Journal of Nursing*, 7(2), 87–91. <https://doi.org/10.15640/ijn.v7n2a10>
- Fan, A. P., Tran, D. T., Kosik, R. O., Mandell, G. A., Hsu, H. S., & Chen, Y. S. (2012). Medical education in Vietnam. *Medical Teacher*, 34(2), 103–107. <https://doi.org/10.3109/0142159X.2011.613499>
- Hillmann, F., Walton-Roberts, M., & Yeoh, B. S. A. (2022). Moving nurses to cities: On how migration industries feed into glocal urban assemblages in the care sector. *Urban Studies*, 59(11), 2294–2312. <https://doi.org/10.1177/00420980221087048>
- Hirano, Y., & Komazawa, O. (2022). *Agents of Care Technology Transfer: Trends and Challenges of Migration Care Workers Across Borders*. 06. <https://policycommons.net/artifacts/2642716/agents-of-care-technology-transfer/3665475/>
- HSPH. (2015). *Healthcare Workforce in Vietnam*.
- Huynh, H. T. P., & Windsor, C. (2022). The Concepts of Social Space and Social Value: An Interpretation of Clinical Nursing Practice in Vietnam. *Global Qualitative Nursing Research*, 9, 23333936211070268. <https://doi.org/10.1177/23333936211070267>

- Jones, P. S., O'Toole, M. T., Hoa, N., Chau, T. T., & Muc, P. D. (2000). Empowerment of Nursing as a Socially Significant Profession in Vietnam. *Journal of Nursing Scholarship*, 32(3), 317–321. <https://doi.org/https://doi.org/10.1111/j.1547-5069.2000.00317.x>
- Lu, H., Barriball, K. L., Zhang, X., & While, A. E. (2012). Job satisfaction among hospital nurses revisited: A systematic review. *International Journal of Nursing Studies*, 49(8), 1017–1038. <https://doi.org/https://doi.org/10.1016/j.ijnurstu.2011.11.009>
- Ly, T. P. H., & Elderton, S. (2016). Nursing Education in Vietnam. *Niigata Nursing University Bulletin*, 5, 2–9.
- Marć, M., Bartosiewicz, A., Burzyńska, J., Chmiel, Z., & Januszewicz, P. (2019). A nursing shortage – a prospect of global and local policies. *International Nursing Review*, 66(1), 9–16. <https://doi.org/https://doi.org/10.1111/inr.12473>
- Ministry of Health. (2011). *Joint annual health review: Strengthening management capacity and reforming health financing*. https://syt.thuathienhue.gov.vn/UploadFiles/TinTuc/2015/7/6/jahr2011_fullversion_english.pdf
- Ministry of Health. (2015). *Decision No 2992/QĐ-BYT*. <http://kcb.vn/vanban/quyet-dinh-so-2992qd-byt-ngay-17072015-cua-bo-y-te-ve-phe-duyet-ke-hoach-phat-trien-nhan-luc-trong-he-thong-kham-benh-chua-benh-giai-doan-2015-2020>
- Nguyen, P. T., Van Nguyen, H., Le, P. M., Phung, H. T., Dao, A. T. M., Hayashi, K., & Gilmour, S. (2022). Translation, validation and psychometric properties of Effort-Reward Imbalance questionnaire among nurses in Vietnam. *Preventive Medicine Reports*, 25, 101692. <https://doi.org/https://doi.org/10.1016/j.pmedr.2021.101692>
- Nguyen, T. T., Nguyen, T. H., Hoang, D. L., Hoang, T. G., & Pham, M. K. (2022). Effectiveness of Interventions to Prevent Musculoskeletal Disorders among District Hospital Nurses in Vietnam. *BioMed Research International*, 2022, 1539063. <https://doi.org/10.1155/2022/1539063>
- Nguyen, T. T. H., Phung, H. T., & Bui, A. T. M. (2022). Applying the workload indicators of staffing needs method in nursing health workforce planning: evidences from four hospitals in Vietnam. *Human Resources for Health*, 19(1), 124. <https://doi.org/10.1186/s12960-021-00668-y>
- Otomo, R. (2022). The Discourse of Self-learning: An Analysis of Japan's EPA Programme for Healthcare Workers from Southeast Asia. *Asian Studies Review*, 46(4), 593–612. <https://doi.org/10.1080/10357823.2022.2069675>
- Phong, T. (2022). *Solving the deficit of nurses*. Thoi Nay News. <https://nhandan.vn/giai-quyet-tinh-trang-thieu-nhan-luc-nganh-dieu-duong-post722087.html>

Tran, V. De, Pham, D. T., Dao, T. N. P., Pham, K. A. T., Ngo, P. T., & Dewey, R. S. (2022). Willingness of Healthcare Students in Vietnam to Volunteer During the COVID-19 Pandemic. *Journal of Community Health, 47*(1), 108–117.
<https://doi.org/10.1007/s10900-021-01030-y>

Van Nguyen, T., & Liu, H.-E. (2022). A cross-sectional study on sleep disturbances and associated factors among nurses. *BMC Psychiatry, 22*(1), 119.
<https://doi.org/10.1186/s12888-022-03748-y>

Vietnam Ministry of Health. (2020). *Situation and Trend of Nurses and Caregivers in Vietnam and Worldwide*.

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