International Journal of Community Medicine and Public Health
Ahilan VKR et al. Int J Community Med Public Health. 2025 Jan;12(1):622-627
http://www.ijcmph.com
pISSN 2394-6032 | eISSN 2394-6040

DOI: https://dx.doi.org/10.18203/2394-6040.ijcmph20244083

Review Article

Development of nursing education in India: past, present and future

Ahilan Vinoth Kumar R.[1], Mary Shini D.[2], S. Niranjani[3], Lakshmi Priyadharshini V. R.[4], Patanwal Swati Ompal[5], Geethanjali Jerald[6], Biplab Dinda[7], Mohammed Umar[8]*

[1]Department of Nursing, Meenakshi Academy of Higher Education and Research (MAHER), Chennai, India
[2]Department of Medical Surgical Nursing, Government Nursing College, Kavaratti, Lakshadweep, India
[3]Department of Community Health Nursing, Tagore College of Nursing, Chennai, India
[4]Department of Mental Health Nursing, OPR Memorial College of Paramedical Science, Cuddalore, Tamil Nadu, India
[5]Rajkiya Medical College Jalaun, Orai, U.P, India
[6]Department of Community Health Nursing, Malwanchal University, Madhya Pradesh, India
[7]Narayan Nursing College, Sasaram, Bihar, India
[8]Department of Nursing, Uttar Pradesh University of Medical Sciences, U. P., India

Received: 10 November 2024
Accepted: 09 December 2024

***Correspondence:**
Mohammed Umar,
E-mail: umarrathore0786@gmail.com

ABSTRACT

The nursing education landscape in India has undergone significant changes over the past several decades. The current state of nursing education in India presents a mixed picture. On the one hand, there has been an expansion of nursing education programs, with the number of nursing colleges and institutions increasing substantially in recent years. The standardization of nursing curricula and training programs marked a significant milestone in the professionalization of nursing in India. This initiative aimed to ensure consistent quality in nursing education across the country, enabling nurses to develop a uniform set of skills and knowledge. As a result, the standardization efforts helped to elevate the overall competency of nurses and improved the quality of healthcare delivery throughout India. As nursing education in India continues to evolve, it is essential that innovative approaches are explored to better prepare students for the realities of clinical practice. One such approach is the incorporation of high-fidelity simulation.

Keywords: Nursing education, Development of nursing, History of nursing, Modern nursing, Nursing curriculum

INTRODUCTION TO NURSING EDUCATION IN INDIA

Nursing education in India has a rich history, with the first nursing school established in Vellore in 1858. Since then, the nursing profession has undergone significant changes, both in terms of curriculum and infrastructure.[1] Over the years, India has witnessed a steady growth in the number of nursing institutions, with approximately 2,70,000 nurses graduating annually from around 4,815 nursing institutions as of 2017. However, despite this expansion, the country still faces several challenges in the nursing education sector, including low employability of graduates, poor quality of teaching, weak governance, insufficient funding, and complex regulatory norms.[2,3]

The nursing education landscape in India has undergone significant changes over the past several decades. Historically, nursing education was primarily apprenticeship-based, with students receiving training within hospital settings. However, over time, there has been a shift towards more formalized academic programs, with the establishment of nursing schools and colleges.[1,3] The current state of nursing education in India presents a mixed picture. On the one hand, there has been an expansion of nursing education programs, with the

number of nursing colleges and institutions increasing substantially in recent years. This has helped to address the nursing shortage that has long plagued the Indian healthcare system. On the other hand, there are still concerns about the quality and consistency of nursing education in India. Nursing education programs can vary widely in terms of their curriculum, teaching methods, and clinical training opportunities, and there are challenges in ensuring that all nursing graduates are adequately prepared to deliver high-quality patient care.[4]

SEARCH IN SCIENTIFIC DATABASES

The Nursing Today Journal, RAK Nursing College, Medical Evidence Journal, British Medical Journal, Evidence-Based Medicine Online, National Guideline Clearinghouse, National Library of Guidelines, The Cochrane Library, DARE, MEDLINE/PubMed, and Index of Portuguese Medical Journals, for articles from 2010 to September 2024, using the keywords nursing education in India; past, present and future, Image of nursing, Transforming and advancement in nursing education curriculum, historical/ colonial nursing. Articles were selected based on the relevance of their abstracts to the aim of this study and were available in English, Portuguese, and Spanish.

THE HISTORY OF NURSING EDUCATION IN INDIA

The early days of nursing education in India were marked by the establishment of nursing schools by Christian missionaries and the British colonial administration. These institutions focused on training nurses to provide basic healthcare services, particularly in rural areas. Over time, the curriculum and educational standards were gradually improved, with the introduction of diploma and degree programs in nursing. One of the fundamental principles of this reform was the belief that nurses would have a more generic and consistent education to prepare them to work in a range of clinical settings.[4-6]

Nursing education in India has undergone significant changes over the years. In the past, nursing education was largely focused on a medical and disease-oriented approach, emphasizing content-driven teaching. However, this model was found to be inadequate in preparing nursing students for the complex and evolving healthcare environment they would encounter upon graduation. The need for a more contextual and competency-based approach to nursing education became increasingly apparent, as the healthcare system and patient needs continued to transform.[6,7]

NURSING EDUCATION IN COLONIAL INDIA

Pre-colonial era

Traditional healing practices and informal apprenticeships were predominant. Healers and midwives passed down their knowledge through oral traditions and hands-on training within families and communities. This informal system of education relied heavily on practical experience and cultural wisdom. As a result, nursing practices varied widely across different regions of India, reflecting local customs and beliefs about health and healing. The colonial period marked a significant shift in nursing education, as British missionaries and administrators introduced Western medical practices and formal training programs. This led to the establishment of the first nursing schools in India during the late 19th century, which primarily focused on training Indian women to assist British doctors and nurses in hospitals. Gradually, these schools evolved to offer more comprehensive curricula, incorporating both theoretical knowledge and practical skills, laying the foundation for modern nursing education in the country.[4-6]

Colonial period (19th century)

Formal nursing education was introduced by British missionaries; After the establishment of formal nursing education by British missionaries, the field continued to evolve with the introduction of standardized curricula and training programs. This period also saw the establishment of nursing schools and hospitals across India, which played a crucial role in shaping the profession. As India gained independence, there was a growing emphasis on developing a national framework for nursing education and practice, leading to the formation of regulatory bodies and the implementation of more comprehensive nursing programs.[4-6]

The first nursing school was established in Madras (now Chennai) in 1871 formal nursing education by British missionaries in colonial India laid the foundation for a structured healthcare system, significantly improving patient care and establishing nursing as a respected profession in the country. This development not only enhanced the quality of medical services but also empowered Indian women by providing them with educational and career opportunities in the healthcare sector. The establishment of nursing schools and standardized training programs across India created a ripple effect, leading to the growth of a skilled nursing workforce that continues to play a vital role in the nation's healthcare system to this day.[4-6]

Florence Nightingale's principles influenced nursing education standards Building upon these early foundations, the post-independence era saw a concerted effort to further professionalize and standardize nursing education across India, aligning it with the country's evolving healthcare needs and aspirations. The post-independence period also witnessed a significant expansion in the number of nursing schools and colleges throughout India, catering to the growing demand for skilled healthcare professionals. This expansion was accompanied by the introduction of specialized nursing programs, such as those focusing on critical care,

pediatrics, and community health, to address the diverse healthcare needs of the country's population. Additionally, the Indian government implemented various initiatives to improve the quality of nursing education, including collaborations with international organizations and the establishment of advanced training centers, further enhancing the capabilities of the nursing workforce.[4-6]

Early 20th century

The trained nurses association of India (TNAI) was formed in 1908, the trained nurses association of India (TNAI) played a crucial role in advocating for the rights and professional development of nurses across the country. As the oldest and largest professional organization for nurses in India, TNAI worked tirelessly to establish standards for nursing education and practice, as well as to promote the recognition of nursing as a respected profession. The association's efforts contributed significantly to the advancement of nursing in India, helping to shape policies and regulations that continue to influence the field today.[4-7]

Nursing curricula and training programs were standardized, the standardization of nursing curricula and training programs marked a significant milestone in the professionalization of nursing in India. This initiative aimed to ensure consistent quality in nursing education across the country, enabling nurses to develop a uniform set of skills and knowledge. As a result, the standardization efforts helped to elevate the overall competency of nurses and improved the quality of healthcare delivery throughout India.

The standardization of nursing curricula also facilitated the development of specialized nursing programs, allowing nurses to pursue advanced training in specific areas of healthcare.[5] This advancement in nursing education not only enhanced the career prospects for individual nurses but also contributed to the overall improvement of healthcare services in various medical specialties. Furthermore, the standardized training programs helped to create a more cohesive nursing workforce, fostering better collaboration and communication among healthcare professionals across different regions of India.[6]

The standardization of nursing education in India also led to increased international recognition of Indian nursing qualifications, opening up opportunities for Indian nurses to work abroad and gain valuable global experience. This exposure to international healthcare practices and technologies further enriched the Indian nursing profession, as returning nurses brought back new knowledge and skills to implement in their home country. Additionally, the uniform curriculum facilitated easier transfer of credits and qualifications between institutions, allowing nurses to pursue further education or specialization without facing barriers due to inconsistent educational standards.[7,8]

THE CURRENT STATE OF NURSING EDUCATION IN INDIA

In recent years, nursing education in India has been undergoing a shift towards more innovative and relevant pedagogical approaches. Curriculum revision and a call for innovative pedagogy in the classroom have emerged as crucial steps to produce competent and qualified nurses.[7,9]

The move away from content-focused teaching towards concepts central to instruction has been a crucial step in keeping pace with the rapid changes in healthcare, education, and technology. Nursing educators have incorporated creative teaching strategies in the classroom, but an integrated framework for optimal classroom delivery and theory-driven instructional strategies based on best practices are still lacking.[8,9]

Despite these efforts, there is still a need to further strengthen the alignment between nursing education and the evolving healthcare landscape in India. The rapidly changing healthcare systems and patient needs require nurses to be equipped with the necessary competencies to address these shifts.[9,10]

Reforms such as the move from volume to value, from process to a focus on quality and outcomes, and from episodic to life-cycle care, have created new demands on nursing education.[10,11]

THE EVOLVING LANDSCAPE OF NURSING EDUCATION IN INDIA

The Indian healthcare system is undergoing a transformative shift, driven by advancements in technology, a focus on value-based care, and a growing emphasis on preventive and holistic health. This change presents both challenges and opportunities for the nursing profession, which plays a crucial role in delivering high-quality patient care. Nursing education in India must evolve to keep pace with these dynamic developments, ensuring that future nurses are equipped with the necessary competencies to thrive in the modern healthcare landscape.[4,5,9]

One of the key challenges facing nursing education in India is the significant gap between academic preparation and the realities of clinical practice. The Institute of Medicine's 2010 report on the Future of Nursing highlighted that the majority of new graduate nurses are not adequately prepared to assume the dynamic and complex role of today's professional nurse. This disconnect can be attributed to the continued reliance on traditional clinical teaching models, which have failed to keep up with the changing needs of the healthcare system.[7.8]

To address this issue, nursing educators in India must explore innovative approaches that better integrate theory and practice. The dedicated education unit model, for example, has shown promise in improving the preparedness of graduating nursing students. This model involves a collaborative partnership between academic institutions and healthcare organizations, allowing students to learn in a real-world clinical setting while receiving mentorship and support from experienced nurses.[12,13]

Furthermore, the curriculum and pedagogy in nursing education must be revised to align with the shifting focus in healthcare.[13] Rather than a content-focused, disease-centric approach, nursing education must embrace a more holistic, patient-centered model that emphasizes critical thinking, communication, and the integration of technology-enhanced clinical simulations.[13,14]

CHALLENGES AND ADVANCEMENTS IN NURSING EDUCATION

The COVID-19 pandemic has further exacerbated the need for comprehensive, adaptable nursing education. The rapid transition to remote learning and virtual clinical experiences has highlighted both the benefits and limitations of technology-based instruction. While virtual simulations and online platforms can provide valuable learning opportunities, there are concerns about the impact on the development of hands-on clinical skills and the ability to foster the interpersonal connections that are essential to effective nursing practice.[14,15]

As nursing education in India navigates these challenges, it must also address the broader context of the healthcare system. Challenges such as staff shortages, limited clinical placement opportunities, and a disconnect between the health and education sectors can all impede the ability of nursing programs to deliver high-quality clinical education.[15,16]

To address these issues, a collaborative approach is necessary. Partnerships between academic institutions, healthcare organizations, and regulatory bodies can help to align nursing education with the evolving needs of the healthcare system, ensuring that graduates are prepared to meet the demands of modern nursing practice.[16,17]

INNOVATIVE APPROACHES TO NURSING CURRICULUM

As nursing education in India continues to evolve, it is essential that innovative approaches are explored to better prepare students for the realities of clinical practice.[16] One such approach is the incorporation of high-fidelity simulation. Nursing education in India has also undergone a shift towards a more competency-based approach, moving away from the traditional content-driven curricula.[16] This shift emphasizes the development of essential competencies that enable nursing graduates to effectively address the evolving healthcare needs of the population. The integration of technology in nursing education has emerged as a critical priority in recent years. The use of information and communication technologies in teaching and learning has become a major focus of educational reform agendas in both developed and developing countries, including India.[17,18]

Nursing faculty must be prepared to effectively utilize available resources and facilities, have access to necessary support, and develop competency in using technology throughout the nursing curriculum.[17]

THE FUTURE OF NURSING EDUCATION IN INDIA

To meet the evolving healthcare needs in India, nursing education must continue to adapt and innovate. Some key areas of focus for the future of nursing education in India include.

Integrating technology-enhanced clinical simulations

The use of authentic, technology-enabled clinical simulations can help nursing students develop and integrate essential competencies, preparing them for the dynamic and complex healthcare environment.

Developing contextual and competency-based instruction

Nursing education must move beyond content-focused teaching and embrace pedagogical approaches that prioritize the development of relevant competencies and the ability to apply knowledge in real-world scenarios.

Strengthening the partnership between academia and healthcare practice

Closer collaboration between nursing education institutions and healthcare organizations is crucial to ensure that nursing curriculum and teaching methods are aligned with the evolving needs of the healthcare system.

Fostering continuous professional development

Ongoing professional development opportunities for nursing educators and clinicians are essential to keep pace with the rapid changes in healthcare and ensure that nursing education remains relevant and responsive to the needs of the profession and the community.[14-17]

DISCUSSION

The nursing education landscape in India has undergone significant changes over the past several decades. In the past, nursing education was primarily apprenticeship-based, with students receiving training within hospital settings. However, over time, there has been a shift towards more formalized academic programs, with the

establishment of nursing schools and colleges.19,20 The current state of nursing education in India is a mixed picture. On the one hand, there has been an expansion of nursing education programs, with the number of nursing colleges and institutions increasing substantially in recent years.20 This has helped to address the nursing shortage that has long plagued the Indian healthcare system.

On the other hand, there are still concerns about the quality and consistency of nursing education in India. Nursing education programs can vary widely in terms of their curriculum, teaching methods, and clinical training opportunities. Moreover, there are challenges in ensuring that all nursing graduates are adequately prepared to deliver high-quality patient care.[5] Looking to the future, there are several key areas that will likely shape the development of nursing education in India. First, there will likely be a continued emphasis on expanding access to nursing education, particularly in underserved regions of the country.[6,8]

The development of nursing education in India has been shaped by a complex interplay of historical, social, and political factors. According to a review of nursing education in the United States, Thailand, and China, nursing educators in different countries need to collaborate their efforts in solving the challenge of supplying sufficient numbers of skilled nurses for both national and international health care services Additionally, the review highlights the importance of nurses having the ability to care for people with diverse cultural backgrounds, which requires international academic communication and exchange among nurses, nurse educators, and nurse students.[20]

In the context of the Philippines, a study on the experiences of Philippine immigrant nurses found that they are mainly externally motivated, with their educational program being very demanding, but their level of competence not meeting the expectations of the host country. This highlights the need for strengthening the nursing curriculum and ensuring that the competencies of nursing graduates are aligned with the evolving healthcare needs.[4,19,20]

CONCLUSION

The literature also emphasizes the challenges faced by newly-qualified nurses in transitioning from student to staff nurse, and the importance of providing support during this period. Furthermore, the review of continued nursing education in low-income and middle-income countries underscores the significant impact of inadequately trained nurses on patient outcomes, particularly in settings where the health.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. Nursing Practice and Service and the Social and Economic Welfare of Nurses. Am J Nurs. 1969;69(10):2177–9.
2. Habibi S, Hachesoo PR, Tabaghi R. Enhancing information literacy as a base of developing evidence-based nursing. Heal Inf Manag. 2010;7(3):371–8.
3. Hung HY, Wang YW, Feng JY, Wang CJ, Lin ECL, Chang YJ, et al. Evidence-based practice curriculum development for undergraduate nursing students: The preliminary results of an action research study in Taiwan. J Nurs Res. 2019;27(4):30.
4. Ilic D. Teaching evidence-based practice: perspectives from the undergraduate and post-graduate viewpoint. Ann Acad Med Singap. 2009;38(6):559–65.
5. Fitzpatrick JJ. The International Council of Nurses, the NLN, and you and I. Nurs Educ Perspect. 2009;30(3):145–6.
6. Borger AL. The institute of medicine and the future of nursing. J Dermatol Nurses Assoc. 2012;4(2):87–8.
7. Gale J, Ooms A, Grant R, Paget K, Marks-Maran D. Student nurse selection and predictability of academic success: The Multiple Mini Interview project. Nurse Educ Today. 2016;40:123–30.
8. Jamshidi N, Molazem Z, Sharif F, Torabizadeh C, Kalyani MN. The challenges of nursing students in the clinical learning environment a qualitative study. Sci World J. 2016;2016:1–7.
9. Miguel PJ, Puga MP, Ana R, Jose R, and Costa P. Clinical virtual simulation in nursing education: randomized controlled trial. J Med Internet Res. 2019;21(3):11529.
10. Grading System. GPA. CGPA, Advantages disadvantage. Available at: https://targetstudy.com/articles/grading-system.html.
11. Jacobs GM, Farrell TSC. Paradigm shift: Understanding and implementing change in second language education; 2001.
12. Eyikara E, Baykara GZ. The importance of simulation in nursing education. World J Educ Technol Curr Issues. 2017;9(1):2–7.
13. Prasuna J, Sharma R, Osce. TEM: Different approaches to assess clinical skills of nursing students. Iran J Nurs Midwifery Res. 2017;22(1):78–80.
14. Goswami G, Sharma SK, Sharma R, Rani R. Simulation and skill training facilities in nursing institutes at Uttarakhand: A cross-sectional study. Iran J Nurs Midwifery Res. 2021;26(5):454.
15. Sharma R, Mohanty A, Singh V, Va S, Gupta PK, Jelly P. Effectiveness of Video-Based Online Training for Health Care Workers to Prevent COVID-19 Infection: An Experience at a Tertiary Care Level Institute Uttarakhand, India. Cureus; 2021;13:14785–8.

16. Burns PB, Rohrich RJ, Chung KC. The Levels of Evidence and their role in Evidence-Based Medicine. Plast Reconstr Surg. 2011;128(1):310.
17. Glasofer A, Townsend AB. Determining the level of evidence: Experimental research appraisal. Nurs Crit Care. 2019;14(6):22–5.
18. Konwar G, Kalita J. The Barriers and Challenges of Conducting Nursing Research and Communicating Research Findings into Practice. Int J Heal Sci Res. 2018;8(6):222.
19. Institute of Medicine (US) Committee on the Robert Wood Johnson Foundation Initiative on the Future of Nursing at the Institute of Medicine. Washington (DC; US): National Academies Press. 2011. Available at: https://www.ncbi.nlm.nih. Accessed on 12 August 2024.
20. University Grants Commission, editor. Quality Mandate for Higher Education Institutions in India. New Delhi: Secretary, University Grants Commission; 2021. Available at: https://www.ugc.ac.in. Accesed on 13 August 2024.

Cite this article as: Ahilan VKR, Shini M, Niranjani S, Priyadharshini L, Ompal PS, Jerald G, et al. Development of nursing education in India: past, present and future. Int J Community Med Public Health 2025;12:622-7.