Review Article

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Digging into the roots of continuing nursing education: potential uranium

Pushpa, Ankita Sharma, Jyoti Jangid*

Department of Nursing, All India Institute of Medical Sciences, Jodhpur, Rajasthan, India

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*Correspondence:

Jyoti Jangid,

E-mail: jangid10jyoti@gmail.com

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ABSTRACT

In a healthcare scenario, to enhance the delivery of high-quality, cost-effective and safe care, professional nurses are mandated to update their knowledge and competence through CNE. This is possible only by having a standard uniform system of CNE implementation guidelines across the country. Through an in-depth analysis of key literature, we explore the need and importance of CNE, how CNE differs from In-service education, Different approaches of CNE, steps to conduct a CNE program, Origin of CNE in India, Scenario of CNE inside and outside of India, Role of different Regulatory bodies, challenges and barriers hampering the smooth functioning of CNE.

Keywords: Continuing nursing education, Knowledge, Credit, Accreditation, Induction, Orientation

INTRODUCTION

The field of healthcare is constantly evolving, with new treatments, technologies, and evidence-based practices being introduced regularly.1 To promote the delivery of high quality, cost-effective, and safe care, professional nurses are mandated to update their knowledge, skills, and competence, here the part of CNE (Continuing Nursing Education) lies. CNE refers to the formal learning of the activities and programs that nurses undertake after completion of their initial education and licensure. These educational and learning opportunities are designed to update and enhance nurses' knowledge, skills, and competencies, enabling them to deliver the highest standard of patient care. This is possible only through the implementation of the standard uniform system of CNE guidelines across the country.2 By engaging in CNE, nurses can keep pace with recent advancements and provide evidence-based care that aligns with current best practices.1

CNE in nursing represents exposure to nursing programs beyond the basic necessary preparation. It also provides an opportunity for RN to build upon their knowledge and

experience. CNE is a broad language that refers to lifelong professional learning to enrich and promote nursing professional and their practice. Requirements for CNE vary by state Board of Nursing. Some States require a specific number of CE hours for licensure renewal. Others have both a required number of CE credit hours and specific CNE course topics (e.g., implicit bias, prevention of sexual harassment at the workplace) that must be achieved upon license renewal. Some states have no CNE requirement at all.³ Knowledge of nurses should be updated. As the core of the activities of nurses, investment in CNE is essential for nurses' competency in organizations. CNE is a basic component professionalism in nurses and can act as an organizing element in the nursing field.⁴ The basic goal of CNE is to improve performance in his or her present position and to acquire professional as well as personal abilities that maximize the possibility of career advancement.⁵

NEED AND IMPORTANCE OF CNE

To provide safe and effective nursing care to the patients. It is important to meet the health needs of the population. To enhance and update the knowledge of the nursing

personnel regular conduction of CNE is a must. It helps in career development. CNE program helps in the development of wise leaders and competent practitioners in health care settings and nursing personnel to acquire specialized skills. It fulfills the requirement of a high degree of skill, knowledge, competence, and educational preparation. CNE credit hours help in the renewal of licensure every 5 years. 6.7

HOW CNE DIFFERS FROM IN-SERVICE NURSING EDUCATION⁸⁻¹⁰

In-service nursing education is different from continuing nursing education in various aspects which are described in Table 1.

Table 1: Difference between CNE and in-service education.

Criteria	Continuing nursing education	In-service nursing education	
Definition	CNE is the ongoing nursing education and the formal learning of the activities and programs that nurses undertake after completion of their initial education and licensure.	In-service education is the educational activities and training conducted for all round development of nurses according to institutional policies, vision, and mission.	
Aim	To ensure the certified skills and knowledge to uplift the nursing profession.	To strengthen the manpower in their skills and specialization to provide services and care to patients.	
Scope	The scope is multidisciplinary as it is regulated by the state and central licensure bodies. CNE provides credit hours.	The scope is limited to an institution or area of interest in nursing services. Inservice nursing education doesn't provide credit hours, yet aids in institutional performance appraisal.	
Organization	Formally Organized structured program.	Both formally and informally organized to provide training.	
Advisory committee	CNE needs a structured advisory committee that includes Head/ Director of the Nursing Department in a hospital, Faculty Members, Central or State licensor Authority, and other Voluntary Nursing Professionals	Inservice Nursing Education needs a resource person to provide training within the institution or outsource trainers to provide training to nursing professionals.	
Interest	The focus of interest of CNE lies in the growth of the nursing profession as a whole and develop more qualified and specialized nursing professionals.	The focus of interest of in-service nursing education is to uplift the quality of care in a particular institution or capacity building to provide effective care or nursing services.	
Example	Higher Degree or Diploma Courses like M.Sc, PhD, Seminars, Workshop, and Conferences.		

DIFFERENT APPROACHES OF CNE

CNE works on two different approaches which include centralized, and decentralized approaches.

Centralized approach

A separate regulatory body organizes the plan and execution of a particular course or a teaching session for which the eligible nursing officer can register and avail the learning experience, like Ph.D. courses for nursing officers by INC, workshops, or seminars organized by TNAI. Financial support for running such CNE courses is available through university grants or regulatory bodies. ^{11,12}

Decentralized approach

A particular department in an institution is organizing the teaching-learning session for the nursing officers working in that particular department and institution, like a seminar or conference organized by the CTVS department. Financial support is retrieved through the particular department or allocated by institutional budget as per the need of the training session.^{8,11}

PLANNING OF CNE PROGRAM

Planning is the key aspect of running a CNE program. The effectiveness of the CNE program tells us, how well and elaborative planning is done. The planning phase of CNE should involve the participation of academics, nursing faculty, and nursing officers to bridge the gap between

clinical practice and knowledge. The planning can be broad and specific. The institution does the broad planning and the specific planning is done by the individual for their

own professional development, the planning process is illustrated in Figure 1. ^{6,7,12}

Identify the need and purpose of CNE program The need of an education program varies with time, person, and the nursing practice. The purpose of CNE is based on learning needs and societal needs. It includes interrogative phrase like what, why, how, where, when, and who. Establish the goal and objectives The goal should be significant with the needs and the objectives should be realistic and achievable. Assessment It provides us the basic information regarding the knowledge, ongoing clinical practice and what is already known by the nursing officers. Assessment can be done by interview, formal and informal discussions with resource person, checklist and it helps in prioritizing the needs. Plan for budget Separate budget is allocated for each session and activities which takes place in a CNE program. Sometimes budget is grant by Govt. authorities and sometimes it is collected from the target population as a course completion fees. Execution The proposal should be clear, conscise, realistic, include specific terms and enough details that a reviewer have thorough knowledge and can understand the intend of execution of the CNE program and its results. Execution It is used to measure the achievement of the objectives of CNE program. Evaluation can be

Figure 1: Planning process of CNE.

summative and formative. Evaluation is also important for the continuation of the teaching-

ORIGIN OF CNE IN INDIA

Bhore committee (1946) recommended the need for CNE for the advancement of study and career development for trained nurses (TNAI, 2001). GOI (Government of India) and WHO (World Health Organization) have setup a department of continuing education and research center at Raj Kumari Amrit Kaur College of Nursing, New Delhi. GOI established a chain of Health and family welfare training centers across the county: central, regional, and state under the Child Survival and safe motherhood program. Indian population projects helped to strengthen infrastructure and health facilities in the existing in-service training centers in India. (ANS 2005). A high power

learning activities in future perspective.

committee (1987) on nursing was appointed by the GOI, MOHFW (ministry of Health and Family Welfare).^{6,13}

The committee recommendations: 1) each nursing personnel must attend one or more refresher courses every year. State and center to have budgetary provisions for continuing education, 2) states to have definite policies for deputing 5-10% of the staff for higher studies and 3) compulsory higher studies after five years of service (TNAI, 2001).

The first CNE to be awarded credit points by the MNC was conducted by Bhaktivedanta Hospital & Research Institute in association with TNAI, on December 1, 2016. MNC

credit points are awarded and certificates are provided to all the participants on successful completion of the CNE.

CURRENT SCENARIO OF CNE IN INDIA

In the Indian subset, the concept of CNE has not flourished fully. Some institutes are following it as Christian Medical College (CMC), Vellore being the first institute to find a college of nursing in the year 1946 for graduating Indian nurses. 14 This institute has owned the Department of CNE and Research since the year 17. January 2005, and is actively engaged in the organization of short-term courses, workshops, refresher courses, advanced training, and activities related to the national consortium for PhD and Indian Journal of Continuing Nursing Education publication. While in private sector hospitals like Fortis, and Medanta, Quality Cell runs CNE and continuing medical education cells. As per the employee interview, we acquired the information that these institutes have formalized orientation, and induction sessions as well as meeting with the Human Resource Department for nearly 15 days so that the employee grasps the institute's policy, procedure, protocol, and hierarchy. These classes are taken by inhouse and outhouse trainers and the topics usually cover Basic life support, Advanced cardiac life support, NABH standards, care bundles, and healthcare-related checklists. There is a mandatory specific number of hours or modules that a fresh staff has to undergo before serving the duty. They run continuous short courses of one- or three-month duration also there are group discussions of short topics under the mentorship of a clinical supervisor. This way they ensure staff development for standardized patient care.

Running a CNE cell requires funds, hence for any institute to run the department of CNE, it has to be approved by the Ministry of Health and Family Welfare. Other hospitals like All India Institute of Medical Sciences, New Delhi are operating this department under the domain of Nursing Inservice education because of lack of funds. In this department, 2-3 nursing officers work under the direct supervision of the Chief nursing officer, these personnel are responsible for induction, orientation, clinical area classes as well as knowledge and skill updates. This Department has collaborated with DNC to provide credit hours as per the class attendance for updating the RN/RM certificate. There are other hospitals with proper and

approved CNE cells reported to have no formal classes, no induction, no orientation classes, and poor penetration in clinical settings. Newly recruited nursing officers learn hospital practices etc. from observation or reading standard operating procedures available in their unit. Many of the institutes of national importance are working without functional CNE. Even when INC and DNC have given the CNE guidelines for the CNE accreditation of the credit hours.

CNE ACCREDITATION FROM DIFFERENT REGULATORY BODIES IN INDIA

Indian Nursing Council²

Indian Nursing Council (INC) has given the "INC (CNE) Regulation 2019" According to this act 'CNE' means CNE to be compulsorily undergone by the Registered Nurse and Registered Midwife (RN&RM)/Registered Auxiliary Nurse Midwife (RANM)/Registered Lady Health Visitor (RLHV) for renewal of registration after every five years. INC in the code of ethics for nurses in India, has focused on the significance of CNE in promoting and enhancing professional and personal development of nurses. INC has formulated guidelines for the implementation of CNE across the country during the year 2005. This did not come into a major effect at that time but some SNRCs implemented CNE guidelines. With the forthcoming introduction of NUID for every nurse in India by INC, the guidelines should be implemented with uniformity in all states.

CNE requirement

Nursing personnel must participate in a CNE program and earn 30 CNE credits which is equal to 150 CNE hours for every 5 years. All CNE programs shall be approved by the Council. This is mandatory for the renewal of registration and license of nurses and midwives every five years. INC (CNE) Regulation 2019, mentioned the list of academic activities to be accredited for CNE and which organization can conduct the CNE program. According to INC guidelines, the credit hour is awarded on the basis of the quality of scientific content and speaker/resource people, and the detailed description is given below in Tables 2 and 3

Table 2: Awarding of Credit hours based on activities.

Activities/credit hours	Academic activity	Higher studies	Academic activity (short term courses)
Credit hours	1 credit = 5 hours 30 credits = 150 hours/5	30 credits = 150 hours	30 credits is the requirement (Hours/credit may be different
	years		for each course)

Table 3: INC guidelines on awarding credit hours on the basis of academic activities.

S. no.	Academic activity	INC guidelines	
1	Participation in conference/workshop/ seminar/symposium	One day $CNE = 5$ hours = one credit \times number of days Minimum 5 hours of scientific deliberation. Maximum hours that can be awarded is 30 hours.	
2	Participation at clinical skill update workshops (Individual hands on experience e.g. BCLS/ACLS)	One day = 10 hours = two credits × number of days(Maximum hours that can be awarded is 30 hours)	
3	Speaker/Oral paper or poster presenter at conference/workshop/seminar/symposium	10 hours (2 credits) (The hours are awarded only once for the same topic of presentation)	
4	Online CNE modules/courses (undergoing) Developing online modules	One Module up to 5 hours = one credit OR Credits prescribed as per course curriculum (International Standard) One module = 3 credits/15 hours	

^{*} Indian Nursing Council (Continuing Nursing Education) Regulations, 2019. Last Updated 7th. http://www.bareactslive.com/ACA/act3735.htm#0.

Table 4: CNE categories given by DNC.

Category A	Category B	Category C
It includes open live activities	It includes live internal activities	
targeting participants from	limited to groups within a particular	It includes self-study activities
different organizations.	organization	
Examples include open	Examples include practice-based	Examples includes accredited distance-learning
courses, seminars, symposia,	activities, case studies, grand rounds,	programs with verifiable self-assessment
meetings conferences etc.	journal clubs, internal teaching,	(e.g. Medscape /eMedicine, e-learning modules
State, national, and	consultation with peers and	of Indian Nursing Council and nursing and
international conferences.	colleagues, etc.	midwifery portal Govt. of India, TNAI.

Table 5: Calculation of credit hours.

Categories	Participants	Speakers
Live activities (category a & b)	One credit hour is assigned to every hour. a maximum of 6 credit hours per day may be granted. Educational activities of less than 1-day total duration are not accredited.	Double the number of credit hours. credit hours can be claimed once annually for speakers/instructors in identical topics irrespective of the number of repetitions.
Self-study activities (category c)	Have to be directly related to health and health services and to adopt the latest scientific references and periodicals in a specific specialty.	The CNE provider will be responsible for showing evidence of the scientific content and materials used to design the activity.

Guidelines for CNE accreditation

All Online courses under CNE shall be approved by the SNRC (State Nursing Registration Council). SNRCs will allot the credits as per guidelines and monitor the execution of CNE. Certificate of participation with the grant of credit hours is provided by the organizers of CNE. Certificate of participation can be forwarded to the SNRC online. Credit hours granted to participants have to be mentioned in the certificate. The individual nurse shall upload the CNE details in the NRTS. Upon verification by SNRC as per Council guidelines renewal of licence can be issued.⁵

Delhi Nursing Council¹⁵

In the year of 2015, the Delhi Nursing Council (DNC) gave the policy on CNE accreditation to encourage the provision

of high-quality training programs and to aid in the utilization of CNE for Registration/Renewal of registration purposes and the categories are described in Table 4.

Guidelines for CNE program approval by DNC

The CNE activity is accredited by the DNC only if it is planned according to DNC requirements as shown in Table 5. It should contain: activity design, aims and objectives, content, qualifications of the presenter/speaker/instructor, target audience, duration and sponsorships.

Certification

The CNE credit certificate should include the attendee's name, name of the provider, name of the program, date, time, and location of the program, number of verifiable

CNE credits provided by DNC, and signature of course director and/or supervisor representing the scientific organizing committee of the program. All applications submitted for DNC accreditation are subjected to the fee charges.

Accreditation statement

In the provided certificate to participants, the following statement should be stated clearly:

For the participants "This Program is awarded a number of CNE Credit hours by DNC" should be stated clearly in the provided attendance/participation certificate.

For the speakers "(numbers) CNE Credit hours were awarded to .

THE SCENARIO OF CONTINUING NURSING EDUCATION CELL IN FOREIGN SET UP

As defined by the American Nurses Credentialing Center's (ANCC) Commission on Accreditation, CNE "builds upon the educational and experiential bases of the RN for the enhancement of practice, education, administration, research, or theory development, to the end of improving the public health."8,16 The foreign setup is much more advanced. Various institutions and organizations are dedicated to providing ongoing education and professional development for nurses. Nurses after completing their required basic nursing professional education, start their journey as health care assistants or nursing assistants under the shadowing of a RN. After clearing the center test, they assume their work as an RN after preceptorship completion. Department of Nursing, Mayo Clinic is among the most respectable and largest group of nurses. Three of its branches have magnet status for robust care, evidencebased activities, formal education, and commitment to quality, safety, and improvement. Moreover, the license courses are readily available there, they are also provided with extra gain in the form of incentives yet the choice of persuading the professional development is personally their own.

The central body of CNE ensures induction, orientation, and some mandatory courses that a new joiner has to undergo before assuming a full-fledged responsibility. In addition, providing education or information about a new procedure, protocol, policy, information, or rule that comes under the domain of CNE. As per the American Association of Critical Care Nurses (AACCN), Critical Care Registered Nurse (CCRN) is a registered service mark for nurses working in acute care settings and is accredited by the Accreditation Board for Specialty Nursing Certification (ABSNC). CCRN certification promotes continuing excellence in critical care nursing. They have a concept of Continuing Education Recognition Points (CERP) program that encompasses an umbrella of learning topics and tasks. There are three categories, each category covering various topics. Completion of 100 CERPs is required, with a minimum of 60 CERPs in Category A and 10 each in Categories B and C, plus 20 in the category of choice. This was for the nurses working in critical areas obtaining their CCRN through direct or indirect pathways.

Nursing personnel in the State of Texas are required to acquire 20 contact hours (not CEUs) every two years for renewal of license. Contact hours are based on the 60-minute hour. Texas Board of Nursing has specified the criteria for activities that will not be counted as CNE hours. In one or another way, the pattern is that there are recognized associations or societies having a board of members with specific objectives related to nursing empowerment.

United States

CNE is facilitated through various channels, including nursing associations, universities, and healthcare organizations. ANCC is a prominent organization that offers accreditation for nursing continuing education providers. Many states have their own nursing associations and boards that oversee and support CNE activities.

United Kingdom

The Royal College of Nursing (RCN) in the UK is a major professional association that provides a range of educational resources and opportunities for nurses. Universities and healthcare institutions in the UK offer continuing education programs, workshops, and conferences for nurses to enhance their skills and knowledge.

Canada

In Canada, nursing education and professional development are overseen by provincial nursing regulatory bodies. Canadian nursing associations, such as the Canadian Nurses Association (CNA), contribute to continuing education initiatives for nurses.

Australia

The Australian College of Nursing (ACN) is a key organization that supports nurses in their professional development through education and training programs. Universities and healthcare institutions in Australia offer continuing education opportunities, and the Australian Health Practitioner Regulation Agency (AHPRA) plays a role in regulating nursing education.

Singapore

Nursing education and professional development are supported by institutions like the Singapore Nursing Board (SNB) and the Singapore Nurses Association (SNA). Various hospitals and healthcare organizations in Singapore organize continuing education activities for nurses.

Middle east

Countries in the Middle East, such as the United Arab Emirates and Saudi Arabia, have seen significant developments in nursing education and continuing professional development. Institutions and healthcare organizations collaborate to offer workshops, conferences, and training programs for nurses.

CHALLENGES IN CNE

CNE works on the principles of andragogy, institute permission, approval, cooperation, policy, collaboration between educators and administrators. Hence the challenges are at multiple levels as shown in Figure 2. Nursing services are served on a 24/7 basis, and shifting duties are cumbersome yet essential for public health. Working night shifts is associated with poor cognition, daytime sleepiness, and poor attention. This has been reported that family responsibilities, social responsibilities, personal space, lack of learning needs assessment, lack of preparedness for learning, avolition, inappropriate timings, and rapidly changing shifts contribute to poor attention from learners. Also, there are lacunae in educational techniques being used or lack of eligible educators from the nursing department. The lack of salary for educators is another issue. Improper planning, poor infrastructure, and poor supervision of educators or learners. Lack of pre and post-test administration and feedback collection remain in defective evaluation. ^{17,18}

EMERGING MODEL FOR CNE

India is a developing country with screwed healthcare professional-to-patient ratio. GOI has taken health initiatives in the form of opening a series of new tertiary care hospitals in remote settings in order to provide effective and equitable care to the remote population. The problem arises is that the recruits are fresh in terms of their practice, experience, joining and precision, hence somewhere the quality of care remains questionable, this is just like handing over the baton to a team that is not oriented well. Hence the goal achievement remains obscured. One approach could be that in any new institute getting started, there should be a full-fledged team of welloriented and trained personnel from a parent institute or an institute that has achieved a standard of care accreditation, under whom, freshly recruited staff will work and learn for a specific period of time called shadowing or tagging. So, with time the values, ethics, and professionalism get incorporated into the character of new joiners and after the achievement of the goal of orientation, and induction this team will come back and assume their responsibility at their parent institute.¹⁹

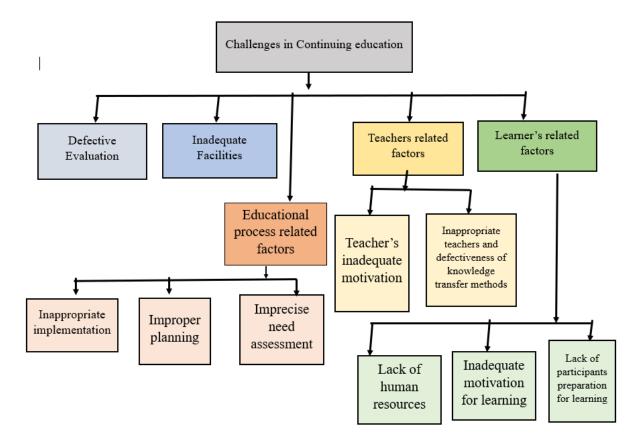


Figure 2: Challenges in CNE.¹⁸

CONCLUSION

CNE is a structured formal approach to the teaching-learning process in the nursing profession. To strengthen the nursing practice and keep the pace of the nursing profession in the scientific world it is of utmost importance to upgrade the knowledge and practice according to changing trends and technologies. CNE is the tool that can bridge the gap between knowledge and the practice in clinical area. CNE program also provides a platform where the academic nursing professionals collaborate with the clinical nursing professionals and share their knowledge and skills to upgrade nursing practice. There are a few challenges in successful execution of CNE and limitations. To overcome the challenges, one has to adopt an evidence-based scientific method of training and reform the traditional training practice.

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REFERENCES

- S. Teresa. What is Continuing nursing education and why is it important. Published on June 6, 2023. Available at: https://www.linkedin.com/pulse/whatnursing-continuing-education-why-important-teresasanderson. Accessed on 15 February 2025.
- Bare acts live. Central acts and rules amended and updated. Indian Nursing Council (Continuing Nursing Education) Regulations, 2019. Last Updated 7th November, 2020. Available at: http://www.bareactslive.com/ACA/act3735.htm#0. Accessed on 15 February 2025.
- M. Ingrid. Continuing Education in Nursing: Why It's Important. Updated on July 21, 2023. Available at: https://www.indeed.com/career-advice/finding-ajob/continuous-education-innursing#:~:text=Fulfilling%20continuing%20educat ion%20requirements%20can,learn%20about%20ne w%20treatment%20regimens. Accessed on 15 February 2025.
- 4. Eslamian J, Moeini M, Soleimani M. Challenges in nursing continuing education: A qualitative study. Iranian Journal of Nursing and Midwifery Research. 2015;20(3):378-86.
- Continuing nursing education. Updated on 29 Sep, 2013. [Cited on 22 February 2024]. Available at: https://www.slideshare.net/riasaira/continuingnursing-education-26670550. Accessed on 15 February 2025.
- Sultana S. The Evolution of Continuing Nursing Education in India: Analyzing the Development, Needs, Models, and Challenges. Updated on Sep 26, 2019. Available at: https://www.scribd.com/ document/427571948/Nursing-Education-docx. Accessed on 21 February 2025.

- 7. Nightingale college. Nursing Continuing Education: Why Is It Important. Posted on: Jul 1, 2021. Available at: https://nightingale.edu/blog/rn-continuing-education.html. Accessed on 15 February 2025.
- 8. University of Texas. What is continuing nursing education or CNE, 2024. Available at: https://nursing.utexas.edu/sites/default/files/CNE_F AQs.pdf. Accessed on 21 February 2025.
- Chaghari M, Saffari M, Ebadi A, Ameryoun A. Empowering Education: A New Model for In-service Training of Nursing Staff. Journal of Advances in Medical Education & Professionalism. 2017;5(1):26–32.
- Dickerson P. Continuing Nursing Education: Why? ANA-OHIO NEWS JOURNAL. 2023;1(4):14-5.
- Campbell, Marilyn. A Comparison Between Unit-Based Education and Centralized Education Among Staff Nurses. Columbia academic commons. Columbia university libraries, 2023. Available at: https://www.proquest.com/docview/915653632. Accessed on 27 February 2023.
- 12. Waddell DL, Hummel ME. Systematic planning of continuing nursing education. Journal for Nurses in Staff Development. 1999;15(4):163-6.
- 13. Bhakti Vedanta. Hospital and research institute. CNE, 2024. Available at: https://www.bhakti vedantahospital.com/. Accessed on 14 February 2024.
- 14. Indian journal of Continuing Nursing Education, 2024. Available at: https://www.cmch-vellore.edu/sites/journal/home.html. Accessed on 29 February 2024.
- Delhi Nursing Council. Policy on Continuing Nursing Education (CNE). Published on December 2015. Available at: https://delhinursingcouncil.com/ Assets/pdf/CNE-Credits-hours-details.pdf. Accessed on 20 February 2024.
- 16. American Journal of Critical Care, 2024. Available at: https://aacnjournals.org/. Accessed on 29 February 2024.
- 17. Zarei M, Mojarrab S, Bazrafkan L, Shokrpour N. The role of continuing medical education programs in promoting iranian nurses, competency toward non-communicable diseases, a qualitative content analysis study. BMC Med Educ. 2022;22(1):731.
- 18. Eslamian J, Moeini M, Soleimani M. Challenges in nursing continuing education: A qualitative study. Iran J Nurs Midwifery Res. 2015;20(3):378–86.
- 19. Duff B, Gardner G, Osborne S. An integrated educational model for continuing nurse education. Nurse education today, 2014;34(1):104–11.

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