Manuscript with main Text

**Admission of Persons with Disabilities in Nursing and Midwifery Professional Courses – An examination of the progress of Indian Nursing Council**

**Abstract:** (word count 206)

India's Persons with Disability (PwD) Act 1995 mandated a minimum enrollment reservation of 3% for PwD across all educational courses supported by government funding. Following this, the Indian Nursing Council (INC) issued regulations limiting such an enrollment quota to PwDs with lower limb locomotor disability ranging between 40-50%. The Medical Council of India (MCI) also restricted admissions under PwD category to PwD with a lower limb locomotor disability to comply with the act. The Rights of Persons with Disabilities (RPwD) Act 2016, which replaced the PwD Act 1995, raised the minimum reservation to 5% for all government-funded institutions of higher education, and extended this reservation to PwD under 21 different clinical conditions rather than the 7 conditions included under the PwD act 1995. Following the enactment of the RPwD Act 2016, the MCI issued regulations that allowed PwDs with locomotor disability and those with a few other types of disabilities, in the range of 40-80%, to pursue graduate and postgraduate medical courses, while the INC has not made any changes. This article addresses the complexities of inclusion of PwDs in the healthcare workforce and compares the INC admission regulation released in 2019 in comparison to the MCI 2019 admission guidelines for graduate and postgraduate medical courses.

**Keywords:** *Nurse, Professional Midwife, Benchmark Disability, inclusion, Indian Nursing Council.*

**Introduction**

Word Count: (3900) Excluding abstract, Tables and references)

The World Health Organization (WHO), in its global nursing forum statement, described Nurses and Midwife Professionals (NMP) as frontline professionals who use an integrated and comprehensive approach, which includes health promotion, disease prevention, treatment, rehabilitation, and palliative care. They contribute to the reduction of morbidity and mortality, which may result from emerging and re-emerging health problems (1). The American Nursing Council (ANC) describes the dimensions of nursing as the promotion of health and abilities, prevention of injury, alleviation of suffering, and advocacy during care (2). An adequate number of trained NMPs is vital to achieve the sustainable development goals and adhere to the philosophy of "leave no one behind". WHO report suggests that there are around 28 million global nursing personnel, among whom 19 million are professional nurses, and the rest are either associate nurses or unclassified. (3) An editorial on this report in the Lancet highlighted the inequitable distribution of nurses, with a significant shortage of nurses in Africa, south-east Asia, and the eastern Mediterranean; it also opined that the lack of nurses and midwives could severely affect the universal health coverage goal, one of the sustainable development goals. (4). Moreover, in these regions, poorer countries have the greatest shortfall of trained healthcare workers (5). In an economic model based on current demand for healthcare workers, current growth, and estimated production of human resources in about 150 countries, a global shortfall of 15 million healthcare workers is expected by the year 2030. (6). Nursing is also one of the most rapidly expanding healthcare workforces, providing potential career opportunities to many. There is little extant literature about persons with disabilities (PwD) pursuing training or a career as nurses and midwives. From experiential accounts of PwD who have had nursing careers, misconceptions about PwDs’ ability to provide safe and effective healthcare seem to be shared. (7) Legislative, systemic, procedural, attitudinal barriers, and knowledge gaps, pose barriers to the entry of PwD into this rapidly expanding sector.

**Disability Rights in India**

In its world report on disability, the WHO estimated that around 2-4% of the world population had at least one disability causing significant limitations in functioning. (8) India, the second-most populous country after China with about 1.2 billion population, had estimated through its census in 2011 that about 22 million Indians had some type of disability. (9) Since India's independence in 1947, two landmark legislations on the rights of PwD have been enacted in India: the first was the Persons with Disabilities (Equal opportunities, protection of rights and full participation) Act, 1995, and the second was its replacement, The Rights of Persons with Disabilities (RPwD) Act 2016. (10,11) The PwD act 1995 mandated that all government-funded educational institutions should enroll a minimum of 3% PwD across all courses, including professional ones. The RPwD Act 2016 increased this quantum of PwD reservation to a minimum of 5% in government or government-aided education programs, and codified a minimum of 4% reservations for employment in government institutions for *Persons with Benchmark Disabilities (hereinafter referred as (Pw-BMD)*. A Pw-BMD is defined as anyone certified by a competent authority, according to the guidelines issued, to have a percentage of disability amounting to 40% or more due to the conditions included in this Act (11). A report by the Ministry of Labour in the year 2019 (12) suggested that only about 42,000 persons were employed under the PwD quota. In contrast, the number of employees under the Government of India (GOI) is about 3.2 million. This suggests that only about 1% of employees under the GOI are Pw-BMD. The RPwD act 2016 has become a tool for PwDs to fight for their rightful inclusion across all sectors, including professional medical courses. Pw-BMD had filed cases in courts of law against barriers to access resulting from MCI admission criteria for PwD, which were designed to comply with the provisions of the older PwD act 1995. Favourable verdicts in some cases facilitated the entry of Pw-BMD into graduate medical courses. Sanjana Sinha vs Medical Council of India (MCI) at Delhi High Court, Rakshit Yadav vs. University of Medical Sciences in the Delhi High Court are two prominent and recent litigations in this regard. In our opinion the provisions of the of the RPwD Act 2016, and a few court verdicts which directed the MCI to reduce access barriers have led to significant changes in the MCI’s admission criteria for Pw-BMDs into graduate and postgraduate medical courses (13,14). We aim to explore whether the criteria for inclusion of PwDs into the nursing and midwife professional courses has evolved to reflect this model of disability as well.

**Nursing and Midwife Professionals in India**

The Indian Nursing Council (INC) was established following the enactment of the INC Act 1947(15). It is the regulatory authority and statutory body overseeing the education and licensing of qualified NMPs in India. The 2018-19 annual report of the INC states that a total of 8,837 nursing educational institutions offered Nursing and Midwife training to a total of 326,384 persons each year for different courses (16). Such courses range in duration from a two-year Auxiliary Nurse & Midwife (ANM), a three year General Nursing and Midwifery (GNM) to five-year PhD (Doctorate) courses. By the end of 2018, about 3 million NMPs were registered under the INC (17). An exploration of PwD admission guidelines into the NMP courses turned up a few notifications by the INC in 2014 and 2019.

A recently reported litigation is Ms.Yasmeen Mansuree vs Union Of India, in which the litigant challenged a nursing recruitment notification issued by a GOI-run hospital over the non-inclusion of acid attack victims in the quota reserved for PwDs. (18). ‘Acid attack victim’ is listed among the 21 specified conditions deemed eligible for educational and employment reservations specified in the RPwD Act 2016, if such instance leads to BMD under locomotor disability category.. We believe that it becomes necessary to reexamine the inclusion of PwD in the health care sector because,

1. There has been a paradigm shift from a medical model of disability to an integrated socio medical model of disability, (19)
2. Provisions under the RPwD Act 2016 mandate that state-funded higher educational include a minimum of 5% of PwD in all professional courses. (11)
3. Lack of any evidence to suggest that PwD as nurses or other healthcare professionals would compromise the safety of patients. (20)
4. Reports of PwD completing their nursing education successfully and their ability to fit for a range of selected healthcare services (21)
5. Technological advances in the healthcare field over the last few decades like a digital stethoscope, automated blood pressure measuring apparatus, sensor-based recognition of deranged vital functions for patients in ICU, computer-mediated drug delivery into the body, robotic assistance in surgeries, and software for conversion of text to voice and vice versa, vibration based recognition of alerts for nurses with hearing impairments etc which have the potential to reduce access barriers to learn and perform a range of healthcare services. (21,22,23)
6. Changes in the teaching methods due to advances in digital technology with augmented reality, virtual reality-based learning possibilities. (24)
7. Changes in healthcare service delivery modes such as health education through telemedicine. (25)
8. The current, and in the estimated future, shortage of nursing professionals to meet healthcare service delivery requirements.

Both these professions are regulated by the statutory and autonomous bodies, INC and MCI, respectively. Eligibility criteria for admission in to these courses is largely similar. Method of training for a few clinical skills and expected competency for a few emergency clinical skills bears similarity. NMPs and medical doctors are required to register with INC and MCI respectively, after completing their courses. A periodic renewal of their registration and a need to update their knowledge, skills, and advances in treatment has been mandated by both bodies. Considering this, and the lack of any published literature regarding the inclusion of Pw-BMD into the nursing course, we have also attempted to compare guidelines laid down by the INC and MCI for the inclusion of PwBMD.

Table 1 Pathway to become a nursing or medical professional in India ( Not for Pw-BMD)

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | INC for Nurse & Midwives | MCI for graduate and Postgraduate Medical Course |
| 1 | Graduate course offered | B.Sc and Post Basic B.Sc Nursing | MBBS |
| 2 | Minimum Qualification to pursue Graduate Course | 10+2 years of education.  Last two years of study should include Physics, Chemistry, Biology with English from a Recognized Board. Minimum of 45% of aggregate marks at +2 level  Age 17-35\* | 10+2 years of education  last two years of study should include Physics, Chemistry, Biology / Biotechnology with English from a Recognized Board.  40-50% aggregate marks at +2 level  Age 17-25\* |
| 3 | Method of Selection | Online/Offline test conducted under any INC recognized university or Board.  score in the selection exam is important | Online National Eligibility Entrance Test (NEET) or similar test by premier medical institutes.  score in the selection exam is important |
| 4 | Duration of the course | Four years six months for B.Sc Nursing & Two years after GNM for Post Basic B.Sc Nursing | Four years six months and additional one-year mandatory internship |
| 5 | Registration with Professional body | Must be registered with any State council under INC, with mandatory periodic renewal | Must be registered with any State council under MCI, with mandatory periodic renewal |

\* Relaxations in maximum age for entry depends on the course they may choose under INC.

This table is synthesized from information described in admission criteria notified for the admission into these courses (26,27,28) As illustrated in table 1, the minimum eligibility criteria for anyone's entry into either the NMP course or the graduate medical course (MBBS) is grossly similar

**Current Status of Inclusion of PwD in Nurse Midwife Professional Courses**

A report by INC stated that by 2019 (29), around 1,25,000 candidates completed the graduate nursing course called Bachelor of Science in Nursing (B.Sc. Nursing) – which is a four- and half-year duration course – annually; similarly, around 120,000 people finished the 3-year Diploma course called General Nurse and Midwife (GNM) every year. In December 2018, the INC decided to phase out the three-year GNM diploma course and replace it with a three-and-half year B.Sc Nursing graduate course. (30) Within a few years from now, and after realizing these changes, about 200,000 people would enter into graduate nursing course every year across India. Therefore, about a minimum of 10,000 Pw- BMD could potentially enter the graduate nursing course (B.Sc. Nursing) every year. We could not come across any INC guidelines or notifications on the process of accommodation for Pw-BMD either during the entry or during the course continuation phase. A comparison of MCI notifications and guidelines for the admission of PwBMD into the graduate medical courses and the guidelines issued by the INC suggests significant differences in the approaches to including Pw-BMD taken by these two statutory bodies; specifically, aspects of INC guidelines appear less inclusive, arbitrary and, potentially discriminatory when addressing Pw-BMD.

Table 2. Discrepant practices in the admission of Pw- BMD by INC and MCI.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | INC Admission Procedure, guidelines, restrictions | MCI Admission Procedure, guidelines, restrictions |
| 1 | Age Criteria | No Explicit information on upper age cutoff | Five years relaxation to upper age cutoff |
| 2 | Allowed type of disability | *Locomotor Disability, involving Lower Limb only (31)* | *Dwarfism, Cerebral Palsy, muscular dystrophy, leprosy cured person, acid attack victims, amputation, poliomyelitis, Specific Learning Disability, Chronic Neurological Conditions, Blood Disorders (32)* |
| 3 | Quantum of Disability | *Pw-BMD with 40-50% disability under locomotor disability category are allowed (31)* | *Pw-BMD with 40-80% disability under the categories as mentioned above are allowed (32)* |
| 4 | Special Clauses | *No such inclusion* | *Both hands should be intact and sensory impairment should not be severe in leprosy cured persons.*  *Persons with visual impairment and Hearing impairment having a disability in the range of 40-80% are allowed if disability falls below 40% by use of gadgets.* |
| 5 | Assessment of medical fitness after selection in the qualifying exam | *INC recommends a physical examination by appropriate medical Board following selection of candidates under PwD quota. But no specific format for such assessment* | *Candidates selected under PwBMD quota should pass through a medical board fitness examination as per Annexure-II issued by MCI in February 2019, at MCI selected centres.* |
| 6 | Reasonable accommodation  to the PwD during the examination | To our Knowledge, INC had not issued any guidelines in this regard | MCI had issued guidelines to allow Scribe/ reader, extra time during the examination with a few conditions (27) |
| 7 | Medical Fitness for the admission into the course, after selection in the Entrance | INC recommends physical examination to verify the genuineness of disability claim (40-50%) and fitness by a medical board.  No Specific format or guidelines for the assessors. | MCI recommends that selected candidates through NEET examination under the PwD category must go through medical board examinations at Selected locations across the country.  MCI issued a specific format for this assessment. |

MCI in the year 2019 notified guidelines expanding the types of disabilities considered when allowing candidates into the MBBS course for Pw-BMD in consonance with the RPwD Act, 2016 (Table 2). Table 2 also highlights the significant difference in the range of severity of disability for a Pw-BMD for the consideration of admission of candidates under the 5% PwD reservation. The MCI notified that Pw-BMD in the range of 40-80% of measured disability would be eligible to pursue MBBS course in the absence of specified gross sensory impairments. This inclusive notification is the result of court litigations for greater inclusion of PwD and the deliberations of the MCI constituted expert committee in this regard. However, some advocates for the inclusion of PwD in professional courses criticized these MCI criteria as arbitrary, unfair, and discriminatory because they continue to exclude people with certain types of disability; hence, disabilities mentioned in the RPwD Act are, in effect, excluded because they are not mentioned in the guidelines (33). Disability measurements in the current format as per the guidelines measures the structural or sensory impairment in most cases and it would be equated to a quantum of disability (34). Such impairment-based disability quantification as 50%, 60%, 80% is arbitrary, simplistic and reductionist; it fails to reflect the strengths or potentials of a PwD. INC while notifying PwD admission guidelines in 2019, appears not to have considered the expanded rubric of locomotor disabilities, the added list of other specified disabilities, reasonable accommodation construct, as well as the emphasis on non-discrimination and equality of opportunity as enshrined in the RPwD act 2016. It is worth mentioning that INC had allowed admission for persons with colour blindness into the nursing courses by notification in the year 2018 (35). In addition to eligibility criteria, the explicit inclusion of provisions for scribes, extra time, and screen-reader facilities during the exam in the MCI guidelines does not find a place in the 2019 INC guidelines. The *INC still considers only PwD with lower limb involvement and having a disability in the range of 40-50% to be eligible for admission into graduate nursing courses under PwD 5% reservation quota.*

These norms could – and should – be improved to make them more scientific, inclusive, and non-discriminatory. It may do so by expanding the spectrum of disabilities considered for reservation, reasonable accommodation construct, emphasis on non-discrimination and equality of opportunities. We also believe that there are complexities in involving PwD in professional medical and nursing courses; ethical and safety concerns related to patients also need to be addressed. To have a deeper understanding of this issue, we have examined challenges in the inclusion of PwD into the NMP career in United States of America (USA).

**Ethical and pragmatic views of the Inclusion of PwD into Nursing Courses**

Ranges of experiences, misconceptions, and beliefs based on traditional impairment-based medical models of disability have shaped the earlier practices of inclusion and exclusion of PwD in societies, and occupations too. In the healthcare sector safety of the patient is of primary importance. Standard procedures for health care delivery, treatment guidelines, standards in clinical skills necessary for professionals, and establishment of professional bodies to regulate all such matters, exist principally to safeguard patients.

There is scant published literature about the impact of healthcare workers with disabilities, delivering healthcare. Following the enactment of Americans With Disability Act (ADA) 1999, and Rehabilitation Act (section 504), many nursing schools in the USA opened their doors to PwDs, by providing reasonable accommodation while pursuing nursing courses. (36)

The American Association of Colleges of Nursing (AACN) released a series of documents on this issue: the "The Americans with Disabilities Act: Implications for Nursing Education" and the "White Paper on Inclusion of Students with Disabilities in Nursing Educational Programs" are two examples. (37). Minority nurse is a online publishing forum by Spinger, which posts success stories of nurses with disabilities suggesting that in spite of significant impairments PwD can pursue their nursing career successfully (38). The Royal College of Nursing (RCN) also issued a range of options for nurses with severe ill health or impairments. The RCN suggested that there were numerous possibilities like health advisory through telephone, teaching, counselling, administration, task coordination, assessing disability, promoting health and clerical roles where nurses with impairments may be accommodated. (39,40). The National Organization of Nurses with Disabilities (NOND), of USA through its campaign for employment, conducts awareness programs about the range of challenges and the range of possibilities (41). Perhaps INC's less inclusive approach of allowing only PwD with moderate lower limb disability may be based on the assumption that such candidates will not have major difficulties in acquiring skills which are described as an essential skill for a practising nurse. It may also be due to the assumption that PwD with one hand (and other types of disabilities) would never be able to master the necessary clinical skills to become a nurse. Perhaps to dispel such misconceptions, NOND, had posted video demonstrations in the YouTube titled "how to insert intravenous cannula with one hand", "how to administer intramuscular injection with one hand". (42)

Neal-Boylan argues that nursing educators worry about the abilities of nurses with impairments to acquire necessary clinical skills, people's focus on disability rather on ability, misconceptions about what a nurse with disability can do, unsubstantiated concerns about jeopardizing patient safety by a nurse with disabilities are few among many significant barriers for entry of PwD into the nursing courses (43,44,45). We believe, such inclusion attempts would not be without challenges at various levels and career trajectories of physicians and nurses with disability can be challenging without reasonable accommodation(46) . We submit that assumptions regarding nursing job roles/profile such as feeding the patient, positioning or transporting the patient, performing intravenous cannula insertion, changing the wound dressing, taking the notes while attending clinical rounds, performing vaginal delivery alone, caring for the newborn child alone, performing cardiopulmonary resuscitation (CPR) alone etc. may have shaped the current INC guidelines. A presumption that a PwD with upper limb disability would never be able to achieve such skills is challenged by few registered nurses in the United States who have only one hand. (47-49) Such arguments may be also shaped by a belief that skills learned as part of nursing training would be permanent without any need for a periodic need to improve the competencies in such skills. These perspectives often fail to consider the full range of services within the scope of nursing practice. The traditional assessment methods of whether or not a nurse has a set of minimum essential skills like the ability to stand for few hours, ability to lift a particular weight are barriers for PwD inclusion into the healthcare workforce, and deserve to be re-examined.

Telemedicine guidelines issued by the Government of India, though intended for registered medical practitioners only, hint that the model of healthcare delivery in the future would be different from the traditional in-person approach. Ignorance or an unwillingness to consider possibilities – such as nurses with walking difficulty monitoring telemetry in a cardiac unit, or a nurse with one hand performing quality checks, or a nurse with hearing impairment using Telecommunication Devices for Deaf (TDD) to perform routine tasks – will maintain barrier to the inclusion of PwDs into graduate nursing courses. Nurses with physical disabilities could effectively discharge their duty as faculty, as health educators and advisors. (50,51). The story of Helen cherry, the first person with deafness to become nurse in 1977 could become an inspiration for PwD with hearing impairment wish to pursue nursing career. (52)

**Alternative approaches that may aid the inclusion of PwD into nursing courses**

1. INC should conduct or fund or supervise research to examine inclusion of PwD in nursing professions. Qualitative research involving the PwD who became nurses in the last few decades, nursing supervisors, trainers, colleagues who had worked with nurses having a disability, a patient who received services from Nurses with a disability, will aid the development of fairer inclusion or exclusion criteria for nursing admission under PwD category.

2. An examination of practices related to inclusion of nurses with disabilities during training period and at workplace in USA, United Kingdom could aid in this regard. (53)

3. A committee with PwD onboard to address issues related to assisting PwD during their training period, guiding the universities for better inclusion, for the destigmatization of PwD entry into the nursing field, to prevent any discrimination. Specialized technology-savvy volunteer professionals with or without disabilities can assist in identifying workplace situations and solutions.

4. Sensitization of nursing trainers, administrators and supervisors about the social model of disability, and the effect of reasonable accommodation at training and workplace (improved and safe performance by nurses) could break down attitudinal barriers.

5. Guidelines to institutions to conduct periodic reviews of their programmes to provide reasonable accommodations for training, testing and practice, would adhere more closely to the intent of the RPwD Act of 2016.

7. Screening questions and voluntary disclosures at the time of licensure or registration would provide appropriate opportunities to identify issues and need for assistance. (54)

8. PwD inclusion or exclusion into graduate nursing courses should be based on a case by case approach and only after careful examination of fitness after providing reasonable accommodation.(55)

9. Maintaining a register for nurses with disabilities, inclusion of them in various INC subcommittees while preparing any minimum technical standards, for preparing methods of teaching, methods of performance assessment would be only a few among many which are necessary to maintain the spirit of the RPwD Act 2016. Consent and a respect for privacy concerns must also guide the creation of such registries.

**Conclusions**

INC's prior notification to comply with 3% reservation under the PwD Act 1995 and the current admission guidelines that "only PwD with 40-50% locomotor lower limb disability would be admitted under PwD category", assume that nursing acumen and skill have an inverse relation to the quantum of disability a PwD may have (31,56). Current INC guidelines categorically exclude several PwD who are otherwise eligible to pursue graduate medical courses when compared to the MCI guidelines.

Considering the change in the disability construct under the RPwD Act 2016 and the legal imperative to provide reasonable accommodations for persons with disability, the INC guidelines may attract criticism and legal challenges. Multiple cases filed across several courts for the inclusion of PwDs in medical schools helped push the MCI to realign its stance on PwD inclusion into medical courses.

Notifications such as issued by the INC for categorical exclusion PwD having above 50% of disability, in contrast to a more inclusive approach taken by the MCI, may raise doubts about the willingness of professional and statutory bodies' to realise PwD inclusion, as stated in the RPwD Act 2016 and India’s commitments under the UNCRPD. A more inclusive approach by INC for PwD admissions into the nursing courses is required not only to comply with the RPwD Act 2016 but to foster motivational success stories like the story of "*Leenie Quinn, Adaptive Athlete, Nurse & Rugger, Born with One Hand".* (57). Opening the doors for the inclusion of PwD by INC could lead to the creation of a higher number of qualified nursing health professionals and could reduce the shortage of requirements. Nurses with disabilities could perform a broad range of much needed public health and quality assurance activities such as health screening interviews, health education, medical notes maintenance through voice typing, nursing administration, and teaching if assisted with reasonable accommodation. INC guidelines must include a greater number of disabilities as well as a greater spectrum of disability severity in their eligibility criteria, and this will require analysis and re-imagining of the various nursing roles to suit PwDs. Advocates for the inclusion of PwD in nursing career opine that they may become better nurses, as they have a experience of situation on the other side of the bed. (58)

Further, nurses and other health professionals with disabilities know their limitations and likely to abstain from providing care to ill persons if they doubt their ability to deliver safe and necessary healthcare services. Lastly, disability may occur at any time in one’s life. When planning for PwDs occurs at the admissions stage, it will spur innovations that help nurses who become disabled over the course of their careers.

**Future Directions**

Learnings from regulations from other countries in this regard could be a starting step in this direction. The Drexel University of Philadelphia took an approach, i.e., to assess the technical standards for admission into the graduate nursing courses, academic progression and for graduation, which could broaden the understanding PwD inclusion into the nursing courses (59). Creation of accessible training resources by INC for nursing students with disabilities, and resources for the faculty to train nursing students with PwD, like resources developed by the York College of Pennsylvania could aid such inclusion (60). Reasonable accommodation should be planned for throughout the course of the nursing career. Considering the creation and assessment of technical standards for nursing students with disability, and assessment of support required for clinical needs could address many societal and environmental barriers. (61,62) of This approach will not ensure equitable treatment for all PwDs pursuing a nursing career, from new entrants to nurses living with disability right now.

Conflicts

Nil

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