Nursing Faculty Perceptions Regarding Students With Physical Disabilities

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ABSTRACT

Background: Students with physical disabilities continue to face barriers seeking entry into nursing programs even as the nursing profession advocates vigorously for the rights of these individuals.

Purpose: The purpose of this study was to identify faculty perceptions that create barriers for students with physical disabilities to meet the requirements of a BSN education.

Methods: Nursing faculty (n = 111) completed an online survey about the ability of a student who uses a wheelchair for mobility to meet required outcomes.

Results: Participants believed students could meet the 14 cognitive and affective domain outcomes (88%-100%) for generalist practice. Their agreement that students could meet psychomotor domain outcomes was lower (66%-90%). Younger faculty expressed more positive perceptions.

Conclusions: Using the psychomotor requirements of bedside nursing as the technical standard for nursing education is a barrier for students with physical disabilities. Faculty should expand their perceptions of the essentials of nursing education to create an inclusive environment.

Keywords: accommodation, Americans With Disabilities Act, disability, nursing faculty, nursing students

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Since the passage of the Americans With Disabilities Act of 1990 (ADA) and increasingly after the ADA Amendments Act of 2008 (ADAAA),1 people with physical disabilities (PDs) are gaining access to professions previously closed to them. Professional nursing is one of those fields.2 Nurses report a variety of motivating factors in choosing their careers, and one recurring theme is having past personal experiences with a nurse, either as a patient or family member.3,4 Because of countless interactions with nurses providing care, it should come as no surprise that people with PDs might aspire to become nurses.

Nursing education, however, has offered few options for these individuals to pursue nursing careers even as concepts of inclusivity and diversity are welcomed. The traditional medical-surgical clinical educational approach that focuses on bedside nursing in hospitals and care homes, combined with faculty preconceived ideas, biases, and prejudices about students with PDs, remain barriers.5-8 This resistance has persisted even as community-based nursing options expand, and nurses who become physically disabled due to disease or injury continue in professional nursing roles.9,10 An inevitable collision is occurring between the traditional clinical education design, where barriers are real for many with PDs, and a new perspective that embraces reasonable accommodations and alternative clinical care settings where these students may flourish.2

The purpose of this study was to examine the perceptions of nursing faculty about the possibility of students with PDs, specifically those who use a wheelchair for mobility, to gain the cognitive, affective, and psychomotor abilities necessary to complete a nursing education. Results help provide evidence about the academic barriers students with PDs face while pursuing, or attempting to pursue, a professional nursing education.

Background and Literature Review

The design, implementation, and evaluation of a nursing curriculum are influenced by multiple factors, both internal and external to a nursing program. This includes didactic, laboratory, and clinical practice experiences. Nursing faculty design programs to meet the needs of stakeholders or communities of interest, including health care organizations and systems, health care consumers, current and future...
students, and the program’s own educational institution. Further, program design needs to align with state laws and regulatory bodies, prepare students for the NCLEX-RN, and meet accreditation standards.\textsuperscript{11-14}

Acquiring and maintaining accreditation are essential for nursing programs to document that they meet the expected standards and fulfill their obligations. Three predominant accrediting bodies in the United States are the Accreditation Commission for Education in Nursing, National League for Nursing (NLN) Commission for Nursing Education Accreditation, and Commission on Collegiate Nursing Education (CCNE). Each has its own process for documenting programmatic success, including standards and outcomes that describe the essential cognitive, affective, and psychomotor abilities that students should demonstrate at graduation.\textsuperscript{12-14}

Nursing curriculum is evolving along with changes in the health care delivery system, including increasing the use of simulation and community-based placements. However, adult medical-surgical clinical experiences remain focused on direct bedside nursing care even as more nursing care is delivered in the community.\textsuperscript{5-8} The reliance on inpatient settings is partially due to the complicated process of clinical preparation and clinical placement constraints.\textsuperscript{15} Inpatient and long-term care units often accept an instructor and cohort of 6 or more students and expect students to be able to perform the psychomotor functions needed for the setting.\textsuperscript{16,17} Community sites may not be able to accommodate larger cohorts, and smaller instructor-student ratios can be prohibitively expensive for nursing programs. Additionally, outpatient settings may already be in use for community or mental health clinical educational experiences. The predominance of inpatient placement of students can also be attributed to views held by nurse educators and decision-makers whose own experiences may be heavily based on acute care as the foundation of nursing practice.\textsuperscript{5-8,10,16-19} Unconscious bias or direct discrimination against nursing students with PDs by faculty and administrators in nursing programs and nurses and administrators at clinical sites has also been documented.\textsuperscript{19,20}

Separate from cognitive or affective abilities, direct bedside nursing in the acute and long-term care settings requires certain psychomotor abilities. This can include standing and walking for up to 12 hours, mobility to provide full care of patients in hospital beds (bending, reaching, and lifting), and participating fully during patient emergencies including performing cardiopulmonary resuscitation. The ADA AA and other federal regulations direct employers to clearly describe the essential functions for each job classification in their organizations.\textsuperscript{1,2} The intention of advocates was to create a criterion-based approach for job descriptions, preventing blanket discrimination against individuals with disabilities. Unfortunately, one result that evolved in nursing education was to codify the essential functions of a direct bedside nurse into the required technical standards of the generalist nursing student. Once written, nursing programs were more able to use these requirements to exclude students with PDs.\textsuperscript{2,16}

Ample literature exists investigating the desires and needs of students with PDs, as well as exploring faculty beliefs about admitting PDs students into nursing programs.\textsuperscript{2,10,16-20} However, few data are available that quantify faculty concerns about students with PDs meeting the required cognitive, affective, and psychomotor outcomes at graduation.

**Methods**

An exploratory, descriptive study was conducted to measure faculty perceptions regarding the ability of students with a PD, specifically those who use a wheelchair for mobility, to complete a BSN program. The American Association of Colleges of Nursing’s Essentials of Baccalaureate Education for Professional Nursing Practice (BSN Essentials), which is used for CCNE accreditation, was chosen as the template for the development of the survey tool. The 9 BSN Essentials provide the “curricular elements and framework” for educating BSN students to provide safe, high-quality care as nurse generalists.\textsuperscript{21} Essential IX: Baccalaureate Generalist Nursing Practice identifies 22 outcomes that should be achieved by graduation and “includes practice focused outcomes that integrate the knowledge, skills, and attitudes delineated in Essentials I–VIII.”\textsuperscript{21}

As the 22 outcomes of Essential IX represent the competencies of the BSN graduate, they were selected to create the online survey tool. Most of the outcomes are multifaceted and contain one or more verbs to describe student achievement (Supplemental Digital Content, Table 1, http://links.lww.com/NE/A847). Recognizing the 3 learning domains, the authors first individually categorized the 22 outcomes as aligned more with the cognitive and affective domains (14) or the psychomotor domain (8). If an outcome generated disagreement in categorization between the authors, it was discussed until consensus was reached.

Participants were asked whether they believed a student who uses a wheelchair for mobility could successfully meet each outcome. During development, the tool included different types of PDs, but the final version was limited to wheelchair use. The goal was to create a clearer perception for participants about the potential challenges for these students. Anticipating the confound of social desirability in making judgments about students with PDs, a 6-point scale of agreement-disagreement (strongly agree, agree, somewhat agree, somewhat disagree, disagree, strongly disagree) without a neutral option was purposefully chosen. To quantify faculty perceptions, responses were subsequently categorized as either in agreement or disagreement, regardless of the degree of concern. Basic demographic data were also collected from participants. Prior to use in this study, face validity and content validity were established by faculty experienced in curriculum design and evaluation.

After institutional review board (IRB) approval was obtained, the survey link was first emailed using publicly available university email addresses to faculty at 2 large, private schools of nursing in New York. Both have BSN and graduate programs. To increase the sample size, additional IRB
approval was received to email the survey via the National Students Nurses’ Association’s (NSNA’s) Listserv for faculty advisors. This population included faculty from associate degree nursing and BSN programs. During recruitment, faculty were not excluded based on their program type, primary teaching role, or administrative position. Nursing faculty influence education, practice, and regulation from a variety of settings and roles. By providing a clear description of the BSN Essentials and Essential IX outcomes in the tool, all interested nurse educators could contribute their perceptions.

Participants
One hundred eleven faculty completed all demographic information and the 22 questions in the survey (Supplemental Digital Content, Table 2, http://links.lww.com/NE/A848). Thirty-one responses were received from the first 2 universities’ faculty in New York and 80 from the NSNA faculty throughout the United States. Three incomplete surveys were omitted. The sample was predominantly female (92%) and Caucasian/White (82.9%), resembling NLN nurse educator data.22 Educationally, 59.5% were doctorally prepared, and 69.4% taught primarily in the classroom. Although all age categories were represented, 53 participants (47.8%) and 69.4% taught primarily in the classroom. Although all age categories were represented, 53 participants (47.8%) were 54 years or younger, and 58 participants (52.2%) were 55 years or older. National data reveal the average age for doctoral and master’s degree–prepared faculty is 55.5 years.23

Results
Responses captured faculty perceptions about the ability of a student in a wheelchair to meet the 22 outcomes of BSN Essential IX Generalist Practice. The 6-point measurement scale (strongly agree, agree, somewhat agree, somewhat disagree, disagree, strongly disagree) was condensed to identify general agreement or disagreement for data analysis. Each of the 111 participants answered the 22 outcome survey questions, generating a total of 2442 responses. Overall, 91.6% of these responses were in agreement (2236/2442 total responses). A slight majority of participants (52.3%, 58/111) believed these students could meet all 22 outcomes, regardless of physical mobility limitations.

The outcomes and responses were separated by cognitive and affective learning domains (Table 1) and the psychomotor domain (Table 2). Agreement of participants about achievement of the 14 cognitive and affective domain outcomes was 96.7% (1505/1554 responses). These outcomes use verbiage such as applying genetics and genomics, effective communication, awareness of spiritual beliefs, patient teaching, revising plans of care, demonstrating clinical judgment, understanding complementary care, and practicing evidence-based care. For 12 of these outcomes, between 93% and 100% of faculty believed a student using a wheelchair could meet them (Table 1). Two outcomes identified by researchers in the cognitive and affective domains that described implementing holistic, patient-centered care, and delivering compassionate, patient-centered, evidence-based care generated lower levels of agreement, with 88% of all faculty believing they could be met. Participant agreement that a student in a wheelchair could meet the 8 psychomotor domain outcomes was lower at 82.3% (731/888 responses) (Table 2). Psychomotor outcomes use wording such as managing a beginning practitioner’s workload, emergency and disaster response, creating a safe care environment, managing multiple functional client problems, managing acute and chronic care, performance of comprehensive physical exams, and implementing nursing interventions. The outcome that included the term psychomotor skills generated the lowest level of agreement at 67%.

Separating the participants in 2 groups by age, 54 years or younger (n = 53) and 55 years or older (n = 58), the younger group expressed greater agreement that a student who uses a wheelchair could meet the outcomes. Of the 157 negative psychomotor domain outcome responses (Table 2), 62 were from the younger faculty (39.5% or 1.17 per participant), and 95 responses were from the older faculty (60.5% or 1.64 per participant). A 2-sample t test between proportions revealed the difference between the younger and older groups to be significant \( t_{109} = 2.210, P = .029 \). Regarding the one outcome using the term psychomotor skills, 73.6% (39/53) of younger faculty believed a student in a wheelchair could achieve it, compared with 60.3% (35/58) of those in the older group.

Discussion
The term physical disability describes a spectrum of mild to severe potential limitations. While the use of a wheelchair for mobility represents only a certain portion of people with PDs, it was purposefully chosen in this study. Participants would draw on their knowledge and beliefs about the everyday challenges for wheelchair users and apply this to the nursing educational setting. The data reveal that the participants had positive perceptions of the abilities of these students, with 91.6% agreement responses overall. Even considering any physical limitations nursing students might encounter while using a wheelchair, 52.3% of the participants expressed that all 22 outcomes could be met. While these might be considered positive indicators, in practice, many obstacles that are based in faculty perceptions are well documented.2,4-6,8,10,16-20

Almost all faculty (97.6%) perceived students who use a wheelchair for mobility would be able to meet outcomes that aligned more with the cognitive and affective domains. Although there were some outcomes that did not fit fully into one domain, this result helps demonstrate that participants were considering each outcome independently. Participants were able to identify that the physical mobility limitations of wheelchair use do not impact students’ ability to learn content, reflect on personal beliefs, and develop professionally during their nursing education.

As reflected in the literature, the lower agreement about the outcomes in the psychomotor domain (82.3%) was not unexpected. Considering the current delivery methods of clinical nursing education, it would be challenging, if not impossible, for a student in a wheelchair to achieve these outcomes. An examination by nursing stakeholders must
determine the lowest common denominator of clinical experiences and psychomotor skills that are required to enter the nursing profession. The belief that all BSN students must be prepared for all nurse generalist roles, described as the undifferentiated graduate, is being challenged in other professional health care programs. It is also difficult to sustain this argument considering the impact of the COVID-19 (coronavirus disease 2019) pandemic on nursing education when the use of online or remote simulation and laboratory instruction was used to meet clinical education outcomes. Younger participants (<55 years) expressed more agreement that students in a wheelchair could meet the psychomotor outcomes compared with older respondents. This might reflect a different generational worldview. Data gathered by the Pew Research Center reveal Americans have become progressively more accepting of social changes over time, including the belief that diversity is beneficial for society. Future changes in nursing education to accommodate students with PDs might be anticipated because experts and decision-makers in most professions, nursing included, are often older adults.

Multiple limitations were identified in this exploratory study. The sample size was small, and although there were some similarities regarding Caucasian race and gender of participants, there is no assumption that it is representative of all nurse educators. Eighty of the 111 participants were NSNA advisors, who may approach student advocacy differently. The 2008 BSN Essential IX was easily formatted

| Table 1. BSN Essential IX Nurse Generalist Cognitive and Affective Outcomesa (n = 111) |
|------------------------------------------|--------|--------|
| Recognize the relationship of genetics to health, screening, diagnosis, and treatment (outcome 2) | 111    | 0      |
| Communicate effectively with the health care team, patient/support network (outcome 4) | 111    | 0      |
| Develop awareness of patient and peer spiritual beliefs and values (outcome 18) | 111    | 0      |
| Demonstrate tolerance for ambiguity and unpredictability in the health care system (outcome 22) | 111    | 0      |
| Provide appropriate and individualized patient teaching (outcome 7) | 110    | 1      |
| Facilitate safe, patient-centered transitions of care (outcome 10) | 110    | 1      |
| Demonstrate clinical judgment and accountability when delegating/ supervising (outcome 14) | 110    | 1      |
| Revise the plan of care based on an ongoing evaluation of patient outcomes (outcome 13) | 109    | 2      |
| Develop a beginning understanding of complementary and alternative care (outcome 17) | 109    | 2      |
| Monitor client outcomes to evaluate the effectiveness of interventions (outcome 9) | 107    | 4      |
| Engage in caring and healing techniques that promote therapeutic relationships (outcome 21) | 106    | 5      |
| Implement patient and family care around end-of-life and palliative care issues (outcome 6) | 104    | 7      |
| Implement holistic, patient-centered care (outcome 3) | 98     | 13     |
| Deliver compassionate, patient-centered, evidence-based care (outcome 5) | 98     | 13     |
| Totals | 1505   | 49     |

Abbreviations: A, strongly agree to somewhat agree; D, strongly disagree to somewhat disagree.

*BSN Essential IX Outcomes edited for space and ordered by participant agreement. Full outcomes are shown in Supplemental Digital Content, Table 2, http://links.lww.com/NE/A848.

| Table 2. BSN Essential IX Nurse Generalist Psychomotor Outcomesa (n = 111) |
|------------------------------------------|--------|--------|
| Understand role and participation in emergency preparedness and disaster response (outcome 20) | 100    | 11     |
| Conduct comprehensive and focused patient assessments (outcome 1) | 99     | 12     |
| Manage the interaction of multiple functional problems in the geriatric population (outcome 19) | 97     | 14     |
| Create a safe care environment that results in high-quality patient outcomes (outcome 12) | 94     | 17     |
| Manage care for individuals that approximates a beginning practitioner’s workload (outcome 15) | 94     | 17     |
| Provide nursing care that contributes to safe and high-quality patient outcomes (outcome 11) | 89     | 22     |
| Implement evidence-based interventions for managing acute and chronic care (outcome 8) | 84     | 27     |
| Demonstrate the application of psychomotor skills for efficient, safe care (outcome 16) | 74     | 37     |
| Totals | 731    | 157    |

Abbreviations: A, strongly agree to somewhat agree; D, strongly disagree to somewhat disagree.

*BSN Essential IX Outcomes edited for space and ordered by participant agreement. Full outcomes in Supplemental Digital Content, Table 2, http://links.lww.com/NE/A848.
into a tool for identifying the cognitive, affective, and psychomotor abilities needed for generalist nursing practice, but only face validity and content validity were established. While some outcomes were easily categorized by the authors into 1 learning domain, during data analysis the multifaceted language of others revealed tool design weaknesses. This was evident when outcomes 3 and 5, which were categorized in the cognitive/affective domains (Table 1), had more negative responses than outcomes 1 and 20 in the psychomotor domain (Table 2). The outcome verbs referring to the implementation and delivery of care potentially drew participant attention away from the cognitive and affective parts of the outcomes.

Implications and Conclusions

While there are many stakeholders in health care, nursing professionals have oversight for the education and practice of nurses at national and state levels. From teaching fundamental nursing skills to novice students to advising state legislatures regarding changes to Nurse Practice Acts, it is under nursing’s purview. As people with PDs assert their legal rights and expand their career goals, the nursing profession must continue to evaluate positions on inclusivity and diversity. Researchers and long-time disability advocates for nursing students provide data and persuasive arguments about the inclusion of students with PDs and how programs might adapt to educate them. However, change has been slow and inconsistent.  

The results from this study quantify the perceptions of the participants about the ability of a student who uses a wheelchair to meet the outcomes of a BSN education, using a simple tool created from the BSN Essentials. Very supportive views regarding achievement of cognitive or affective outcomes contrasted with more negative responses regarding psychomotor outcomes, although younger faculty were more likely to believe that students could achieve these outcomes. Nurses can possess deeply ingrained beliefs about their own professional identities and the essence of being a nurse. By understanding faculty perceptions about students with PDs, directed educational efforts not only can be created to address areas of concern but also promote reflection about their beliefs. This starts with understanding that it is the responsibility of employers to determine the essential functions of their nurses; technical standards embedded in nursing education should not act as a barrier for students with PDs to choose a nursing career.

References


