

Article journey

Submitted

15/7/2023

Revised

2/1/2024

Accepted

11/1/2024

Online first

11/1/2024



ORIGINAL RESEARCH


Unveiling nurses' expertise in disability care: A cross-sectional quantitative analysis

Aisyah Iffah Ulayya , Sri Mulyani, Uki Noviana

Author information

Department of Nursing, Universitas Gadjah Mada, Indonesia

 aisyah.i.u@mail.ugm.ac.id

 <https://doi.org/10.31603/nursing.v11i2.8919>

Abstract

Nurses often face challenges in addressing the needs and issues related to persons with disabilities (PwDs) due to gaps in their knowledge. This study aims to assess the level of knowledge among hospital nurses regarding PwDs and to identify variations in knowledge based on demographic characteristics. Employing a quantitative cross-sectional design, the research involved 386 nurses from RSUP dr. Sardjito, all with a minimum of a D3 education and over one year of experience. Data were collected from January to February 2021 using a Self-Administered Questionnaire focused on Knowledge of Health Care Professionals about PwDs. The analysis, conducted with Mann-Whitney and Kruskal-Wallis tests, revealed a median knowledge score of 19.00 (range: 5.00-23.00), with scores varying from 0 to 23. Notably, nurses' knowledge was significantly associated with their experience in caring for PwDs ($p = 0.006$). However, no significant differences were found in relation to age, gender, education level, contact with PwDs, or prior disability training. Findings indicate that many nurses are unaware of critical issues such as the risk of discrimination faced by disabled individuals, the capabilities of people with intellectual disabilities to manage personal affairs, and the benefits of an interdisciplinary approach to managing children with disabilities. Overall, while nurses' knowledge of PwDs is generally good, there is a clear need for targeted programs to enhance their knowledge and experience in disability care. Implementing such programs could bridge the existing gaps and improve the quality of care provided to PwDs.

Keywords: Disability care; nursing process; clinical experiences; community nursing; supporting programs

Introduction

Issues concerning persons with disabilities (PwDs) are receiving global attention (Groce, 2018). PwDs represent the world's largest minority group (International Labour Organization, 2013). Approximately 15% of the global population, over 1 billion people, live with a disability (World Health Organization, 2018), with their numbers increasing in recent years (Kraus et al., 2018). In 2018, PwDs in Indonesia made up 3.3% of children aged 5–17, 22% of adults aged 18–59, and 1.6% of the elderly population (Badan Penelitian dan Pengembangan Kesehatan, 2018). Yogyakarta ranks third for the highest percentage of PwDs among adults aged 18–59 (33.2%) (Badan Penelitian dan Pengembangan Kesehatan, 2018). According to a preliminary study conducted on March 6, 2020, at Dr. Sardjito Hospital, 2.117 outpatients in 2019 were PwDs. In healthcare, the percentage of patients with disabilities or at risk of disabilities is notably high (Reynolds & Wieseller, 2019). PwDs are vulnerable to discrimination (Banks et al., 2018) and often encounter barriers to accessing quality health services (Centers for Disease Control and Prevention, 2019b). Many PwDs frequently seek health care due to complex health conditions (Mutwali & Ross, 2019). However, health systems tend to focus on diseases and standard procedures rather than tailoring services to the needs of PwDs (Clancy & Andresen, 2002). A significant barrier between healthcare providers and PwDs is the lack of knowledge about disability (Lam et al., 2010). Research indicates that health professionals often lack the understanding needed to meet PwDs' specific needs (Rosignano, 2013). Within healthcare, disability is frequently viewed as a purely medical issue (Haegele & Hodge, 2016; Scullion, 2010; Sharby et al., 2015), and this medical model can contribute to discriminatory attitudes and practices, particularly in nursing (Scullion, 2010).

Insufficient knowledge among healthcare providers about PwDs can have various adverse effects. Understanding disabilities impacts providers' attitudes (Devkota et al., 2017), behaviors (Olaoye et al., 2017), and the quality and effectiveness of health services (Dorji & Solomon, 2009; Centers for Disease Control and Prevention, 2019a). Lack of knowledge about disability-specific needs can lead to health disparities and secondary conditions for PwDs (Centers for Disease Control and Prevention, 2019a). Enhancing awareness and understanding of PwDs' experiences in healthcare is

essential to optimize service quality (McClintock et al., 2018). Nurses, the largest segment of healthcare professionals (Lewis & Stenfert-Kroese, 2010), play a vital role in enhancing healthcare quality at hospitals and health centers (Kementerian Kesehatan Republik Indonesia, 2011). Nurses significantly influence patient experiences due to their frequent, prolonged interactions with patients (Kieft et al., 2014). For this reason, nurses must possess adequate knowledge and skills to address PwDs' unique needs and challenges (Brown & Kalaitzidis, 2013). It is therefore crucial to understand the level of knowledge that nurses have about PwDs. Research consistently highlights gaps in nurses' knowledge regarding PwDs. A correlational study by Au & Man (2006) found that nurses at rehabilitation centers in Hong Kong reported lower knowledge of PwDs than occupational therapists, physiotherapists, and social workers, often resulting in negative attitudes toward PwDs. A cross-sectional study by Dorji & Solomon (2009) revealed that doctors and nurses in Bhutan hospitals hold misconceptions and pessimistic views about PwDs. A study in Greece showed that nurses in public hospitals and health centers lack knowledge and education regarding hearing disabilities, with 24.4% unaware that people with hearing disabilities can have normal IQs and 11.7% unaware that sign language is a primary communication method (Velonaki et al., 2015). In Pakistani hospitals, many healthcare workers (including nurses) were unfamiliar with the WHO's disability definition, the Convention on the Rights of Persons with Disabilities (CRPD), and available resources (Iftikhar et al., 2019). Spassiani et al. (2020) found that Canadian emergency room nurses feel limited in their knowledge about general care and community resources for patients with intellectual disabilities.

PwDs themselves report inadequate disability-related knowledge among nurses. For example, most women with visual disabilities in Nepal noted a lack of basic knowledge and skills among healthcare providers, including nurses unfamiliar with guiding visually disabled patients (Devkota et al., 2017). A qualitative study by Smeltzer et al. (2012) in a U.S. hospital revealed similar concerns; patients with disabilities observed that nurses often lack specific knowledge about disabilities, demonstrate little willingness to learn, overlook PwDs' unique needs, and sometimes ignore their disability-related limitations. In light of these issues, it is critical to assess nurses' knowledge of PwDs, as there has been little research on this topic in Indonesian hospitals. Assessing nurses' knowledge of persons with disabilities (PwDs) is crucial because nurses are the primary caregivers in healthcare settings and significantly influence patient outcomes and experiences. In Indonesia, where there has been limited research on this topic, understanding nurses' knowledge gaps can help identify barriers to effective care for PwDs. This assessment is essential for developing targeted educational programs that enhance nurses' competencies, ultimately fostering a more inclusive healthcare environment and improving the quality of care for a vulnerable population that often faces discrimination and inadequate support. By equipping nurses with the necessary knowledge and skills, we can ensure that PwDs receive appropriate, respectful, and effective healthcare tailored to their unique needs. Using 'disability' in a general sense may provide a foundational basis for further research focused on specific disabilities and more diverse research samples. This study aims to assess the level of knowledge among hospital nurses regarding PwDs and to identify variations in knowledge based on demographic characteristics.

Method

The study used quantitative study with a cross-sectional design aims to describe nurses' knowledge of PwDs in hospitals. The choice of a descriptive correlational method to describe nurses' knowledge of PwDs is grounded in the need to systematically assess and quantify the current level of understanding among nursing professionals. This method allows researchers to collect data that not only captures the existing knowledge but also examines the relationships between various demographic factors and knowledge levels (Shao, Shirvan, & Alamer, 2022). Employing a descriptive correlational approach can identify patterns and trends within the data, such as how education level, years of experience, or specific training may influence nurses' knowledge about PwDs. This insight is crucial for developing targeted educational interventions and improving healthcare practices, ultimately enhancing the quality of care provided to individuals with disabilities. Additionally, this approach facilitates a comprehensive overview of the knowledge landscape, helping to pinpoint areas that require further training and resources.

The research was approved by the Medical and Health Research Ethics Committee of FK-KMK UGM on December 1, 2020, with the number KE/FK/0352/2020, and by RSUP Dr. Sardjito on December 28, 2020, with the number LB 02.01/XI/2.2/41823/2020. The research was conducted from January to February 2021, involving 386 nurses. The sampling technique used was sequential sampling. The inclusion criteria for respondents were active nurses at RSUP Dr. Sardjito who had worked for more than one year, were permanent employees, and held a minimum D3 education. The exclusion criteria included internship nurses. Respondents filled out the questionnaire via a Google Form link sent by the researcher through WhatsApp. Researchers conducted follow-ups every two days over the course of one month through the Nursing Functional Committee. To encourage participation, credit prizes were offered to 100 respondents at random. Data were

analyzed using SPSS for univariate analysis, including mean, standard deviation, median, minimum-maximum value, frequency, and percentage. Bivariate analysis was performed using the Mann-Whitney Test and the Kruskal-Wallis Test.

The study utilized demographic data and the Self-Administered Questionnaire on Knowledge (SAQ-K) to measure nurses' knowledge about PwDs. The SAQ-K questionnaire was developed by Kamila Iftikhar, Ahmad Alamgir, Shazia Maqbool, Waqar Rehan, and Shajeel Akhtar in 2019 (Iftikhar et al., 2019). The adaptation process of the questionnaire followed the Brislin method, which included translation by experts in nursing and one expert in language, initial translation synthesis by the researcher and one expert in nursing, back translation by experts in nursing and one expert in language, and consultation on the content of the questionnaire with experts in the field of disability. All experts involved in the adaptation process held master's degrees in their respective fields. Additionally, a content validity test using the Content Validity Index (CVI) was conducted by two experts in nursing and one expert in disability. The results indicated an Item-Content Validity Index (I-CVI) value of 0.667 and a Scale-Content Validity Index (S-CVI) value of 0.917. Seven SAQ-K items had an I-CVI value of 0.667, specifically items numbered 1, 2, 3, 4, 6, 25, and 28. Item 1 was rejected due to irrelevance to cultural conditions in Indonesia. Items 2 and 4 were excluded as they did not accurately reflect knowledge. Item 3 was dropped due to high cultural bias. Items 6 and 28 were significantly modified but retained because there is limited research on knowledge about disability. These items were revised to remove ambiguity. Item 25 was excluded for not fitting the context of the research sample. Items 5, 7, 8, 10, 11, and 27 were slightly modified. Item 5 was adjusted for context and purpose, while in item 7, the term 'differentiated' was changed to 'specialized' to better reflect the conditions for PwDs. Item 8 was revised for clarity, and items 10 and 11 were adjusted based on expert feedback. Further consultations were held with experts in nursing regarding the revisions.

Researchers conducted validity and reliability tests on 30 students who had completed the Nursing Profession Program. Feedback from the validity test led to improvements on several items. Item 8 was revised for clarity, item 16 was adjusted to reduce confusion between 'no' and 'do not know,' and item 28 was modified to detail the 'mortality and morbidity' section according to the study objectives. The reliability test yielded a KR-20 value of 0.435, indicating acceptable reliability (Dhamayanti et al., 2018). The SAQ-K was retained as it is the only instrument measuring knowledge about PwDs and is suitable for the research objectives. Additionally, researchers conducted a retest to monitor and evaluate the items.

Results

Most nurses participating in the study were female (79.00%), with an average age of 39.56 years. The majority held a D3 education (62.20%). Notably, a significant portion of the nurses reported limited exposure to persons with disabilities (PwDs); specifically, 70.20% had never been in contact with PwDs, while 29.80% had never provided care for them. Furthermore, only 1.60% of the nurses had attended any education or training related to disabilities (**Table 1**). This lack of experience and training underscores potential gaps in knowledge that may affect the quality of care provided to individuals with disabilities. Knowledge score data were collected voluntarily from 386 nurses in the hospital, revealing crucial insights into their understanding of disability-related issues. The knowledge score data were found to be not normally distributed, as determined by the Kolmogorov-Smirnov normality test (p -value < 0.05) (**Table 2**). Consequently, bivariate analysis was conducted using non-parametric statistical tests to accommodate the distribution characteristics of the data. The demographic characteristics, such as age and education level, were analyzed using the Kruskal-Wallis test, while factors including gender, contact with PwDs, experience in caring for PwDs, and attendance at disability-related education or training were assessed using the Mann-Whitney test. These analyses aimed to identify any significant relationships between demographic variables and knowledge scores, providing a clearer understanding of how these factors may influence nurses' knowledge about PwDs. The results of these tests highlighted the importance of targeted educational interventions to enhance nurses' competencies in caring for individuals with disabilities (**Table 3**).

Discussion

Most respondents reported having limited interaction with or care for persons with disabilities (PwDs), primarily because not all disabilities are visibly apparent (Prince, 2015). Additionally, only a small number of nurses attended education or training on disability, as such topics are often implicitly included in the nursing education curriculum. This lack of focused training may contribute to the perception that PwDs do not constitute a distinct and vulnerable group with specific healthcare needs (Appelgren et al., 2018; Prince, 2015). Interestingly, this research found a higher median knowledge score compared to previous studies (Iftikhar et al., 2019). However, several questionnaire items yielded correct answer rates below 50%, particularly items 2, 13, 14, and 21. For instance, many nurses were unaware that disability conditions could lead to discrimination (item 2), which may stem from a lack of awareness regarding the factors contributing to such

discrimination. Negative attitudes and unprofessional treatment from healthcare workers can exacerbate this issue (Ali et al., 2013). Furthermore, the closed-question format of the questionnaire may have led respondents to misinterpret item 2 as a correct attitude statement. Moreover, many nurses lacked knowledge regarding how intellectual disabilities can impact individuals' abilities and needs in managing daily life and finances (items 13 and 14). While some individuals with mild intellectual disabilities can manage their lives, they still require support in financial management (The Centre for Development Disability Health (CDDH) Victoria, 2014). Nurses can play a crucial role in providing resources for advanced care planning and financial management for individuals with intellectual disabilities (The American Nurses Association (ANA) Center for Ethics and Human Rights, 2019). Additionally, most nurses were unaware of the interdisciplinary approach necessary for managing children with disabilities (item 21). Effective rehabilitation requires collaboration among various healthcare professionals, including nurses, to focus on the abilities of children with disabilities rather than their limitations (Keys & Lewis, 2019).

Table 1. Participants' characteristics.

Variables	n	%
Age		
Late adolescence (17-25 years)	10	2.60
Early adulthood (26-35 years)	148	38.30
Late adulthood (36-45 years)	120	31.10
Early elderly (46-55 years)	95	24.60
Late elderly (56-65 years)	13	3.40
Gender		
Man	81	21.00
Woman	305	79.00
Level of education		
Diploma 3	240	62.20
Diploma 4	12	3.10
Bachelor	128	33.20
Master	6	1.60
Contact with Persons with Disabilities		
Yes	115	29.80
No	271	70.20
Experience Caring for Persons with Disabilities		
Yes	114	29.50
No	272	70.50
Education/Training on Disability		
Yes	6	1.60
No	380	98.40

Regarding demographic variables, age did not significantly influence nurses' knowledge scores, consistent with previous studies (Iftikhar et al., 2019; Velonaki et al., 2015). However, contrasting findings were noted in a study involving health students in Nigeria (Olaoye et al., 2017), where older students demonstrated increased exposure to disability issues. Similarly, gender did not significantly affect knowledge scores, aligning with earlier research that suggests both men and women possess comparable learning abilities (Marwati et al., 2016). The education level variable also showed no significant impact on knowledge scores, as all respondents held either diploma or bachelor's degrees, with no notable differences in the curriculum related to disability. This contrasts with previous research that indicated higher exposure to disability issues among students as their education level increased (Olaoye et al., 2017; Simkhada et al., 2013). Furthermore, the variable of contact with PwDs did not yield significant differences in knowledge scores, diverging from earlier studies that suggested a correlation between contact and knowledge (Olaoye et al., 2017; Uysal et al., 2014). In this study, contact was defined broadly to include social interactions and clinical experiences, which may not have adequately captured the nuances of clinical exposure. Conversely, experience in caring for PwDs significantly influenced knowledge scores, with 28.75% of respondents reporting clinical experience. The nature and frequency of this experience can greatly impact knowledge acquisition (Uysal et al., 2014).

Table 2. Nurses' knowledge score.

Number	Item	n (%)
5	Proper communication etiquette is to maintain eye contact with the patient.	382 (99.00)
18	Appropriate ramps in clinics/hospitals are essential for transporting patients with disabilities.	380 (98.40)
8	To make things easier for persons with disabilities, it is important to provide accommodations for persons with disabilities in the workplace during the working period.	377 (97.70)
7	Adequate knowledge of chronic conditions and chronic disease screening will lead to better clinical outcomes.	376 (97.40)
17	In your opinion, should children with intellectual disabilities be involved in activities at home?	372 (96.40)
9	Do you think that appropriate training can improve the condition of a child with an intellectual disability?	370 (95.90)
15	Do you think a child with an intellectual disability can learn new skills with gradual training?	369 (95.60)
6	Specific training for communication and transfer of patients with disabilities will lead to better clinical outcomes.	368 (95.30)
3	Persons with disabilities should be devoted to the rights of persons with disabilities.	367 (95.10)
10	Do you think a child with an intellectual disability would benefit from attending school?	367 (95.10)
23	Delayed access to professional health services and diagnosis can lead to increased morbidity and mortality in persons with disabilities.	360 (93.30)
22	Persons with disabilities should be informed about their health conditions and health procedures related to these conditions.	359 (93.00)
16	In your opinion, can a child with an intellectual disability be trained to speak?	352 (91.20)
19	Health workers should be properly trained to transfer patients with disabilities.	348 (90,20)
20	Emergency service transportation should be used by patients with disabilities.	348 (90,20)
4	Is it best to communicate using the language first introduced to the patient?	336 (87.00)
11	Should parents allow children with intellectual disabilities to play with non-disabled peers?	332 (86.00)
1	Are there differences in health care needs between mental and physical disabilities or between other types of disability?	328 (85.00)
12	Are limitations on activity and participation part of the World Health Organization (WHO) definition of persons with disabilities?	258 (66.80)
13	Can a person with an intellectual disability manage his own life?	173 (44.80)
21	Are you aware of an interdisciplinary approach to managing children with disabilities?	142 (36.80)
14	Do you think a person with an intellectual disability can take care of their property?	103 (26.70)
2	Does the disability condition make someone discriminated against?	91 (23.60)

Note: n = correct answer.

Notably, three nurses had personal experience caring for family members with disabilities, which can profoundly shape their understanding and approach to care (National Home Sharing and Short Breaks Network (NHSN), 2016). Lastly, the education/training variable regarding disability did not significantly affect nurses' knowledge scores, differing from findings in prior studies (Kirshblum et al., 2020; Velonaki et al., 2015). Only 1.6% of respondents reported attending any disability-related training, which may not sufficiently reflect variations in knowledge scores. Previous experimental

research demonstrated that comprehensive exposure to treatment programs for PwDs significantly enhances knowledge levels (Kirshblum et al., 2020). Limitations in this study included the absence of a pilot test during the cross-cultural adaptation of the questionnaire and a lack of construct validity testing. Consequently, the findings may not accurately represent nurses' actual knowledge levels, as some questionnaire items were ambiguous.

Table 3. Bivariate Analysis of Knowledge Scores.

Variables	Median (Min-Max)	p
Age		0.972 ^a
Late adolescence (17-25 years)	19.00 (16-22)	
Early adulthood (26-35 years)	19.00 (9-23)	
Late adulthood (36-45 years)	19.00 (11-23)	
Early elderly (46-55 years)	20.00 (5-22)	
Late elderly (56-65 years)	20.00 (16-22)	
Gender		0.437 ^b
Man	19.00 (5-23)	
Woman	19.00 (9-23)	
Level of education		0.437 ^a
Diploma 3	19.00 (5-23)	
Diploma 4	19.00 (15-21)	
Bachelor	20.00 (11-23)	
Master	20.00 (18-22)	
Contact with Persons with Disabilities		0.223 ^b
Yes	19.00 (16-23)	
No	19.00 (5-23)	
Experience Caring for Persons with Disabilities		0.006 ^{b*}
Yes	20.00 (15-23)	
No	19.00 (5-23)	
Education/Training on Disability		0.520 ^b
Yes	19.50 (17-22)	
No	19.00 (5-23)	

Note: a = Kruskal-Wallis test; b = Mann-Whitney test. * = significant at $p < 0.05$.

Conclusion

Nurses' knowledge of PwDs is generally considered good, reflecting a foundational understanding of the unique healthcare needs and challenges faced by this population. However, the data reveal a significant difference in knowledge scores based on the experience of caring for PwDs. This finding underscores the importance of hands-on experience in enhancing nurses' understanding and competence in providing care to individuals with disabilities. Given that the majority of respondents reported limited direct experience with PwDs, it becomes imperative to implement targeted programs aimed at increasing both knowledge and practical experience in this area. Such programs could include workshops, simulation training, and clinical placements specifically focused on disability care. To further enhance the assessment of nurses' knowledge about PwDs, researchers can develop the SAQ-K (Survey of Attitudes and Knowledge about Disabilities) instrument for future studies. This development process should involve a thorough examination of the items within the questionnaire, particularly identifying those that may require reversal in scoring to ensure accurate measurement.

Author's declaration

All authors contributed significantly to the conception and design of the study, ensuring a comprehensive approach to the research objectives. AIU played a pivotal role in data collection, meticulously gathering the necessary information to support the study's aims. Meanwhile, SM and UN were instrumental in preparing for data collection and provided critical supervision over all processes involved, ensuring that the research adhered to ethical standards and methodological rigor.

Funding

The Faculty of Medicine, Public Health, and Nursing at Universitas Gadjah Mada provided funding for this research through a research grant scheme aimed at supporting lecturers and undergraduate students in 2020.

Availability of data and materials

All data are available from the authors.

Competing interests

The authors declare no competing interest.

Acknowledgments

We extend our gratitude to the nurses, all heads of the Nursing Functional Commission, the Nursing Committee, and the Director of the Education and Research Division at RSUP Dr. Sardjito. We also thank the Faculty of Medicine, Public Health, and Nursing at Universitas Gadjah Mada for funding this research.

References

- Adler, P., Cregg, M., Duignan, A., Ilett, G., & Woodhouse, J. M. (2005). Effect of training on attitudes and expertise of optometrists towards people with intellectual disabilities. *Ophthalmic and Physiological Optics*, 25(2), 105–118. <https://doi.org/10.1111/j.1475-1313.2004.00253.x>
- Ali, A., Scior, K., Ratti, V., Strydom, A., King, M., & Hassiotis, A. (2013). Discrimination and Other Barriers to Accessing Health Care: Perspectives of Patients with Mild and Moderate Intellectual Disability and Their Carers. *PLoS ONE*, 8(8). <https://doi.org/10.1371/journal.pone.0070855>
- Appelgren, M., Bahtsevani, C., Persson, K., & Borglin, G. (2018). Nurses' experiences of caring for patients with intellectual developmental disorders: A systematic review using a meta-ethnographic approach. *BMC Nursing*, 17(1), 1–19. <https://doi.org/10.1186/s12912-018-0316-9>
- Au, K. W., & Man, D. W. K. (2006). Attitudes toward people with disabilities: A comparison between health care professionals and students. *International Journal of Rehabilitation Research*, 29(2), 155–160. <https://doi.org/10.1097/01.mrr.0000210048.09668.ab>
- Badan Penelitian dan Pengembangan Kesehatan. (2018). Hasil Utama Riset Kesehatan Dasar (RISKESDAS). Kementerian Kesehatan Republik Indonesia. <https://kesmas.kemkes.go.id>
- Banks, J., Grotti, R., Fahey, É., & Watsons, D. (2018). Disability and Discrimination in Ireland: Evidence from the QNHS Equality Modules 2004, 2010, 2014 (Issue October). <https://doi.org/10.26504/bkmnext363>
- Brown, S., & Kalaitzidis, E. (2013). Barriers preventing high-quality nursing care of people with disabilities within acute care settings: A thematic literature review. *Disability and Society*, 28(7), 937–954. <https://doi.org/10.1080/09687599.2012.748646>
- Centers for Disease Control and Prevention. (2019a). Common Barriers to Participation Experienced by People with Disabilities. <https://www.cdc.gov/ncbddd/disabilityandhealth/disability-barriers.html>
- Centers for Disease Control and Prevention. (2019b). Disability and health: Information for health care providers. <https://www.cdc.gov/ncbddd/disabilityandhealth/hcp.html>
- Clancy, C. M., & Andresen, E. M. (2002). Meeting the health care needs of persons with disabilities. *The Milbank Quarterly*, 80(2), 381–391. <https://doi.org/10.1111/1468-0009.t01-1-00008>
- Devkota, H. R., Murray, E., Kett, M., & Groce, N. (2017). Healthcare provider's attitude towards disability and experience of women with disabilities in the use of maternal healthcare service in rural Nepal. *Reproductive Health*, 14(1), 1–14. <https://doi.org/10.1186/s12978-017-0330-5>
- Dhamayanti, M., Rachmawati, A. D., Arisanti, N., Setiawati, E. P., Rusmi, V. K., & Sekarwana, N. (2018). Validitas dan Reliabilitas Kuesioner Skrining Kekerasan terhadap Anak "ICAST-C" versi Bahasa Indonesia. *Jurnal Keperawatan Padjadjaran*, 5(3), 281–289. <https://doi.org/10.24198/jkp.v5i3.650>
- Disability Rights Fund. (2020). Persons with Intellectual Disabilities Demand Dignity. <https://disabilityrightsfund.org/our-impact/insights/persons-with-intellectual-disabilities-demand-dignity/>
- Dorji, S., & Solomon, P. (2009). Attitudes of health professionals toward persons with disabilities in Bhutan. *Asia Pacific Disability Rehabilitation Journal*, 20(2), 32–42.
- Groce, N. E. (2018). Global disability: an emerging issue. *The Lancet Global Health*, 6(7), e724–e725. [https://doi.org/10.1016/S2214-109X\(18\)30265-1](https://doi.org/10.1016/S2214-109X(18)30265-1)

- Haegele, J. A., & Hodge, S. (2016). Disability Discourse : Overview and Critiques of the Medical and Social. *Quest*, 68(2), 193–206. <https://doi.org/10.1080/00336297.2016.1143849>
- Iftikhar, K., Alamgir, A., Maqbool, S., Rehan, W., & Akhtar, S. (2019). Knowledge and attitude of health care professionals towards persons with disability. *Pak Armed Forces Med J*, 69(1), 147–153. <https://pdfs.semanticscholar.org/6b02/3ba37bc54c1d0883c91dd910fd90eb3a983a.pdf>
- International Labour Organization. (2013). Inklusi Penyandang Disabilitas di Indonesia. <https://www.ilo.org>
- Kementerian Kesehatan Republik Indonesia. (2011). Perawat Mendominasi Tenaga Kesehatan. <https://www.kemkes.go.id/article/view/1505/perawat-mendominasi-tenaga-kesehatan.html>
- Keys, M., & Lewis, C. (2019). An Interdisciplinary Approach for Treating Children with Cerebral Palsy. *Online Journal of Interprofessional Health Promotion*, 1(1), 1–17. <https://repository.ulm.edu/ojihp/vol1/iss1/7/>
- Kieft, R. A., Brouwer, B. B., Franckle, A. L., & Delnoij, D. M. (2014). How nurses and their work environment affect patient experiences of the quality of care: a qualitative study. *BMC Health Services Research*, 14, 249. <https://doi.org/10.1186/1472-6963-14-249>
- Kirshblum, S., Murray, R., Potpally, N., Foye, P. M., Dyson-Hudson, T., & DallaPiazza, M. (2020). An introductory educational session improves medical student knowledge and comfort levels in caring for patients with physical disabilities. *Disability and Health Journal*, 13(1), 100825. <https://doi.org/10.1016/j.dhjo.2019.100825>
- Kraus, L., Lauer, E., Coleman, R., & Houtenville, A. (2018). Disability Statistics Annual Report. In the University of New Hampshire.
- Lam, W., Gunukula, S. K., McGuigan, D., Isaiah, N., Symons, A. B., & Akl, E. A. (2010). Validated instruments used to measure attitudes of healthcare students and professionals towards patients with physical disability: a systematic review. *Journal of NeuroEngineering and Rehabilitation*, 7(1), 55. <https://doi.org/10.1186/1743-0003-7-55>
- Lewis, S., & Stenfert-Kroese, B. (2010). An investigation of nursing staff attitudes and emotional reactions towards patients with intellectual disability in a general hospital setting. *Journal of Applied Research in Intellectual Disabilities*, 23(4), 355–365. <https://doi.org/10.1111/j.1468-3148.2009.00542.x>
- Marwati, Fahrudi, A., & Umeda, M. (2016). Kecerdasan Spiritual, Budaya Organisasi, dan Perilaku Caring Perawat Pelaksana di Ruang Rawat Inap RSUD Arjawinangun Cirebon. *JAMC Idea's*, 1–20.
- McClintock, H. F., Kurichi, J. E., Barg, F. K., Krueger, A., Colletti, P. M., Wearing, K. A., & Bogner, H. R. (2018). Health care access and quality for persons with disability: Patient and provider recommendations. In *Disability and Health Journal* (Vol. 11, Issue 3). Elsevier Inc. <https://doi.org/10.1016/j.dhjo.2017.12.010>
- Murni, R., & Astuti, M. (2015). Rehabilitasi Sosial bagi Penyandang Disabilitas Mental melalui Unit Informasi dan Layanan Sosial Rumah Kita. *Sosio Informa*, 1(03), 278–292.
- Mutwali, R., & Ross, E. (2019). Disparities in physical access and healthcare utilization among adults with and without disabilities in South Africa. *Disability and Health Journal*, 12(1), 35–42. <https://doi.org/10.1016/j.dhjo.2018.07.009>
- National Home Sharing and Short Breaks Network (NHSN). (2016). The Impact of Disability on a Family. National Home Sharing and Short Breaks Network. <http://nhsn.ie/information/information-for-host-families/the-impact-of-disability-on-a-family/>
- Olaoye, O., Oduola, B., Alonge, T., & Emechete, A. (2017). Attitude towards, contact with people with disabilities and knowledge of disability among health science undergraduates in a Nigerian university. *Journal of Behavioral Health*, 6(3), 1. <https://doi.org/10.5455/jbh.20170401112757>
- Prince, M. J. (2015). Policies and Practices on the Accommodation of Persons with Invisible Disabilities in Workplaces: A Review of Canadian and International Literature. The University of Victoria.
- Reynolds, J. M., & Wieseller, C. (2019). Improving Accessibility And Quality of Care for Patients with Disabilities. *Health Progress*, April, 48–53. <https://doi.org/10.1016/B978-141604485-7.50035-4>
- Roscigno, C. I. (2013). Challenging Nurses' Cultural Competence of Disability to Improve Interpersonal Interactions. *Journal Neurosci Nurs*, 45(1), 21–37. <https://doi.org/10.1097/JNN.0b013e318275b23b>
- Scullion, P. A. (2010). Models of disability: Their influence in nursing and potential role in challenging discrimination. *Journal of Advanced Nursing*, 66(3), 697–707. <https://doi.org/10.1111/j.1365-2648.2009.05211.x>
- Shao, K., Shirvan, M. E., & Alamer, A. (2022). How Accurate Is Your Correlation? Different Methods Derive Different Results and Different Interpretations. *Frontiers in psychology*, 13, 901412. <https://doi.org/10.3389/fpsyg.2022.901412>
- Sharby, N., Martire, K., & Iversen, M. D. (2015). Decreasing Health Disparities for People with Disabilities through Improved Communication Strategies and Awareness. *International Journal of Environmental Research and Public Health*, 12(3), 3301–3316. <https://doi.org/10.3390/ijerph120303301>

- Simkhada, P. P., Shyangdan, D., Van Teijlingen, E. R., Kadel, S., Stephen, J., & Gurung, T. (2013). Women's knowledge of and attitude towards disability in rural Nepal. *Disability and Rehabilitation*, 35(7), 606–613. <https://doi.org/10.3109/09638288.2012.702847>
- Smeltzer, S. C., Avery, C., & Haynor, P. (2012). Interactions of People with Disabilities and Nursing Staff During Hospitalization. *The American Journal of Nursing*, 112(4), 30–37. <https://doi.org/https://doi.org/10.1097/01.NAJ.0000413454.07369.e3>
- Spassiani, N. A., Abou Chacra, M. S., Selick, A., Durbin, J., & Lunsy, Y. (2020). Emergency department nurses' knowledge, skills, and comfort related to caring for patients with intellectual disabilities. *International Emergency Nursing*, 50, 100851. <https://doi.org/10.1016/j.ienj.2020.100851>
- The American Nurses Association (ANA) Center for Ethics and Human Rights. (2019). Nurse's Role in Providing Ethically and Developmentally Appropriate Care to People with Intellectual and Developmental Disabilities Statement of ANA Position. www.nursingworld.org
- The Centre for Development Disability Health (CDDH) Victoria. (2014). Working with People with Intellectual Disabilities in Healthcare Settings. www.cddh.org
- Uysal, A., Albayrak, B., Koçulu, B., Kan, F., & Aydin, T. (2014). Attitudes of nursing students toward people with disabilities. *Nurse Education Today*, 34(5), 878–884. <https://doi.org/10.1016/j.nedt.2013.09.001>
- Velonaki, V. S., Kampouroglou, G., Velonaki, M., Dimakopoulou, K., Sourtzi, P., & Kalokerinou, A. (2015). Nurses' knowledge, attitudes, and behavior toward Deaf patients. *Disability and Health Journal*, 8(1), 109–117. <https://doi.org/10.1016/j.dhjo.2014.08.005>
- World Health Organization. (2018). Disability and health. World Health Organization. <https://www.who.int/news-room/fact-sheets/detail/disability-and-health>

Authors' insight

Key points

- Nurses should have personal experience caring for family members with disabilities
- Issues concerning persons with disabilities (PwDs) are receiving global attention
- Nurses play a crucial role in providing advanced care planning for individuals with disabilities

Emerging nursing avenues

- What specific areas of skills do nurses report in caring for patients with disabilities?
- How do nurses' levels of expertise in disability care vary based on their experience?
- What factors contribute to nurses' self-assessed confidence in effective care to patients with disabilities?

How to cite this article (APA style)

Ulayya, A. I., Mulyani, S., & Noviana, U. (2024). Unveiling nurses' expertise in disability care: A cross-sectional quantitative analysis. *Journal of Holistic Nursing Science*, 11(2), 65–73. <https://doi.org/10.31603/nursing.v11i2.8919>