Research

Nursing students' self-perceived preparedness for midwifery practice in the Western Cape, South Africa: A quantitative descriptive study

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Background. To improve the quality of care provided to women in their reproductive years, midwives need to be competent, confident and safe practitioners. Investment in education and training is necessary to ensure midwives are prepared for practice after entering the profession.
Objective. To investigate final-year university nursing students' self-perception of preparedness for midwifery practice in the Western Cape, South Africa (SA).
Method. A quantitative descriptive study was conducted with final-year undergraduate nursing students at a university in the Western Cape, SA, after completing the midwifery component of their four-year integrated programme. The self-administered Casey-Fink Readiness for Practice Survey assessed respondents' perceived ability to perform independently, manage multiple women during childbirth and demonstrate confidence in vital practice skills.
Results. The survey achieved a 53% response rate. Most respondents indicated difficulty performing fundamental midwifery skills independently. Low confidence levels were reported in independently managing the care of multiple women, delegating tasks to nursing support staff, dealing with ethical issues related to patient care responsibilities and assuming the midwife role.
Conclusion. Nursing students lacked confidence and perceived themselves as unprepared to practise as registered midwives upon completion of the midwifery component of the undergraduate nursing programme. In integrated nursing programmes, limited time for midwifery clinical experience may hinder the development of students' competence and confidence. Mentorship training and dedicated facility preceptors are recommended to support students and newly qualified midwives. Structured support and continuous professional development should be integral to new graduate induction programmes to promote learning and competence.

Keywords. Midwifery, clinical placement, preparedness, undergraduate midwifery education.

Afr J Health Professions Educ 2025;17(1):e1963. https://doi.org/10.7196/AJHPE.2025.v17i1.1963

The global shortage of nurses and midwives threatens equitable universal healthcare and the achievement of Sustainable Development Goal (SDG) 3, aimed at promoting wellbeing and ensuring healthy lives for all.[1] The worldwide shortage of midwives is particularly critical, with the gap between low- and high-income countries projected to widen by 2030.[2]

Newly qualified midwives must be competent, confident and safe practitioners,[3] with midwifery education programmes designed to equip graduates to meet the needs of pregnant women and infants. Globally, nursing and midwifery education follows three main approaches: direct-entry programmes (training without prior nursing qualification), post-nursing midwifery programmes and integrated nursing and midwifery programmes.[4] In African and other low- and middle-income countries (LMICs), training is offered at diploma, baccalaureate and advanced levels.[5]

The South African (SA) healthcare system is predominantly nurse-driven. In 2016, 77% of women received antenatal care from a nurse or midwife.[6] Maternal deaths remain a concern, often linked to inadequate assessment, poor quality of care and delay in referral. Notably, 25% of assessable maternal deaths are significantly related to the shortage of well-trained midwives.[7]

Pre-registration nursing education programmes in SA are offered at universities and accredited public nursing colleges.[8] The integrated four-year nursing and midwifery diploma/degree programme, which qualifies graduates as nurses (general, psychiatric and community) and midwives,[9] has been criticised for its lack of social responsiveness, content overload and inadequate midwifery exposure.[8] A revised nursing qualification is being implemented but remains unevaluated.

Clinical learning experience facilitates the acquisition of professional skills and knowledge, cultivates empathy and confidence and fosters critical thinking and decision-making skills. Support, guidance, supervision and appropriate assessment and feedback contribute to students' quality and safety of care. Conversely, a lack of adequate supervision and support increases student stress, fear and anxiety.[10] In LMICs, there is limited information regarding the quality and appropriateness of pre-service midwifery education as well as students' readiness for midwifery practice.

This study aimed to investigate final-year university nursing students' self-perception of preparedness for midwifery practice in the Western Cape, SA.

Methods

Study design and setting

A descriptive survey was conducted among final-year nursing students at a university in the Western Cape, SA, offering a four-year or extended five-year integrated Bachelor of Nursing programme. This programme includes 920 clinical placement hours in midwifery settings, with all students following the same curriculum from the second year of study. Midwifery clinical learning opportunities are provided at public healthcare facilities across different levels of maternity care, including Community Maternity Obstetric Units (MOUs), district (level one) and secondary and

tertiary-level specialist hospitals. As with other health sciences graduates in SA, nursing students complete a one-year community service placement, which may involve maternity facilities, before obtaining final registration with the South African Nursing Council (SANC).

Population and sampling

The inclusion criteria were all final-year nursing students (n=211) who had completed the theoretical and clinical components of the midwifery courses at the selected university. We excluded students who were unavailable during data collection, those unwilling to participate and the six students involved in pretesting the instrument.

Data collection

The study used the validated Casey-Fink Readiness for Practice Survey, adapted with permission,[11,12] which has three sections: (*i*) demographic information; (*ii*) respondent selection from a list of 19 midwifery skills, three of which they feel uncomfortable performing independently and (*iii*) respondents rating perceived confidence in caring for multiple women and their self-reported confidence in performing basic midwifery practice skills. Woods *et al*.[13] reported construct validity of the instrument and Cronbach's alpha ranged between 0.69[11] and 0.783.[13] In our study, Cronbach's alpha was 0.857 for all scale items. An open-ended question: "What could be done to help you feel more prepared to enter the Midwifery profession?" was included in the adapted questionnaire. The adapted questionnaire was pretested with six final-year students, who were excluded from the main study. Minor amendments were made after pretesting to ensure clarity of terminology within the SA context.

Data collection took place in October 2019. With lecturers' permission, the first author explained the study during a selected lecture session and invited students to participate voluntarily. An information sheet was distributed to all students in the venue, and the details of the study (aim, advantages and possible risks, role of participants, anonymity of the questionnaires) were explained. Questions and any concerns were clarified and written informed consent was obtained. Questionnaires were distributed and collected by the lecturers and placed in a designated box for collection by the first author.

Data management and analysis

The questionnaires were coded and checked for completeness. Data were analysed using SPSS version 25 (IBM Corp., USA) and significance was set at $p<0.05$. Likert-scale responses were assigned numerical values (1 - 5). Frequencies, means and standard deviations were calculated. Independent sample t-tests and χ^2 analyses were performed to determine associations for the comfort/confidence sub-scales (systems of care, professional identity and ethical consideration) and the confidence levels for multiple patient care. The open-ended question responses were analysed using descriptive content analysis.[14] Responses were read through several times, coded and grouped into themes, which were checked and confirmed with the co-author.

Ethical considerations

Ethics approval was obtained from the university's Humanities and Social Sciences Research Ethics Committee (HS19/6/30), and permission to access students was granted by the relevant university authorities. Students were given information before the study and individual written consent was obtained. No names or personal information were obtained. Every effort was made to minimise power differentials between the first researcher, a registered nurse and the students. Support services were available for any student who might have experienced distress during participation, though none were required.

Results

On the selected data collection day, 158 students attended lectures, and 112 completed questionnaires were returned (overall response rate 53%). All returned questionnaires were complete and included in the of 20 - 43 years and a mean age of 23 years. This is consistent with the general profile of undergraduate nursing students in SA. Nine respondents were foreign nationals on student study visas.

Respondents had obtained most of their midwifery clinical experience in MOUs. Less than half of the respondents had been placed at a district/level-one hospital and limited opportunities for clinical placements in secondary or tertiary-level maternity facilities were reported.

In preparation for clinical placements, most students had practised clinical skills in the skills laboratory using simulation. A few had used case study assignments to gain insight into their clinical role and function. Less than half reported orientation to the healthcare facility on arrival and only 8% had discussed personal learning needs with their mentors or unit nursing managers. Less than 10% of respondents reported setting daily goals with the preceptor, and only 2% reported having developed a care plan for a maternity patient. In the analysis, results are presented for both groups, as students enter the degree programme with different educational profiles and levels of experience, which may have influenced these differences.

Challenging midwifery skills

Respondents were asked to identify three skills or procedures from a list of 19 (Table 1) that they felt most uncomfortable performing independently, with an option to identify any other skills not listed.

Table 1. List of midwifery skills

	List of skills
1	performing abdominal examination and symphysis fundal height (SFH) measurement
2	interpretation of foetal movements chart
3	plotting and interpretation of gravidogram
4	discussion of birth plan with the pregnant woman
5	interpretation of booking bloods
6	initial assessment of labour
7	performing pelvic assessment (PA) and vaginal examination (VE)
8	plotting and interpretation of the partogram
9	conducting a normal vaginal delivery (NVD)
10	management of third and fourth stages of labour
11	suturing of an episiotomy or first-degree and second-degree tears
12	initiating skin-to-skin care
13	diagnosis and immediate management of postpartum haemorrhage (PPH)
14	management of post-normal vaginal delivery mother
15	management of post-caesarean section mother
16	rendering postpartum family planning and counselling
17	performing initial assessment of the neonate (including Apgar score)
18	performing neonatal resuscitation
19	administration of birth immunisations

Among the midwifery skills, eight were selected by both groups as the most difficult to perform independently, but these were not ranked in order of perceived difficulty (Table 2).

Only one student in the main programme reported feeling confident in independently performing all the listed midwifery skills. Other challenging skills identified by 34 students (30%) included breech, twin delivery and breast examinations. These were reported by 28 - 32% of main programme students and 6 - 25% of extended programme students.

Confidence in managing the care of multiple women

Using a five-point Likert scale (not confident - very confident), respondents reported their confidence in independently managing the care of multiple women. Although most students reported feeling very confident in independently caring for two women, confidence declined as the number of women increased. The lowest confidence levels were reported for independently managing four women in the maternity unit.

No significant difference was found for the relationship between respondents' age and confidence in managing multiple women using the Kruskal-Wallis test: two women (χ^2=2.105, p=0.349), three women (χ^2=0.902, p=0.637) and four women (χ^2=2.203, p=0.332). There was a significant positive relationship between respondents' confidence levels for managing two women (rs=0.657, p<0.000) and managing four women (rs=0.745, p<0.000) using Spearman's rho test. A one-way analysis of variance (ANOVA) showed a significant difference (p<0.000) (Table 3). The confidence level in managing two women explained 51.3% of the variance in confidence when managing three women. Similarly, the confidence level in managing two women accounted for 20.7% (p=0.000) of the variance in confidence when managing four women in the maternity unit.

Confidence in key practice skills performance

Twenty questions were categorised into three subscales: systems of care (four questions), professional identity (seven questions) and ethical practice (nine questions) (Table 4). Respondents' confidence levels were measured using a four-point Likert scale.

Subscale: Systems of care

Respondents reported high confidence in documenting care in midwifery progress notes. Similarly, they were confident in asking for assistance, prioritising women's needs and identifying a significant change in their patient's clinical condition.

Subscale: Professional identity

Respondents reported low readiness to assume the midwife role. Most were fairly satisfied with selecting nursing as a career. Respondents felt confident in their ability to solve problems and communicate with medical staff. While simulations and opportunities to practise skills and procedures were perceived as helpful for preparation, constructive feedback from mentors or clinical facilitators was inadequate.

Subscale: Ethical practice

Respondents reported low confidence levels in delegating tasks to auxiliary nurses, addressing ethical issues and caring for a dying patient. Reflective journals were perceived as less helpful in developing clinical decision-making skills. Respondents felt confident in communicating with women from different cultural and language groups, identifying patient safety risk factors and taking action to solve problems. Respondents reported that they based their clinical decisions on evidence and were comfortable communicating with members of the multidisciplinary team.

Open-ended question: **'What could be done to help you feel more prepared to enter the midwifery profession?'**

Five themes were generated through content analysis.

1. The need for more clinical experience

Most (89%; n=42/47 responses) respondents felt that more clinical exposure and longer placements would have improved their confidence and competence, stating 'I want more placement and exposure in (the) MOU' (R26) and 'If I had more time in the clinical setting' (R16). A clear plan for each clinical placement, dedicated preceptors and a refresher midwifery course or clinical placement before entering community service was suggested.

2. Changes in the theoretical teaching

The midwifery component of the integrated programme, lasting approximately one semester, was considered too brief. One student stated, 'Midwifery… right now it's six months and it's too short' (R98), while another said, '… you can't apply all you learn in class in six months' (R90). Suggestions for improvement included extending the midwifery component to better integrate theory and practice.

3. Midwives' negative attitudes towards students

Midwives' negative attitudes hindered students' achievement of their clinical learning objectives. One student said, 'The attitude of some midwives towards students was not good and welcoming… you can't even learn anything' (R34). Midwives were often experienced as unfriendly and intolerant of students' inexperience, often excluding them from patient

Table 2. Skills reported as most difficult to perform independently

Skills/procedures	Total (N=111), n (%)	Main programme (n=87), n (%)	Extended programme (n=24), n (%)
Suture episiotomy or first-degree and second-degree tear	89 (79)	67 (76)	22 (92)
Pelvic assessment & vaginal examination	72 (64)	52 (59)	20 (83)
Perform neonatal resuscitation	65 (58)	54 (61)	11 (46)
Management of postpartum haemorrhage	22 (20)	18 (20)	4 (17)
Conducting normal vertex delivery	15 (13)	11 (13)	4 (17)
Management of third and fourth stages of labour	9 (8)	9 (10)	0
Abdominal examination and SFH measurement	7 (6)	3 (3)	4 (17)

SFH = symphysis fundal height.

care and management, as noted by a respondent: 'Inclusion in caring for [the] patient instead of thinking [nursing] students don't know anything' (R44). The perceived lack of support from midwives contributed to feelings of unpreparedness, with one student stating '… when you ask for guidance, they [midwives] mock you for not knowing or label you as a poor performer' (R99). Additionally, staff shortages, limited time and reluctance to supervise or teach further affected students' competence and sense of confidence.

4. Personal lack of interest in midwifery

Some respondents expressed no intention to pursue midwifery after registration, stating, 'Midwifery has never been my favourite' (R65), and 'Not to ever work in midwifery' (R58). Despite this, they felt compelled to achieve a satisfactory level of competence, which may have contributed to their sense of unpreparedness.

Table 3. Confidence in independently managing multiple women

Variables	Total (*N*=112), *n* (%)	Main programme (*n*=88), *n* (%)	Foundation programme (*n*=24), *n* (%)	χ^2 statistic	*p*-value*
Managing two women					
Not confident	2 (1.8)	2 (2.3)	0	2.917	0.572
Minimally confident	3 (2.7)	2 (2.3)	1 (4.2)		
Neutral	14 (12.5)	9 (10.2)	5 (20.8)		
Confident	32 (28.6)	25 (28.4)	7 (29.2)		
Very confident	61 (54.4)	50 (56.8)	11 (45.8)		
Managing three women					
Not confident	5 (4.5)	4 (4.5)	1 (4.2)	3.238	0.519
Minimally confident	6 (5.3)	4 (4.5)	2 (8.3)		
Neutral	38 (34)	27 (30.7)	11 (45.8)		
Confident	43 (38.4)	37 (42.1)	6 (25)		
Very confident	20 (17.8)	16 (18.2)	4 (16.7)		
Managing four women					
Not confident	16 (14.3)	12 (13.6)	4 (16.7)	6.827	0.145
Minimally confident	28 (25)	20 (22.7)	8 (33.3)		
Neutral	36 (32.1)	29 (32.9)	7 (29.1)		
Confident	22 (19.6)	21 (24)	1 (4.2)		
Very confident	10 (9)	6 (6.8)	4 (16.7)		

Table 4. Confidence in key practice skills performance

Scale item	Mean (SD)	Range
Systems of care		
I am comfortable documenting care in the care plan and progress notes	3.21 (0.587)	2
I am comfortable asking for help	3.54 (0.583)	3
I feel comfortable prioritising patient care needs	3.43 (0.667)	3
I am confident in my ability to recognise a significant change in my patient's condition	3.17 (0.500)	2
I feel ready for the professional midwife role	2.63 (0.986)	3
I am satisfied with choosing nursing as a career	3.00 (0.959)	3
I am confident in my ability to problem-solve	3.05 (0.567)	2
I feel confident communicating with doctors	3.12 (0.737)	3
Simulations have helped me feel prepared for clinical practice	3.16 (0.681)	3
I have had opportunities to practise skills and procedures	3.36 (0.642)	3
My clinical instructor/mentor provided feedback about my readiness	2.78 (0.824)	3
I am comfortable delegating tasks to the nursing assistant	2.57 (0.791)	3
I feel confident dealing with ethical issues in my patient care responsibilities	2.98 (0.684)	3
I feel comfortable knowing what to do for a dying patient	2.64 (0.815)	3
Writing reflective journals/logs provided insights into my own clinical decision-making skills	2.64 (0.769)	3
I am comfortable communicating with patients from diverse populations	3.51 (0.569)	3
I feel confident identifying actual or potential safety risks	3.16 (0.578)	3
I am comfortable taking action to solve problems	3.01 (0.577)	3
I use current evidence to make clinical decisions	3.12 (0.681)	3
I am comfortable communicating and coordinating care	3.15 (0.660)	3

SD = standard deviation.

5. Self-preparation

Respondents were aware of their responsibility to prepare for practice, with one noting, 'I think it's more of a personal thing where you have to mentally prepare yourself…' (R107). They also wanted opportunities to practice, such as 'more hours in the skills lab to get more time for self-practice' (R18). Midwifery was perceived as a dynamic and challenging healthcare field, and students felt that they needed learning opportunities to gain confidence and competence, saying, 'being placed more in areas where I don't feel comfortable to get used to it' (R4) and '…given an opportunity to be an acting sister in the ward…' (R87).

Discussion

The results suggest that many respondents in this cohort, despite meeting the assessment criteria, felt inadequately prepared to enter midwifery practice and struggled with independently performing basic midwifery skills essential for registration.[9,15] Eight essential skills were identified as the most challenging to perform independently, and confidence decreased as patient load increased, similar to findings reported in the Netherlands[16] and Iran.[17] This lack of preparedness among midwives could hinder the achievement of SGD 3 and ending preventable maternal mortality.[1,7] In many professions, a new graduate is not expected to practise autonomously and is assigned to work with a mentor, supervisor or a more experienced colleague. The community service year for nurses in SA should provide this support and mentorship. However, a study in Limpopo Province, SA, revealed that experienced midwives perceived newly graduated midwives as lacking independence, commitment to patient care and competence in task-sharing.[18] Continuity of care experiences, which promotes midwives' competence and confidence,[19] are limited in SA, particularly in rural and peri-urban areas where high social mobility presents additional challenges.

Respondents reported low confidence levels in delegating duties to support staff. The reasons for this are unclear; however, factors such as age, cultural norms and language may play a role. Additionally, poor communication and negative attitudes of registered midwives toward midwifery students observed in the present study, have also been reported in other studies.[10,20]

This present study highlights the need for mentors who will provide direct training and supervision at the clinical interface between student and patient. Lakhani *et al.*[21] found that midwifery students valued clinical learning from hands-on dedicated mentors, which was critical in developing competence. Inconsistencies in student accompaniment and supervision confused nursing students, leading to poor integration of theory into practice.[20] Supportive mentorship from experienced midwives has been found to ease the transition experience for newly qualified midwives, enhance clinical competence and confidence and foster a sense of belonging within the team.[16,22]

Effective midwifery practice hinges on skilled midwives who communicate empathically, evaluate risk effectively, and make timely referrals to ensure optimal outcomes for both mothers and infants. Personal motivation and responsibility for midwifery learning facilitates ownership and accountability,[23] thus enabling the development of independent practice.

There is ongoing debate regarding the advantages and disadvantages of integrated nursing and midwifery programmes compared with dedicated streams.[5] In SA, healthcare professionals must be competent in promoting primary health and addressing the quadruple burden of disease, including maternal, neonatal and child mortality.[24] This often requires crossing traditional boundaries in healthcare provision. An integrated programme that includes midwifery has immense potential value but must be structured such that students are adequately mentored and appropriately prepared for independent midwifery practice. A new pre-registration qualification programme implemented in 2021 has integrated preconception care into the curriculum,[15,25] in line with the essential competencies for midwifery practice.[26]

To address preparedness for practice and promote confidence, various transition-to-practice programmes for newly qualified midwives have been reported, such as formal didactic instruction, group support, mentorship and continuing education sessions.[16] Collaboration between nursing education institutions and public and private service health facilities employing new graduates should be a priority, to facilitate the transition from student to healthcare professional.[18] Such approaches should be tailored to the clinical service needs as well as individual learning needs of the student and newly qualified midwife.

Limitations

The study was conducted in a single university nursing department in the Western Cape. As all SA universities set their own curricula and educational approaches to meet SANC requirements, this study cannot be generalised to other nursing education institutions. Additionally, decreased lecture attendance during the data collection session may have impacted the results.

Implications for education and practice

Although the curriculum content meets requirements, it is challenging to provide students with the necessary clinical mentorship and support to develop confidence and competence. Clear policies and adequate staffing in maternity facilities (whether preceptors or clinical staff) are required to ensure that students graduate with not only basic competencies but also awareness of their limitations. Guided practice by midwives, preceptors or mentors would assist the nursing students in gaining confidence to independently perform basic midwifery skills. Supervision and involvement of nursing students in patient care planning activities would aid them in developing decision-making skills.

Continuing professional development programmes tailored for newly qualified midwives should be implemented, with competent clinical mentorship made mandatory. These programmes could incorporate innovative strategies such as WhatsApp Q&A groups and online resources.

Collaboration by academics, clinical facilitators and unit managers in the planning, tuition and clinical support of midwifery students will promote student learning and the development of clinical competence and confidence. Mentorship training and dedicated facility preceptors are recommended to support students and newly qualified midwives.

Conclusion

This study identified areas where educational preparation for practice can be strengthened. The limited midwifery clinical experience within an integrated undergraduate nursing programme may compromise students' competence and confidence. Competent, caring and confident midwives are the 'beating heart' of a country's reproductive health services. Addressing the complexities of healthcare and improving midwifery care in SA requires innovative approaches to promote newly qualified nursing and midwifery graduates' competence and confidence. Effective integration, mentorship and support of these midwives will contribute to strengthening maternity services in SA.

Declaration. None.

Acknowledgements. All the students who participated in the study.

Author contributions. TR conducted the study under the supervision of PM and prepared the first draft of the paper. Subsequent drafts were prepared by PM. Both authors have read and approved the final manuscript.

Funding. None.

Data availability statement. The datasets generated and analysed during the current study are available from the corresponding author upon reasonable request.

Conflicts of interest. None.

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Received 19 February 2024. Accepted 14 November 2024.