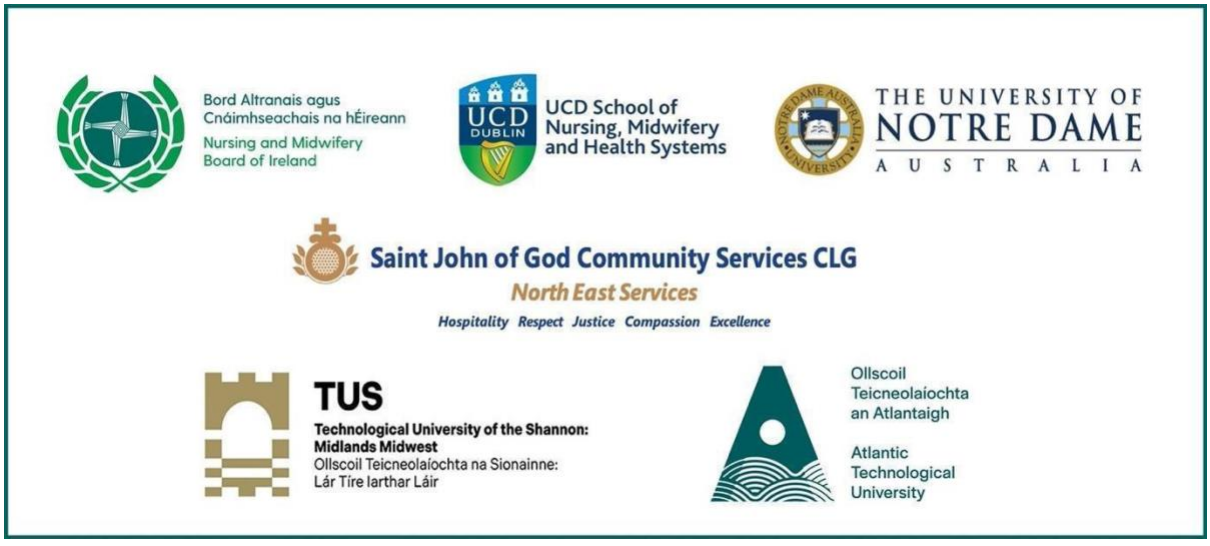
A Report of the Review of Undergraduate Nursing and Midwifery Curriculum leading to Registration in Ireland



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- The Expert Advisory Group for their support throughout the project.

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Glossary of Abbreviations

AHCP	Associated Health Care Providers
AHRQ	Agency for Healthcare Research and Quality
AI	Appreciative Inquiry
AMP	Advanced Midwifery Practitioner
ANP	Advanced Nurse Practitioner
CEQ	Course Experience Questionnaire
CIPP	Context; Input; Process; Product
CNE	Centre for Nurse Education
CNO	Chief Nurses' Office
CNS	Clinical Nurse Specialist
CLE	Clinical Learning Environment
CS	Clinical Supervisor
CSC	Clinical Supervisor Characteristics
EAG	Expert Advisory Group
EB	Educational Body
HREC	Human Research Ethics Committee
HSE	Health Services Executive
IADNAM	Irish Association of Directors of Nurses and Midwives
ICM	International Council of Midwifery
IFUT	Irish Federation of University Teachers
INMO	Irish Nurses and Midwives Organisation
JBI	Johanna Briggs Institute
MDT	Multidisciplinary Team
NMBI	Nursing and Midwifery Board of Ireland
NSS	National Student Survey
ONMSD	Office of Nursing and Midwifery Service Director
OSCE	Objective Structured Clinical Examination
PC	Pedagogical Characteristics
PCC	Population; Concept; Context
PLC	Post Leaving Certificate

PNA	Psychiatric Nurses Association
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
PSEA	Physical and Social Environmental Attributes
QQI	Qualification and Quality Institute
RCN	Registered Children's Nurse
RGN	Registered General Nurse
RM	Registered Midwife
RNID	Registered Nurse Intellectual Disability
RPN	Registered Psychiatric Nurse
SALO	Student Allocation Officer
SC	Student Characteristics
SDH	Social Determinants of Health
SIPTU	Services Industrial Professional and Technical Union
SUI	Students Union of Ireland
TUI	Teachers Union of Ireland
UAE	United Arab Emirates
WHO	World Health Organisation

1. Executive Summary

1.4. Introduction

This report presents the findings of a comprehensive review of the Undergraduate Nursing and Midwifery Curriculum leading to Registration in Ireland (RUN ME) Nursing and Midwifery Board of Ireland (NMBI). The NMBI as regulators publish standards and requirements to guide the design, development, delivery and evaluation of the nursing and midwifery registration education programmes. The last review of nursing and midwifery education curriculum was in 2012, which led to the development of revised standards and requirements in 2016, which were subsequently updated in 2023.

The health service has undergone significant reform since the last review of nursing and midwifery curriculum. The implementation of Sláintecare policy to deliver healthcare as close to a person's home as possible is evident, in particular with the noticeable emergence of community hubs nationally. The demographics of the population of Ireland and the healthcare workforce has also changed dramatically since that time. One third of nurses and midwives registered in Ireland are non-Irish (NMBI, 2022) and in 2021, 61%(n=3,021) of first-time registrants with NMBI identified as non-European Union citizens (NMBI, 2022). Nursing and midwifery combined remains the largest group of professionals in the workforce.

1.2. Aim

The aim of the research was to review nursing and midwifery undergraduate education programmes leading to registration in Ireland.

1.2.1. Objectives

- Conduct a systematic scoping review to identify the optimal characteristics of clinical practice placement.
- Examine the current structure and content of the undergraduate nursing and midwifery education programme curricula in Ireland.
- Explore best practice in international nursing and midwifery curricula structure and content.

- Examine the current divisions of nursing and midwifery registers in Ireland and explore how these compare internationally.
- Engage with national stakeholders in nursing and midwifery education in Ireland.
- Engage with international nursing and midwifery experts to understand perspectives on future trends in nursing and midwifery education internationally.
- Engage with the NMBI Fundamental Review Steering Committee throughout the project timeline.
- Present a comprehensive report, with recommendations for future nurse and midwifery education, to the NMBI Steering Group, to inform future standards and requirements for undergraduate nursing and midwifery programmes.

1.3. Design of the Review

To ensure a comprehensive review was completed the research team utilised a specific curriculum evaluation framework underpinned by Appreciative Inquiry (AI) principles and philosophy. An AI model to manage positive change was developed at the Weatherhead School of Management in the USA, based on research from David Copperrider and Ronald Fry. In the context of this research AI was used to focus on what was working well in the current curricula and build on this positively to plan for the future using the 5D cycle of AI:

- Define the Topic: Evaluating the Undergraduate Nursing and Midwifery Education Curricula.
- Discovery: Identifying the core values of the professions and core components of the curricula.
- Dream: Identifying the most engaging components of the curricula.
- Design: Explored perceptions of how we are going to educate for the future.
- Destiny: Determine what the curricula of the future will look like.

Stufflebeam's (1971) CIPP (context, input, process and product) evaluation framework was selected as a framework to guide the evaluation project. The CIPP framework involved a review of the planning (context), structuring (input), implementing (process) and recycling (product) of the curriculum. There were three integrated phases in the research (Figure 1), which were continually informed by engagement with an Expert Advisory Group. The phases of data collection included documentary analysis of policy and curriculum documents,

stakeholder engagement (survey and focus group discussions) and a systematic scoping review. Where engagement with stakeholders was included, it used AI philosophy and methodology to focus on positive changes for the education of nurses and midwives in the future.

1.4. Results

There were multiple phases of data collection which included an analysis of Irish healthcare policy documents, analysis of curricula documents across a selection of European and international countries, stakeholder engagement and a scoping review of the literature. An integration matrix was utilised throughout the project to continuously display and discuss the emerging findings within the team. This was important to support a continuous exploration of divergence and convergence of all key findings, building to the development of the final recommendations.

1.4.1. Document Analysis

There were two phases to documentary analysis: a review of recent key Irish healthcare policy documents published since the last review in 2012; and a review of European and international Nursing and Midwifery curricula available. The key findings from each review are presented.

1.4.2.1 Policy Document Review

Thirty-four healthcare policy documents were analysed. There was little evidence of inclusion and/or consultation with the professions of nursing and midwifery in the policy documents.

- It is evident that the nursing and midwifery professions have undergone significant evolution to the roles due to healthcare policy recommendations since the last review of the undergraduate curricula.
- Policy is directed towards a service delivery design which is community based and comprehensive. This is in direct contrast to the current focus of nursing and midwifery clinical practice preparation.

- Healthcare policy has a strong focus on the social determinants of health that affect the health and wellbeing of an individual and transcend health and social care.[1]
- There is strong evidence of changing diversity of the population, including an increased ageing population, increased ethnic diversity, a wider range of gender identities being represented and changing location of healthcare delivery. Midwifery strongly refers to holistic woman-centred health[2].
- Interprofessional working, governance, and learning experiences are strongly referenced in health policy documents.
- The focus on preparation for, and delivery of digital healthcare stands out as the most prominent feature of change in healthcare policy in recent years. This impacts on both disciplines of nursing and midwifery.

Whilst it was acknowledged that policy documents specifically related to midwifery were well aligned with the standards and requirements of midwifery education, overall, there is a lack of understanding of the role of midwives and a persistent use of the words nursing and midwifery in combination, even when the subject matter did not relate to midwifery.

1.4.2.1. Curricula Document Review

Four European and eight international nursing and midwifery curricula documents were analysed. Only countries that had a bachelor's degree level award were selected. In general, it was found that the Irish curricula guidance from the regulator is more prescriptive in comparison to those in other jurisdictions reviewed.

[1] The social determinants of health (SDH) are the non-medical factors that influence health outcomes. They are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies and political systems (World Health Organisation, 2023).

[2] We acknowledge that some women choose to identify differently but for the purpose of this document the word woman will be used to refer to biological females. i.e., those who can give birth / or this document will use the sexed definition of woman but recognises that some women choose to identify out of their gender and includes all biological females with the capacity to give birth. We also acknowledge some men choose to identify differently but for the purpose of this document the word man will be used to refer to biological males.

- The EU directive 2005/36/EC amended 2013/55/EU is widely used as the curricula guidance document across Europe as a stand-alone document for the education bodies to interpret and apply.
- All programmes for nursing and midwifery include 50:50 academic and clinical practice components.
- Half of the countries analysed had a 3-year bachelor's degree curriculum in Nursing. No country offered a curriculum longer than 4-years. Jordan, South Africa and China offered a curriculum over four full calendar years, whilst the United Kingdom offered a 3-year full calendar year programme.
- There were between four and seven domains of competence across countries.
- The integrated children's and general curriculum is unique to Ireland.
- Five of the selected countries identified direct access midwifery curricula.
- Sweden, the United Kingdom and Canada also offer direct entry Psychiatric Nursing and Midwifery bachelor's degree curricula. Italy and the UK offers a direct entry paediatric curriculum.

1.4.1.3. Systematic Scoping Review

A total of 79 articles were analysed from the international literature related to identifying the optimal characteristics of the clinical learning environments for student nurses and midwives. The review has identified four categories with 92 characteristics that are associated with optimal clinical learning environments for student nurses and midwives. The four categories include student characteristics (n=24), supervisor characteristics (n=23), pedagogical characteristics (n=32) and optimal physical, social and environmental characteristics (n=13) of the clinical learning environment. There is no consistent use of title for the role of supervision of student nurses and midwives in the clinical practice area internationally. The evidence suggests that the clinical learning environment is challenging for nursing and midwifery students internationally.

1.4.2 Stakeholder Engagement

There were two phases to the process of engagement with stakeholders: The first phase was an online anonymous survey which invited engagement from graduates who had just

completed the four-year curricula across all divisions of the register. The second phase included focus group discussions with policy makers, regulators, senior management, all grades of clinical nurses and midwives, academic nurses and midwives, union representatives and service users.

1.4.2.1. Graduate Survey

A total of 363 responses were included in the analysis of the graduate survey. Overall participants reported they were satisfied with the curricula. There was a strong indication that there was a high level of feeling overburdened, particularly in the 3rd and 4th year of their education. The participants indicated that there was a lack of choice offered to them both in practice placement selection and assessments throughout the curricula. Participants reported the lack of flexibility in career development with a specialist only degree (psychiatric and intellectual disability). There was strong evidence that there is significant repetition across theoretical modules. There was significant evidence that participants felt they were not welcome in some of the clinical sites, reporting they did not feel valued, did not have supported learning opportunities and were not adequately prepared for their practice placements. Many reported the practice placements had a negative effect on their mental health. Participants indicated there was a disconnect between the academic and clinical organisations which resulted in a lack of understanding of their progress during their education.

1.4.2.2 Stakeholders Focus Groups.

There was a total of 95 participants across 12 focus groups, which were arranged according to peer groups. The 5D cycle previously described was used to design the semi-structured focus group guide. Four key themes were developed from the data namely:

a) Resourced student-centred learning system: This theme relates to the nursing and midwifery curricula of the future being resourced with partnered clinical supervisors working across the academic and clinical components of the curricula, focusing on student learning and assessment. It was suggested that the funding model of the curriculum could follow the students. There was also strong evidence of a need for practice placements of greater duration, with greater time spent in community care.

Many participants suggested that at times some practice placements could be supplemented or replaced with interprofessional simulated learning and that students could be offered a choice related to their practice placements. Internship was identified as one of the key successes of the current curricula and should therefore be retained, though future iterations should include an option for students to identify their preferred practice placement.

b) Academic entry: There was strong evidence to support the expansion of academic entry for both professions. There was also evidence supporting the potential of the inclusion of a core academic year for all divisions of the nursing register, where students could then be offered flexibility in selecting areas of preference.

c) Mutual esteem: There was strong evidence indicating significant misunderstanding by clinical participants of the multiple roles and level of pedagogical engagement in the design, development and implementation of the curriculum across all levels of nursing and midwifery. It was therefore evident that clinical participants were heavily critical of the academic components of the curricula.

d) Midwifery as a distinct profession: Midwifery participants expressed a strong need for their entire curriculum to be delivered separately from nursing.

1.5 Recommendations

Recommendations for all Undergraduate Curricula

1. **It is recommended that the undergraduate programmes should remain at the Bachelor of Science honours degree level.** The equal split between theory and practice should remain for both nursing and midwifery education.
2. **It is recommended that the supernumerary model remains for students in the nursing and midwifery undergraduate curricula.**
3. **It is recommended that the internship component of the curricula remains for students.** It is recommended that students are offered a degree of flexibility and choice of placement for internship.
4. **It is recommended that there is an increase in community placements for nurses and midwives in line with national healthcare policies.** It is recommended that whatever structure is established to operationalise this recommendation that the education

bodies, regulator, department of health and health service providers should be represented.

5. **Revise the preceptorship model of clinical supervision, teaching and assessment.** It is recommended that an NMBI-led task force is established as a priority to address the multiple concerns raised by all stakeholders related to the operationalisation of the current model. The NMBI-led task force should identify structures and processes that could more effectively support students to achieve the clinical learning outcomes of the programme.
6. **It is recommended that the evidence-based characteristics related to optimal clinical learning environments for nursing and midwifery students are incorporated into the process of preparation for clinical practice placement.** Specific characteristics associated with optimal clinical learning environments include student characteristics, supervisor characteristics, pedagogical characteristics and optimal physical, social and environmental characteristics of the clinical learning environment.
7. **It is recommended that there is a greater emphasis on healthcare policy and its development in the curriculum.** Healthcare policy development and implementation requires a visible voice from all grades of the professions of nursing and midwifery, pertaining to their professional roles and healthcare design and delivery.
8. **The funding model for student nurse and midwife education should be revised.** The current funding model supports a learning infrastructure that is predominantly based in the acute hospital settings that are based on an illness model of healthcare. In line with health policy, namely community focused healthcare and increased interprofessional working, the funding model must ensure that adequate learning supports are in place where students will be placed. Learning supports include personnel to support clinical teaching, simulation and assessing in the education bodies and clinical setting across community and institutions are required in any funding model. Students need to have access to adequate financial supports to avail of community placement opportunities.
9. **There is a need for greater integration of the clinical placement coordinator (CPC) and clinical skills instructor/tutor roles across clinical sites and education bodies in teaching and assessing clinical skills for students throughout the curricula.** It is recommended that this recommendation be explored further as part of the overall taskforce on clinical support for students in parallel to the review of preceptorship.

10. **There is a need for greater engagement and understanding of the undergraduate curricula across all levels of academic and clinical nurses and midwives in the design and delivery of undergraduate curricula.** It is evident that there is inadequate knowledge of the components of the curricula amongst the majority of nurses and midwives of all grades and levels. As the curriculum is split equally between education bodies and healthcare providers, it is essential that the curriculum is understood by all. This strong understanding of the curricula is crucial for delivering effective healthcare services and education.
11. **In line with the digital health transformation policy, it is recommended that education bodies explore instructional design[3] or similar frameworks to support flexible self-directed learning.**
12. **It is recommended that education bodies adopt an inclusive teaching pedagogy that enables transformative and flexible nurses and midwives to fulfil their roles in patient safety and impact on the social determinants of health.** Engaging in a learner centred approach to the curricula can help to broaden and enhance the accessibility and inclusivity of learning activities. Theoretical modules in the undergraduate nursing and midwifery curriculum require review and consolidation. There is evidence of significant repetition in the theoretical modules which are overburdening students with content and assessments. In addition, there is a reported lack of preparation supporting students in applying theoretical learning in clinical practice. It is recommended that simulation and simulated learning is included to support practice preparation for students.
13. **It is recommended that a learner-centred approach is applied in developing a future focused flexible curriculum. Choice and autonomy are central to the future curricula**. It is recommended that this flexibility is extended to include an option for students to select practice placements, timing of placements outside of traditional semesters, shifts options, and rosters. It is recommended that the social determinants of health, principal of social inclusion and non-discrimination is applied for students.

[3] Instructional design is the process by which learning products and experiences are designed, developed, and delivered. These learning products include online courses, instructional manuals, video tutorials, learning simulations, etc.

14. **The future curricula require a greater focus on the social determinants of health across the lifespan**. The social determinants of health are the conditions in which people are born, grow, live, work and age that can influence their health outcomes. The determinants are related to individual social and economic circumstances including socioeconomic status and social supports, environmental factors and health behaviours, access to healthcare, discrimination and social inequities and social and community engagement. This includes health, wellness and safety across the lifespan of a person. Efforts to engage with diverse cultures in the service user population should also be increased to reflect inclusive social determinants of health.
15. **Future guidance documents from NMBI should move towards outcome-based standards with less emphasis on prescriptive content.** The current guidance documents from the regulator are more prescriptive than other nursing and midwifery curricula internationally. The current format limits flexibility to respond to changing healthcare needs.
16. **Increase capacity on nursing and midwifery programmes to enhance access to nursing and midwifery education.** There is strong support to increase the access to nursing and midwifery education. Increased places should be offered for existing healthcare employees who wish to study nursing and midwifery. There should be an increase in the number of places offered via the Quality, Qualifications Ireland (QQI) entry route and mature entry students.

Nursing Specific Recommendations

1. **It is recommended that the nursing profession explore options for integrated curricula leading to dual qualifications across all divisions of the register.** With the significant changes to healthcare there is a need for students to have a diverse range of clinical skills to respond to healthcare needs across acute and community care. It is recommended that an inclusive, flexible and equitable approach is applied to all divisions of nursing to support student flexibility and career development.
2. **It is recommended that a core foundation across the disciplines of nursing should be explored to support student centred inclusive flexible pathways.** Where multiple disciplines of nursing are taught together, consideration of discipline specific learning needs should be incorporated through tailored examples. It is recommended to explore

options where students could choose one of the integrated pathways during the curriculum. Interdisciplinary core modules should be explored for first year undergraduate students.

3. **Interdisciplinary learning should be explored through simulated scenarios in preparation for clinical practice placements.** Shared simulation could provide students with an opportunity to prepare for interprofessional team working in clinical practice.
4. **It is recommended that there is a greater emphasis on medication management across the nursing curricula**. It is recommended that medication management is further enhanced through innovative digital learning and is incorporated into simulated scenarios in the curriculum.

Midwifery Specific Recommendations

1. **The midwifery profession should be acknowledged as a distinctly separate profession**. The midwifery profession should be acknowledged as interprofessional rather than co-professional. Where nurses and midwives are taught together, consideration of midwifery learning needs should be incorporated through tailored examples from midwifery practice.
2. **It is recommended that the distinct pathways are defined in the midwifery curriculum.** Women are being placed under the following pathways at booking: Supported pathway, assisted pathway or specialised pathway. It should be clarified how the practice placement for the pathway fits in with the philosophy of Midwifery Care.

Table 1: Summary of Recommendations

Number	Recommendation
All Undergraduate Curricula	
1.	It is recommended that the undergraduate programmes should remain at the Bachelor of Science honours degree level.
2.	It is recommended that the supernumerary model remains for students in the nursing and midwifery undergraduate curricula.
3.	It is recommended that the internship component of the curricula remains for students.
4.	It is recommended that there is an increase in community placements for nurses and midwives in line with national healthcare policies.
5.	Revise the preceptorship model of clinical supervision, teaching and assessment.
6.	It is recommended that the evidence-based characteristics related to optimal clinical learning environments for nursing and midwifery students are incorporated into the process of preparation for clinical practice placement.
7.	It is recommended that there is a greater emphasis on healthcare policy and its development in the curriculum.
8.	The funding model for student nurse and midwife education should be revised.
9.	There is a need for greater integration of the clinical placement coordinator (CPC) and clinical skills instructor/tutor roles across clinical sites and education bodies in teaching and assessing clinical skills for students throughout the curricula.
10.	There is a need for greater engagement and understanding of the undergraduate curricula across all levels of academic and clinical nurses and midwives in the design and delivery of undergraduate curricula.
11.	In line with the digital health transformation policy, it is recommended that education bodies explore instructional design or similar frameworks to support flexible self-directed learning.
12.	It is recommended that education bodies adopt an inclusive teaching pedagogy that enables transformative and flexible nurses and midwives to fulfil their roles in patient safety and impact on the social determinants of health.
13.	It is recommended that a learner-centred approach is applied in developing a future focused flexible curriculum. Choice and autonomy are central to the future curricula.
14.	The future curricula require a greater focus on the social determinants of health across the lifespan.

15.	Future guidance documents from NMBI should move towards outcome-based standards with less emphasis on prescriptive content.
16.	Increase capacity on nursing and midwifery programmes to enhance access to nursing and midwifery education.
Nursing Specific Curricula	
1.	It is recommended that the nursing profession explore options for integrated curricula leading to dual qualifications across all divisions of the register.
2.	It is recommended that a core foundation across the disciplines of nursing should be explored to support student centred inclusive flexible pathways.
3.	Interdisciplinary learning should be explored through simulated scenarios in preparation for clinical practice placements.
4.	It is recommended that there is a greater emphasis on medication management across the nursing curricula.
Midwifery Specific Curriculum	
1.	The midwifery profession should be acknowledged as a distinctly separate profession.
2.	It is recommended that the distinct pathways are defined in the midwifery curriculum.

2 Introduction

In April 2022 the Bord Altranais agus Cnáimhseachais na hÉireann (Nursing and Midwifery Board of Ireland) (NMBI) invited research teams to submit a tender to conduct a comprehensive evaluation of the Nursing and Midwifery curricula in Ireland leading to registration. The tender was awarded in July 2022 and the research commenced September 2022.

The aim of this project was to conduct a full-scale review of undergraduate nursing and midwifery programs leading to registration in Ireland, with the aim of future proofing the programmes for the decade to come.

Bord Altranais agus Cnáimhseachais na hÉireann (Nursing and Midwifery Board of Ireland) (NMBI) as the statutory body for the regulation of nursing and midwifery in Ireland provide standards and requirements for Higher Educational Bodies (EBs) and Associated Health Care Providers (AHCPs) involved in the education and registration of nurses and midwives in relation to the design, development, delivery and evaluation of nurse and midwife registration education programs. Currently programs are provided to educate nurses and midwives across several divisions resulting in graduates who may initially register as a: Registered General Nurse (RGN), Registered Psychiatric Nurse (RPN), Registered Nurses Intellectual Disability (RNID), Registered Children's Nurse (RCN) and Registered Midwife (RM). The current undergraduate nursing and midwifery four-year degree was first provided by the third level education sector in 2002 and 2006 respectively. Following a comprehensive review by the Department of Health in 2012, aligned with continuing engagement with stakeholders, NMBI published revised curriculum standards and requirements for registration programs in 2016. The standards were subsequently amended and approved in January 2022, and updated in 2023, with a particular focus on site inspection processes and requirements.

There are currently 75,871 nurses and midwives registered with the Nursing and Midwifery Board of Ireland (NMBI), as of June 2022 (NMBI 2022). Nursing remains the single largest grade category with more than 59,000 nurses and 3,850 midwives currently employed in patient facing roles (NMBI 2022). Nurses and midwives account for almost a third (31.6%) of

the total public health service workforce. Whilst the numbers of nurses and midwives on the register have increased, their proportional representation as part of the overall health service workforce has remained relatively constant over the past decade.

The healthcare sector in Ireland has undergone significant changes and continues to evolve rapidly in response to the changing needs of the population, which over the coming decades will see a significant increase in the number of people over the age of 65, who will require access to health services. With such a change in demographics there is a need to develop strategies that proactively respond to and manage the healthcare needs of the Irish population in the 21st century.

Both nursing and midwifery education programs will need to be responsive to the shift in focus to community-based healthcare and align with national health priorities for the development and delivery of healthcare services set out in Sláintecare. Nursing and midwifery education will also need to include a focus on digital health given the continuing growth in the use of technology to support health and well-being. Within this context curricula for undergraduate programs must be informed by evidence, guided by national health priorities, and provide a combination of theory and practice. Programs to prepare nurses and midwives for the future will need to be high quality, sustainable and innovative to develop registrants who are equipped to respond to the continually changing needs of the people in their care. This is in the context of person-centred care where future leaders will retain the values of compassion, care, and commitment.

3 Design of the Evaluation

3.1. Introduction

Conducting a full-scale review of undergraduate education for two distinct professions with four separate divisions on the register for nursing required a comprehensive process to guide the process. It was important to engage with graduates, multiple grades of nurses and midwives, service users and union representatives in addition to examining the literature, policy and curriculum documents related to nursing and midwifery education nationally and internationally. A robust education evaluation framework was selected to guide the multiple aspects of evaluation and the project was underpinned by appreciative inquiry.

3.2. Methodology

Appreciative Inquiry (AI) is a philosophy and a methodology for positive change in organisations (Cooperrider et al., 2008; Watkins et al., 2011). The view that organisations as living systems do not have to look for which part is causing a problem but focus on the idea that built into the fabric of the professions of nursing and midwifery are processes and potentials enough for the professions to move toward the desired visions (Watkins et al., 2011). The theory of social constructionism and the power of image underline AI (Cooperrider et al., 2008). The practice of AI resists the practice of problem finding, deficits and blame to focus on solutions, using the image of how a situation ought to be and creating a path toward the future. In this research AI is rooted in the values of the emerging paradigm, which is undergraduate nursing and midwifery education. In this mode the professions of nursing and midwifery create and move toward the vision of the desired future with a world view that acknowledges all the interconnecting parts of a system (Watkins et al., 2011).

Stufflebeam (1971) CIPP evaluation framework was used to guide the review of nursing and midwifery undergraduate curriculum. The CIPP framework involves review of the planning (context), structuring (input), implementing (process) and recycling (product) of the curriculum. Its value in nursing curriculum evaluation lies in how it examines the relationships among curriculum elements which may lead to a determination of the nature and degree of integration in the curriculum (Iwasiw et al., 2020). This model addresses the project objectives

as it provides for examination of the context both internationally and nationally. The CIPP evaluation model is widely used internationally to evaluate educational curriculum.

3.3. Project Design

This was a mixed-methods study underpinned by AI, applying a positive strength-based approach to change within organisational structures (Figure 1). The focus was therefore on positive core strengths of the nursing and midwifery professions to leverage a more sustainable future. Stufflebeam (1971) CIPP evaluation framework was used to guide the review of nursing and midwifery undergraduate curriculum. CIPP also acknowledges program improvement, so providing useful information for decision makers during all phases of program development even when the program is still being developed (Gandomkar, 2018).

Figure 1: Appreciative Inquiry Underpinned in CIPP Evaluation Framework

Figure 2 presents the flow of the project and illustrates the information feedback loops key to the integration of data.

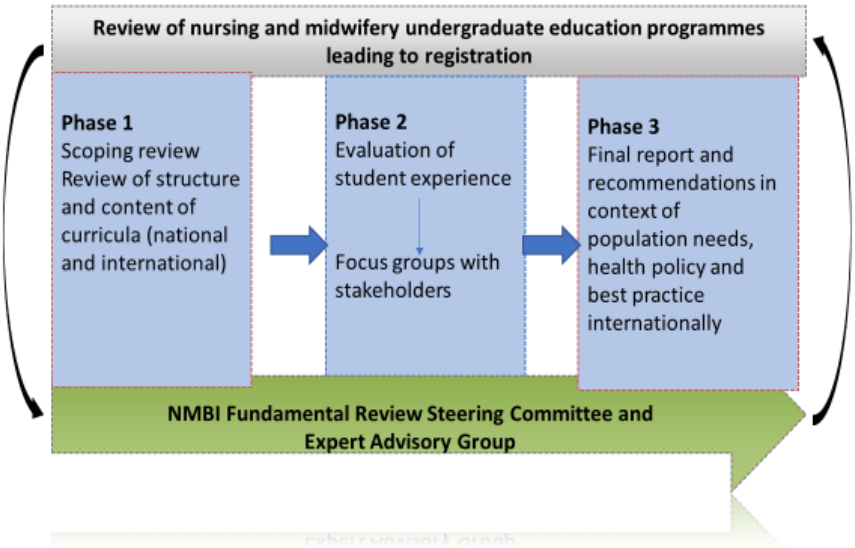


Figure 2: Flow and Integration of Data to Inform the Review.

3.3.1. Expert Advisory Group

An expert Advisory Group (EAG) was formed to oversee the project in collaboration with the research team. Two chairpersons were agreed to ensure there was equal oversight from both aspects of the curriculum, academic and clinical. The EAG membership was carefully constructed to ensure there was adequate representation from service user representative groups, students representing each division of the register, a variety of nursing and midwifery leaders and international experts. The EAG met on four occasions during the research project and provided guidance and expertise related to multiple phases of the research.

3.3.2. Phase 1 Review

3.3.2.11. Policy Document Review

One of the research strands involved in-depth analysis of existing Irish policies related to health and social care. The policy documents outline the requirements and visions for healthcare delivery. Nursing and Midwifery education prepares the respective workforce to deliver health and social care services reflected in the policy documents. The research question for this strand was to explore how current health and social care policies affect undergraduate nursing and midwifery attributes in the current curriculum.

3.3.2.2 Curriculum Document Review

This research strand involved an in-depth analysis of nursing and midwifery curricula in Europe and internationally. The research question for this strand was to explore how international nursing and midwifery curricula compared to the Nursing and Midwifery Standards and Requirements in Ireland (Nursing and Midwifery Board of Ireland, 2023; Nursing and Midwifery Board of Ireland, 2016) .

3.3.2.3 Scoping Review

A scoping review was completed using the Johanna Briggs Institute (JBI) for scoping review framework (Peters et al., 2021). The overarching objective of the scoping review was to establish the characteristics of optimal clinical learning environments for nursing and midwifery undergraduate students. More specifically, this scoping review sought to identify both the spectrum and the optimal fit of evolving methodologies, and practices in healthcare delivery that provide supportive clinical learning environments for nurses and midwives undergoing training.

3.3.3. Phase 2 Exploration of the perspectives of key stakeholders on the current nursing and midwifery programmes leading to registration.

The aim of this phase was twofold. An anonymous cloud-based survey was designed to explore and describe the experiences of graduates of the current nursing and midwifery programs leading to registration. This was followed by focus group discussions to explore the perspectives of key stakeholders involved in the governance, delivery (academic and clinical), and support of students undertaking these programs.

3.3.3.1 Graduate Survey

The survey instrument utilised dimensions from the Course Experience Questionnaire (CEQ) and the UK National Student Survey (NSS). The CEQ is based on a concept of university teaching and learning in which students' perceptions of curriculum, instruction and assessment are considered as key determinants of their approaches to learning and the quality of their learning outcomes (Wilson et al., 1997). The CEQ has been utilised to survey all graduates from the higher education system in Australia. The NSS is based on the CEQ and

is a long-established aspect of higher education provision used in England, Wales and Northern Ireland since 2005 (Satterthwaite and Vahid Roudsari, 2020).

3.3.3.2 Stakeholder Focus Groups

Wider engagement with a broad range of stakeholders was through a series of focus groups. The focus groups were online and were scheduled to invite groups of peers to engage with the research team using a semi-structured format. The structure was designed on the AI philosophy.

3.3.4. Phase 3 Final report and recommendations

The write up of the final report drew on each of the intermediate objectives of the project, cumulatively integrating the data to produce a final set of statements about the current nursing and midwifery programs leading to registration and how these programs are understood in the context of population needs, health policy and best practice internationally. The penultimate report was presented to the EAG for final discussion and agreement in advance of submission to NMBI.

3.4 Participants

A purposeful sampling technique was used to recruit potential participants for all phases of the research.

3.4.1. Graduate Survey

All nursing and midwifery graduates who completed the final year of their undergraduate educational programme in 2022 (January 2023 for Children and General graduates) were invited to complete the anonymous online survey. The participants were accessed through the NMBI via the ezine newsletter, social media marketing and an email to graduates when they applied for Registration. The email to graduates included an anonymous survey link and a QR code.

When the anonymous cloud-based survey was accessed, the opening page consisted of a participant information letter. Participants were required to select the option indicating consent to participate to proceed to the survey questions. If participants selected the option not to participate, the survey was designed to direct the participant to receive a message thanking them for their time to read the participant information leaflet. The sample was estimated to be 1800.

3.4.2. Stakeholder Focus Groups

An extensive broad reaching consultation with key stakeholders for undergraduate nursing and midwifery education in Ireland was conducted. The participants included:

Graduate participants were asked to provide their contact details at the end of a survey if they wish to be contacted to participate in the focus group for students.

Senior Stakeholders were recruited via invitation to the Chief nurses Office, the Office of the Nursing and Midwifery Services Director (ONMSD) in the HSE, The Chief Directors of Nursing and Midwifery, The Irish Association of Directors of Nursing and Midwifery (IADNAM) and the Heads of Schools of Nursing and Midwifery across Ireland. The principal researcher ensured there was a distribution of representatives from the various associations.

Academic participants were recruited by invitation to the Head of School of nursing and midwifery at each education body providing undergraduate nursing and midwifery education in Ireland requesting faculty representation. The principal researcher ensured there was a distribution of representatives from the various education bodies.

Clinical participants were invited via invitation email circulated to the ONMSD the Chief Directors of Nursing and Midwifery Group and the National Nursing and Midwifery Practice Development Group for distribution to the Directors of Nursing and Midwifery at clinical sites. Representation from Practice Development including Clinical Placement Coordinators (CPC) and Student Allocation Officers (SALO) were requested. In addition, clinical nurses in

preceptorship roles were also sought for participation. The principal researcher ensured there was a distribution of representatives from the various organisations.

Service User Representatives Associations on the Expert Advisory group requested an opportunity to contribute to the focus group phase of this research.

Union Representative participants were invited via email invitation circulated to all union groups representing nurses and midwives, including the Irish nurses and Midwives Organisation (INMO), the Psychiatric Nurses Association (PNA), the Services Industrial Professional and Technical Union (SIPTU), the Irish Federation of University Teachers (IFUT) the Teachers Union of Ireland (TUI) and the Students Union of Ireland (SUI).

The Associations and Organisations were contacted via email and invited to nominate a representative to participate in the respective focus group. The focus groups were conducted separately for the professions of nursing and midwifery except for the service users and union groups. Data from the policy document review phases and the graduate survey informed the semi-structured questions for the focus group interviews.

Participants expressed their interest in participating in the focus groups by emailing the principal investigator. Participant information leaflets and consent forms were circulated to interested participants via email. Participants returned the signed consent forms to the principal investigator indicating their preferred focus group. Upon confirming there was appropriate distribution in the selected focus group, consenting participants were forwarded a direct calendar invitation with a link to the respective focus group embedded.

3.5. Ethical Considerations

The research involved human participation therefore, it was essential that human research ethical approval was gained in advance of data collection.

3.5.1. Graduate Survey

A declaration of low-risk ethical consideration was submitted to UCD Human Research Ethics Committee for exemption from full ethical review. This decision was formed by the research team who determined that the content was non-emotive, related to professional work and the information was anonymous. This declaration was accepted by UCD Human Research Ethics Committee (HREC), reference LS-C-22-164-Ryder.

The balance of power was a consideration for the graduate participation; therefore, an anonymous online survey was proposed to protect graduate's identity. In addition, no identifiable data was included in the survey. Demographic questions focused only on the route of entry into nurse/midwifery education and the divisions of the register. Participants were informed of the survey via NMBI ezine newsletter, NMBI social media announcements and NMBI email. All social media communication contained a direct link and QR code to the survey. The email circulated to graduates by NMBI contained an information letter with an anonymous survey link and QR code embedded in the document.

When the survey was accessed, participants were required to read an information sheet and select the option to consent to participate or do not wish to consent to participate in the survey information. Participants were required to select the option indicating their consent to participate to access the graduate survey. Participants were free to leave the survey at any time. Participants were asked to provide their contact details at the end of the survey if they wish to be contacted to participate in the peer focus group for graduates.

3.5.2. Stakeholder Focus Groups

A declaration of low-risk ethical consideration was submitted to UCD Human Research Ethics Committee for exemption from full ethical review. This decision was formed by the research team who determined that the content was non-emotive, related to professional work and the information was anonymous. A protocol was prepared for the team to provide support for any focus group participants that may have become distressed during the discussions. This declaration was accepted by UCD Human Research Ethics Committee, reference LS-LR-23-03-Ryder.

Following approval of the low-risk declaration by HREC, focus group participants were contacted via an email to the respective organisations, who were asked to forward to the relevant individuals. The email included an information leaflet and a consent form that was returned to the research team indicating willingness to participate. A calendar invitation with an embedded zoom link to the relevant peer focus group was forwarded to each consenting individual. Consent to participate was reiterated at the beginning of the focus groups prior to recording. Participants were advised they were free to leave the group at any time.

3.6. Data collection

The research design included multiple modes of data collection.

3.6.1. Phase 1 Review

3.6.1.1. Policy Document Review

A desk-based analysis of Irish health and social care policy documents published since 2012 was completed. A protocol to conduct a review of the Irish health and social care policy documents was prepared to conduct the analysis of the documents identified (Dalglish et al., 2021). The READ approach is a systematic method of qualitative health policy research (Dheensa and Feder, 2022). There are four stages in the procedure including, i) readying the material ii) data extraction, iii) data analysis and iv) collate the findings.

The initial, readying the material stage, required the research team to identify the parameters of the document analysis based on the research question. This included specifying the documents for analysis, the amount of time for analysis and the scope of analysis.

It was reasonable to expect that the data evolved over the course of the research as it became clear whether the documents yield too much or too little information (Dalglish et al., 2020) to answer the research question. The research team agreed that purpose of this document analysis was to review the health and social care policies that influenced Irish health and social care since the development of the existing Nursing and Midwifery curriculum in 2012. The health and social care policy documents that were published since 2012 were explored to capture the reference to and requirements for the nursing and midwifery professional roles.

The findings were then examined for commonalities, inconsistencies, gaps and ambiguities related to nursing and midwifery education preparation to fulfil the professional role requirements to enact health and social care policy requirements.

3.6.1.2. Curriculum Document Review

Initial explorations from individual international universities determined that this review would analyse regulatory standards and guidelines providing strategic instructions to higher education bodies on developing nursing and midwifery curricula. The READ systematic method (Dalglish et al., 2020) was also applied to the review of curriculum documents. There are four stages in the procedure including, i) readying the documents ii) data extraction, iii) data analysis and iv) collate the findings.

Readying the documents required a broad exploration of nursing and midwifery curricula across European and international countries. The initial stage required the research team to identify the parameters of the curriculum document analysis based on the research question. This included specifying the curriculum documents for analysis, the amount of time for analysis and the scope of analysis.

It was reasonable to expect that the data evolved over the course of the research as it became clear whether the curricula documents yielded too much or too little information (Dalglish et al., 2020) to answer the research question. The research team agreed that the purpose of the curriculum document analysis was to review European and international nursing and midwifery curricula prepared by regulatory and or governing authorities for respective countries.

The decision to explore curriculum guideline documents was based on the knowledge that education bodies develop a curriculum based on the guidelines provided by governing authorities, institutional philosophy, policies and structures. It is therefore reasonable to expect that there were significant variances in nursing and midwifery curricula between education bodies. The focus of the review project was to review curricula leading to registration. In Ireland NMBI set the standards and requirements for Nursing and Midwifery, which prescribe the educational requirements. These documents prescribe the education

requirements for curricula leading to nursing and midwifery registration. The research team therefore concluded that similar European and international documents would be collected for analysis in this review. A second requirement was that the documents gathered were in English or could be translated into English. A third requirement related to geographical representation of documents across Europe and Internationally. The documents were then examined for commonalities, inconsistencies, gaps and ambiguities related to nursing and midwifery curricula outlined in the regulatory guidelines.

3.6.1.3 Scoping Review

The scoping review's Population, Concept, and Context (PCC) terms (Table 2) were defined and a cohesive set of questions, objectives, and aims were agreed. A brief non-systematic literature search was then conducted in PubMed and Medline to identify potential keywords not captured by the group discussion. The results of this preliminary literature search yielded new terms to describe both the concept and the context, such as ambulatory care facilities, high fidelity simulation training, simulation, training or outcome and process assessment, health services or health facilities. Following this iterative process, consultation with the librarian, and trial of the tools to be used in the review, the team also conducted searches of the Cochrane Database of Systematic Reviews and the JBI Evidence Synthesis database to check if any systematic or scoping reviews on the topic of interest were already underway.

After this preparatory investigation, a full list of search strings was organised for each database search (Appendix 1). The search strings were then discussed and revised with the UCD Nursing, Midwifery, and Health Systems librarian.

Table 2: Population Concept and Context key Terms and Alternatives

	Key Term	Alternate Term
P	**Nurse**	Nurse Midwife
	Midwifery	Midwi*
	Undergraduate	Baccalaureate
	Student	Student* OR Undergraduate
C	**Clinical**	Ambulatory Care Facilities
	Learning	High Fidelity Simulation Training OR Simulation Training OR Outcome and Process Assessment OR Preceptorship OR Mentor
	Optimal	High-Quality OR Excellent OR Positive OR Best Effective OR "optimal characteristics" OR "best characteristic" OR "effective characteristic" OR "high quality characteristics" OR "excellent characteristics" OR "positive characteristics" OR "optimal elements" OR "best elements" OR "excellent elements" OR "high quality elements" OR "effective elements" OR "positive elements" OR "optimal indicators" OR "high quality indicators" OR "excellent indicators" OR "best indicators" OR "effective indicators" OR "optimal factors" OR "high quality factors" OR "best factors" OR "effective factors")
	Characteristics	Factors OR Elements of OR Indicators of
C	**Environment**	Health Services OR Health Facilities OR environment$ OR Environment comparison$ OR Environment innovation OR Environment optimization OR Placement$ OR Program* OR Setting$ OR Site$

The next phase involved searching the following databases, ERIC International, PubMed, Embase, CINAHL Plus, and PsycINFO and we also searched for grey literature in Cochrane, the World Health Organisation (WHO), the Agency for Healthcare Research and Quality (AHRQ), and the European based literature of Opengrey. All relevant studies of all design types were included and a total of 4766 studies were uploaded for screening into the COVIDENCE platform. 1018 studies were screened out by the COVIDENCE platform for being duplicates,

leaving 3748 studies to be screened for titles and abstracts at the first stage of the COVIDENCE workflow.

3.6.1.3.1 Search Strategy

Search terms were organised into three concept groups. The first concept group explored different ways of describing our population target, which consisted of undergraduate nursing and midwifing students, and included the terms such as nurse OR nurse midwife OR midwifery OR baccalaureate OR student* OR undergraduate. The second concept group introduced the concept of clinical learning (CL) and paired this concept with the concept of optimal characteristics. This included terms such as clinical OR ambulatory care facilities OR learning high fidelity OR simulation training OR preceptorship OR mentor, and high-quality OR excellent OR positive OR best effective OR "optimal characteristics" OR "best characteristic" OR "effective characteristic", and factors OR elements of OR indicators. The third group introduced the term environment to complete the commonly used concept of clinical learning environment. This concept was also searched with alternative terms such as health services OR health facilities.

3.6.1.3.2 Types of studies

The review considered any quantitative, qualitative, and mixed methods studies including experimental, descriptive, observational studies concerned with the experience of nurses and midwifes with their clinical learning environment. Only studies published in English were considered for the review.

3.6.1.3.3 Study selection process

All the stages of the data review and extraction processes were documented using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses PRISMA (Figure 3) flow chart (O'Dea et al., 2021). The first stage of the COVIDENCE workflow consisted of a review of the titles and abstracts of the 3748 studies gathered, to see whether they included the population and target concept defined by the team. To ensure transparency, two reviewers independently screened the titles and abstracts of each article to be included in the full-text review. Pre-specified inclusion and exclusion criteria and in consonance with the research question were applied to the screening stages (Table 3). More specifically the

inclusion/exclusion criteria for this stage were nurse, midwife, midwives, student, undergraduate but not masters, professional, or medical students for the population, and optimal clinical learning environments attributes, features, properties for the inclusion criteria of the concept. Studies were additionally excluded for being written in language other than English, not having the full-text available, being outside the 2012-2024 range, being reviews of any kinds (e.g. Systematic reviews, literature reviews), or being web pages, or summaries. During this stage the team decided to also exclude all studies presenting with the keyword simulation. The reviewers met weekly at each stage of the review process to debate challenges, clarify inconsistencies, discuss selection biases, and make refinements to the search or data extraction protocol. Where disagreement between two reviewers emerged about the inclusion of an article at any stage of the review, additional reviewers were consulted. The resulting selection, which consisted of 191 studies, proceeded to full-text review.

Table 3: Inclusion/Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
• Nurse, midwi*, student*, undergraduate • Optimal CLE attributes, features, properties • Qualitative, Quantitative and Mixed Methods	• Masters, professional, medical students • Language other than English • Full-text unavailable • Prior to 2018 • Reviews, web pages, summaries, Posters • Wrong study design, tool development • Wrong population

The second stage was aimed at including or excluding papers by reviewing full-text articles, for subsequent data extraction. The full-text review was then conducted by two separate reviewers based on (Figure 3), (Page et al., 2021). The inclusion/exclusion criteria was applied to the articles selected by two reviewers to guide selection. Consequently the reviewers concluded that 25 studies presented with no CLE characteristics, six studies presented with the wrong study design (eg. technology or programs pilots, simulations) and three presented

with the wrong sudy population were excluded. A further six studies presented with the wrong Language, two were review articles, two were summary articles, and one was a poster

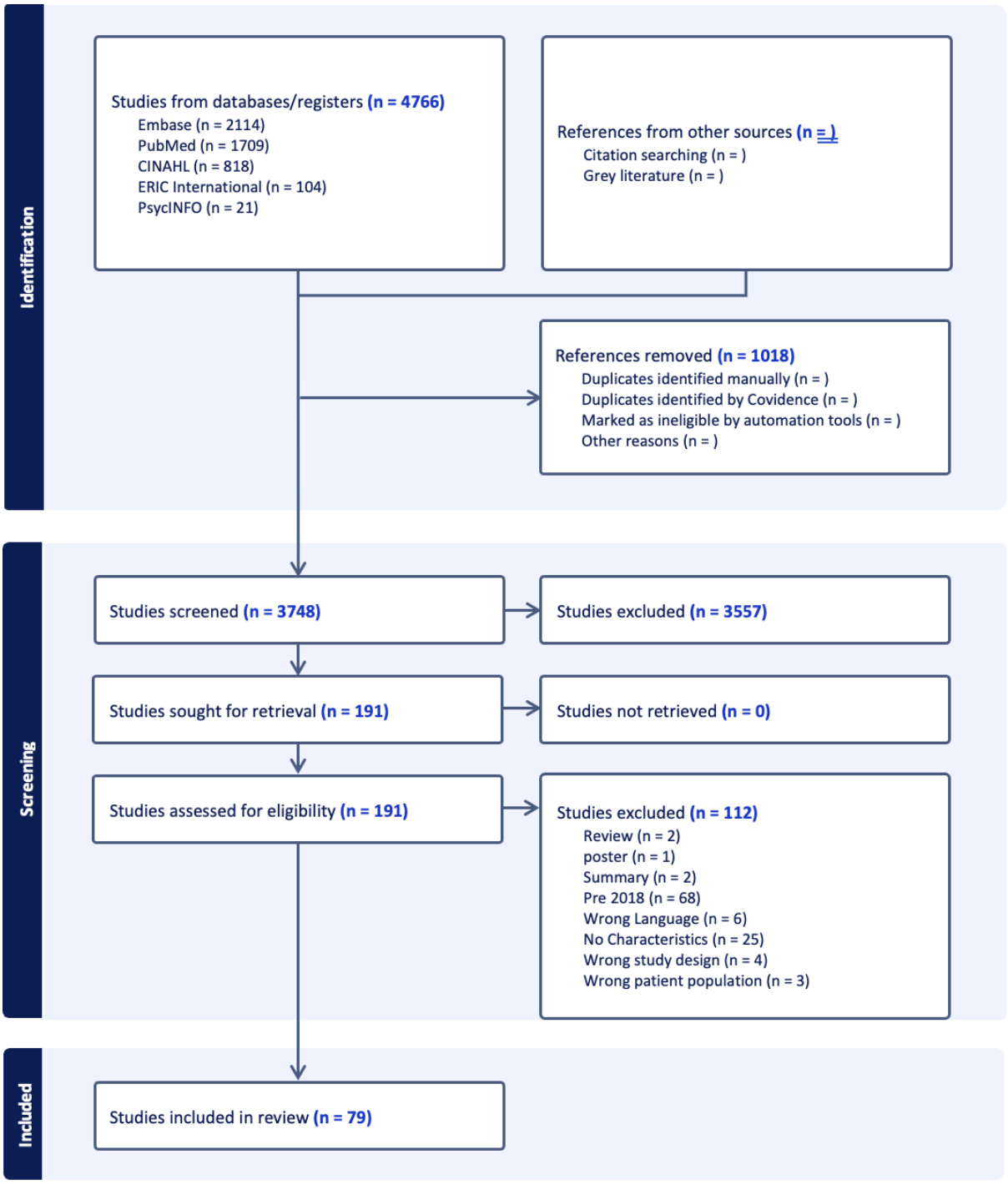


Figure 3: Scoping Review PRISMA Data Collection

abstract. The resulting selection consisted of 161 studies which were evaluated in terms of their data extraction potential and the financial and time constraints the team was operating with. A collective decision was made to restrict the date range in the exclusion criteria from

2012 to 2018 to reduce the number of studies for full text review. The year 2018 was chosen because the new curricula commenced in that year. The resulting final full-text selection consisted of 79 studies (Figure 3).

Inter-rater reliability was assessed to measure the agreement between the five independent reviewers who evaluated the selected studies for inclusion in this scoping review. The Cohen's Kappa statistic was employed as the measure of agreement. The calculated Cohen's Kappa coefficient was found to be 0.26902.

The third stage of data collection was aimed at extraction of both methodological and descriptive data (Appendix 2). COVIDENCE provides an extraction template processing system and the team met to construct the template to be used across all the 79 studies systematically. The template included considerations of the geographical region the study took place in, the methodological choices made by the authors, including the type and number of participants, the supervision model used in the CLE, and the specific setting in which the study participants carried out their CLE (Appendix 3). A spreadsheet template was built to capture all the rich data characteristics that contributed to the student's CLE. This spreadsheet template classified characteristics in terms of them being concerned with students, academic staff, supervisors, the pedagogy in use, and the clinical environment at large, making no distinction between them being positive (e.g. good communication with the supervisor, or flexible roaster) or negative (e.g. discrimination of the midwifery profession, or lack of accessibility to supervisor).

3.6.2 Phase 2

3.6.2.1. Graduate Survey

Data included a cloud-based anonymous survey. All students (approx. 1800) on the NMBI candidate nursing and midwifery register, and in the final year of their programme were invited to participate.

The survey instrument utilised dimensions from the Course Experience Questionnaire (CEQ) and the UK National Student Survey (NSS). The CEQ was originally developed in Lancaster University (Ramsden) in the 1980's and is an early example of a survey designed to capture student perceptions of course quality at a national level (Langan and Harris, 2019). The CEQ

is based on a concept of university teaching and learning in which students' perceptions of curriculum, instruction and assessment are considered as key determinants of their approaches to learning and the quality of their learning outcomes (Wilson et al., 1997). Criterion validity has been established for each domain within the CEQ (Wilson et al., 1997). The CEQ is currently utilised to survey all graduates from the higher education system in Australia. The NSS is based on the CEQ and is a long-established aspect of higher education provision used in England, Wales and Northern Ireland since 2005 (Satterthwaite and Vahid Roudsari, 2020). The NSS is purported to have a robust design in relation to consistency and validity (Cheng and Marsh, 2010). The NSS is a highly reliable test, both at question and domain levels (Satterthwaite and Vahid Roudsari, 2020).

The overall the 41-item survey instrument (Appendix 4) incorporated all CEQ dimensions (37 items, 6 dimensions) and one section from the NSS (6 items) related to clinical placements. The dimensions included clear goals and standards, generic skills, appropriate workload, assessment, and feedback, learning resources, student voice and practice placements. A five-point Likert scale was incorporated, with graduates indicating their extent of agreements of varying aspects from definitely agree to definitely disagree. A text box was included at the end of each survey to allow students the opportunity to add in any additional comments on their experience of the programme. An additional open text box was included at the end of the survey where graduates were asked to provide a contact email address if they wished to receive an invitation to a peer focus group at a later date. This graduate contact information was collected separately to the anonymous survey data.

3.6.2.2. Stakeholder Focus Groups

Online focus groups were conducted to undertake the qualitative aspect of this study. Yeoman and McMahon-Beattie (2019) suggest that these new types of focus group utilise the principles of traditional focus groups but have adapted because of technological advancement. As a result of interaction between participants focus groups tend to lend themselves to greater dept and breath of discussion and add emotion to the conversation (Gammie et al., 2017). They utilise group dynamics to access rich information from the group's participants (Polit and Beck, 2022). Online focus groups facilitated participation from various geographical regions and in turn eliminated the burden on participants to travel (Stewart and

Shamdasani, 2017). According to Richard et al. (2021) online focus groups facilitate similar quantity and quality of information collection at a much-reduced cost.

The target size for focus groups was informed by Polit and Beck (2022) recommendation that groups consisting of 6-12 participants was an optimum size. Consistent with evidence-based practice (O.Nyumba et al., 2018), participants were invited to a focus group scheduled for a maximum of two-hour period. A semi-structured interview schedule was used whereby the topic guide was developed based on the philosophy of AI and findings from the document review and graduate survey.

A protocol was developed to guide facilitators for each focus group. Each focus group comprised of two facilitators from the research team. One facilitator led the group questions and discussions and a co-facilitator provided support to the lead facilitator and participants as required, ensuring all queries raised were addressed and taking notes of key points discussed. All focus groups were recorded on the registered zoom account of the principal investigator.

3.7. Data Analysis

A variety of methods of data analysis were applied to the data collected during the various phases of the project.

3.7.1. Phase 1

3.7.1.1. Policy Document

Data extraction and analysis were iterative as the findings continually informed the team on how to interpret the data. The data was analysed for trends, similarities, differences, and evolutions. It was anticipated that coding would be agreed during data extraction.

There was no prescriptive approach to extracting the data using the READ approach (Dheensa and Feder, 2022). The research team applied a simple approach used by Dheensa and Feder (2022), using an excel spreadsheet where each row represented the health and social care documents, and each column represented a category of information. Each document was first

read by two team members and explored using a broad set of questions to determine the suitability for closer analysis (Dalglish et al., 2020):

- What was the purpose of the document?
- Who was the target audience?
- Who created the document?
- Was the document credible?
- Were there internal contradictions in the document?
- What sources are cited in the document?
- Was the document similar to another?
- Was the document relevant to answer the research question?

When it was identified that the document was relevant to answer the research question, it was then selected for closer analysis and data extraction. Data extraction and analysis were iterative as the findings continually informed the researchers how to interpret the data. The data was then analysed for trends, similarities, differences, and evolutions using a content analysis framework (Krippendorff, 2018):

1. The research team familiarised themselves with the data searching for generalisations related to nursing and/or midwifery.
2. Codes were generated and labelled that outline the description of the role of the nurse/midwife in the policy document.
3. Coders discussed the individual codes recorded and discussed similarities and overall findings related to the role of the nurse/midwife described in the policy documents analysed.

3.7.1.2. Curriculum Document

Data analysis followed the same READ approach used for the policy document analysis. Data extraction and analysis were iterative as the findings continually informed the team on how to interpret the data. The data was analysed for trends, similarities, differences, and evolutions using a content analysis framework (Krippendorff, 2018).

There was no prescriptive approach to extracting the data using the READ approach (Dheensa and Feder, 2022). The research team applied a simple approach used by Dheensa and Feder (2022), using an excel spreadsheet where each row represented the selected country, and each column represented the category of information. Each document was first read and explored using a broad set of questions to determine the suitability for closer analysis (Dalglish et al., 2020):

- Was the document available online?
- Who created the document?
- Who was the target audience?
- Were there standards and requirements?
- Was there a specified competency framework?
- What was the exit award?
- What was the duration of the course?
- Were graduate attributes specified?

When it was identified that the document was relevant to answer the research question it was selected for closer analysis and data extraction. The data extraction tool identified a number of categories:

- Identify the regulator.
- Education Provider.
- Level of academic award.
- Standards and Requirements (Yes/No response).
- Competency framework (Yes/No response).
    - List the domains.

3.7.1.3. Scoping Review

Data extraction adhered to PRISMA scoping review guidelines and the guidelines outlined by JBI for scoping review guidelines. The methodological quality of each article was outlined but not appraised in detail. In line with JBI scoping review guidelines methodological assessments were not conducted. The characteristics of the studies were analysed, extracted and charted and the findings described and summarised.

3.7.2. Phase 2

3.7.2.1. Graduate Survey

Data was analysed using descriptive statistics. Measures of central tendency included the mean and median, and measures of variability, standard deviation, range, minimum and maximum. Frequency and frequency percent were explored. Inferential statistics were used to draw conclusions about the population that participated in the online survey.

3.7.2.2. Focus Groups

Recordings from focus groups were transcribed verbatim and any identifiable information was removed. Transcripts were checked for accuracy by the research team. Data was analysed using (Braun and Clarke, 2022) thematic analysis framework. Themes were developed, discussed and a consensus reached among the research team.

3.7.2.3. Summary

The research project to review the nursing and midwifery undergraduate curricula was led by a diverse research team with expertise in each of the professions and disciplines within the nursing profession. The team was supported with clinical and academic expertise who have experience in curriculum design, delivery and evaluation. In addition, the research included the establishment of an Expert Advisory Group, which included service user representation to oversee and advise the research project.

The project design used a mixed methods evidence-based evaluation framework, which focused on the context of the evaluation and was underpinned by appreciative inquiry. The methods of engagement and consultation with key stakeholders were inclusive of the various levels and layers of professionals associated with the nursing and midwifery undergraduate curricula. Data integration was embedded in the process and each phase of data collected informed subsequent phases of the research project.

4 Results

4.1. Introduction

The results of each phase of data collection will be presented separately in this chapter.

4.1.1. Policy Document Review

There were 34 health and social care policy documents identified in Ireland since 2012. Each document was analysed by two team members using the broad headings described previously. Eighteen policy documents were excluded, and the remaining 16 were advanced to the second phase of analysis using the agreed categories identified in the protocol (Table 4). The team then conducted a content analysis of the selected policy documents for nursing and midwifery as separate professions and developed themes that reflected the future direction of nursing and midwifery graduates. The themes were critically appraised with the current nursing and midwifery curricula.

4.1.1.1. Nursing Policy Documents

Nursing and midwifery were referred to frequently in all of the health and social care policy documents analysed. There was an absence of visibility of nursing in the documents. It was noted that most policy documents discussed the expectations of nurses, yet there was no evidence of the inclusion or consultation with the nursing profession by the authors of the respective policies. Policy decisions which impacted the role of the nurse were often made with little analysis of the potential impact on the nursing profession. The themes developed for nursing include (Figure 3):

- *Community focus*: There is a significant emphasis in healthcare policy related to shifting healthcare delivery to the community. This includes nursing roles both working in integrated acute/community settings and a goal to deliver a significant portion of care outside of acute hospitals. There is an emphasis on a flexible workforce including nursing, with transferrable skills across the community and acute care settings. This also requires the nursing workforce to care for health service users experiencing acute episodes of ill-health in their home environment without the need to transfer to an acute hospital environment. Integrating community and acute sector

workforce will support this direction in healthcare delivery through the development of a flexible workforce with transferrable skills. The Report of the Expert Review Body of Nursing and Midwifery (Department of Health, 2022) specifically highlight a need for the development of community focused careers for the professions.

When the findings were critically appraised with the current nursing curriculum it is evident that there is an urgent need to shift nursing education towards community care and develop a stronger emphasis on community presence throughout a new curriculum in line with future healthcare policy. The graduate attributes are focused on acute hospital healthcare delivery and career development. Person centred care receives a strong focus in the current nursing curriculum; however, the curriculum is also focused on care delivery in acute hospitals. The current curriculum learning outcomes refer to person centred nursing care across the lifespan and in diverse healthcare settings, without specifying practice settings. However, the implementation of the curriculum has followed the traditional apprentice training model with a significant focus in acute hospital/residential care.

- *Social determinants of health*: A significant focus in healthcare policy is directed toward health and wellness. This includes an understanding of the social determinants of health and the impact they have on an individual's health and wellbeing. This is a significant change in direction from the current focus on illness, treatment and management. The emphasis is to support person centred healthcare delivery as close to the primary place of residents as possible.

  The World Health Organisation define the social determinants of health (SDH) as the non-medical factors that influence health outcomes (World Health Organisation, 2010). They are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. It is believed that medical care influences health, but that its influence is limited (Braveman and Gottlieb, 2014). It is believed that non-medical factors have also significantly contributed to unfair and avoidable differences in health status, such as levels of income, education, employment status, work-life conditions, housing,

environment, childhood development, violence, social inclusion and non-discrimination and access to affordable quality health services have a greater influence on health inequalities than originally assumed (Braveman and Gottlieb, 2014). Health is inclusive of physical and mental wellbeing.

Critically appraising this theme in the context of the current curriculum, whilst assisting healthy individuals toward achieving a healthy lifestyle is acknowledged, the curriculum fails to embrace the complexities of the social determinants of health. The current curriculum acknowledges the importance of life-preserving treatment and enacting measures in disaster situations, however social determinants of health affecting individual life choices across the health spectrum are absent. Therefore, there is a need to embed the social determinants of health and wellness in the nursing curriculum.

- *Increased diversity*: The health and social care policy documents alluded to increasing diversity in the population. Diversity is not only related to race and gender, but inclusive of vulnerable people with complex needs. Inclusive healthcare and inclusion health for a diverse population requires specific understanding. Diversity and inclusion become more prevalent as healthcare delivery diversifies into the community setting, as traditional acute hospital healthcare has not always been inclusive of all people. In addition, there is an increasing diversity in healthcare delivery aligned with the implementation of healthcare policy. This requires workforce flexibility and transferrable skills set across the divisions of the nursing workforce to ensure safe quality healthcare is delivered within this expanding diversity.

  Analysis of the current nursing curriculum learning outcomes indicate that person-centred care is embedded throughout. However, the learning outcomes are largely focused on healthcare delivered in a structured organised clinical setting. Dignity and compassion are essential in nursing practice, however understanding diversity and inclusion of the person and the healthcare environment are not adequately represented. These factors are consistent with the social determinants of health and suggest that a deeper understanding of diversities and inclusiveness within the

population is important. A revision of the curriculum must reflect diverse, inclusive healthcare delivery to ensure person-centred care captures a more diverse and inclusive role for nurses, with core skills across the divisions of the register.

- *Inter-professional workforce*: Healthcare policy documents regularly refer to inter-professional and intra-professional relationship working across the healthcare setting. It must be acknowledged that community healthcare teams are more proportionally diverse. Nurses work in smaller nursing groups and regularly as the only nurses on inter-professional healthcare teams in the community. Inter-professional and intra-professional governance relationships are more prevalent, particularly in community settings. The future landscape reflects working together, with many nurses working in spaces with multiple regulators across healthcare professions.

  The current curriculum competencies reflect nursing teamwork, leadership, practice and decision-making, in the clinical practice settings which are located primarily in acute hospitals. There is, therefore, minimal exposure for students to engage in inter-professional working, decision-making and reporting relationships. Nurses work as part of a healthcare team irrespective of the clinical practice area. In preparation for graduates working in community healthcare teams there is a requirement for greater emphasis on inter-professional and intra-professional learning.

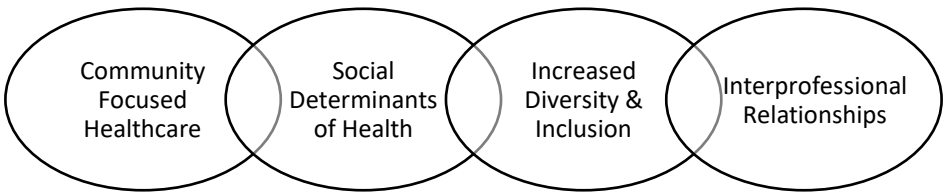


Figure 3: Thematic framework of Irish healthcare policy documents related to nursing education.

4.1.1.2. Midwifery policy document

- Midwifery specific policy is well aligned to the requirements and standards. The language related to midwifery in the policy documents analysed was comparable to the NMBI curriculum documents (figure 4).
- A small number of policy documents related solely to the midwifery profession.
- It was observed that the term 'nursing and midwifery' was used throughout generic policy documents that did not refer to midwifery practice.
- Understanding midwifery: The policy documents analysed for this research primarily described a service that included the role of a midwife. The documents failed to explain or describe the role of the midwife, specifically the relationship between women and their midwife within a service. Midwifery care is woman centred, holistic, personalised and culturally sensitive. Midwives play a strong advocacy role for women during pregnancy and birth and work in partnership with women. Understanding this role and relationship with women was not clear in the policy documents reviewed.
- Practice environment: The environment that midwives practice is flexible and diverse reflecting the woman's home, within the community, integrated care and hospital care working in teams.
- The quality of midwifery care was defined on four pillars including safety, teamwork, flexibility and research.

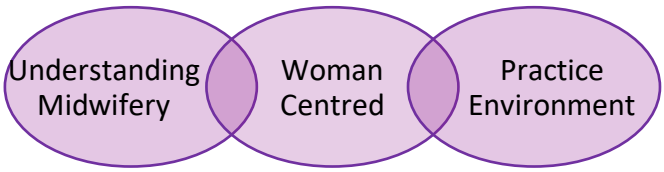


Figure 4: Thematic framework of Irish healthcare policy documents related to midwifery education.

Table 4: Policy Document Data Extraction

Policy Document	Date Published	Number of times 'Nurse' is mentioned	Number of times 'Midwife' is mentioned	What graduate attributes are required for Nurse/Midwife in the policy document?
Report of the Expert Review Body on Nursing and Midwifery	2022	1000+	699	Interprofessional teams Flexibility/ Intra professional mobility Clinical supervision/ Increased physical/psychological assessments Career pathway development/ community focus Digital capability Social determinants of health
A Vision for Psychiatric Mental Health Nursing	2012	700+	86	Recovery focussed – Care planning/ collaboration/communication/facilitating Early intervention / Quality and safe care Flexibility/ Skills for working with at risk groups Social determinants of health
Sláintecare - Committee on the Future of Healthcare Report 2017	2017	63	10	Flexibility Task shifting Community/Wellbeing/Integrated Enabling Digital care
Mental Health Commission Care Physical Health of People with Severe Mental Illness	2019	1	0	Physical health monitoring health surveillance Physical health skills development Flexibility Knowledge enhancement

Shaping the Future of Intellectual Disability Nursing in Ireland	2018	700+	60	Health screening, assessment and promotion across their life-span Person centred care Professional leadership Advocate Collaborate with community teams Manage complex health needs Palliative care Health promotion Safety and risk Work as part of primary care team Support social inclusion Design and development of services Quality and safety Behaviour support Equity
National Standards for Residential Services for Children and Adults with Disabilities	2013	6	3	Protection of vulnerable people Person centred care Safe effective care
Assisted Decision Making (capacity) Act 2015	2015	Nursing 3 ADM	Midwifery 0	Supporting patient decision making
Sharing the Vision: A Mental Health Policy for Everyone 2020	2020	7	N/A	Community/Collaborative Intra disciplinary Inclusive/Risk management Children's mental health Social determinants
Report of the Review of Undergraduate Nursing and Midwifery Degree Programmes	2022	1000+	700+	Shared learning Cross disciplinary learning Home care Community related skills
Clinical governance and operational arrangements for supporting a model of care for children with life limiting conditions towards the end of life in the community in Ireland	2020	22	1	The report recommends establishment of an education group to agree a set of competencies for primary care, paediatric and adult palliative care teams and to develop a comprehensive education and training plan to meet those competencies

Leading the Way – A National Strategy for the Future of Children's Nursing in Ireland 2021-2031	2021	1200+	100+	General focus on developing graduate and CPD programmes in response to changing needs, with increased regional access provided to these programmes.
National Guideline for Nursing and Midwifery Quality Care-Metrics Data Measurement in Children's Services	2018	300+	200+	focused on measuring care eight areas: medication management, care planning, infection prevention, nutrition, pain, vital signs, CAMHS and discharge planning
Evaluation of the Children's Palliative Care Programme (CPCP) A jointly funded programme of work arising from Palliative Care for Children with Life-limiting Conditions - A National Policy	2016	60+		focused on governance and expansion of education in this area in general
National Maternity Strategy - Creating a better future	2016	N/A	160	Teamwork/collaboration; Holistic approach to women's healthcare needs; Advocacy; Safe high-quality care; Research innovation and technology; Clinical leadership; Governance; Diversity and flexibility; Ability to individualise care; Foster culture of safety and quality; Work in partnership with women; Interprofessional communication
National standards for safer better maternity services	2016	N/A	69	Safe high quality; Nationally consistent; Responsibility and accountability; Women-centered; Good communication and listening skills; Sensitive to cultural needs
HSE National standards for bereavement care following pregnancy loss and perinatal death	2021	N/A	168	Information technology; Holistic clinical experience; Communication; Self-care; Recognising the grieving process; Recognise national standards; Audit

4.1.2. Curriculum Review

4.1.2.1. Nursing Curriculum Document Review

Curricula guidance documents were analysed using the broad categories agreed by the research team. An exploration of curriculum documents from eight European countries and eleven international countries was undertaken. The extent of the exploration was dependent on the accessibility and availability of curricula in the English language, exit award of a bachelor's degree and to meet the data extraction guidelines, four European countries and eight international nursing curriculum documents were analysed. The same countries were explored for midwifery curriculum documents, however not all counties provided a separate curriculum.

The following European countries were examined; Ireland, Spain, Italy, and Sweden (Table 5). A regulatory body is responsible for awarding the registered nurse registration in the case of Ireland, Italy and Spain whereas the government has responsibility in Sweden. Nursing education in the European Union (EU) is required to follow directions from the EU directive requirements.

The European Directives 2005/36/EC and later 2013/55/EU set out the requirements for the training of registered nurses in relation to content, placements and time spent in clinical practice. Article 31 of the 2005/36/EC directive identifies that the training of nurses shall comprise of at least 3 years of study or 4,600 hours of theoretical and clinical training, with the theoretical instruction representing at least one third, and the clinical instruction at least one half i.e., a minimum of 2,300 hours. The directive identifies that the theoretical instruction must address the following three broad areas, nursing, basic sciences, and social sciences and further expands on the components of these areas. In relation to clinical instruction the directive lists seven areas that students must obtain exposure to, e.g., general and specialist medicine, general and specialist surgery, childcare and paediatrics, maternity care, mental health and psychiatry, care of the old and geriatrics, and home care. Apart from the overall clinical instruction hour i.e., minimum, the directive does not specify the time to be spent in these individual areas.

This EU directive was revised in 2013 (2013/55/EU) (European Parliament and of the Council, 2013) and expands on the previous directive and makes further demands on nurse education e.g., able to diagnose independently, plan, organise and communicate the nursing care given. It also includes a set of eight competences that establish the minimum educational requirements for nurses responsible for general care. The European Federation of Nurses Associations (2015) developed a competency framework for guiding the implementation of the EU directive.

From an Irish perspective the Nursing and Midwifery Board of Ireland under the Nurses and Midwives Act 2011 (Government of Ireland, 2011) sets the standards and requirements for the professional education of nurses and midwives which are published in the Nurse Registration Programme Standards 5th edition (NMBI, 2023). This document incorporates the EU directives and guides the education bodies e.g., universities in terms of the provision of nurse education. It was not evident that a similar guidance document was available in Spain, Italy or Sweden. These countries follow the legislative frameworks in their respective countries and conform with the EU directive. It appears that the universities in these countries have more flexibility in relation to curriculum development for nurse education.

All four European countries award a bachelor's degree ranking from a duration of four years in Ireland and Spain, to three years in Italy and Sweden, with all having national competency standards. Additionally, Italy has a standard national professional examination that must be undertaken in order to be entered onto the professional registrar.

Table 5: European Nursing Curricula Data

Country	Documents available online (Yes/No)	Who created the document? (Government/Association/Independent Regulator)	Who is the target Audience? (Responsibility for interpretation and curriculum development)	Is there a specified competency framework (Yes/No/ EU)	Qualifying Award (Honours Degree/ Bachelor's Degree/ Diploma	Duration of course (years) (Full calendar year (F) or academic (A))
Ireland	Yes	Regulator- Nursing and Midwifery Board of Ireland mandated by the Nurses and Midwives Act of 2011 to set Standards and Requirements (NMBI 2016, revised 2023)	Each University can draft its own curriculum. This curriculum is guided by the Nurse Registration Programmes Standards and Requirements which is underpinned by EU directive	Yes 6 domains of competence	Bachelor's degree	4 (A) and 4.5 (A)
Italy	Yes	Regulator- Each provincial Order of nurses is under the umbrella of a National Federation (FNOPI). The law (Law n. 3 of 2018) and legislative decree n 233 of 1946 gives governmental oversight for the nursing profession to the Order of nurses, where nurses are elected in each Italian province (102 provinces or joined provinces) to oversee the activities to boost professionalism and ensure public protection.	Each University can draft its own curriculum. There is a standard for undergraduate nursing education, following the Bologna Process, given by the decree n. 270 of 1994, which was transferred in an agreement between the Ministry of Education and University, Ministry of Work, and Ministry of Health and Welfare. Also comply with EU directive	Yes (In Italian) Guided by European Frameworks.	Bachelor's degree. A state exam is at the end of the undergraduate path, so every nurse who concludes the undergraduate education is able to be registered and it is mandatory to be registered to practice as a nurse.	3 (A)

Country	Documents available online (Yes/No)	Who created the document? (Government/Association/Independent Regulator)	Who is the target Audience? (Responsibility for interpretation and curriculum development)	Is there a specified competency framework (Yes/No/EU)	Qualifying Award (Honours Degree/Bachelor's Degree/Diploma)	Duration of course (years) (Full calendar year (F) or academic (A))
Spain	Yes	Regulator -The General Council of Official Nursing Colleges of Spain is the regulatory body and competent authority of the nursing profession in Spain. Basic Legal Framework General Health Act 14/1986 Regulation of the Health Profession Law 44/2003. Royal Decree 2014 Common bases of knowledge for all professionals including Nursing. The Ministry of Education is responsible for the regulation of undergraduate health professional training.	Each University can draft its own curriculum. Must conform to EU directive.	Yes. Follow the EU 2013/55/EU framework.	Bachelor's degree	4 (A)
Sweden	Yes	Government - All nursing education must comply with National Regulations set by the Higher Education Ordinance and the Higher Education Act. The National Board of Health and Welfare (NBHW) is responsible for the registration and licensing of registered nurses and other health professionals.	Each University can draft its own curriculum. Must conform to EU directive.	Yes. Swedish Society of Nursing (Non-profit organisation) published 2017(In Swedish). Swedish Council for Higher Education: Competence and Skills-9 competencies	Bachelor's degree	3 (A)

The international countries included in the analysis were: Australia, Brazil, Canada, Jordan, China, New Zealand, South Africa, United Kingdom. All eight international countries had documents available online and in English (Table 6)

Regulation varied across countries with Regulation bodies, Ministries of Education and Nursing Accreditation Bodies having responsibility for nursing regulation. The education providers were the Universities and level of awards were bachelor's degrees of three to four years in duration. Each country has competences embedded in the curricula. Australia and New Zealand have guiding frameworks similar to Ireland. In the post Brexit era, the United Kingdom has reviewed their education standards, and the Regulatory Authority has recommended doubling the simulation hours and moving from the "EU dated clinical placement" setting requirements to facilitate students to identify placements more relevant to their learning needs. Similar to Italy, some international countries require candidates to undertake an additional professional examination to be eligible to register as a nurse.

Table 6: International Nursing Curricula Data

Country	Documents available online (Yes/No)	Who created the document? (Government/Association/Independent Regulator)	Who is the target Audience? (Responsibility for interpretation and curriculum development)	Is there a specified competency framework (Yes/No/EU)	Qualifying Award (Honours Degree/Bachelor's Degree/Diploma)	Duration of course (years) (Full calendar year (F) or academic (A))
Australia	Yes	Regulator- Nursing and Midwifery Board of Australia (NMBA). To become a RN the student complete a program of study accredited by the Australian Nursing and Midwifery Accreditation Council (ANMAC) and approved by the NMBA.	Education providers who deliver ANMAC accredited and NMBA approved programs, must be registered with the Tertiary Education Quality and Standards Agency as a university or higher education provider. Registration Nurse Accreditation Standards (2019).	National Competency Standards.	Bachelor's degree	3 (F)
Brazil	Yes	Government - Federal Regulatory Body	University. The Brazilian Ministry of Education provides curricula guidance with a description of competencies required to obtain a Nursing degree.	Yes	Bachelor's degree	3-4 (A)
Canada	Yes	Regulator - Canadian Council of Registered Nurse Regulators 13 States.	University	Yes	Bachelor's degree. The National Council of State Boards of Nursing (NCSBN) administers the NCLEX-RN examination.	3-4 (F)

Country	Documents available online (Yes/No)	Who created the document? (Government/Association/Independent Regulator)	Who is the target Audience? (Responsibility for interpretation and curriculum development)	Is there a specified competency framework (Yes/No/EU)	Qualifying Award (Honours Degree/Bachelor's Degree/Diploma)	Duration of course (years) (Full calendar year (F) or academic (A))
China	Yes	Government - Ministry of Education	University	Yes	Bachelor's degree. Registration for nurses is through the Chinese Nurses Association and the National Nursing Licensure Exam (NNLE) is the only national standard.	4 (F)
Jordan	Yes	Regulator - Jordanian Nursing Council (JNC). The Higher Education Accreditation Commission (HEAC) accredit the programmes.	University	Yes, JNC standards. Recently, Jordanian universities has started to align standards with the Accreditation Commission in Education Nursing (ACEN) and The American Association of Colleges of Nursing (AACN) from the USA	Bachelor's degree	4 (F)

Country	Documents available online (Yes/No)	Who created the document? (Government/Association/Independent Regulator)	Who is the target Audience? (Responsibility for interpretation and curriculum development)	Is there a specified competency framework (Yes/No/EU)	Qualifying Award (Honours Degree/Bachelor's Degree/Diploma)	Duration of course (years) (Full calendar year (F) or academic (A))
New Zealand	Yes	Regulator - Nursing Council of New Zealand (NCNZ)	University	Yes. 4 Domains of Competence.	Bachelor's degree.	3 (A)
South Africa	Yes	Regulator - South African Nursing Council (SANC).	University	Yes. 5 Domains of Competence	Bachelor's degree	4 (F)
United Kingdom	Yes	Regulator - Nursing & Midwifery Council. (NMC). Article 15(1) of the Nursing and Midwifery Order 2001.	University. Each University can draft its own curriculum. This curriculum is guided by the national standards for nursing and midwifery education. which is underpinned by EU directive (pre-Brexit).	Yes. Standards of proficiencies for registered nurses (2018). 7 core areas	Bachelor's Degree	3 (F)

4.1.2.2. Midwifery Curriculum Document Review

The International Council of Midwifery (ICM) defined competencies and the EU Directive are frequently used to form the basis of a midwifery curriculum in many countries. A number of countries do not subscribe to direct entry midwifery education, these include Sweden and Spain in Europe and South Africa, internationally. In the absence of direct entry midwifery there are some options for post-graduate entry programmes, such as Sweden and Spain. The post graduate entry programmes vary in duration, from 12 to 24 months, and configuration from 50:50 clinical and academic to 70% clinical in Spain (Table 7).

Internationally Australia, Canada, United Arab Emirates (UAE), UK, USA and New Zealand offer direct entry Midwifery bachelor's degree programmes. The curricula vary between level seven and eight on the Irish qualification's framework (Table 7). The duration of the degrees also varies between three calendars to four academic years. Canada and New Zealand require an additional examination after completion of a bachelor's degree to enter the register. Canada and Australia offer the degree programme on both a full-time and parti-time basis. Some countries that offer rural placements require students to have a full driving license before commencing their degree.

Table 7: Midwifery Curricula Data

Country	Documents available online (Yes/No)	Who created the document? (Government/Association / Independent Regulator)	Who is the target Audience? (Responsibility for interpretation and curriculum development)	Is there a specified competency framework (Yes/No/EU)	Qualifying Award (Honours Degree/Bachelor's Degree/Diploma)	Duration of course (years) (Full calendar year (F) or academic (A))
Belgium	Yes	Government - Ministry of Public Health	Unclear	Yes	Bachelor's degree	4 (A)
Australia	Yes	Regulator - Australian Nursing and Midwifery Accreditation Council (ANMAC)	University Each University creates own curriculum accredited by ANMAC	Yes	Bachelor's degree	3 or 4 (A)
New Zealand	Yes	Regulator - Midwifery council since 2002.	University	yes	Bachelor's degree	3 or 4 (A)
USA	Yes.	Regulator - American Midwifery Certification Board	Regulators: licensing agencies	Core Competencies for Basic Midwifery Education (ACNM 2008).	Variances across states. CNM-Certified Nurse-Midwife or Graduate degree from accredited college/university	6-8 (A)

Country	Documents available online (Yes/No)	Who created the document? (Government/Association / Independent Regulator)	Who is the target Audience? (Responsibility for interpretation and curriculum development)	Is there a specified competency framework (Yes/No/EU)	Qualifying Award (Honours Degree/Bachelor Degree/Diploma)	Duration of course (years) (Full calendar year (F) or academic (A))
UAE	Yes	Regulator - UAE nursing and Midwifery council	(1) Regulatory Bodies (2) Ministry of Higher Education and research. (3) The UAE Nursing and midwifery Council (4) The UAE Nursing and Midwifery Research Council	No: Scope of practice and role expectation	(1) Registered Nurse who obtained a postgraduate degree or high diploma in Midwifery. (2) Bachelor's degree in Midwifery	4 (F) 5-6 (A)
Canada	Yes	Regulator - Canadian Association for Midwifery Education (CAMEd)	The Universities	Yes: Canadian Midwifery Regulators Council- competencies for entry level midwives- general and specific	Bachelor's Degree (BMid)	4 (A)
UK	Yes	Regulator - Nursing and Midwifery Council	Approved Education Institutions	Yes- Midwifery curricula must include the outcomes set out in the NMC Standards of proficiency for midwives- these standards are across 6 domains	Bachelor's degree	4 (A)

4.1.3. Graduate Survey

There were 363 completed responses. A total of 1560 new graduates registered with NMBI from September 2022 to June 2023, hence the survey response rate attributed to 23% of new graduate nurses and midwives. One response was subsequently eliminated stating the participant completed their education in the United Kingdom. The majority accessed the survey via a direct link and on average it took participants 13 minutes to complete the survey. The largest proportion (42%, n=151) of responses identified as General Nurses (Figure 5), followed by Intellectual Disability (15%, n=54), Children's and General (13%, n=47), Psychiatric (12%, n=45) and Midwifery (12%, n=44). The primary entry to nursing and midwifery education was via CAO (60%, n=216), followed by CAO mature entry (26%, n=94). Fourteen respondents (4%) indicated HSE sponsorship and only 1% (n=4) identified Disability Access Route to Education (DARE).

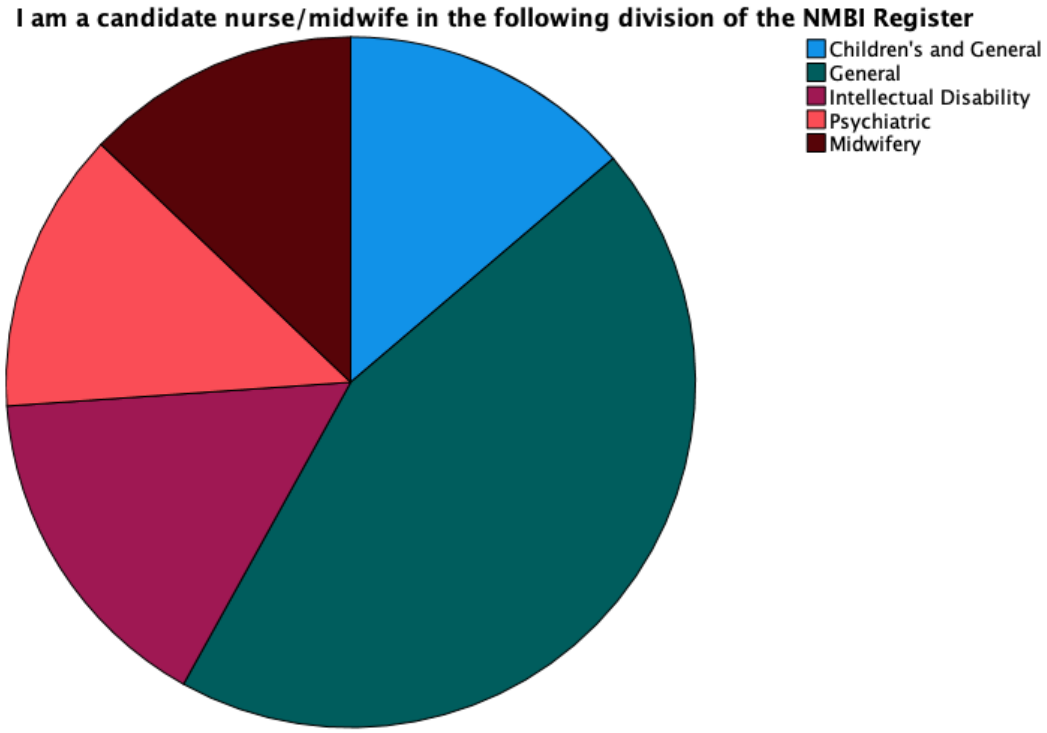


Figure 5: Graduate Divisions of the Register.

Further analysis of the mode of entry to nurse and midwifery education related to the specific divisions of the register identified that CAO mature entry accounted for 40% of Psychiatric graduates, 37% of Midwifery graduates, 33% of Intellectual Disability graduates, 23% of

Children's and General graduates and 20% of General nursing graduates. Overall, 50% (n=180) of graduates reported being satisfied with the quality of the course (Figure 6). Twenty-six percent (n=93) reported a neutral opinion and the remainder (18%, n=65) reported being dissatisfied with the course. Further analysis of responses related to course satisfaction and the respective divisions of the register.

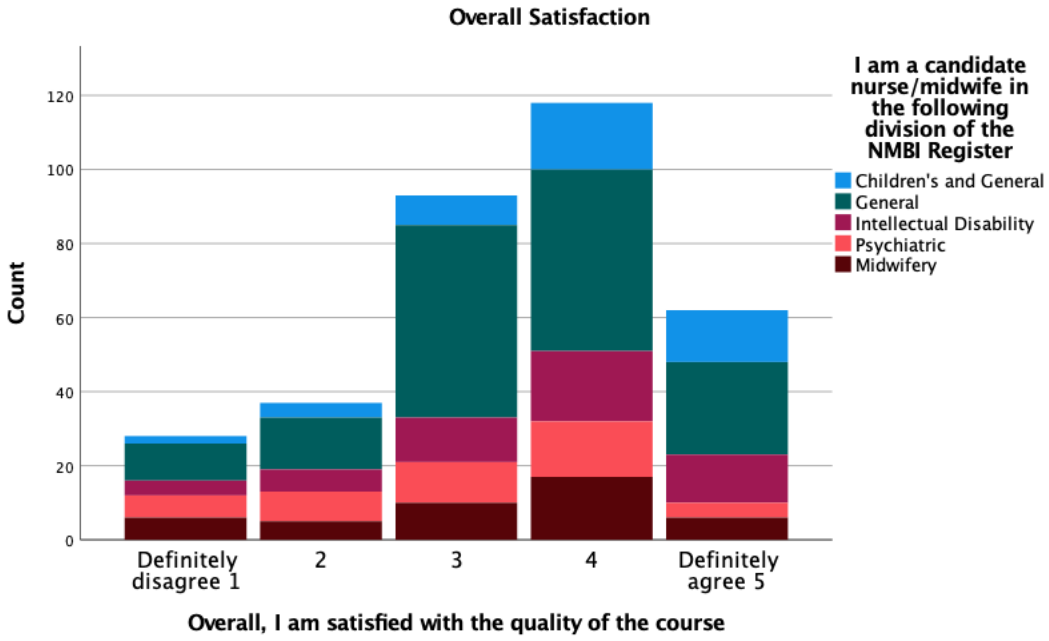


Figure 6: Overall Satisfaction

4.1.3.1. Good Teaching Scale

The Good Teaching Scale indicates that most students across the various divisions of the register reported that the teaching staff motivate students to do their best work, are good at explaining things, work hard to make subjects interesting and show an interest in what students have to say (Table 8). The respondents provided mixed responses related to the opinion that the course really tries to get the best out of students, with a trend toward agreeing with the statement. This trend is consistent related to feedback to students on their progress and making an effort to understand the difficulties students are facing.

Table 8: Good Teaching Scale Percentage Between Disciplines

		I am a candidate nurse/midwife in the following division of the NMBI Register				
		Children's and General	General	Intellectual Disability	Psychiatric	Midwifery
		%(n)	%(n)	%(n)	%(n)	%(n)
The teaching staff of this course motivate students to do their best work	Definitely disagree 1	0(0)	1(2)	6(3)	2(1)	2(1)
	2	9(4)	11(16)	7(4)	16(7	2(1)
	3	19(9)	35(53)	19(10)	29(13)	25(11)
	4	38(18)	30(45)	30(16)	33(15)	37(16)
	Definitely agree 5	34(16)	23(35)	38(20)	20(9)	34(15)
Staff here put a lot of time into commenting on students' work	Definitely disagree 1	4(2)	7(11)	10(5)	7(3)	2(1)
	2	28(13)	28(42)	17(9)	33(15)	18(8)
	3	30(14)	32(47)	35(18)	27(12)	30(13)
	4	30(14)	21(32)	27(14)	24(11)	34(15)
	Definitely agree 5	8(4)	12(18)	11(6)	9(4)	16(7)
The staff make a real effort to understand difficulties students may be having with their work	Definitely disagree 1	4(2)	13(20)	11(6)	4(2)	11(5)
	2	24(11)	24(37)	19(10)	22(10)	30(13)
	3	33(15)	27(40)	25(13)	27(12)	25(11)
	4	33(15)	22(33)	32(17)	31(14)	18(8)
	Definitely agree 5	6(3)	14(21)	13(7)	16(7)	16(7)
Teaching staff normally give helpful feedback on how you are doing	Definitely disagree 1	4(2)	7(11)	6(3)	2(1)	2(1)
	2	21(10)	31(46)	25(13)	33(15)	18(8)
	3	15(7)	30(45)	27(14)	31(14)	34(15)
	4	45(21)	21(32)	31(16)	18(8)	30(13)
	Definitely agree 5	15(7)	11(17)	11(6)	16(7)	16(7)
Our lecturers are extremely good at explaining things to us	Definitely disagree 1	0(0)	5(8)	7(4)	4(2)	2(1)
	2	6(3)	13(19)	9(5)	18(8)	9(4)
	3	34(16)	34(51)	25(13)	29(13)	27(12)
	4	41(19)	31(46)	42(22)	31(14)	39(17)
	Definitely agree 5	19(9)	17(26)	17(9)	18(8)	23(10)
Teaching staff work hard to make subjects interesting	Definitely disagree 1	0(0)	5(8)	12(6)	4(2)	2(1)
	2	15(7)	17(25)	12(6)	18(8)	9(4)
	3	23(11)	37(56)	17(9)	31(14)	34(15)
	4	41(19)	28(42)	40(21)	25(11)	34(15)
	Definitely agree 5	21(10)	13(19)	19(10)	22(10)	21(9)
Staff show no real interest in what students have to say	Definitely disagree 1	30(14)	31(46)	42(22)	36(16)	34(15)
	2	43(20)	27(41)	19(10)	22(10)	14(6)
	3	17(8)	24(36)	17(9)	24(11)	29(13)
	4	6(3)	10(15)	12(6)	9(4)	16(7)
	Definitely agree 5	4(2)	8(12)	10(5)	9(4)	7(3)

This course really tries to get the best out of all its students	Definitely disagree 1	11(5)	7(10)	6(3)	2(1)	5(2)
	2	13(6)	13(20)	13(7)	18(8)	25(11)
	3	23(11)	37(55)	23(12)	37(16)	20(9)
	4	25(12)	26(39)	29(15)	18(8)	20(9)
	Definitely agree 5	28(13)	17(25)	29(15)	25(11)	30(13)

4.1.3.2. Clear Goals and Structures

The clear goals and structure scale demonstrated that overall participants reported clear expectations from faculty related to expected standards for academic work (Figure 7). When further analysis between divisions of the register was undertaken, it is evident that Midwifery students are unclear about expectations, when compared to the other divisions (Table 9). Similar responses were recorded from participants in the Intellectual Disability division, where staff were not clear from the onset about student expectations (Table 9).

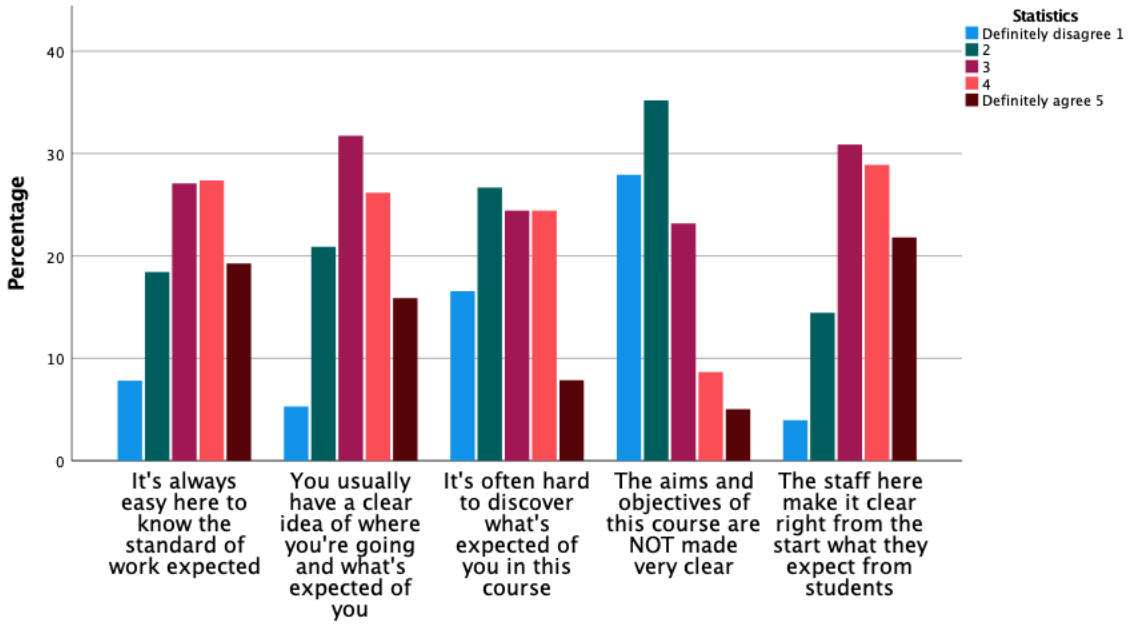


Figure 7: Total Percentage of Clear Goals and Structures

Table 9: Clear Goals and Structures Scale Percentage Between Disciplines

		I am a candidate nurse/midwife in the following division of the NMBI Register				
		Children's and General	General	Intellectual Disability	Psychiatric	Midwifery
		%(n)	%(n)	%(n)	%(n)	%(n)
It's always easy here to know the standard of work expected	Definitely disagree 1	9(4)	6(9)	9(5)	9(4)	7(3)
	2	15(7)	20(29)	15(8)	18(8)	25(11)
	3	17(8)	29(44)	26(14)	29(13)	27(12)
	4	38(18)	23(34)	33(18)	29(13)	25(11)
	Definitely agree 5	21(10)	22(33)	17(9)	15(7)	16(7)
You usually have a clear idea of where you're going and what's expected of you	Definitely disagree 1	6(3)	4(7)	4(2)	7(3)	2(1)
	2	11(5)	21(31)	19(10)	27(12)	30(13)
	3	26(12)	34(51)	33(18)	24(11)	34(15)
	4	32(15)	25(37)	31(17)	27(12)	25(11)
	Definitely agree 5	25(12)	16(24)	13(13)	15(7)	9(4)
It's often hard to discover what's expected of you in this course*	Definitely disagree 1	13(6)	17(26)	17(9)	22(10)	9(4)
	2	49(23)	25(37)	22(12)	22(10)	23(10)
	3	15(7)	24(35)	28(15)	18(8)	40(17)*
	4	21(10)	26(38)	24(13)	22(10)	28(12)
	Definitely agree 5	2(1)	8(12)	9(5)	16(7)	0(0)
The aims and objectives of this course are NOT made very clear	Definitely disagree 1	36(17)	28(42)	28(15)	24(11)	25(11)
	2	43(20)	34(51)	31(17)	40(18)	32(14)
	3	13(6)	26(39)	19(10)	16(7)	34(15)
	4	4(2)	8(11)	11(6)	16(7)	9(4)
	Definitely agree 5	4(2)	4(6)	11(6)	4(2)	0(0)
The staff here make it clear right from the start what they expect from students*	Definitely disagree 1	0(0)	5(7)	5(3)	4(2)	0(0)
	2	11(5)	11(16)	7(4)*	27(12)	31(13)
	3	26(12)	34(50)	30(16)	27(12)	26(11)
	4	37(17)	28(42)	30(16)	27(12)	26(11)
	Definitely agree 5	26(12)	22(32)	28(15)	15(7)	17(7)

*p = <0.05

4.1.3.3. Generic Skills Scale

The results from the generic skills scale indicate that graduates perceived that the course positively impacted all of the generic academic skills associated with baccalaureate graduates (Figure 8). Participants reported the course developed their ability to plan their own work, improved their written communication skills, their ability to work as team members and develop their problem-solving skills. Graduates from Intellectual Disability, however, indicated they were less confident about tackling unfamiliar problems than General Nursing graduates (Table 10).

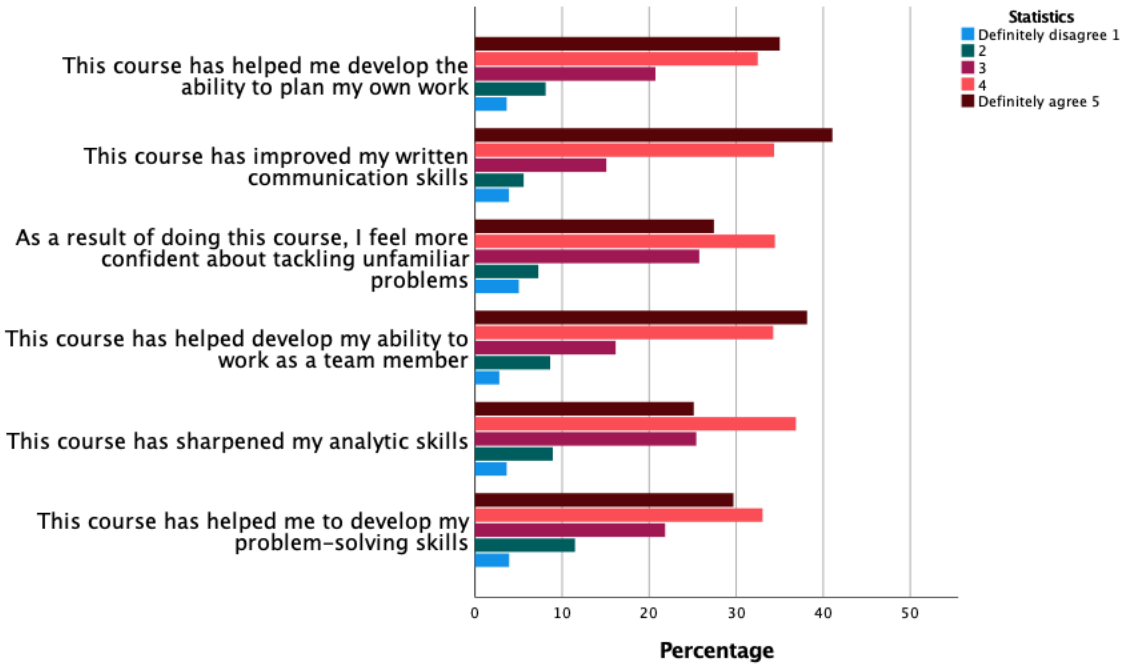


Figure 8: Generic Skill Scale Percentage

Table 10: Generic Skills Scale Between Disciplines

		I am a candidate nurse/midwife in the following division of the NMBI Register				
		Children's and General	General	Intellectual Disability	Psychiatric	Midwifery
		%(n)	%(n)	%(n)	%(n)	%(n)
This course has helped me to develop my problem-solving skills	Definitely disagree 1	2(1)	3(5)	4(2)	0(0)	7(3)
	2	6(3)	12(17)	7(4)	20(9)	11(5)
	3	19(9)	25(37)	22(12)	20(9)	20(9)
	4	30(14)	31(46)	35(19)	31(14)	39(17)
	Definitely agree 5	43(20)	29(43)	32(17)	29(13)	23(10)
This course has sharpened my analytic skills	Definitely disagree 1	4(2)	3(4)	4(2)	0(0)	4(2)
	2	8(4)	10(15)	2(1)	13(6)	9(4)
	3	19(9)	32(47)	22(12)	25(11)	23(10)
	4	43(20)	32(48)	44(24)	31(14)	41(18)
	Definitely agree 5	26(12)	23(35)	28(15)	31(14)	23(10)
This course has helped develop my ability to work as a team member	Definitely disagree 1	4(2)	1(1)	2(1)	7(3)	0(0)
	2	4(2)	8(12)	13(7)	9(4)	4(2)
	3	19(9)	16(25)	7(4)	20(9)	21(9)
	4	24(11)	38(57)	32(17)	29(13)	50(22)
	Definitely agree 5	49(23)	37(55)	46(25)	35(16)	25(11)
As a result of doing this course, I feel more confident about tackling unfamiliar problems*	Definitely disagree 1	6(3)	4(6)	2(1)	4(2)	7(3)
	2	6(3)	7(6)	7(4)	7(3)	11(5)
	3	19(9)	26(19)	15(8) *	42(19) *	27(12)
	4	39(18)	40(59) *	37(20)	16(7) *	32(14)
	Definitely agree 5	30(14)	23(35)	39(21)	31(14)	23(10)
This course has improved my written communication skills	Definitely disagree 1	2(1)	5(7)	0(0)	2(1)	4(2)
	2	4(2)	7(10)	4(2)	4(2)	9(4)
	3	9(4)	18(27)	8(4)	16(7)	21(9)
	4	38(18)	31(46)	44(24)	36(16)	34(15)
	Definitely agree 5	47(22)	39(59)	44(24)	42(19)	32(14)
Generic skills scale - This course has helped me develop the ability to plan my own work*	Definitely disagree 1	2(1)	3(4)	2(1)	4(2)	4(2)
	2	4(2)	9(14)	4(2)	9(4)	14(6)
	3	4(2) *	28(41) *	11(6)	31 (14) *	16(7)
	4	41(19)	28(42)	44(24)	27(12)	34(15)
	Definitely agree 5	49(23)	32(47)	39(21)	29(13)	32(14)

*p = <0.05

4.1.3.4. Appropriate Assessment Scale

Analysis of the appropriate assessment scale indicate that the assessment process for nursing and midwifery students is appropriate (Figure 9). There is an indication from graduates that feedback for students could improve to incorporate more than just grades. Further examination, using chi-squared statics comparing columns between divisions of the register, indicate that there is a difference where "lecturers frequently give the impression they have nothing to learn from students", the integrated Children and General programme and General nursing (p = 0.001) and Psychiatry (p = 0.01), and again between Intellectual Disability and Psychiatry (p = 0.03) (Table 11).

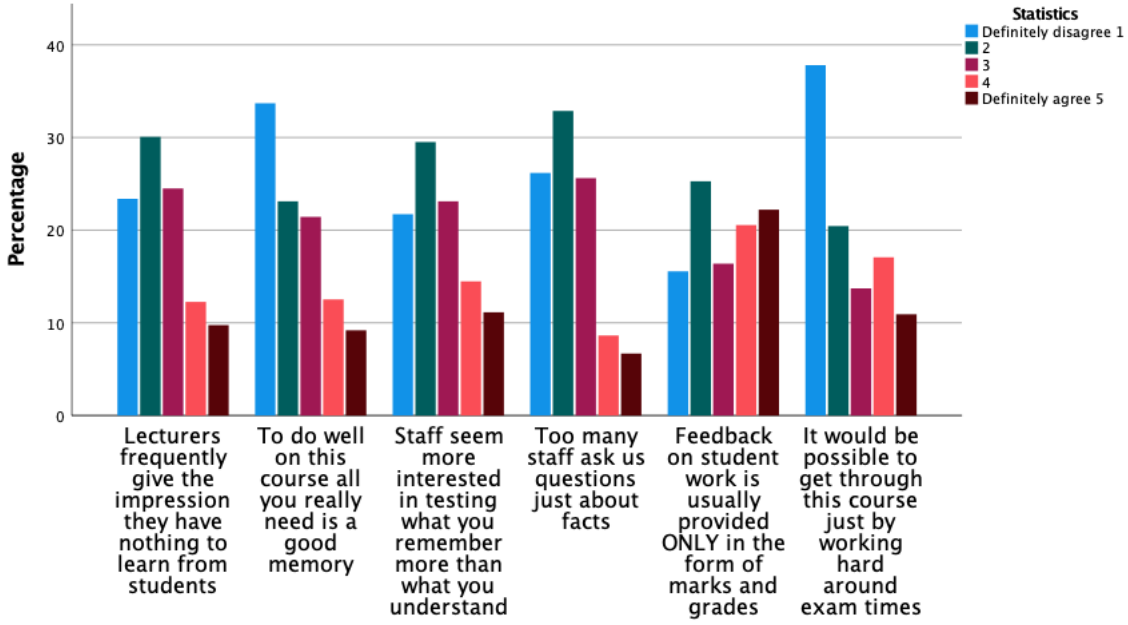


Figure 9: Appropriate Assessment Scale

Table 11: Appropriate Assessment Scale Between Disciplines

		I am a candidate nurse/midwife in the following division of the NMBI Register				
		Children's and General	General	Intellectual Disability	Psychiatric	Midwifery
		%(n)	%(n)	%(n)	%(n)	%(n)
Lecturers frequently give the impression they have nothing to learn from students	Definitely disagree 1	15(7)	24(36)	22(12)	30(13)	25(11)
	2	51(24) *	22(33) *	43(23) *	18(8)*	34(15)
	3	19(9)	30(46)	20(11)	23(10)	18(8)
	4	13(6)	12(18)	6(3)	18(8)	14(6)
	Definitely agree 5	2(1)	12(18)	9(5)	11(5)	9(4)
To do well on this course all you really need is a good memory	Definitely disagree 1	40(19)	32(49)	30(16)	27(12)	44(19)
	2	34(16)	19(29)	26(14)	22(10)	16(7)
	3	9(4)	26(39)	18(10)	31(14)	21(9)
	4	11(5)	13(19)	15(8)	13(6)	14(6)
	Definitely agree 5	6(3)	10(15)	11(6)	7(3)	5(2)
Staff seem more interested in testing what you remember more than what you understand	Definitely disagree 1	26(12)	17(25)	26(14)	18(8)	27(12)
	2	38(18)	29(44)	35(19)	33(15)	16(7)
	3	19(9)	26(39)	19(10)	18(8)	32(14)
	4	6(3)	17(26)	11(6)	18(8)	14(6)
	Definitely agree 5	11(5)	11(16)	9(5)	13(6)	11(5)
Too many staff ask us questions just about facts	Definitely disagree 1	36(17)	24(36)	19(10)	33(15)	23(10)
	2	42(20)	34(51)	31(17)	25(11)	32(14)
	3	9(4)*	28(42)	37(20) *	29(13)	18(8)
	4	9(4)	7(10)	6(3)	9(4)	20(9)
	Definitely agree 5	4(2)	7(11)	7(4)	4(2)	7(3)
Feedback on student work is usually provided ONLY in the form of marks and grades	Definitely disagree 1	15(17)	14(21)	22(12)	11(5)	23(10)
	2	32(15)	23(34)	24(13)	22(10)	34(15)
	3	15(7)	15(23)	20(11)	22(10)	11(5)
	4	19(9)	23(35)	17(9)	18(8)	18(8)
	Definitely agree 5	19(9)	25(38)	17(9)	27(12)	14(6)
It would be possible to get through this course just by working hard around exam times	Definitely disagree 1	39(18)	38(57)	47(25)	33(15)	36(16)
	2	22(10)	19(28)	21(11)	26(12)	18(8)
	3	11(5)	20(30)	6(3)	9(4)	9(4)
	4	22(10)	13(20)	15(8)	16(7)	23(10)
	Definitely agree 5	6(3)	10(15)	11(6)	16(7)	14(6)

*p = <0.05

4.1.3.5. Appropriate Workload Scale

Analysis of the appropriate workload scale (Figure 10) provides a strong indication from participants (82%) that there is a lot of pressure on students, and the sheer volume of course work means it is impossible to comprehend everything (54%). Using chi squared statistical analysis to compare the responses between divisions of the register (Table 12) there is a statistically significant difference in the reported perception of excessive volume of course work between the integrated Children's and General group and General Nursing (p = 0.007) and Psychiatric group (p = 0.001). This perception is consistent in the perception that the syllabus tries to cover too many topics between Children's and General group and General Nursing (p = 0.01) and Psychiatric group (p = 0.00).

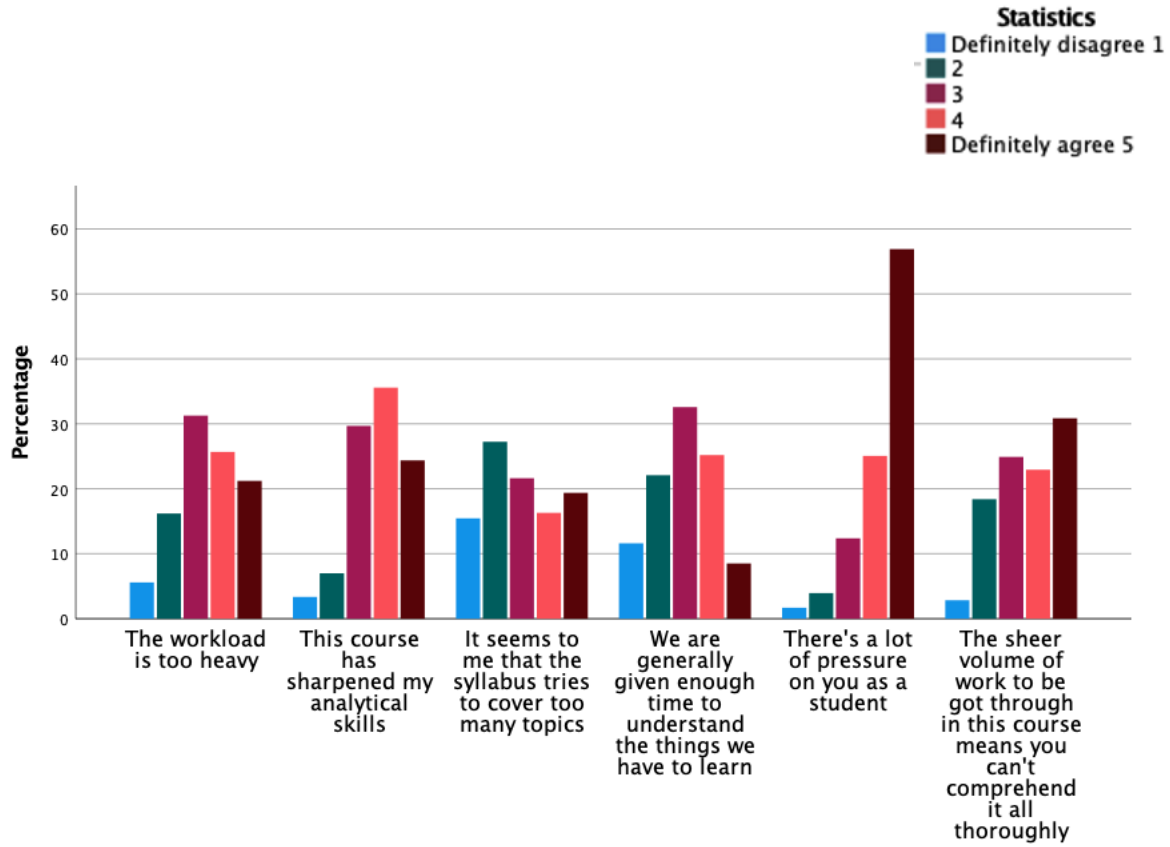


Figure 10: Appropriate Workload Scale

Table 12: Appropriate Workload Scale Between Disciplines

		I am a candidate nurse/midwife in the following division of the NMBI Register				
		Children's and General % (n)	General %(n)	Intellectual Disability %(n)	Psychiatric %(n)	Midwifery %(n)
The workload is too heavy	Definitely disagree 1	10 (5)	4(6)	0(0)	13(6)	2(1)
	2	19(9)	18(27)	13(7)	11(5)	18(8)
	3	28(13)	30(45)	47(25)	27(12)	25(11)
	4	28(13)	24(37)	25(13)	22(10)	30(13)
	Definitely agree 5	15(7)	24(36)	15(8)	27(12)	25(11)
This course has sharpened my analytical skills*	Definitely disagree 1	4(2)	4(7)	0(0)	0(0)	2(1)
	2	7(3) *	6(9)	6(3) *	11(5) *	9(4)
	3	21(10)	32(48)	30(16)	31(14)	34(15)
	4	38(18)	35(52)	36(19)	33(15)	37(16)
	Definitely agree 5	30(14) *	23(34) *	28(15)	25(11) *	18(8)
It seems to me that the syllabus tries to cover too many topics	Definitely disagree 1	19(9)	13(20)	11(6)	21(9)	16(7)
	2	38(18)	25(37)	36(19)	7(3)	27(12)
	3	26(12)	17(26)	28(15)	25(11)	20(9)
	4	15(7)	21(32)	10(5)	11(5)	16(7)
	Definitely agree 5	2(1)	24(35)	15(8)	36(16)	21(9)
We are generally given enough time to understand the things we have to learn	Definitely disagree 1	4(2)	11(17)	12(6)	19(8)	13(6)
	2	17(8)	28(42)	17(9)	21(9)	16(7)
	3	26(12)	30(45)	48(25)	39(17)	23(10)
	4	40(19)	22(35)	19(10)	16(7)	39(17)
	Definitely agree 5	13(6)	9(13)	4(2)	5(2)	9(4)
There's a lot of pressure on you as a student	Definitely disagree 1	0(0)	3(4)	0(0)	0(0)	2(1)
	2	4(2)	3(5)	8(4)	5(2)	0(0)
	3	15(7)	10(15)	26(14)	5(2)	9(4)
	4	28(13)	27(40)	21(11)	35(15)	16(7)
	Definitely agree 5	53(25)	57(86)	45(24)	55(24)	73(32)
The sheer volume of work to be got through in this course means you can't comprehend it all thoroughly	Definitely disagree 1	4(2)	4(6)	2(1)	0(0)	2(1)
	2	23(11)	14(22)	13(7)	24(10)	20(9)
	3	39(18)	22(33)	35(18)	12(5)	25(11)
	4	23(11)	23(34)	25(13)	17(7)	23(10)
	Definitely agree 5	11(5) *	37(55) *	25(13)	47(20) *	30(13)

(* p = < 0.05)

4.1.3.6. Emphasis on Independence Scale

The emphasis on independence scale (Figure 11) indicates that participants reported there was little choice in the education bodies related to areas they wished to study (55%), assessments (60%) and required work (65%). There were no statistical differences between responses from the different divisions of the register using chi squared statistics (Table 13).

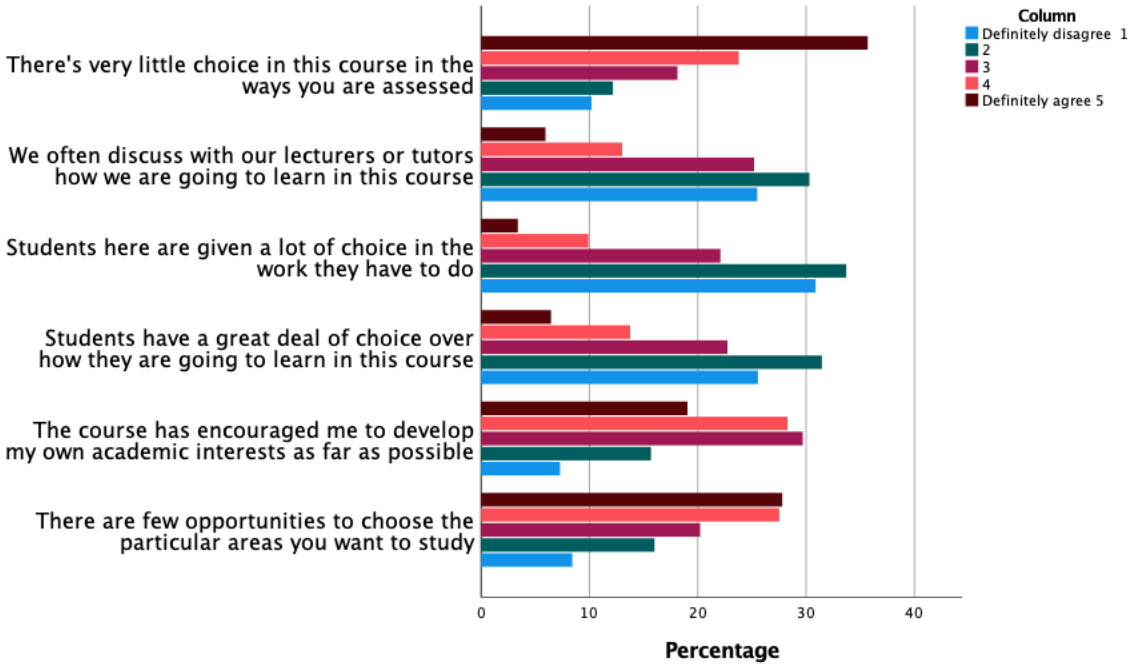


Figure 11: Emphasis on Independence

Table 13: Emphasis on Independence: Percentage Distribution Among Each Discipline

		I am a candidate nurse/midwife in the following division of the NMBI Register				
		Children's and General	General	Intellectual Disability	Psychiatric	Midwifery
		%(n)	%(n)	%(n)	%(n)	%(n)
There are few opportunities to choose the particular areas you want to study	Definitely disagree 1	11(5)	7(11)	11(6)	2(1)	16(7)
	2	19(9)	15(23)	15(8)	18(8)	18(8)
	3	23(11)	15(23)	26(14)	23(10)	23(10)
	4	21(10)	30(44)	30(16)	32(14)	25(11)
	Definitely agree 5	26(12)	33(49)	18(10)	25(11)	18(8)
The course has encouraged me to develop my own academic interests as far as possible	Definitely disagree 1	4(2)	7(11)	7(4)	7(3)	7(3)
	2	15(7)	19(29)	6(3)	23(10)	11(5)
	3	26(12)	26(39)	22(12)	36(16)	46(20)
	4	32(15)	32(47)	35(19)	20(9)	18(8)
	Definitely agree 5	23(11)	16(24)	30(16)	14(6)	18(8)
Students have a great deal of choice over how they are going to learn in this course	Definitely disagree 1	23(11)	24(36)	17(9)	32(14)	32(14)
	2	30(14)	30(45)	30(16)	36(16)	36(16)
	3	23(11)	24(35)	24(13)	21(9)	23(10)
	4	15(7)	15(22)	22(12)	9(4)	7(3)
	Definitely agree 5	9(4)	7(11)	7(4)	2(1)	2(1)
Students here are given a lot of choice in the work they have to do	Definitely disagree 1	24(11)	29(43)	28(15)	39(17)	41(18)
	2	39(18)	36(53)	31(17)	23(10)	30(13)
	3	20(9)	21(31)	24(13)	32(14)	16(7)
	4	13(6)	10(15)	13(7)	4(2)	11(5)
	Definitely agree 5	4(2)	4(5)	4(2)	2(1)	2(1)
We often discuss with our lecturers or tutors how we are going to learn in this course	Definitely disagree 1	20(9)	28(41)	24(13)	37(16)	14(6)
	2	43(20)	31(45)	20(11)	27(12)	30(13)
	3	15(7)	25(37)	26(14)	25(11)	36(16)
	4	20(9)	11(16)	20(11)	11(5)	9(4)
	Definitely agree 5	2(1)	5(8)	10(5)	0(0)	11(5)
There's very little choice in this course in the ways you are assessed	Definitely disagree 1	8(4)	10(15)	15(8)	9(4)	4(2)
	2	11(5)	12(18)	11(6)	11(5)	19(8)
	3	15(7)	19(28)	30(16)	9(4)	16(7)
	4	36(17)	24(35)	20(11)	21(9)	19(8)
	Definitely agree 5	30(14)	35(51)	24(13)	50(22)	42(18)

Note: No statistically significant differences

4.1.3.7. Practice Placement Review

Responses to the practice placement review scale demonstrate that participants reported they did not receive sufficient preparation prior to placements (Figure 12). Participants reported they perceived the allocated placements as suitable for their course. However, participants indicated they did not feel valued as a clinical team member (with the exception of Children's and General and Intellectual Disability students) and did not receive opportunities to practice the required learning outcomes. Responses also indicate that participants did not feel they received adequate supervision during practice placements and that their supervisors did not understand how the placement related to the broader course requirements (Table 14).

Using chi squared statistics to compare responses between divisions of the register, it indicates that Midwifery students felt less prepared than General Nursing (p = 0.002) and Intellectual Disability students (p = 0.02). Psychiatry students disagreed that their allocated placements were suitable when compared to Children's and General (p = 0.01) and Intellectual Disability students (p = 0.02).

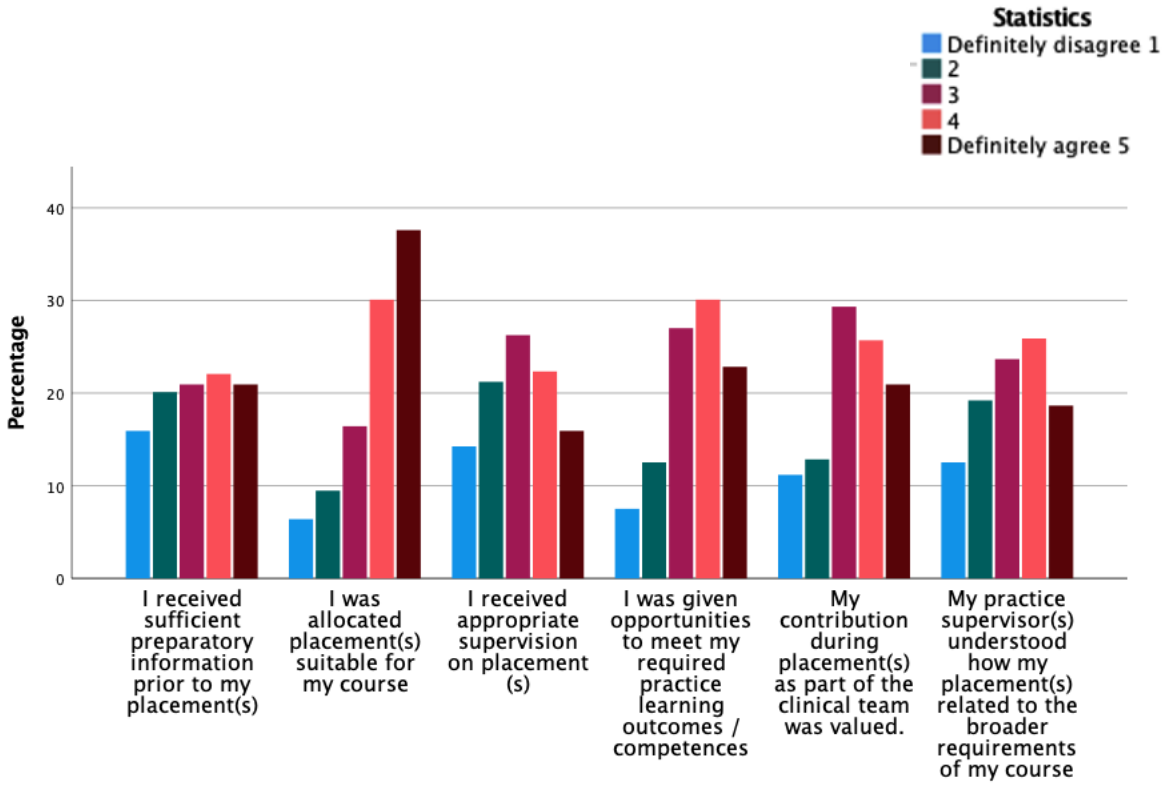


Figure 12: Practice Placement Review

Table 14: Practice Placements Discipline Specific

		I am a candidate nurse/midwife in the following division of the NMBI Register				
		Children's and General %(n)	General %(n)	Intellectual Disability %(n)	Psychiatric %(n)	Midwifery %(n)
I received sufficient preparatory information prior to my placement(s)	Definitely disagree 1	13(6)	10(16) *	9(5) *	22(10)	34(15) *
	2	28(13)	21(32)	18(10)	13(6)	21(9)
	3	11(5)	23(34)	17(9)	25(11)	23(10)
	4	25(12)	25(37)	26(14)	20(9)	11(5)
	Definitely agree 5	23(11)	21(31)	30(16)	20(9)	11(5)
I was allocated placement(s) suitable for my course	Definitely disagree 1	6(3)	3(5)	4(2)	11(5)	9(4)
	2	2(1)	10(15)	11(6)	11(5)	11(5)
	3	9(4)	16(24)	17(9)	25(11)	11(5)
	4	40(19) *	30(45)	39(21) *	11(5) *	37(16)
	Definitely agree 5	43(20)	41(62)	29(16)	42(19)	32(14)
I received appropriate supervision on placement(s)	Definitely disagree 1	17(8)	8(13)	11(6)	20(9)	18(8)
	2	23(11)	21(31)	13(7)	18(8)	36(16)
	3	26(12)	31(47)	19(10)	27(12)	23(10)
	4	19(9)	25(37)	33(18)	11(5)	18(8)
	Definitely agree 5	15(7)	15(22)	24(13)	24(11)	5(2)
I was given opportunities to meet my required practice learning outcomes / competences	Definitely disagree 1	13(6)	6(9)	4(2)	9(4)	9(4)
	2	7(3)	12(18)	11(6)	13(6)	20(9)
	3	23(11)	28(42)	26(14)	22(10)	30(13)
	4	34(16)	30(45)	33(18)	25(11)	32(14)
	Definitely agree 5	23(11)	24(37)	26(14)	31(14)	9(4)
My contribution during placement(s) as part of the clinical team was valued.	Definitely disagree 1	9(4)	8(12)	7(4)	11(5)	23(10)
	2	9(4)	15(23)	7(4)	7(3)	23(10)
	3	19(9)	33(49)	34(18)	24(11)	32(14)
	4	29(14)	23(34)	26(14)	38(17)	18(8)
	Definitely agree 5	34(16)	21(32)	26(14)	20(9)	4(2)
Practice placements - My practice supervisor(s) understood how my placement(s) related to the broader requirements of my course	Definitely disagree 1	13(6)	10(15)	7(4)	16(7)	18(8)
	2	23(11)	22(33)	9(5)	13(6)	20(9)
	3	15(7)	29(44)	17(9)	26(12)	23(10)
	4	23(11)	24(36)	37(20)	29(13)	25(11)
	Definitely agree 5	26(12)	15(23)	30(16)	16(7)	14(6)

(* p = < 0.05)

4.1.3.8. Open Text Comments

Figure 13: Word cloud representing open text comments.

The responses provided by graduates in the open text (Figure 13) were reviewed using the Appreciative Inquiry positive philosophy and coded according to the five D's; Discovery (identifying the core educational requirements), Dream (identifying the most engaging aspects of the curriculum), Design (identifying how to meet the challenges for the future) and Destiny (identifying a vision for the future).

(a) Discovery

Studying for a degree in Nursing and Midwifery was a highlight for students. The comments reflected the survey results capturing the enthusiasm of both faculty and clinical staff as "*dedicated staff who are experts in what they do*" (ref 3). The overall satisfaction with the course was captured in the comments nothing it was an "*excellent programme*" (ref 6) which is "*very comprehensive and intense*" (ref 5 & 19).

Both the academic and clinical components were valued noting that "*practice placements are fantastic and very appreciated*" (ref 18) and identifying that the academic institution was an "*a wonderful place to study*" (ref 2), with "*great support in college*" (ref 9). There was a strong desire to ensure academic teaching captured the application of theory in clinical practice to prepare competent clinical nurses.

(b) Dream

The dream phase of AI focused on the aspects of the curriculum that students found most engaging. Students felt supported in their college environment and described the academic content of the curriculum as "*clear*" (ref 13) and "*engaging*" (ref 12). Clinical placements were "fantastic" (ref 4) and essential for teaching the skills students required to practice: "*everything I gained skill wise was based on my time spent in the clinical setting*" (ref 11). Students commented that their unique experience during the COVID-19 pandemic "*benefitted me in ways as I was well able to take my own caseload and deal with most issues on finishing internship*". Throughout difficult practice placements it was noted that the academic organisations continued to support students.

(c) Design

In meeting future challenges for the professions and healthcare, there was a strong sense that practice placements and theoretical modules need to be re-examined "*clinical placement needs to be remodelled completely*" (ref 5). There was a significant volume of comments reporting that the volume of pharmacology taught was insufficient. The comments reflect that graduates felt that clinical skills and pharmacology should be introduced earlier, to balance the burden in the latter half of the curriculum.

Skills preparation in the academic environment for practice placements, early in the curriculum, would strengthen their clinical learning "*I would have liked more practical sessions (clinical skills labs)*" (ref 50). The sentiment that "*the course work bears little relevance to practice placements*" (ref 35) was noted. A number of graduates recommended that "*100% attendance on placement is absurd, it does not reflect a real working life*" (ref 1).

One division of the register, namely Intellectual Disability expressed a concern that their curriculum should be reviewed to ensure they are eligible to work across other divisions.

(d) Destiny

Survey participants strongly conveyed that respecting students as valued team members in the clinical area would encourage them to remain in the profession. This is supported by:

> "Placements were dreadful to work in with little to no support from the staff, treated badly by staff, confidence diminished and the outlook on the course and future career was negatively affected. Not sure if I will continue in this profession." (ref 49)

The participants propose that there is an early introduction to practice placements supported with structured teaching and applied learning for clinical skills and medication management with the multidisciplinary team (MDT). Comments propose:

> "I think there should be a bigger focus on pharmacology and working as part of the MDT" (ref 51)

There is a strong desire from the comments in the graduate survey that practice placement and clinical learning is not dependent on staffing resources. An example of statements include:

> "The low staff levels often negativity impacted my education as I was utilised as an extra pair of hands to do jobs and missing educational opportunities." (ref 45)

Graduates also commented on the need for enhanced communication between education bodies and clinical sites. Suggestions support a role that would link learning in education bodies to that on practice placement. This is evidenced by:

> "I believe it would have been beneficial to have practical tutorials on clinical skills which would have carried over into placement for example learning how to insert an NG tube in a tutorial setting, learning about NIV, medication management skills etc. I

find myself now as a new graduate unable to do a vast amount of tasks as I never learned them while in university and have to still be supervised doing certain tasks." (Ref 37)

The comments propose that the competence assessment is on placements of sufficient duration only. Students expressed that they should receive financial renumeration for practice placements.

Additionally, graduates proposed that students could be offered a choice in relevant theoretical modules, and that more focus could be placed on the application of theoretical modules in practice placement. Several participants proposed that the combined academic and clinical workload is divided more evenly across the four years.

4.1.4. Stakeholder Focus Groups

A total of 12 focus groups were completed with 95 participants (Table 15). Participants included five union representatives and six representatives from service user groups. The focus groups were between 90 to 120 minutes duration. The audio-recordings of the focus groups were transcribed by an external professional transcriber. Transcript accuracy was verified by the two focus group facilitators to commence the process of generating themes by familiarising themselves with the data.

Table 15: Focus Group Participants

Date	Group	Numbers	Facilitators
20/02/23	Union representatives	5	M. Connolly M. Ryder
15/03/23	Senior Stakeholder Midwifery	6	S. Geraghty M. Curtin
20/03/23	Senior Stakeholder Nursing	10	M. Brenner E. Furlong
21/03/23	Service User	6	M. Ryder M. Curtin
17/04/23	Clinical Nursing (a)	13	M. Connolly J. Larkin
13/04/23	Clinical Nursing (b)	11	E. Furlong F. Browne
13/04/23	Clinical Nursing (c)	6	J. Larkin E. Furlong
17/04/23	Clinical Midwifery	3	M. Curtin F. Browne
21/04/23	Academic Nursing	9	F. Browne E. Furlong
24/04/23	Academic Midwifery	5	M. Curtin M. Ryder
15/06/23	Preceptor Nursing	9	F. Browne M. Brenner
15/06/23	Preceptor Midwifery	12	M. Curtin S. Geraghty

The transcripts for each focus group were analysed by the respective focus group facilitators using the protocol for thematic analysis (Braun & Clarke 2021) developed for the research team. Initial codes were developed individually, and subsequently discussed and agreed with

both focus group facilitators. Codes were collaboratively developed into themes for separate focus groups. The research team then met to discuss, debate and develop codes for the collective focus groups.

Five major themes were developed by the research team which was a cumulation of the final phase (Destiny) of the AI methodology that guided the focus groups. The results will be presented discussing each of the 4D phases of AI. A guide to the coding of focus groups is presented in table 16. A table has been prepared to summarise the core discussions from each focus group (Table 17: nursing and table 18: midwifery).

Table 16: Focus Group Coding

Code Number	Group (participant number)
1	Senior Stakeholder Nursing
2	Senior Stakeholder Midwifery
3	Academic Nursing
4	Academic Midwifery
5	Clinical Nursing a, b & c
6	Clinical Midwifery
7	Union Representatives
8	Service User Representatives
9	Nursing Preceptors
10	Midwifery Preceptors

Table 17: Nursing Focus Groups Appreciative Inquiry Themes

	Discovery Identify the core values of the profession. What are the core learning elements of the curriculum?	**Dream** What is the most engaging component of the curriculum?	**Design** How do we educate for the future?	**Destiny** What will it look like?
Union Representatives	● Trust ● Caring professionalism ● Graduate workforce	● Clinical placement (longer) ● University education	● Increased collaboration across all sectors of nursing and midwifery preparation ● Educators at decision making tables.	● Person focused curriculum ● Adequately resourced learner focused curriculum ● Core curriculum with specialisation afterwards ● Improved access
Service User Representatives	● Nurses and midwives are the human side to healthcare ● Patient advocates	● Real world learning in community ● Broad based curriculum with choice	● Applied learning in community ● Communication modules	● Increased resources ● Increased clinical supports. ● Choice in internship ● Communication
Senior Nursing Stakeholders	● Trusted professionals. ● Professional attributes ● Mismatch between society's values and the value of the profession	● Quality of care and nurses are 'lynchpins' of care ● Critical thinkers ● Reflective practice ● Scaffolded learning ● Internship programme ● Skill set	● Change the educational model. Change mindset of policy makers, educators and profession from hospital focused care to community care ● Interprofessional learning. ● Review of clinical placements ● Enhance digital learning ● Enhance learning by simulation ● Expansion of accessibility for mature entry applicants	● Expansion of the integrated care model ● Change the preceptorship model ● Focus on nursing competencies and outcomes ● Dilution of hierarchical structure ● Governance structure involvement and shift focus of internship model to meet the Sláintecare needs and integrated care

Nursing Academics	• Virtues- caring/kindness compassion • 50/50- theory and practice • Internship	• Professional standards • Person centred care	• Identify requirements for moving into community • Support clinical learning • Assessments in practice	• Flexibility (within curriculum and placements) • Learner centred curriculum • Research • Simulation • Interprofessional learning
Nursing Clinical	• Clinical preparation of nurses • CPC and SALO support • Critical thinkers • Reflective practitioners • Internship at end positive	• Person centred care • Placement duration (longer is better) • Digital- positives/challenges • Role of nurse central- nurse led clinics • Standardisation of nurse education	• Partnership with clinical and academia • Interprofessional collaboration- simulation- positive/barriers • Increased student support • Student choice in placement • Logistics in moving to community • Increase clinical exposure- Reorientate placements type and length of time	• Early clinical exposure • Community placement • Increase CPC ratio • Interdisciplinary simulation learning • Flexible and choice for placement • Increased access • Feel valued • Financial concerns • Career pathways • Preceptorship training- preparation, role, challenges, protected time
Nursing Preceptors	• Advocacy • Nursing role • Importance of Supernumerary status	• Move to community. • Digital enhancement	• Choice or pathway • Improve clinical support for students	• Increasing professionalism

Table 18: Midwifery Focus Group Appreciative Inquiry

	Discovery Identify the core values of the profession. What are the core learning elements of the curriculum?	**Dream** What is the most engaging component of the curriculum?	**Design** How do we educate for the future?	**Destiny** What will it look like?
Union Representatives	● Trust ● Caring professionalism ● Graduate workforce	● Clinical placement ● University education	● Increased collaboration across all sectors of nursing and midwifery preparation ● Educators at decision making tables.	● Person focused curriculum ● Adequately resourced learner focused curriculum ● Improved access
Service User Representatives	● Nurses and midwives are the human side to healthcare ● Patient advocates	● Real world learning in community	● Applied learning in community ● Broad based curriculum with choice ● Communication modules	● Increased resources ● Increased clinical supports ● Choice in internship
Senior Midwifery Stakeholders	● Distinct profession for midwifery and a distinct body of knowledge ● Autonomy ● Value being with women (power of a midwife)	● Community ● Clinical placement for midwives ● Continuity of care ● Role modelling	● Realistic expectations of students - midwives ● Support for new graduates ● Recruitment and retention ● Resourcing (short staffed difficult to support)	● Access to midwifery ● Midwifery is separate from nursing. ● Early exposure in clinical practice ● Continuity of care experience ● Environment for student midwives to thrive in ● Midwifery leadership ● Pathways for graduate learning ● Interprofessional learning
Midwifery Academics	● Visibility of midwifery ● Empower ● Normal (Value)	● Community (and broadening this role) ● Continuity of care	● Continuity of care ● Clinical placement support	● Normalising community care

	• Autonomy • Distinct from nursing • Failure to integrate clinical and theory	• Clinical practice placement • Systems (and finances) • Clinical placement supports	• Normal/complex/ medicalisation in clinical practice • Learning • Academic entry • Finances • Supporting development of midwifery practice	• Support for the development of midwifery practice
Midwifery Clinical	• Autonomy • Distinct to nursing • Early clinical exposure and core exposure • Professionalism • Communication	• Community presence • Flexibility in sites (adapting lactation as postnatal for example) • Medicalised / normal model pathways (separating them out) • Developing student understanding of autonomy	• Support for the woman • Academic entry / Academic year programme • Assessment • Time (to teach)	• Innovator in the clinical environment • Resilience, training • Retention of staff • Knowing value in the team • Integration of HEI
Midwifery Preceptors	• Advocating for women • Holistic approach • Maintaining normality • Autonomy • Value of working with women • Clinical theory education • Being part of a university • Communication and interpersonal skills • Reflection	• Community Midwifery • Impact of a preceptor on a student	• Staff retention • Community placement (including competency assessment and non-hospital birth experience) • Support after trauma event • Professional development for students • Leadership for the future	• Increased exposure to clinical environment • Value of the relationship with women • Integration between university and clinical area • Better teaching moments/opportunities • Clearer separation of the low and high-risk pathways

4.1.4.1 Discovery

The discovery phase relates to the perceived values of the professions of nursing and midwifery reported during the focus groups. This stage also explored the perceived core learning elements of nursing and midwifery education.

Appreciating the positive core values of the professions of nursing and midwifery is the starting point for AI and at the heart of any positive change (Cooperrider & Whitney, 2005). This prompted some considerable reflections amongst nurses and midwives but was also articulated by service users who described both professionals as "*the human face of healthcare*" (ref 8.4). This statement was expanded amongst the service user group to refer to the associated values of "*communicators*" and "*advocates*". Both professional groups described themselves as "*trusted professionals*" and a "*caring workforce*" with "*ensuring that we are giving the patient their voice, we are their advocates*" (ref 5.14). These attributes strongly featured as a core value amongst both professions and service users. The midwifery professionals added that whilst their core value is "*being with*" and "*advocating for women*" an additional core value to the profession is being "*distinct from nursing*".

The perceptions of the core learning components of the nursing and midwifery education curriculum varied amongst the professional focus groups with the union, academic and senior stakeholder groups identifying the importance of the graduate professional workforce, and the equal split between theory and practice. In contrast, the clinical participants described the clinical elements of internship, supernumerary status and reflective practice as the core elements to the curriculum. A selection of quotes to demonstrate this include:

> "…the internship is the huge strength of our program, and I think that probably is one of the, for me the biggest selling point." (ref 1.7)

and

> "… the 36 weeks at the end is really the consolidation of the acknowledged skills and attitudes for the student, … it certainly brings it all together*."* (ref 5.27)

The service user group unanimously identified communication skills and real-world learning as the most important components of the curriculum for nurses and midwives with comments that included:

> "Communication is critical. Like first of all you've got someone who is a nurse, no matter what spectrum they're dealing in and they're there to assist somebody who has a need, a really serious need" (ref 8.3)

and

> "…and the other thing I would say about communication is it's about that dissemination piece, it's not necessarily just about how well someone can get on with somebody else, it's about taking the complex information that's happening to someone … and giving it to them in layman's terms. I think that's a really key piece and a skill set that's not, you know that's really important for people." (ref 8.2)

The integrated children's and general programme has been described as a great success for the transferability between both divisions of the register.

> "…a massive success. That transferability between the two professions has been really good. We have really strong graduates coming out of that program. So, I think that as a model has been an absolutely overwhelming success." (ref 1.9)

In summary, the discovery phase of the focus groups identified that the core value of the profession of nursing and midwifery for service is that they are the human face of healthcare. The nursing core values reported were trust, caring and patient advocates. Midwives concurred with the values of nurses but specifically identified as being advocates for women, autonomous practitioners and being recognised as a distinctly different profession to nursing. Core components of the curriculum for both professions were identified as the graduate workforce, an equal split between academic and clinical practice, the supernumerary status of students, reflective practice, internship and communication.

4.1.4.2. Dream

The dream phase of inquiry in the focus groups sought to identify what the most engaging elements of the current curriculum are. Participants were then presented with findings from the policy document review and then asked to describe how the professions may contribute to future healthcare as described in policy documents.

Perceptions about the most engaging elements of the curriculum again varied between focus groups. Both the academic and clinical learning were identified as engaging, with the clinical participants responses focusing on clinical practice, particularly internship, whilst the academic participants acknowledge the combination of theory and practice. A selection of quotes to demonstrate this include:

> "…and I think it's the building blocks from stage one. But in third and fourth year you can really see it really coming to the fore, because of the theory and the practical balance." (ref 3.2)

and

> "…it is that sort of mixture of theory and practice, and I think when you see the student progressing towards the end, so in that final semester, you know, we have the students in and you are preparing them for the consolidation of their brilliant practice and getting them ready for their internship" (ref 3.2)

and

> "I suppose the first-year placements are really important in relation to what we expose them to, because often that's the deciding point of whether they're going to remain in the program or not." (ref 5.1)

and

> "I feel the internship is a very strong component of the training." (ref 5.15)

Participants also expressed the view of the importance of early exposure to clinical placement and that fewer longer placements were strongly supported in place of multiple short practice placements. This was illustrated by:

> "…the six-week placements are very beneficial, so I think short core placements are not as beneficial and really should be taken out of the programme if at all possible." (ref 5.8)

and

> "I think early exposure as well like. I think the first years need to come out as early as possible to see what it's really like" (ref 6.4)

When discussing how to prepare future professionals to contribute to future healthcare, all focus groups identified that future curricula should include an increasing presence for students in community placements in line with Sláintecare policy. Participants identified increasing opportunities with current community services "*that might have a CNS or an ANP or whatever leading that service"* (ref 5.30). Supporting the increased community presence of nurses and midwives are the advanced nursing roles of clinical nurse and midwife Specialist and advanced nurse and midwife practitioners leading on nurse and midwifery-led services. From a midwifery perspective, participants noted the absence of midwifery in the Sláintecare policy document.

> "Sláintecare was very focused on acute and chronic illness and not so much on maternity care." (ref 2.5)

However, the comments reflected a desire to expand student experience of the community midwifery role.

> "I think for a student to be confident to move into the community they have to see that model of care more so in practice." (ref 2.1)

and

> "There's so much change with the ambulatory gynae, with the introduction of the postnatal hubs, the expansion of domino services around the country, and AMPs with supported care pathways." (ref 2.2)

Midwifery participants envisage the community midwife role where there is a separation of normal and medicalised pathways for women, but as a holistic role caring for women throughout their pregnancy.

> "If we are looking after women in the community, we want to care for her from beginning to end" (ref 2.1)

and

> "The principles of that model is a non-medicalized model, … that would you be … maybe doing two (placements) in a medicalised model and a non-medicalised model for the students, so that there's a clear path for both." (ref 6.3)

All groups proposed flexible placements for students with a focus on choices for students.

> "It would be nice for some of the students to have a little bit of choice when it comes to the specialities" (ref 5.11)

There was unanimous opinion that there is a need for improved supervision for students on placements, particularly related to the current preceptorship model, which was perceived by many as "*a difficult one*" (ref 1.1) because "*for a start they're trying to do their work and they're trying to mind students, it's tough*." (ref 9.3). Additional comments included:

> "… they are pressed for time in the clinical sites. And at the end of the day people want to do really right by the students, but they're really constrained by what they can actually do. And I think for any of us to recognise or to say that that isn't happening would be really devoid of our responsibility. The model itself doesn't really work," (ref 1.1)

and

> "I suppose what I would like is, … to see more sort of clinical facilitators at ward level as well. So, you … have that extra bit of support for the students and for the preceptors and the ward staff. You know if you had, … a clinical facilitator available on the wards that can take some of the load, … and support the preceptors as well." (ref 9.12)

and

> "…for our clinical staff to be able to support the students on placement I think it's absolutely crucial that that is seen in huge importance…" (ref 1.3)

and

> "…you'd be working on a very busy ward you'd be allocated a student which is wonderful. But it will slow you down on a ward. So, I think preceptors should probably not have maybe as much as a heavy case load with the student. There should be some consideration given that the student is there and will need time. I don't think that's considered a lot of the time because we're so busy." (ref 9.6)

There was a strong goal across all groups to improve access to nursing and midwifery education, particularly for Quality and Qualifications Ireland (QQI, commonly referred to as "PLC") and mature student's access. An example of some of the comments reflecting this are include:

> "We also have a lot of nursing pre-nursing courses PLC courses that we don't seem to take on into the programme" (ref 5.30)

and

> "I suppose to reach out to more mature students among mature candidates coming in through the programmes. They are definitely potentially the future, they will stay in employment, they will stay in Ireland, they are already embedded potentially with families and mortgages and everything else." (ref 5.31)

Digital enhancement, despite the challenges it may present, is acknowledged across the nursing groups in addition to interprofessional collaboration, primarily through simulated learning, as evidenced by:

> "I love that we're going to be able to do more and more simulation to prepare students to go out as well. I think that that is fantastic…" (ref 1.6)

and

> "…some simulation work like that that that would facilitate that integration and transition and team work as well and as clear." (ref 6.3)

and

> "…better integration with nursing students, with other professionals so doing core subjects and simulations with the other professionals, healthcare professionals…" (ref 5.4)

To summarise the engaging components of the current curriculum for nursing and midwifery included the combination of theory and practice. The large number of clinical professionals that participated identified clinical practice, specifically internship as the most engaging component of the curriculum. In addition, participants expressed a need for greater learning for students during longer clinical practice placements. When identifying how best to prepare students to work in healthcare for the future there was overwhelming support that a significant increase in community placement was essential for both nurses and midwives. Midwives specifically expressed that the community was an opportunity to focus on normal pathway for pregnant women. There was consensus that the model of supervision for students would need to be improved in the future, in addition flexibility and choice for students was also identified as important. There was evidence supporting improved access pathways for students other than through the CAO. Increased simulation was reported as one element of digital enhancement for students in the future.

4.1.4.3. Design

The design phase invited participants to challenge the status quo of the professions and healthcare organisations to propose how nurses and midwives across all grades and organisations can go about educating for the future.

A key challenge posed by the group of nursing academics was to ask, "*Are we a learning led curriculum, or is it teaching as a series of skills?*" (ref 3.9). The principal proposal related to increased collaborations. Collaborations not only referred to partnerships between academic institutions and clinical organisations, but between policy makers, clinicians and educators. This includes collaboration with interprofessional colleagues in healthcare education. Comments that reflect this include:

> "…if we do the simulation with other professionals, … the aim is to, … improve inter professional education, and if we could have some core subjects across the

professions like a lot of the core subjects would be similar for physio or OT, the doctors, and us" (ref 5.4)

and

"I think simulation with inter professionals should commence from first year" (ref 5.5)

and

"…with our nursing interns we are having an interdisciplinary simulation with our medical intern colleagues pre- the medical intern colleagues going out on the floor. … integrating a learning educational session like this at an earlier stage in their undergrad programme means that when they do have to advocate for the patients that they will be able to approach it much, much easier." (ref 5.20)

Increased collaborations are essential to change the current mindsets of working together to create opportunities and identify solutions as to how best to change practice placement from illness models to community focused wellness and low-risk care pathways. It was recommended that practice placements should be focused on applied learning and provide opportunities for interdisciplinary learning during community placement as evidenced by:

"We have to change the governance structures of our programs to enable the support there for the students to move into that (community) space" (ref 1.5)

Participants suggested devising a plan outlining how to resource students support appropriately during practice placements such as:

"But I think it's, it's important that the students get the support you know we are down on nurses, that's definitive. But if we're sending the students out there the preceptorship, the model of support that we're using would be very, very important in relation to ensuring that there's not the theory practice gap and ensuring that what we're teaching in the college, the skills are being practiced out there in practice. And I think that's so important that the student gets the level of support that's required out there in practice." (ref 4.6)

There is consensus that the preceptor model for student supervision requires significant reform, which includes time to teach students clinical skills. Comments discussing this include:

> "…four hundred additional student places. Interestingly they talk about how many additional CPCs, SALO and nurse practice might be needed but no mention of preceptors, no mention of actual clinical placements." (ref 5.18)

and

> "It's so simple, but we don't have it, you know, and you know we're so short staffed..." (ref 6.4)

Participants expressed a need to develop a funding model for nursing and midwifery education that follows the student, this was evident in the following statements:

> "…the finances have to be changed in terms of distribution of where, where the student budget goes" (ref 1.3)

and

> "Support for the students' needs to follow the students rather than to be in the hospital." (ref 4.3)

and

> "So, the maternity services are funded through the acute hospital services, the community, you know, the public health nurses are funded through PCCC. And never the twain should meet. That has to change, that model of funding has to change because we need to, we need to get midwives out into the community." (ref 4.2)

Core components were proposed across the divisions of the register to support transferability of knowledge and skills in person centred care, for example:

> "We need one entry for a nurse and then after that they can specialize. They need a good hand in mental health, in all of the different disciplines they need the social model and the acute model." (ref 1.6)

Similar comments were echoed by midwifery participants,

> "Talking about the curriculum here, key midwifery skills like vaginal breach birth and perineal suturing, we really need to keep an emphasis on that we are deskilling our current midwives by not paying attention to those core needs." (ref 2.1)

and

> "More core modules and clinical exposure, particularly in first year, and again through each year of the programme" (ref 6.2)

Summarising the discussions related to designing a curriculum for the future proposed that inter-disciplinary educational opportunities for all healthcare professionals should commence with core modules in first year. In addition, participants proposed that simulation was an ideal opportunity for inter-professional learning. Core content proposed for nursing to develop transferrable skills across disciplines and healthcare sites. A change to the current preceptor model was suggested and an alternative clinical supervision model would include more skills teaching during clinical placement. Midwifery participants proposed including core modules and early clinical exposure for students.

4.1.4.4. Destiny

Realising what the future of nursing and midwifery education will look like was the focus of the destiny phase for participants in the focus groups. Four distinct themes were developed to articulate the findings of this phase and are described in figure 14. The themes are resourced student-centred learning system; academic entry; mutual esteem; and midwifery as a distinct profession.

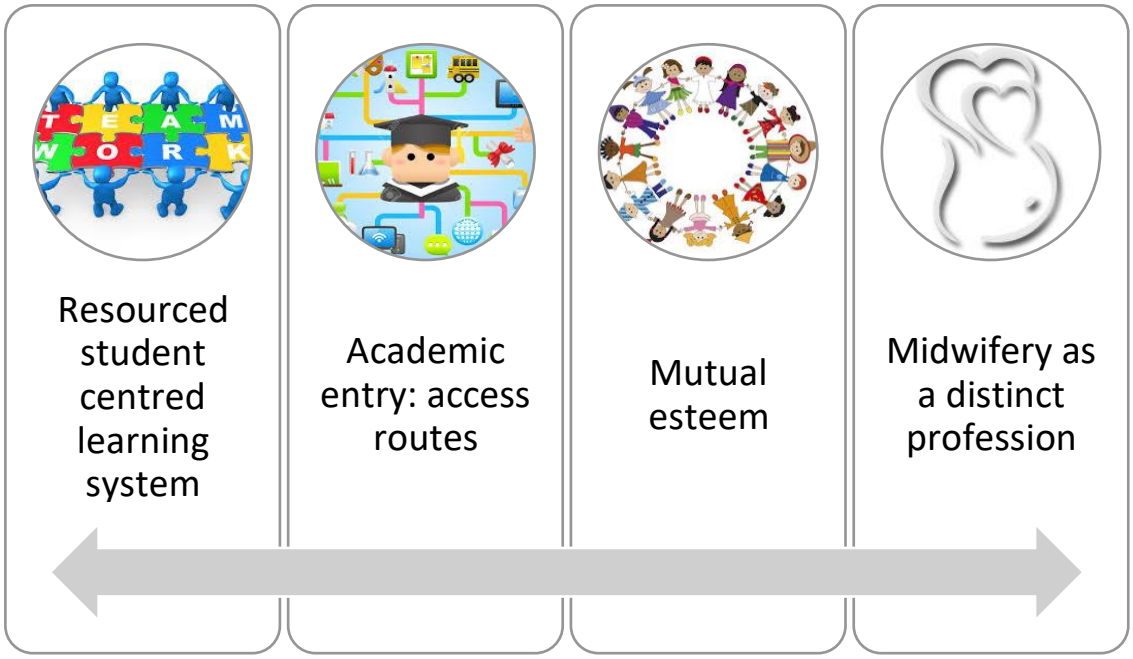


Figure 14: Focus Groups Themes

(a) Resourced Student-Centred Learning System

The first major theme developed incorporated three categories for both professions including: i) Student learning; ii) Practice placements; iii) Funding model that follows student needs.

i) Student learning

The future of nursing and midwifery education must firmly place the student learning experience at the centre. Participants expressed the significant experience they have in person-centred care and are complimentary that this is a core value of the professions. It is therefore essential that the student is at the centre of the curriculum in the future and a learner focused approach is used to direct a student-centred curriculum. Evidence to support this includes:

> "…the preceptor that has a student with them, it kind of slows them down. But then … if you had somebody else available then as well that could … do maybe the drug round with the student nurse or … do something else that could kind of take a bit of the weight as well… sometimes it just gives that little bit of leeway." (ref 9.9)

and

> "…so, if we have a student-centred learning experience, we have to help them navigate rather than to keep building the blocks for them" (ref 3.7)

and

> "The first is a learner centred curriculum for the student's ability to learn to become lifelong learners is critical…" (ref 4.9)

Student centred learning also encompasses flexibility and providing choices for students related to their learning. Flexibility was proposed across the curriculum and included changing to another division of the register, module choice, assessment options and offering "*the students … a choice of placements*" (ref 5.3) in clinical practice. Participants recognise the enormity of the curriculum and acknowledge that there are essential core components across all divisions of nursing. There is a suggestion that core components should then open to enable choices for students.

> "…it's important for students to familiarise themselves with exact pathways of mental health care, from initial presentation in acute setting and recovery with the support of the community." (ref 9.3)

and

> "…we can sign off on somebody who is competent, confident, a professional and is able to have the resilience to adapt to the situation that they're in, regardless of what kind of care setting, whether it's in the acute setting in the hospital, or whether it's at home." (ref 3.5)

Repeated discussions that acknowledge the challenges in providing adequate learning opportunities and supportive supervision occurred in all focus groups. There was agreement across all groups that the current model of supervision and clinical assessment by preceptors requires reform. A supportive learner centred model requires continuity of supportive learning for supernumerary students across academia and clinical environments including the acknowledged increased community practice placements.

Simulation is acknowledged as an area for future development and expansion in nursing and midwifery. Simulation offers a rich learning experience for students in preparation for practice placement but is also proposed as a solution to practice placement saturation and an opportunity for interprofessional learning. Examples from the discussions are:

> "But the other thing, I think, is the use of simulation in our approaches, our pedagogical approaches as well is very important in giving them a safe space in which to make mistakes. And to learn from them, and to build their confidence that way as well. And the use of things like OSCEs. And those very safe opportunities to explore areas of their practice, and to allow for integration of things as well, you know, because OSCEs can sometimes become very focused on skills. But if you take a holistic approach to them, I think they're hugely beneficial in terms of their impact on student learning." (ref 3.9)

and

> "…at the end of the day the students are being taught in academic settings within the university. So, we can no more do without them than we can do without our clinical placements … I think the growth of simulation as a clinical pedagogy that is really, it's a very expensive way to teach but it's very rich and it's also a way of coping with the fact that there is a real saturation on a lot of clinical areas of students. And clinical areas complain that they don't have capacity to take more students" (ref 7.4).

Solutions were proposed from participants in clinical focus groups to incorporate simulation into clinical practice and for assessments during clinical practice placements, as evidenced by:

> "…but there are strengths with simulation in relation to interprofessional learning and working and also there is capacity to use simulation to help us to build on the practical skills of nurses and the relationship centred skills that they require." (ref 5.22)

and

> "…definitely more simulation training is needed. And to involve the likes of the CPCs who are working with the preceptor and the student to enhance the simulation process and to enhance the assessment process." (ref 5.19)

Simulation was proposed as a solution to saturated practice placements providing a safe and supportive learning environment for students.

ii) Practice Placements

Participants have expressed the importance of making students "*feel valued within their practice,*" (ref 6.2) and "*just making them feel appreciated*" (ref 6.5). This was also echoed by service users stating:

> "…the people that they're going to be working with, the individuals that are going to be, you know on the job or out there in the real world will embrace them, will embrace them, will encourage them, will, as X says educate them and assist them." (ref 8.3)

and

> "I do think the vital and the highlight for me is watching the bond and the relationship they have with a good preceptor." (ref 5.2)

and

> "It's so simple, but we don't have it, you know, and you know we're so short staffed, on the wards, and we can only do our best…and to give them the time that they need". (ref 6.5)

Participants expressed a preference for longer practice placements. Many participants expressed that there was limited value in short placements, particularly in specialist areas. The evidence supporting this included:

> "I think in the general program the specialists could be reduced from all the community, etc., and to focus on the acute because it is more transferable" (ref 5.3)

and

> "…if we had longer placements in second and third year maybe as well, that that would be a good element." (ref 5.5)

and

> "…the six-week placements are very beneficial so I think short core placements are not as beneficial and really should be taken out of the programme if at all possible." (ref 5.18)

Reducing the volume of short practice placements would provide an opportunity to focus student supports in other areas. It was expressed by participants that a student centered learning system should include clinical supervisors to support students with their learning across all practice placement areas. An adequately resourced learning system across academia and practice placement is essential.

> "…resourcing our clinical colleagues who are critical, like our CPCs and our clinical placement liaison officers are critical but also the academic posts are essential." (ref 7.4)

and

> "…in order for them to have a good experience clinically, we need to be able to support them and give them individual support." (ref 6.1)

It was widely acknowledged that community practice placements need to be developed in both nursing and midwifery to support students. This sentiment was expressed in all focus groups relating to the national Sláintecare policy for nurses and the National Maternity Strategy for midwives. An example of comments include:

> "…if we want to move towards the implementation of Sláintecare and we want that whole community perspective, I think what probably with our clinical placements…" (ref 3.8)

and

> "…we have to change how we are actually preparing our graduates to come out. So, we can't actually enable a graduate and say, that's wonderful now go work in a community setting six months post-graduation if they've never actually had that exposure or that learning. It's not just about a 4-week supernumerary placement, or a 3-week supernumerary replacement that they spend working alongside for exposure or participation. It's something more than that where they actually have an

internalization of what it is to work in this environment for a 9- or 15-week block period which is more than just that's supernumerary piece." (ref 1.9)

and

"CPC support for the students' needs to follow the students rather than to be in the hospital. Because if this is the way the government is going, or where Sláintecare is going, we are talking about community then we need this…" (ref 4.3)

Midwives stated that community placements are essential because "*it's where the majority of care is done*" and where "*normal postnatal care is experienced*" (ref 4.3).

Participants working in psychiatric nursing with a number of years of experience with community placements for students, expressed the need to ensure that the standards and requirements must be amended to reflect the shift toward community health care. This was evidenced by:

"…community going forward we need to be very cognisant of the level of supervision and the objectives that we are setting within the NCAD for students." (ref 5.21)

Comments from participants working in general nursing included:

"…the requirements and standards are set so rigidly with the amount of medical and surgical weeks and the community and all those... There isn't the flexibility within it..." (ref 5.18)

and

"So, looking at what specialities may be increased in the community… and that will involve a review of the requirements and standards" (ref 5.4)

There were determined and innovative discussions related to proposing new practice placements that would incorporate community healthcare, including community placement for internship. Comments included:

> “18 weeks of their internship is in an acute placement, you know, there really isn't very much community placement at all. So, I really would like to see that clinical placement reviewed” (ref 1.1)

and

> “Keep the clinical hours, however, review how we facilitate those hours.” (ref 5.4)

and

> “I think we need to relook at that, and you know look at can we generate other placements within the community again because the hospitals are saturated with students at the moment…” (ref 5.19)

and

> “I think we need to re-look at that and see should we reduce some of the surgical weeks and look at going to the community, going to some of these clinics, going to you know just because that’s what reality is today.” (ref 5.24)

Participants were unanimously supportive of continuing with supernumerary placements and then the current internship model as the summative practice placement.

Comments that capture the thoughts related to supernumerary status include:

> “I think the high point is the supernumerary status that students have in first, second and third year so that is vital to be maintained.” (ref 5.30)

and

> “And I think that's really important because they're there as supernumerary, and we had to fight hard to get students supernumerary status in the clinical area…They're there to learn.” (ref 3.7)

Comments reflecting the importance of internship include:

> “I think the internship is very important. I think it's … the 36 weeks at the end is really the consolidation of the acknowledged skills and attitudes for the student, and it really gives them, it certainly brings it all together for them and I think it would be very important to have to retain that going forward.” (ref 5.13)

and

> "…internship is the real highlight of the program for the students, and in their preparation to that graduate status" (ref 1.6)

and

> "And you know, about the internship. I think it's crucial to the program, because it really consolidates their practice." (ref 6.3)

and

> "The theory practice gap really closes in internship when you have your own women to care for." (ref 10.4)

Participants, particularly clinical nurses, expressed a solution focused approach with novel ideas to reconfigure practice placements reflecting changes that have occurred in healthcare delivery since the current curriculum was designed.

iii) Funding model that follows students' needs.

All participants acknowledged that the system requires more people. The need to support students in clinical placement sites was highlighted, reflecting that the funding model for nursing and midwifery education should follow the student. The prevailing sentiment was "*so we do need investment of CPCs in the community*" (ref 5.23) to support the students. Further evidence of this includes:

> "I suppose a greater presence in the community throughout the 4 years… feel really well supported while out on those placements" (ref 6.1)

and

> "…and if it's in community based, then and if there's no CPCs available, you know, with that kind of link between the college and the placement site. Then, potentially the placement, will, it would fall." (ref 3.5)

and

> "So, the maternity services are funded through the acute hospital services… That has to change, that model of funding has to change because we need to, we need to get midwives out into the community" (ref 4.2)

and

> "I suppose in relation to staffing CPCs, certainly, if we are looking at placing students more out in the community. You're looking at your ratio of CPC to support those students" (ref 5.1)

In line with a funding model that follows students' participants commented that the academic component of the curriculum should be included, as evidenced by:

> "We cannot, like we just can't keep saying yes to every single request to increase student numbers, increase student numbers year after year without also matching an increase in resources". (ref 7.4)

and

> "…but that has to be matched by not only resourcing our clinical colleagues who are critical, like our CPCs and our clinical placement liaison officers are critical, but also the academic posts are essential. And there's a danger that we won't continue to succeed at the levels that we're succeeding at the moment unless we, you know insist that its resourced properly" (ref 7.4)

The cost of simulation was also referred to by participants, but the consensus was that the benefit exceeds any concerns related to this.

> "I think the growth of simulation as a clinical pedagogy that is really, it's a very expensive way to teach but it's very rich…" (ref 7.4)

Discussions also included funding to support students availing of community placements as it was widely acknowledged that public transportation does not accommodate many community sites and the early start times associated with nursing. Comments included:

> "Just in terms of community I know an issue for our students would be the expenses and the cost of going, traveling out to these areas. And that really needs to be looked at and there's no accommodation to be got now in these areas to stay out there." (ref 5.23)

and

> "…what I'd love to see is less bureaucracy and less red tape around students' expenses and around their accommodation and I know I'm going on about this, but this is a huge part of the programme at the moment. Because students are, when they are on the programme they do have to travel out to placements. So, I think whether they get a bursary, and they don't have this retrospective review I think that would help a lot." (ref 5.19)

In summary, a resourced student-centred approach to learning proposes a curriculum that embraces the Sláintecare agenda by proving a flexible broad-based curriculum where students have the flexibility to choose a preferred specialist area whilst gaining more experience in general healthcare. Students' choice would ideally extend to selecting internship placement to consolidate their learning. Community healthcare and community wellness are integral to the student learning across the academic and clinical components. All areas of student-centred learning are resourced to provide support and innovative approaches to learning in a safe supportive environment through simulated learning and practice placement. Clinical practice placements are sufficiently long to provide students with an opportunity to become team members and apply the learned theory in practice.

(b) Academic Entry: Access Routes

Participants within both professions, but predominantly the nursing profession, expressed a strong desire to improve academic entry options to undergraduate education. The proposed options included mature entry, sponsorship options for existing healthcare workers and access routes through higher education, referred to by many as 'PLC'. The focus of discussions related to "*increasing the number of students*" (ref 5.15) but also providing access for students that would "*stay in employment, they will stay in Ireland, they are already embedded potentially with families and mortgages and everything else*" (ref 5.17) Some examples of the comments include:

> "I suppose to reach out to more mature students among mature candidates coming in through the programmes. They are definitely potentially the future, they will stay

in employment, they will stay in Ireland, they are already embedded potentially with families and mortgages and everything else." (ref 5.17)

and

"I think we could look at other options … hospitals could do sponsorship instead of being a sponsorship programme maybe they could do other payment you know cover for, subsidy, bursaries, there's many other ways to try and see if we could get more people into the programme. More mature people into the programme that are not just sponsored you know maybe they are funded scholarships. Things like that that should be explored, I think that would help retention of students, I think we have stepped into it with the sponsorship programme, but I think we could go a lot further." (ref 5.18)

and

"We also have a lot of nursing pre-nursing courses PLC courses that we don't seem to take on into the programme, we seem to lose a lot to the UK unfortunately. That's very unfortunate, you know we know that they obviously want to do nursing and where we are exporting them from our PLC courses." (ref 5.19)

and

"The points system is so high to get into it…" (ref 2.2)

and

"I just think, you know, even to start with, the selection process should be better. You know and if we got a better say from PLCs who were really interested, I think if we selected them better." (ref 5.3)

The discussions in this area were largely focused on general nursing, which at the time of the focus groups did not have a graduate entry option that exists for the other divisions of the register. There is a strong emphasis on facilitating academic entry routes for students who did not achieve the central application office (CAO) points and mature healthcare staff who will potentially remain in the workforce long-term.

A separate topic discussed related to multiple entries to nursing. The discussions noted that cross-transferrable skills are required for nurses working in the community. The proposal was contentious in one group but welcomed in another. Comments included:

> "We need one entry to a nurse and then after that they can specialize. They need a good hand in mental health, in all of the different disciplines they need the social model and the acute model." (ref 1.5)

and

> "We need to consider going forward …the innovative pathways or the innovative ways in which we can deliver a unified curriculum" (ref 1.8)

and

> "I sometimes think that we look at programs in huge isolation and I think that we've really become a bit siloed between the different entry routes and not the entry routes but the various registers, such as you know the general versus mental health versus intellectual disability. And I think there are competencies that lie across all of the programs." (ref 1.3)

and

> "…a core element is direct entry and there's a proposal, always there's a proposal for generic core training and specialising afterwards or whatever. So, I don't know the answer on that one, certainly on a few European groups and I see nurses who come through, we're the unusual system but I see both systems and what happens." (ref 1.1)

It was proposed that a more holistic and inclusive approach to healthcare requires greater core content for all nurses and midwives. This was articulated as:

> "… I think the disciplines of nursing need to experience more of other disciplines because it's an eye opener for them and is always useful information in your own profession. And I think it's great for general nurses. It destigmatises a lot of things for general nurses about psychiatry if they get a good experience of it. And vice versa, it's not just one way you know." (ref 1.1)

and

> "…statistically speaking, almost … of the population could be diagnosed with one neurodiverse condition… And just even understanding that traits…could mean the difference between somebody seeking medical help and not because they feel their

symptoms are just going to be brushed aside. Just because their pain symptoms don't register the way a neurotypicals does" (ref 8.4).

Communication was identified as the most important core component for nursing and midwifery education by the service users, stating:

> "…communication is vital, and I don't know how much is invested in that in training with regards to communication, you know just the subtleties of it. And you know it goes a long way, it goes a long way. And you know nurses like has already been said there, they're the kind of, the front line, the coalface with the patients and a kind word goes a long way." (ref 8.1)

and

> "…communication methods as well are very, very important. Especially because there's now a range of languages and language barriers and things. So how can that, how can we really help them to explain things in a way that are clear and concise and well understood when you know a person is probably in the throes of either labour or after birth, do you know like in that, they may not be in their most cohesive or coherent moments of their life…" (ref 8.2)

and

> "I think communication is critical, and that's something that I'm a member of X and we recently had a survey that was carried out through Inclusion Ireland and communication came out biggest issue… we have a very, very wide diverse nationalities now and communication is just critical, absolutely critical, you know" (ref 8.3).

In summary there is an appetite to improve academic entry routes for potential nurses and midwives. Participants expressed a perceived value for mature students having greater access to nursing and midwifery education. The potential of a more streamlined entry to nursing was proposed by senior stakeholders.

(c) Mutual Esteem

Participants all expressed the importance of their own role and contribution to the undergraduate nursing and midwifery curricula. Senior stakeholders in nursing and midwifery discussed the curricula with a strategic view of the roles of nurses and midwives in healthcare, and an acknowledgement that the nursing role is complex and "*the qualitative value doesn't always get articulated*" (ref 1.3) This was evidence by:

> "I think it's the quality of the graduates, it's really valued and while the public and are our partners value the role, I'm not sure there's a huge depth in the understanding of the intricacies of the role and the professional attributes that the graduates have." (ref 1.6)

Participants proposed that people who are able to articulate what they do are valued by society and the profession of nursing is currently lacking the required level of articulation.

> "And I think it has a lot to do with the fact that they're out there and they're occupationally socialized for a long time, and they're unable to articulate what they do. And I do believe that if we did actually change our educational model that we would end up having graduates who would be able to describe what they are actually doing." (ref 1.4)

Participants commented that clinical placements and internship were the most important components of the curriculum from senior stakeholders, academic and clinical nurses, which was evidenced by:

> "I think our ability to provide the students with relevant clinical placements that enhance the learning that is delivered throughout the curriculum. I think that's really one of the high points within the nursing degree. (ref 3.7)

and

> "I think the way that we have scaffolded learning throughout the program is excellent, culminating in the internship." (ref 1.4)

and

> "I think the internship is the real highlight of the program for the students, and in their preparation to that graduate status. And I know from talking to students on the ground they're very excited at that point in the program, and they really feel that this is where they're galvanizing all of what has gone before, and they really feel that they're becoming the real nurse." (ref 1.2)

The discussions amongst the academic nurses acknowledged the clinical component of the curriculum and referenced its importance to consolidate the theory the students learned in the classroom. Comments to reflect this include:

> "I think, for me, what is very evident with our students is that they have both the art and science of nursing. So, the theoretical underpinnings that they receive, you know, while they're in college, etc. But then, you know, you could see that very visibly, and it's concurrent you know with what has been previously said in terms of the 50/ 50, approach to the clinical placement, and it's the ability to consolidate that knowledge, you know, and I suppose implement it through the art of nursing within the clinical practice as opposed to you know, the historic of task orientated and getting the various tasks done, and I think that's the piece for me that has become very evident, and is really to both over the last number of years." (ref 3.9)

and

> "…it's the integration of theory and practice right throughout the program. You know, in the building up of the amount of time that students spend in clinical practice from first year, second year, third year to fourth year, you can see and feel in a lot of ways. They're confidence building as they move towards their internship. And I think that's very important, and laying the foundation, so they maximize the opportunities they have an internship to go out, and you can have conversations with them about where they feel they need to shore up their practice. Where they feel they're doing really well, and maybe they would need placements in someplace else. So, they're starting to direct their own learning to some extent as well and become quite independent practitioners with an internship." (ref 3.3)

An equivalent level of appreciation for the academic component from clinical nurses was not verbalised. Participants working in clinical roles regularly referred to the "training programmes" as opposed to the curriculum, with comments to reflect this including:

> "…literally what is done in college probably needs to be reviewed a bit as well like you know. I trained in the very olden days in relation to the certificate times so where we had state exams and you know where you had, everyone obviously sat the same exam" (ref 5.15)

and

> "The clinical component it is, I feel you know that's what gives, as you all said before, that it gives them the experience with the patient. The number of hours they spend in patient contact." (ref 5.4)

and

> "I don't know if this is just site specific, but we don't see a lot of the link lecturers from the university that we work with. So, it means that when they come in for like an action plan or like a midpoint interview that the students are really nervous because they're not used to seeing another setting. Whereas on the other hand a lot of our staff would go down to do like specialist lecture in whatever speciality." (ref 10.2)

There was evidence of an understanding of the components of the curriculum split between clinical practice and academia. However, it was clear that the participants in management and clinical roles did not articulate a clear understanding of the individual roles in the curriculum as a whole.

> "They have all the education, especially pharmacology of medicines but they wouldn't exactly know what to do with that, if you know what I mean." (ref 9.5)

and

> "I think if I could do one thing it would be more time on clinical placement than in the books" (ref 10.5).

and

> "Clinical placements, 100%, you learn so much in the environment of working with other midwives...you can do so much theory and you can read, and you can write

things down but until you're actually in the environment of this is what it actually means...So yeah clinical skills and placements are just core, 100%." (ref 10.3)

The proposed solution was to improve the link between academia and clinical placement sites, as stated:

> "…we need to like have more of a link between what's going on in college and what's actually going on in placements" (ref 5.14)

There was also some dissatisfaction related to the regulatory requirements for placements which were interpreted as not meeting the requirements of the role particularly for community placements.

> "In intellectual disability nursing, we're already in the community and have been for a long time. However, I would strongly feel that the undergrad program doesn't reflect that in terms of the standards and requirements. Our students are only doing two weeks in general nursing. And, as I said earlier, we nurse people across their entire lifespan, so that really just does not add up." (ref 5.11)

and

> "I think that's going to change, and therefore our program would have to change in order to address the skills that our future graduates will need be they in the acute, community or integrated care, setting whatever that is." (ref 1.6)

In summary, the perceived dissatisfaction between various sectors of nursing and midwifery participants suggests there is a lack of understanding of the role of the other party in the curricula as a whole.

(d) Midwifery as a Distinct Profession

Being a midwife is about "*being with woman*" (ref 2.1). Participants in all midwifery groups expressed that this is a separate profession with its own body of knowledge and its own philosophy in that "*I will say we're looking after healthy women… It's not nursing*" (ref 6.4).

Midwives expressed they are advocates for women and their role is supporting women through a normal event in their life, articulated as:

> "it's the midwife's ability to understand that someone might have like complications but they're also experiencing a really normal everyday event and to protect them from that as well." (ref 10.5)

Midwives expressed concerns related to the identify of their profession stating that their "*identity is not recognised in many areas*" (ref 2.5) and:

> "I think as midwives we probably battled with our identity for many, many years and I'm grateful I suppose to the activities, the EU directives and our regulatory board for protecting and promoting midwifery as a distinct profession. I think that's been really fundamental to everything I do and everything I believe in." (ref 2.1)

Distinct differences between midwives and nurses were highlighted, in particular the autonomy that midwives have in their role, which was articulated as:

> "it's the autonomy and the decision making and the ability to be able to provide a level of care to a woman to make a decision on the plan of care. You are not dependent on doctors as you would be more in nursing. You can see the woman, make a decision with her and follow through on the plan of care. I think it's that autonomy that I suppose is quite special" (ref 2.2)

and

> "I just want to say as well that I think for one of the values is that people enjoy being a midwife is that autonomy and like as a midwife we have a huge scope of practice really to influence how a woman's pregnancy develops and how her labour progresses and in the postnatal period." (ref 10.3)

Participants from the midwifery profession expressed a clear desire for a curriculum that is separate and distinct from nursing. Comments to reflect this include:

> "We need to keep midwifery education separate from nursing education. Because we are in danger of being subsumed by general nursing. We need to keep our profession separate, distinct and protected. That's what makes us unique" (ref 2.1).

This was justified stating that:

> "…since the new curriculum started, I feel there's a lot of shared modules across disciplines, and I feel we've kind of lost ...Sometimes the midwifery aspect of let's say, psychology or sociology. I feel the shared modules because you might have, let's, say, a class of 300 students from 5 different disciplines I feel sometimes midwifery is getting lost within that number of students, you know" (ref 6.2)

and

> "I'm not so sure, because we're constantly balancing with two balancing two programs when they're actually two distinct professions, really…" (ref 6.1)

In summary there was a strong desire to separate nursing and midwifery curricula particularly in the academic setting. Where core academic components are mandatory for both professions, participants expressed that examples using midwifery scenarios should be used for midwifery students reflecting their professional identity, autonomy and being with women.

4.1.5 Scoping Review

The findings of 79 different studies (37 quantitative, 32 qualitative and 10 mixed-methods studies) that explored the positive characteristics of clinical learning environments (CLEs) were synthesised. Studies in the review represented a broad distribution of geographical regions, including Africa (n=23), Asia (n=6), Australian & New Zealand (n=13), Europe (n=19), Middle East (n=11), and the Americas (n=7). Midwifery studies represented four geographical regions, Asia, Africa, Europe and Australia and New Zealand. Although some studies included in this review reported on negative socio-physical-organisational traits or features limiting the CLE, the review focused solely on characteristics that positively contribute to an optimal CLE. The studies collectively contribute to a comprehensive understanding of the multifaceted nature of an optimal CLE, which according to this review needs to encompass considerations

of the student's characteristics (SC), the clinical supervisor's characteristics (CSC), the pedagogical characteristics (PC), the academia-CLE liaison Characteristics, and the optimal physical and social environmental attributes (PSEA) of the CLE (Figure 15).

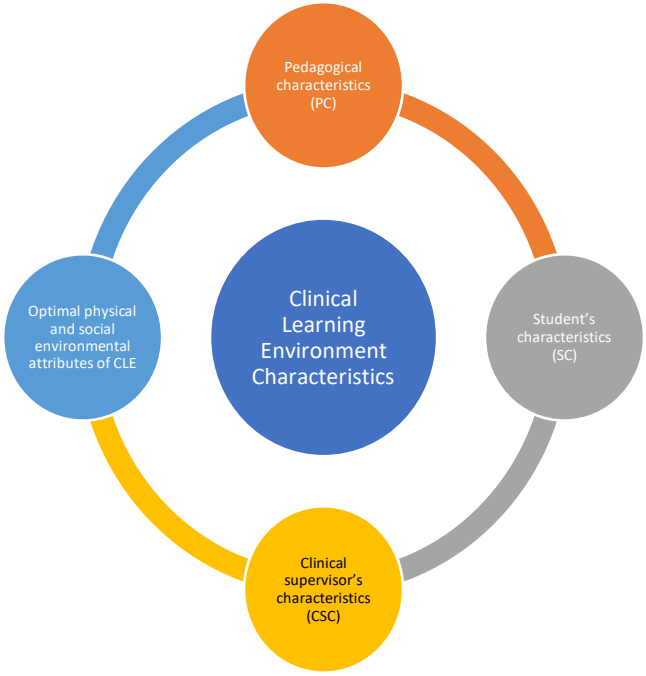
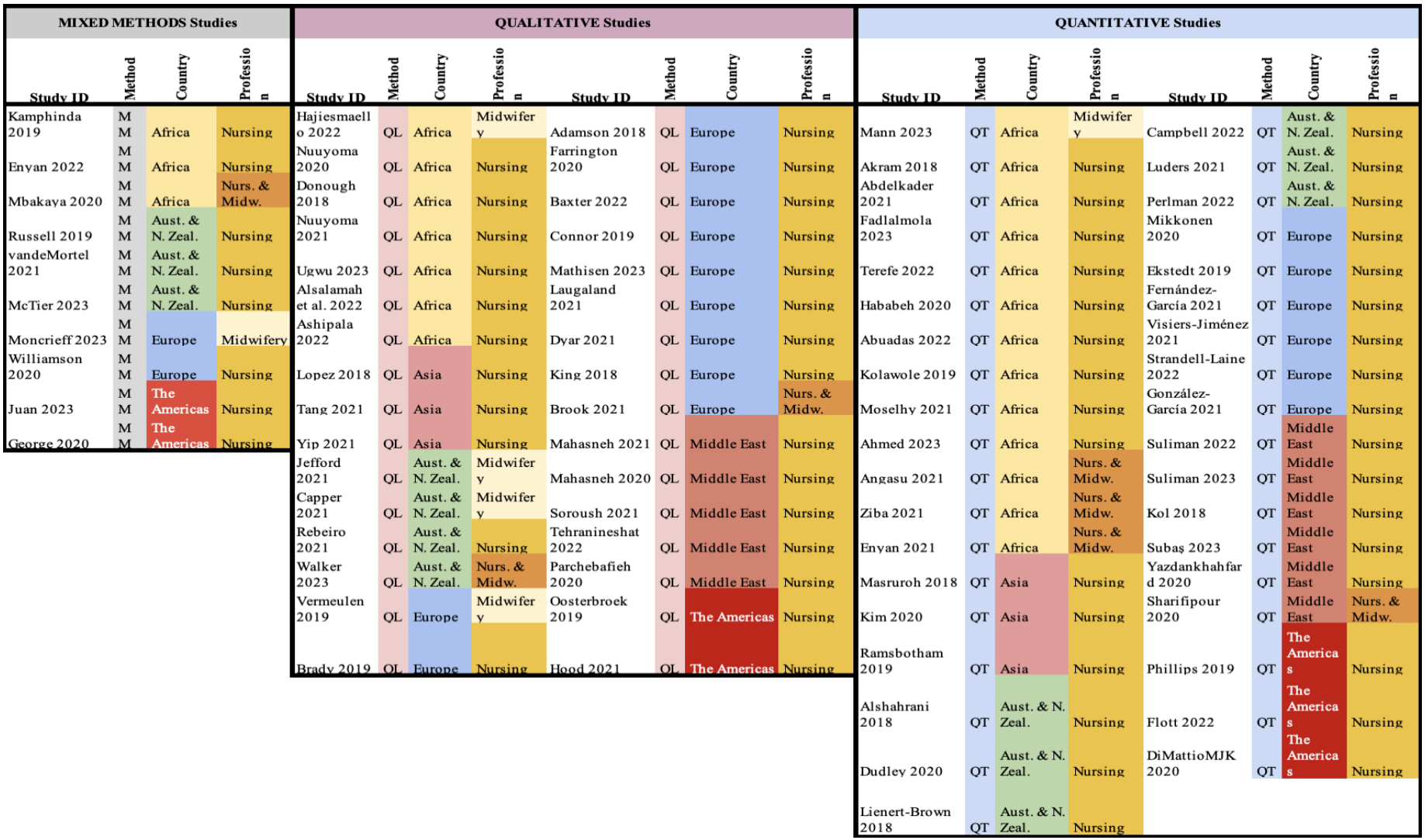


Figure 15: Framework Identifying the Groups to Define the Optimal Characteristics of the Clinical Learning Environment

Six of the 79 studies (Figure 16) were concerned exclusively with midwifery, seven with both nursing and midwifery, and 66 with nursing alone. There were no midwifery studies conducted in Asia or The Americas.

All regions had a distribution of qualitative and quantitative methodologies, though the Asia and Middle East region did not include any mixed methods research. Ten of the studies included for final analysis adopted a mixed method design. Seven of which conducted a correlational analysis on a cross-sectional survey paired with either structured or semi-structured interviews or focus groups. One study (Enyan et al., 2022) completed a quasi-experimental pre and post-intervention survey in parallel with semi-structured interviews. Of the 31 qualitative studies, only one used structured interviews for data collection purposes, with 16 using semi-structured interviews, two in depth-interviews, 10 used focus-groups.



MIXED METHODS Studies			
Study ID	Method	Country	Profession
Kamphinda 2019	M	Africa	Nursing
Enyan 2022	M	Africa	Nursing
Mbakaya 2020	M	Africa	Nurs. & Midw.
Russell 2019	M	Aust. & N. Zeal.	Nursing
vandeMortel 2021	M	Aust. & N. Zeal.	Nursing
McTier 2023	M	Aust. & N. Zeal.	Nursing
Moncrieff 2023	M	Europe	Midwifery
Williamson 2020	M	Europe	Nursing
Juan 2023	M	The Americas	Nursing
George 2020	M	The Americas	Nursing

QUALITATIVE Studies							
Study ID	Method	Country	Profession	Study ID	Method	Country	Profession
Hajiesmaeli o 2022	QL	Africa	Midwifery	Adamson 2018	QL	Europe	Nursing
Nuuyoma 2020	QL	Africa	Nursing	Farrington 2020	QL	Europe	Nursing
Donough 2018	QL	Africa	Nursing	Baxter 2022	QL	Europe	Nursing
Nuuyoma 2021	QL	Africa	Nursing	Connor 2019	QL	Europe	Nursing
Ugwu 2023	QL	Africa	Nursing	Mathisen 2023	QL	Europe	Nursing
Alsalamah et al. 2022	QL	Africa	Nursing	Laugaland 2021	QL	Europe	Nursing
Ashipala 2022	QL	Africa	Nursing	Dyar 2021	QL	Europe	Nursing
Lopez 2018	QL	Asia	Nursing	King 2018	QL	Europe	Nursing
Tang 2021	QL	Asia	Nursing	Brook 2021	QL	Europe	Nurs. & Midw.
Yip 2021	QL	Asia	Nursing	Mahasneh 2021	QL	Middle East	Nursing
Jefford 2021	QL	Aust. & N. Zeal.	Midwifery	Mahasneh 2020	QL	Middle East	Nursing
Capper 2021	QL	Aust. & N. Zeal.	Midwifery	Soroush 2021	QL	Middle East	Nursing
Rebeiro 2021	QL	Aust. & N. Zeal.	Nursing	Tehranineshat 2022	QL	Middle East	Nursing
Walker 2023	QL	Aust. & N. Zeal.	Nurs. & Midw.	Parchebafieh 2020	QL	Middle East	Nursing
Vermeulen 2019	QL	Europe	Midwifery	Oosterbroek 2019	QL	The Americas	Nursing
Brady 2019	QL	Europe	Nursing	Hood 2021	QL	The Americas	Nursing

QUANTITATIVE Studies							
Study ID	Method	Country	Profession	Study ID	Method	Country	Profession
Mann 2023	QT	Africa	Midwifery	Campbell 2022	QT	Aust. & N. Zeal.	Nursing
Akram 2018	QT	Africa	Nursing	Luders 2021	QT	Aust. & N. Zeal.	Nursing
Abdelkader 2021	QT	Africa	Nursing	Perlman 2022	QT	Aust. & N. Zeal.	Nursing
Fadlalmola 2023	QT	Africa	Nursing	Mikkonen 2020	QT	Europe	Nursing
Terefe 2022	QT	Africa	Nursing	Ekstedt 2019	QT	Europe	Nursing
Hababeh 2020	QT	Africa	Nursing	Fernández-García 2021	QT	Europe	Nursing
Abuadas 2022	QT	Africa	Nursing	Visiers-Jiménez 2021	QT	Europe	Nursing
Kolawole 2019	QT	Africa	Nursing	Strandell-Laine 2022	QT	Europe	Nursing
Moselhy 2021	QT	Africa	Nursing	González-García 2021	QT	Europe	Nursing
Ahmed 2023	QT	Africa	Nursing	Suliman 2022	QT	Middle East	Nursing
Angasu 2021	QT	Africa	Nurs. & Midw.	Suliman 2023	QT	Middle East	Nursing
Ziba 2021	QT	Africa	Nurs. & Midw.	Kol 2018	QT	Middle East	Nursing
Enyan 2021	QT	Africa	Nurs. & Midw.	Subaş 2023	QT	Middle East	Nursing
Masruroh 2018	QT	Asia	Nursing	Yazdankhahfard 2020	QT	Middle East	Nursing
Kim 2020	QT	Asia	Nursing	Sharifipour 2020	QT	Middle East	Nurs. & Midw.
Ramsbotham 2019	QT	Asia	Nursing	Phillips 2019	QT	The Americas	Nursing
Alshahrani 2018	QT	Aust. & N. Zeal.	Nursing	Flott 2022	QT	The Americas	Nursing
Dudley 2020	QT	Aust. & N. Zeal.	Nursing	DiMattioMJK 2020	QT	The Americas	Nursing
Lienert-Brown 2018	QT	Aust. & N. Zeal.	Nursing				

Figure 16: Visual representation of Authors by Type of Study and Country of Population Studied.

One study used participatory action research methodology, and another appreciative inquiry. One study by Capper et al., (2021) used open-ended questions via an online survey. Finally, of the 37 quantitative methodology studies, 32 used a classical correlational analysis on cross-sectional survey data, four used descriptive statistics on cross-sectional survey data, and one study used a pre and post-intervention cross-sectional survey analysis.

4.1.5.1. Student Characteristics

Twenty-four articles reported positive student characteristics (Table 19), which were combined to reflect two key categories with four unique characteristics in each category. The two key categories that captured the optimal student characteristics included: 1) characteristics dependent on the individual and 2) characteristics dependent on social, organisational and cultural factors. Four unique characteristics were created in each category (Figure 17). Within these two categories, the majority of publications focused on characteristics that are within the scope of the individual student to activate and carry out.

Characteristics in the category, 'characteristics dependent on the individual', were described in 19 of 24 studies and include: i) the ability to self-regulate learning or emotions; ii) communication skills; iii) positive perception of CS, the profession, or the CLE; and iv) the fit between prior knowledge and CLE. The student characteristic that was most frequently reported in this category was related to the student's ability to self-regulate their learning and emotions. Eleven studies mentioned a characteristic related to the student's self-regulation, including self-confidence in learning (Abdelkader et al. 2021), student's positive coping strategies (Alshahrani et al. 2018), student's ability to seek help (Kolawole 2019), and student's self-initiated learning (Subaş & Karaçay 2023). Positive perceptions of CS, the profession, or CLE received mention by four authors.

Table 19: Student Characteristics Contributing to an Optimal CLE Organised by Methodology, Profession and Geographical Region.

Article ID	Characteristic	Methodology	Profession	Country
4	Intrinsic Motivation	QT	Nursing & Midwifery	Africa
7	Nursing as opposed to midwifery	QT	Nursing & Midwifery	Africa
3	Intrinsic Motivation	QL	Nursing	Africa
1	Self-confidence in learning	QT	Nursing	Africa
2	Females and Earlier Years	QT	Nursing	Africa
5	Student's ability to seek help	QT	Nursing	Africa
6	Female and Later Years	QT	Nursing	Africa
8	Student's prior knowledge of the clinical setting, their prior experience of CLE, and their emotional self-regulation skills	QL	Nursing	Asia
9	Student's positive perception of supervisor's experience; Higher perceived interpersonal relationship with educators	QT	Nursing	Asia
10	Student's Preparedness and initiative taking	MM	Nursing	Australia & New Zealand
11	Positive coping strategies	QT	Nursing	Australia & New Zealand
12	Student's fit between their knowledge and the CLE	QT	Nursing	Australia & New Zealand
15	Student's ability to recognise learning opportunities and be prepared to face the reality of practice	QL	Midwifery	Europe
24	Student's knowledge and preparation	MM	Nursing & Midwifery	Europe
23	Student's initiative and responsibility taking	QL	Nursing	Europe
13	Female and Earlier Years	QT	Nursing	Europe
14	Perceiving to have a good relationship with the supervisor	QT	Nursing	Europe
16	Students' positive perceptions about their final clinical learning environment	QT	Nursing	Europe
19	Positive perception of the profession	QT	Nursing & Midwifery	Middle East

17	Student's perceived sense of belongingness and their identification with the profession	QL	Nursing	Middle East
18	Being female, student's self-initiated learning	QT	Nursing	Middle East
20	Student's communication skills and continued practice	MM	Nursing	The Americas
21	Student's anxiety levels	MM	Nursing	The Americas
22	Student's prior beliefs and values	QL	Nursing	The Americas

[1] Abdelkader et al. 2021; [2] Ahmed et al. 2023; [3] Alsalamah et al. 2022; [4] Angasu et al. 2021; [5] Kolawole 2019; [6] Terefe et al. 2022; [7] Ziba et al. 2021; [8] Lopez et al. 2018; [9] Kim 2020; [10] McTier 2023; [11] Alshahrani et al. 2018; [12] Luders 2021; [13] Fernandez-Garcia et al. 2021; [14] Gonzalez-Garcia et al. 2021; [15] Vermeulen et al. 2019; [16] Visiers-Jiménez et al. 2021; [17] Mahasneh et al. 2021; [18] Subaş & Karaçay 2023; [19] Sharifipour et al. 2020; [20] George et al. 2020; [21] Juan et al. 2023; [22] Hood et al. 2021; [23] Fernandez-Garcia et al. 2021; [24] King 2018.

In the category, 'characteristics dependent on social, organisational and cultural factors', the characteristics included, i) perceived sense of belonging; ii) gender or year; iii) prior knowledge of CLE, prior beliefs and values; and iv) nursing as opposed to midwifery. These characteristics describe students' satisfaction with their CLE in terms of characteristics that are not within their control. More specifically, gender and/or year are reported to influence student's satisfaction with the CLE by four authors, but three other authors contradicted this and did not find these characteristics significant, making gender and/or year a non-reliable predictor[4] of satisfaction. Fit between prior knowledge and CLE received mention by McTier (2023) and Luders (2021). Finally, communication skills, perceived sense of belonging, and nursing as opposed to midwifery received mention by one author each George et al. (2020) and Mahasneh et al. (2021) respectively.

[4] Sociodemographic factors are inconsistently reported as being important in determining the student's level of satisfaction with their CLE. Ahmed et al. (2023), Fernandez-Garcia et al. (2021), Subaş and Karaçay (2023), and Terefe et al. (2023) agree that being a female student is a predictor of satisfaction, but Ahmed et al. (2023) and Fernandez-Garcia et al. (2021), contrary to Angasu et al. (2021) and Terefe et al. (2022), find earlier years students, rather than later year students, to have a higher level of satisfaction in both laboratory and hospital sites. Fadlalmola et al. (2023) finds no gender differences and Luders et al. (2021) and Ramsbotham et al. (2019) find neither gender nor age or year of study to be predictors of satisfaction.

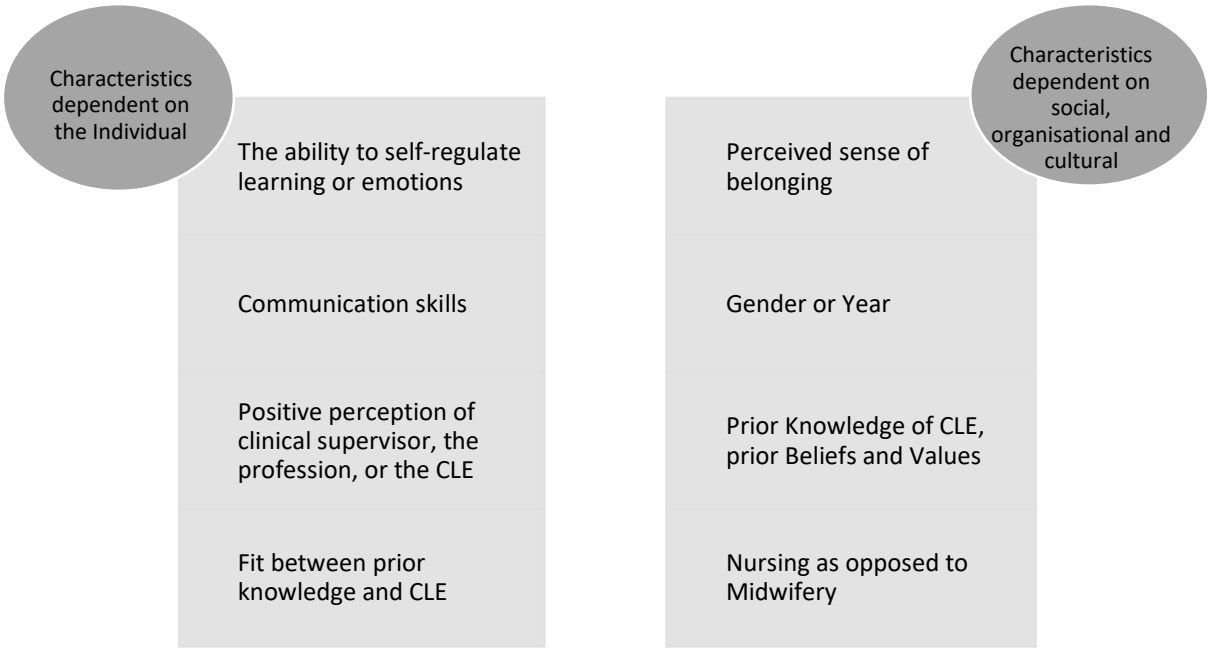


Figure 17: Optimal Student Characteristics

Six geographical regions contributed to the results related to student characteristics: Africa, Asia, Australia and New Zealand, Europe, Middle East, and North and South America. The methodological distribution is largely in favour of quantitative studies, with six of the 24 characteristics from qualitative research and four from mixed methods. When focusing on the geographical distribution of the 24 reported characteristics, we note that the ability to self-regulate learning or emotions is reported across all the six geographical regions, indicating that this characteristic receives global attention. The positive perception of CS, the profession, or the CLE, and gender and year are reported across three of the six geographical regions, with the other characteristics being reported in only one region respectively. Overall, the student's perceived levels of support from staff and their social milieu, their personal emotional regulation and coping skills, their beliefs and values orientation, prior knowledge of the CLE as well as their year and gender appeared to play positively on their evaluation of the CLE.

4.1.5.2 Supervisor Characteristics

Table 20 presents 23 supervisor characteristics identified that related to optimal CLE. All studies were related to nursing students apart from Enyan et al (2023), who collected data from both the nursing and midwifery professions, and Vermeulen et al (2019), who focused

on midwifery students. The methodological distribution favours quantitative methodologies, with nine qualitative studies, ten quantitative studies and four mixed methods.

Table 20: Supervisor's Characteristics Contributing to an Optimal CLE Organised by Methodology, Profession and Geographical Region.

Article ID	Supervisor's Characteristics	Methodology	Profession	Country
6	The learning and professional needs of students, helping students develop skills and gaining experience, and professional recognition as a CS, motivate a CS to supervise	QT	Nursing & Midwifery	Africa
1	Communication approaches and leadership styles	QL	Nursing	Africa
2	CS that are relationally and professionally competent	QL	Nursing	Africa
3	Instructor's communication skills increase satisfaction	QT	Nursing	Africa
4	Personality and interpersonal relational skills	QT	Nursing	Africa
5	Leadership style	QT	Nursing	Africa
9	Supervising some days as opposed to most days	MM	Nursing	Australia & New Zealand
10	CS's welcome and explicit expectations	MM	Nursing	Australia & New Zealand
11	Being prepared and having access to information about students	QL	Nursing	Australia & New Zealand
7	CS that provide clinical learning as well as pastoral care	QT	Nursing	Australia & New Zealand
8	Positive attitudes towards students	QT	Nursing	Australia & New Zealand
12	Reflective and trusted CS	QL	Midwifery	Europe
23	Knowledge of student's needs	MM	Nursing & Midwifery	Europe
13	CS who show trust and allow independence	QL	Nursing	Europe
14	A trusting and permissive CS relationship with students	QL	Nursing	Europe
22	Supervisor's competence and knowledge	QL	Nursing	Europe
15	Lower numbers of supervised students	QT	Nursing	Europe

16	Being motivated, interested, energetic, and sufficiently competent	QL	Nursing	Middle East
17	Good manners and constructive feedback, avoiding humiliation, discrimination, and paying respect for privacy	QL	Nursing	Middle East
18	Providing adequate feedback, having sufficient theoretical and clinical skills, valuing students and being open to communication	QT	Nursing	Middle East
19	Perception of the CS as a role model	QT	Nursing	Middle East
20	Accessible and caring CS	MM	Nursing	The Americas
21	Speaking individually with students and showing concern for their learning	QT	Nursing	The Americas

[1] Alsalamah et al. 2022; [2] Ashipala et al. 2022; [3] Akram et al. 2018; [4] Hababeh et al. 2020; [5] Terefe et al. 2022; [6] Enyan et al. 2021; [7] Campbell et al. 2022; [8] Luders 2021; [9] Russell et al. 2019; [10] McTier 2023; 11 Rebeiro et al. 2021; [12] Vermeulen et al. 2019; [13] Baxter et al. 2022; [14] Brady et al. 2019; [15] Fernandez-Garcia et al. 2021; [16] Soroush et al. 2021; [17] Tehranineshat et al. 2022; [18] Kol 2018; [19] Suliman & Warshawski 2022; [20] George et al. 2020; [21] DiMattio 2020; [22] King 2018; [23] Moncrief et al. 2023.

The 23 supervisor characteristics were refined into two categories with a total of 10 unique characteristics (Figure 18). The two categories included: 1) characteristics dependent on the individual and 2) characteristics dependent on social, organisational and cultural factors (Figure 18). Most of the publications focused on characteristics that are within the scope of the individual CS to change, operate, and deliver an optimal CLE. The characteristics in the category 'characteristics dependent on the individual' were reported by 21 authors and include: i) positive and constructive communication styles; ii) personality and leadership style; iii) professionally competent; iv) nurturing interpersonal relational skills; v) motivated by student's needs; vi) positive attitudes towards students; vii) reflective and trusted CS; viii) CS allowing for student's autonomy. The most frequently reported characteristic was i) positive and constructive communication styles, which includes reflections of how feedback was presented, and whether the CS used polite, respectful language with students, patients and staff.

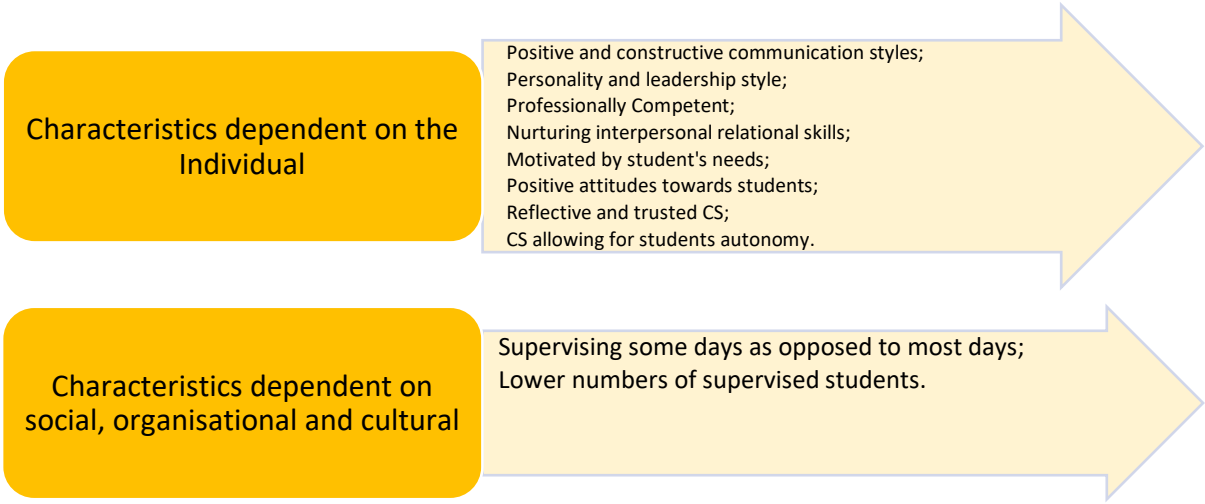


Figure 18: Optimal Supervisor Characteristics

Four publications identified the characteristics ii) personality and leadership style, iii) professionally competent, iv) nurturing interpersonal relational skills, and vi) positive attitudes towards students. We distinguished positive attitudes towards students from nurturing interpersonal skills, to differentiate the CS's positive a-priori perception of their students independently of their demographics or professional qualifications, from the CS's ability to nurture empathy and relational connection with students, particularly in times of stressful events. The category 'characteristics dependent on social, organisational and cultural factors' included characteristics that were described by two authors i) supervising some days as opposed to most days, and ii) lower numbers of supervised students.

It was noted that none of the characteristics were mentioned in all geographical regions, and none of the publications were from the Asian region. Three of the eight individual dependent characteristics were mentioned in three regions and the remaining five in two or one. As a category, the 'characteristics dependent on the individual' covered all the geographic regions.

4.1.5.3 Pedagogical Characteristics

Thirty-two positive pedagogical characteristics were identified in the review that influenced the optimal CLE (Table 21). All studies related to nursing students except for Jefford et al. (2021), Adamson et al. (2018) and Mahasneh et al. (2021), who collected data from both the nursing and midwifery professions, and Campbell et al (2022), who focused solely on

midwifery students. Fifteen studies used qualitative methodology, 13 quantitative and four mixed methods (Table 20).

Table 21: Pedagogical Characteristics Contributing to an Optimal CLE Organised by Methodology, Profession and Geographical Region.

Article ID	Pedagogical Characteristics	Methodology	Profession	Country
7	Standardized CS training by experienced CS is essential to role management	QT	Nursing & Midwifery	Africa
1	Complex rather than simple cases; Differing interaction patterns with patients due to demographics and patient's disease	QL	Nursing	Africa
2	Immediate accessibility to CS that are up to date	QL	Nursing	Africa
3	Involving students in patient care	QT	Nursing	Africa
4	Ongoing instructor's follow-up (using Case Studies)	QT	Nursing	Africa
5	Constructive feedback from mentees to improve supervision	QT	Nursing	Africa
6	Assessment should use demonstration of nursing procedures; Videos of clinical skills for training	QT	Nursing	Africa
8	Continuity of Mentorship and a non-hierarchical, non-judgmental, safe, and inclusive environment	QL	Midwifery	Australia & New Zealand
13	The currency of knowledge from students improves CS's self-awareness and reflections	QL	Nursing & Midwifery	Australia & New Zealand
12	Near-Peer supervision	MM	Nursing	Australia & New Zealand
9	Culturally attuned training	QT	Nursing	Australia & New Zealand
10	Student-centred teaching	QT	Nursing	Australia & New Zealand
11	An autonomy-supportive clinical placement	QT	Nursing	Australia & New Zealand
32	Continuity of Mentorship	MM	Nursing & Midwifery	Europe
21	A flexible roaster	QL	Nursing & Midwifery	Europe

14	On-time and explicit closed-loop feedback cycles with students and CS shared responsibility	QL	Nursing	Europe
15	More time spent with a respectful and genuine CS	QL	Nursing	Europe
16	Continuous CS and feeling thanked and valued	QL	Nursing	Europe
17	Peer-Learning Supervision	QL	Nursing	Europe
31	Students and facilitators need to be equally involved	QL	Nursing	Europe
18	Peer-Learning Supervision	QT	Nursing	Europe
19	The student–mentor relationship is more important than student's attitudes to success	QT	Nursing	Europe
20	Individualised supervision	QT	Nursing	Europe
22	Hands-on learning	QL	Nursing	Middle East
23	CS learning how to provide safety and security	QL	Nursing	Middle East
25	Encouraging independence, projecting a positive image of nursing, and delegating	QL	Nursing	Middle East
24	Nursing care modelling	QT	Nursing	Middle East
27	Peer-support, post-clinical debriefing and journaling	MM	Nursing	The Americas
28	Improved communication styles, and assessment strategies to reduce student's anxiety; Empathy and a supportive approach between instructors and students	MM	Nursing	The Americas
29	Perceived sense of support from CS	QL	Nursing	The Americas
30	Debriefing period at end of day when students go through emotionally difficult situations such as patient death	QL	Nursing	The Americas
26	Being allowed to work at one's own pace and having input on how the clinical day is spent	QT	Nursing	The Americas

[1] Alsalamah et al. 2022; [2] Ashipala et al. 2022; [3] Ahmed et al. 2023; [4] Akram et al. 2018; [5] Kolawole 2019; [6] Moselhy 2021; [7] Enyan et al. 2021; [8] Jefford et al. 2021; [9] Campbell et al. 2022; [10] Dudley et al. 2020; [11] Perlman et al. 2022; [12] van de Mortel et al. 2021; [13] Walker & Forbes 2023; [14] Adamson et al. 2018; [15] Baxter et al. 2022; [16] Brady et al. 2019; [17] Dyar et al. 2021; [18] Ekstedt et al. 2019; [19] Mikkonen et al. 2020; [20]

Strandell-Laine et al. 2022; [21] Brook & Kemp 2021; [22] Mahasneh et al. 2021; [23] Parchebafieh et al. 2020; [24] Suliman et al. 2023; [25] Tehranineshat et al. 2022; [26] DiMattio 2020; [27] George et al. 2020; [28] Juan et al. 2023; [29] Oosterbroek et al. 2019; [30] Hood et al. 2021; [31] King 2018; [32] Moncrief et al. 2023.

The 32 pedagogical characteristics were divided into three categories (Figure 19), namely 1) clinical complexity used in pedagogical situations, 2) student-centred approach and 3) organisational support. The first category, 'clinical complexity used in pedagogical situations' include two characteristics i) the use of complex rather than simple cases; and ii) involving students in patient care with different demographics.

The second category refers to the nature of the student-centred pedagogical approach. In this category we included pedagogical approaches that i) encouraged autonomy and a shared sense of responsibility between the student and the CS; ii) allowed for peer or near-peer supervision; iii) build on closed-loop mutual constructive feedback from both CS and students; provided iv) flexible rosters; and finally, v) supported the student's work with validation and appreciation.

The third and last category described as 'organisational support', refers to characteristics that depend on how the organisational structures influence the CS interaction with the student, independently of the student or supervisor characteristics. For instance, i) non-hierarchical, non-judgmental, safe, culturally attuned, and inclusive environment is conducive to positive pedagogical interactions that, in turn, enhance the CLE. In the same manner, ii) continuity of mentorship; iii) more time spent with a respectful, supportive and genuine CS; iv) immediate accessibility to up-to-date clinical skills (CS); and CS modelling of standardised procedures during training all contribute to higher satisfaction with the CLE. This category also included that clinical supervision should be empowered by standardised training by experienced CSs.

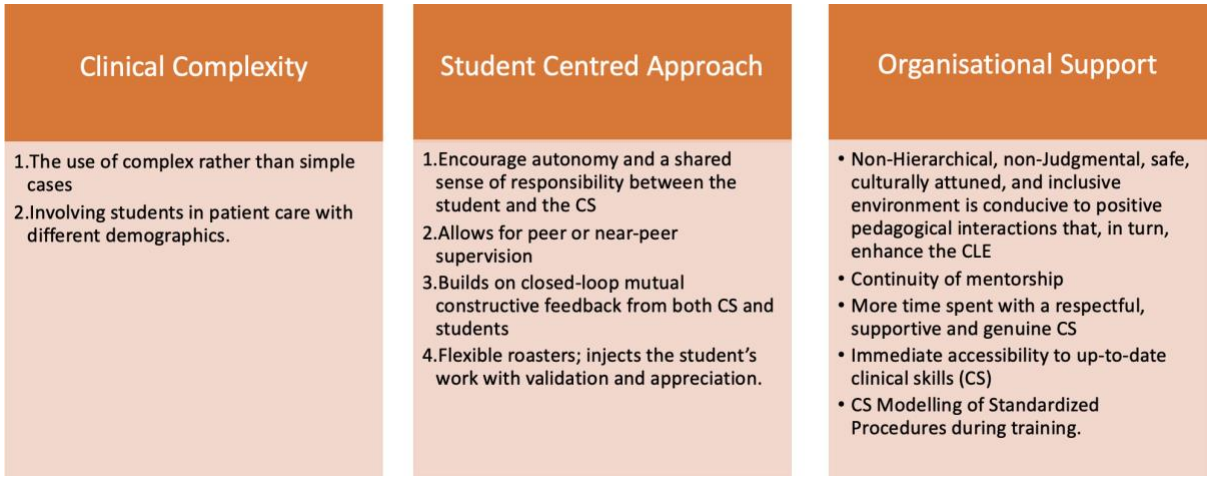


Figure 19: Optimal pedagogical characteristics

Both the student centred and the organisational support categories have 14 publications each, while the clinical complexity category is composed of five publications. The characteristic in the student-centred category that received the most attention was that concerned with pedagogies that encourage autonomy in students but also maintain a culture of shared responsibility. Some of the ways in which this shared responsibility is achieved are through peer or near-peer supervision, but also through forms of feedback mechanisms that allow for students to provide feedback to CS, rather than only CS providing feedback to students.

The geographical distribution of the characteristics reported include all geographical areas except Asia. It is noted that none of the characteristics were mentioned in all geographical regions. The autonomy supportive clinical placement, and shared responsibility model is the only characteristics that appears across four of the five different geographical regions, with all other characteristics being explored only in one or two regions.

4.1.5.4. The Physical and Social Environmental Characteristics

Table 22 presents 13 characteristics related to the physical and social environmental characteristics of the CLE. The study by Mann (2023) was conducted solely on the midwifery profession and all other studies related to nursing. The methodological distribution slightly favours qualitative methodologies, with six qualitative studies, five quantitative studies and two mixed methods study.

Table 22: The Physical and Social Environmental Characteristics of the CLE organised by methodology, profession and geographical region.

Article ID	CLE's Characteristics Short Form	Methodology	Profession	Country
1	Hospital placements for exposure to certain clinical practices. Clinics for opportunity to question and ask, and stronger supervisory relationships	QT	Midwifery	Africa
2	Use of digital devices to facilitate teaching	MM	Nursing	Africa
3	Night shifts	QL	Nursing	Africa
4	Specialised care centres for more time spent with patients	QT	Nursing	Africa
5	Small class size, a wealth of instructional materials, a cultural environment that highly values university degrees	QT	Nursing	Africa
13	Alignment with the education and practice	MM	Nursing & Midwifery	Europe
6	Feeling involved by the whole team, feeling belongingness is especially important for 1st Year Students	QL	Nursing	Europe
7	Belongingness motivates participation in current practices	QL	Nursing	Europe
8	An educational facilitator that liaises between the university educators, clinical staff, and managers in placement	QL	Nursing	Europe
9	Longer placements, especially when the CS relationship is positive	QT	Nursing	Europe
10	Nursing instructors, department staff, patients and patients companions believing in students	QL	Nursing	Middle East
11	Readiness of the whole unit to teach and assess students	QT	Nursing	Middle East
12	Rural centres promote closeness	QL	Nursing	The Americas

[1] Mann 2023; 2 Enyan et al. 2022; [3] Nuuyoma et al. 2020; [4] Terefe et al. 2022; [5] Abuadas 2022; [6] Brady et al. 2019; [7] Connor 2019; [8] Mathisen et al. 2023; [9] Gonzalez-Garcia et al. 2021; [10] Tehranineshat et al. 2022; [11] Suliman et al. 2023; [12] Hood et al. 2021; [13] Oosterbroek et al. 2019

The 13 characteristics were grouped under three categories (Figure 20): 1) sites; 2) cultural and organisational characteristics; and 3) teaching aids. The category 'sites', include specific

considerations for placement, particularly when or where a placement takes place. Hospital sites are distinguished from clinics, specialised care centres, and rural centres. More specifically, hospitals are reported to contribute more positively to a student's breath of contact with clinical procedures, clinics appear to encourage stronger rapport with CS through the opportunity to ask more questions, specialised care centres benefit students by giving them more time with patients, and finally rural centres are positively correlated to stronger CS rapport. Finally, it is reported that night shifts provide more teaching and learning opportunities for students. The sites category seems to affect either the closeness of the relationship between students and the CS, or the student's opportunities to learn.

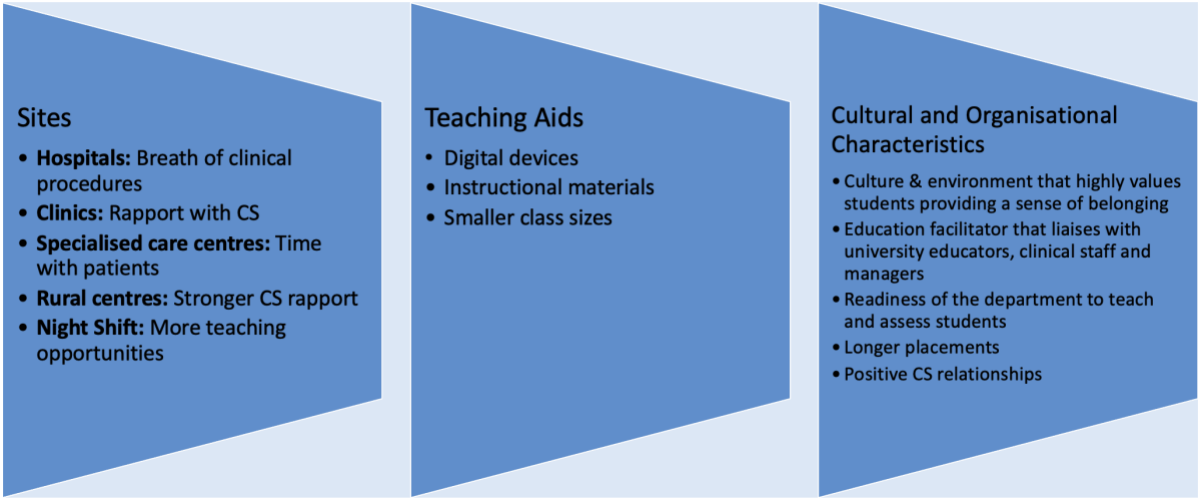


Figure 20: Optimal physical and social environmental characteristics.

Within the category 'cultural and organisation characteristics', a cultural environment that highly values students and provides a sense of belonging is frequently referenced in studies, this characteristic features in three of the four geographical regions and mentioned by four of the 13 authors. Within this category, the benefit derived by an educational facilitator that liaises between the university educators, clinical staff, and managers in placement, resulted in increased satisfaction among students when the readiness of the whole unit to teach and assess students was higher. Finally, a longer placement was positively evaluated in association with a positive CS relationship.

In the category 'teaching aids', there was reported benefit in the use of digital devices, a wealth of instructional materials, and smaller class sizes. All the characteristics identified were

mentioned in individual studies, except for the characteristic ‘a cultural environment that highly values students and provides a sense of belonging’.

The geographical distribution of the CLE characteristics is seen across four of the six geographical regions, with Asia and Australian and New Zealand being absent. Five publications are from Africa, four from Europe, two from the Middle East and one from The Americas. The characteristics in the category ‘sites’ are mostly present in the African region, with one being in The Americas.

4.1.5.5. Setting and Supervision Model

The following figure (Figure 21) groups the settings studied in the 79 publications. Forty-four studies surveyed participants attending their CLE within an acute hospital setting, two studies were concerned with a clinical setting, 11 with a general clinical learning environment, two with a mental health setting, eight included multiple sites, 10 were not defined, one was in a nursing home, and one in a rural setting. Across all these settings 36 had used a clinical supervision model, 14 had a preceptor model, 20 had a clinical instructor/educator model, and 15 a mentor model, although these models at times overlapped within the same setting. As can be seen in figure 21, all geographical regions make use of all nomenclatures synonym with clinical supervisor.

OVERLAPPING FACILITATION MODELS				
Name	**ID**	**Pedagogical Model**	**Country**	**Setting**
Adamson	1	Academic Staff; Mentor	Europe	Acute Hospital
DiMattioMJ	3	Academic Staff; Preceptor	The Americas	Acute Hospital
Oosterbroek	2	Academic Staff; Preceptor	The Americas	Acute Hospital
Akram 2018	8	Clinical Instructor/Educator	Africa	Acute Hospital
Hababeh	9	Clinical Instructor/Educator	Africa	Acute Hospital
Hajiesmaell	4	Clinical Instructor/Educator	Africa	Acute Hospital
Kim 2020	10	Clinical Instructor/Educator	Asia	Acute Hospital
McTier	5	Clinical Instructor/Educator	Aust. & N.	Acute Hospital
Mathisen 2023	6	Clinical Instructor/Educator	Europe	Acute Hospital
Kol 2018	11	Clinical Instructor/Educator	Middle East	Acute Hospital
Parchebafieh 2020	7	Clinical Instructor/Educator	Middle East	Acute Hospital
Suliman	12	Clinical Instructor/Educator	Middle East	Acute Hospital
Hood 2021	44	Clinical Instructor/Educator	The Americas	Acute Hospital; Clinical
Moselhy	45	Clinical Instructor/Educator	Africa	Clinical Setting
Yazdankhah	47	Clinical Instructor/Educator	Middle East	Generic Clinical Learning
Phillips	46	Clinical Instructor/Educator	The Americas	Generic Clinical Learning
Alshahrani 2018	60	Clinical Instructor/Educator	Aust. & N. Zeal.	Multiple Sites
Brady 2019	59	Clinical Instructor/Educator	Europe	Multiple Sites
Abdelkader	70	Clinical Instructor/Educator	Africa	Not Defined
Alsalamah	69	Clinical Instructor/Educator	Africa	Not Defined
Rebeiro 2021	48	Clinical Instructor/Educator; Preceptor; Peers	Aust. & N. Zeal.	Generic Clinical Learning Environment
Tehraninesh	26	Clinical Supervisor; Clinical Instructor/Educator	Middle East	Acute Hospital
Luders 2021	27	Clinical Supervisor; Clinical	Aust. & N.	Acute Hospital
Nuuyoma	29	Clinical Supervisor; Mentor	Africa	Acute Hospital
Tang 2021	30	Clinical Supervisor; Mentor	Asia	Acute Hospital
Vermeulen	28	Clinical Supervisor; Mentor	Europe	Acute Hospital
Jefford 2021	53	Clinical Supervisor; Mentor	Aust. & N.	Generic Clinical Learning
Capper	74	Clinical Supervisor; Mentor	Aust. & N.	Not Defined
Lopez 2018	31	Clinical Supervisor; Preceptor	Asia	Rural Settings
Ekstedt 2019	32	Clinical Supervisor; Preceptor; Peers	Europe	Acute Hospital
Dudley	36	Non Defined	Aust. & N.	Acute Hospital
Ahmed	66	Non Defined	Africa	Multiple Sites
Angasu	67	Non Defined	Africa	Non Defined

SINGLE FACILITATION MODELS				
Name	**ID**	**Pedagogical Model**	**Country**	**Setting**
Abuadas 2022	19	Clinical Supervisor	Africa	Acute Hospital
Kamphinda 2019	13	Clinical Supervisor	Africa	Acute Hospital
Mbakaya 2020	22	Clinical Supervisor	Africa	Acute Hospital
Nuuyoma 2020	15	Clinical Supervisor	Africa	Acute Hospital
Terefe 2022	21	Clinical Supervisor	Africa	Acute Hospital
Ugwu 2023	17	Clinical Supervisor	Africa	Acute Hospital
Ziba 2021	24	Clinical Supervisor	Africa	Acute Hospital
Yip 2021	18	Clinical Supervisor	Asia	Acute Hospital
Brook 2021	23	Clinical Supervisor	Europe	Acute Hospital
Dyar 2021	14	Clinical Supervisor	Europe	Acute Hospital
Fernández-García 2021	73	Clinical Supervisor	Europe	Acute Hospital
Sharifipour 2020	25	Clinical Supervisor	Middle East	Acute Hospital
George 2020	71	Clinical Supervisor	The	Acute Hospital
Masruroh 2018	51	Clinical Supervisor	Asia	Generic Clinical Learning
Soroush 2021	16	Clinical Supervisor	Middle East	Generic Clinical Learning
Mahasneh 2020	50	Clinical Supervisor	Middle East	Generic Clinical Learning
Suliman 2023	52	Clinical Supervisor	Middle East	Generic Clinical Learning Environment
Lienert-Brown	57	Clinical Supervisor	Aust. & N.	Mental health
Donough 2018	62	Clinical Supervisor	Africa	Multiple Sites
CAMPBELL 2022	63	Clinical Supervisor	Aust. & N.	Multiple Sites
Russell 2019	61	Clinical Supervisor	Aust. & N. Zeal.	Multiple Sites
González-García	20	Clinical Supervisor	Europe	Multiple Sites
Strandell-Laine	64	Clinical Supervisor	Europe	Multiple Sites
Fadlalmola 2023	72	Clinical Supervisor	Africa	Not Defined
Visiers-Jiménez	65	Clinical Supervisor	Europe	Not Defined
Juan 2023	49	Clinical Supervisor	The	Not Defined
Walker 2023	78	Clinical Supervisor	Aust. & N.	Rural Settings
Kolawole 2019	35	Mentor	Africa	Acute Hospital
Baxter 2022	34	Mentor	Europe	Acute Hospital
King 2018	79	Mentor	Europe	Acute Hospital
Williamson 2020	33	Mentor	Europe	Acute Hospital
Mikkonen 2020	54	Mentor	Europe	Generic Clinical Learning
Moncrieff 2023	56	Mentor	Europe	Generic Clinical Learning
Subaş 2023	55	Mentor	Middle East	Generic Clinical Learning
Connor 2019	75	Mentor	Europe	Not Defined
Laugaland 2021	77	Mentor	Europe	Nursing Home
vandeMortel 2021	37	Peers	Aust. & N.	Acute Hospital
Enyan 2021	43	Preceptor	Africa	Acute Hospital
Enyan 2022	39	Preceptor	Africa	Acute Hospital
Mann 2023	38	Preceptor	Africa	Acute Hospital
Ramsbotham 2019	42	Preceptor	Asia	Acute Hospital
Farrington 2020	40	Preceptor	Europe	Acute Hospital
Mahasneh 2021	41	Preceptor	Middle East	Acute Hospital
Perlman 2022	58	Preceptor	Aust. & N.	Mental health
Flott 2022	68	Preceptor	The	Non Defined
Ashipala 2022	76	Preceptor	Africa	Not Defined

Figure 21: Author, Supervision Model, Clinical Area, and Country.

In summary, there was a wide geographical distribution and a broad spectrum of research methodologies used in the 79 research studies analysed for the review. There is evidence of inconsistency in the use of title for clinical supervision of student nurses and midwives internationally. The review has identified four groups, which were divided into 10 categories and 92 characteristics that are associated with optimal clinical learning environment for student nurses and midwives. The four groups include student characteristics, supervisor characteristics, pedagogical characteristics and optimal physical, social and environmental characteristics of the clinical learning environment.

5. Key Findings

The key findings will be summarised in the following chapter.

5.1. Policy Document Review

Meaningful engagement and consultation with senior nursing and midwifery leadership was not visible in national healthcare policy development, during document analysis. This was evident in the perceived lack of understanding of the roles, scope of practice and educational preparation of nurses and midwives in the national policy documents. There was persistent use of nursing and midwifery as a combined term in policy documents related to healthcare, irrespective of whether the content related to the profession of midwifery.

Whilst midwifery was notably absent in the Sláintecare policy the National Maternity strategy promotes caring for women as close to their home as possible. Three pathways are identified for women in this strategy include, supported, assisted and specialised. The practice placements in midwifery should consider mapping to the various pathways for transparency.

There is an emphasis on community focused healthcare delivery as close to the persons home as possible. This requires a flexible workforce between acute and community sectors and integrating services between both sectors. For nursing this relates in the development of transferrable skills across the divisions of the nursing register to manage patients as close to their home as possible and prevent the transfer to acute services from residential settings.

Transferrable skills include a deep understanding of the influence of the social determinants of health on individuals. The social determinants of health relate to the non-medical factors that influence the health outcomes of individuals. The social determinants are inclusive of forces that shape the mental and physical health of an individual. These factors have been the traditional realm of public health, sexual health, intellectual disability, psychiatric, mental health and health promotion teams. With an increased focus on community healthcare, it is important that all undergraduate nurses and midwives have a deep understanding of the forces that influence health inequality and patient safety in all populations.

Embedding the social determinants of health in the curricula promotes an opportunity to expand on the traditional diversity within the population. Diversity and inclusion become more prevalent for all nurses and midwives as healthcare diversifies to community settings. Diversity is not only related to race and gender, but inclusive of vulnerable and people with complex needs. Inclusive healthcare and inclusion health for a diverse population requires specific understanding.

Nurses and midwives traditionally work within an interdisciplinary team structure. However, healthcare in a community setting requires greater decision-making skills for nurses as the teams are smaller and reporting relationships are often to inter-professional colleagues. In preparation for this the curricula must reflect individual person-centred assessment and clinical decision making for graduate nurses and midwives.

5.2. Curriculum Document review

General nursing is predominantly the international standard of registration. Midwifery as a distinct profession is emerging. Psychiatric nursing is becoming increasingly specialised, but it is not widely recognised as a separate registration internationally. This also applies to children's nursing and there is sparse evidence of intellectual disability nursing registration across the globe. There are opportunities to expand the integrated programmes to include intellectual disability and psychiatric nursing, leading the way internationally.

A bachelor's degree is the standard level of qualification in developed countries. The duration varies from 3 to 4 years, but no programme exceeds 4 years. The European Directive specifies the number of hours required and outlines areas for student exposure. There is no specified duration of exposure for any clinical practice area in the European Directive. The European Federation of Nurses Association competency framework is widely used across European countries with little evidence of adaptations of the framework by individual countries. The Irish Standards and Requirements are more prescriptive than others examined.

Direct entry midwifery is not available across all European countries or many international countries. Post-graduate entry is more widely available. Competencies are defined by the International Council of Midwifery and are widely used to form the curriculum. This is contrast to the standards available in Ireland.

5.3. Graduate Survey

Half of the graduates that completed the survey reported being satisfied with the curriculum, with a greater proportion being in the integrated children's and general nursing curriculum. Most graduates reported that they were satisfied with the teaching staff. Expectations from faculty members related to academic standards were clear for students, with the exception of midwifery and intellectual disability graduates. It was reported that the course had a positive impact on all of the graduate attributes. Graduates from intellectual disability were less confident that general nurses about tackling unfamiliar problems. It was reported that assessments were appropriate, however feedback should incorporate more than just grades.

There was a strong indication that the workload placed a lot of pressure on students. The sheer volume of coursework covered made it difficult to comprehend everything. This was more prevalent among psychiatric and general compared with children's and general graduates. All graduates reported there was little choice related to areas they wished to study, between assessments and required work.

Graduates reported they did not receive adequate preparation for practice placements, in particular midwifery students. Graduates in general and psychiatry did not feel valued as clinical team members and did not receive opportunities to practice the required learning outcomes. All graduates indicated they did not receive adequate supervision during placements and that their supervisors did not understand how the placement related to the broader course requirements.

The open text comments revealed that graduates experienced a negative effect on their mental health during practice placement with a lack of support and feeling unwelcome. This was somewhat due to poor staffing levels. Graduates commented on the repetitive content

in theory modules that did not prepare them sufficiently for clinical practice. Graduates recommend that clinical skills and pharmacology are introduced early in the curriculum, with a more even distribution of the workload across the four years. Graduates expressed that having academic assignments due for submission whilst on clinical placement caused distress. Bachelor's degree level preparation was also positively reported by graduates.

5.4. Stakeholder Focus Groups

The appreciative inquiry approach was used during the 12 focus groups with multiple stakeholders. The discovery phase identified that the core values and core learning components of nursing and midwifery curricula. Both professions were described as trusting, caring, advocates, communicators and the human face of healthcare. Midwifery professionals reported that it was a core value of the profession to be distinct from nursing. The core components of the curriculum include bachelor's degree preparation, the equal split between academic and clinical practice, the supernumerary status for students, reflective practice and internship.

The dream phase of the approach identified the most engaging components of the nursing and midwifery curricula were to build a vision for the future. Interestingly the academic participants reported that both theory and clinical components were engaging whereas the clinical participants reported only clinical practice, particularly internship was engaging. There was a consensus that early engagement with clinical practice and longer placements were valuable for student learning.

All groups expressed a desire to increase the community placements for students, in line with the future healthcare delivery. Midwifery expressed that the community component demonstrated a separation from the medicalised model of the pathway for women and promoted an opportunity to provide a more holistic care.

The focus groups expressed a wish for increased flexibility for students in choice of specialist strands and placement. In addition, there was unanimous desire to improve clinical

supervision for all students. Participants also wished to see an expansion to access nursing and midwifery for mature students, healthcare assistants and PLC access routes.

The design phase sought proposals from participants as to how the professions would work toward the dream curricula for nurses and midwives. The first proposal related to improving partnerships across all elements of nursing including policy makers, and more importantly between the academic institutions and clinical sites. This reflected the need for policy makers to create structures that will enable more community placements and care pathways. The collaborations were also essential to ensure resources are reconfigured to support a redesign in education including equipment for simulation but more importantly supervising students for all placements.

The final phase, destiny illuminated what the future of nursing and midwifery education would look like. Five themes were developed by the research team to articulate the findings of this phase and included:

- *A resourced student-centred learning system*: The student learning experience is at the centre of the education model with a learner focused approach to delivery. This embraces a teaching pedagogy that embraces lifelong learning, choices for students and flexibility in teaching delivery, assessments choice, flexible work patterns, clinical placement across both community and institutions and simulation with interprofessional learning opportunities. The future model also proposes fewer but longer clinical placements supported by clinical instruction. Student supernumerary status, reflection and internship are the cornerstone of practice placement and would remain in any future curriculum. Student supervision was highlighted as an area requiring significant change but there was no clear vision for an alternative model. The funding model must follow the student with equipment and personnel, and support students in any future curriculum both travelling to placement and acknowledging their contribution to the clinical environment.
- *Academic entry; Access routes*: There is a strong desire to increase the academic entry routes to the professions. The discussions predominantly focused on increasing opportunities for entry via QQI/PLC courses, and sponsorship options for existing healthcare staff. A more flexible curriculum is required to encourage mature entry

students into the professions. Choice and flexibility to move across specialist divisions of the register and clinical practice areas, including the community should be accommodated in future curricula. This requires identification of core components to support transferrable skills within the profession of nursing in particular.

- *Mutual Esteem*: There was evidence of a lack of understanding of the curriculum as a whole amongst the separate grades of nursing and midwifery. Senior stakeholders discussed the professional issues whereas the clinical participants were very focused on clinical skills and tasks and the importance of the clinical aspect of the curriculum. The academic participants referred to the curriculum, the scaffolding of knowledge, knowledge application and demonstrated significant respect for the clinical sites. Overall, there was a gap in knowledge of the various roles in nursing and a subsequent lack of acknowledgement of the importance of the various layers of the professions in the overall contribution of healthcare. There was no senior leadership visible in healthcare policy and it was evident that nurses closest to the patient were hesitant to voice opinions, it was an unfamiliar situation.
- *Midwifery as a distinct profession*: The midwifery professionals expressed a sense of frustration with the absence of acknowledgement as a distinctly separate profession. The persistent conjoined use of midwifery with nursing was interpreted as a lack of understanding and indeed presence of senior midwifery leadership in the development of healthcare policy. It was felt that the move to higher education had contributed to merging midwifery with nursing in academia and there was a strong desire to separate the two professions.

5.5. Scoping review

Seventy nine studies were analysed to identify the characteristics of the optimal clinical learning environment. There was a broad distribution of geographical regions and research methodologies. Sixty six studies were related to nursing, seven included nurses and midwives and six were solely related to midwifery. Four groups were defined with 10 categories and 92 characteristics associated with optimal clinical learning environments. The four groups included: a) student characteristics, b) clinical supervisor characteristics, c) pedagogical

characteristics and d) optimal physical and social environmental characteristics of the clinical learning environment.

a) *Student Characteristics*: This group consisted of 24 characteristics divided into two categories, 1) characteristics dependent on the individual and 2) characteristics dependent on social, organisational and cultural factors.
    1) Characteristics dependent on the individual. The characteristics in this category are within the capacity of the student as an individual. This category is comprised of four characteristics that include i) the ability to self-regulate learning or emotions; ii) communication skills; iii) positive perception of CS, the profession, or the CLE; and iv) the fit between prior knowledge and CLE.
    2) Characteristics dependent on social, organisational and cultural factors. The characteristics in this category are not within the control of the student. This category also contains four characteristics including: i) perceived sense of belonging; ii) gender or year; iii) prior knowledge of CLE, prior beliefs and values; and iv) nursing as opposed to midwifery.
b) *Supervisor Characteristics*: This group comprised of 23 characteristics in two categories, 1) characteristics dependent on the individual and 2) characteristics dependent on social, organisational and cultural factors.
    1) Characteristics dependent on the individual. This category identifies the characteristics that are within the realm of individual clinical supervisors. The characteristics include, i) positive and constructive communication styles; ii) personality and leadership style; iii) professionally competent; iv) nurturing interpersonal relational skills; v) motivated by student's needs; vi) positive attitudes towards students; vii) reflective and trusted CS; viii) CS allowing for student's autonomy.
    2) Characteristics dependent on social, organisational and cultural factors. The characteristics identified in this category were outside of the control of the individual clinical supervisor and related to external influences on the supervision. The characteristics included i) supervising some days as opposed to most days, and ii) lower numbers of supervised students.

c) *Pedagogical Characteristics*: 32 positive characteristics were identified in this group, which were divided into three categories namely 1) clinical complexity used in pedagogical situations, 2) student-centred approach and 3) organisational support.

    1) Clinical complexity used in pedagogical situations relates to the student preferred learning approach which included two characteristics i) the use of complex rather than simple cases; and ii) involving students in patient care with different demographics.

    2) Student-centred approach refers to the nature of the student-centred pedagogical approach. The preferred pedagogical approaches i) encouraged autonomy and a shared sense of responsibility between the student and the CS; ii) allowed for peer or near-peer supervision; iii) build on closed-loop mutual constructive feedback from both CS and students; provided iv) flexible rosters; and finally, v) supported the student's work with validation and appreciation.

    3) Organisational support refers to characteristics that depend on how the organisational structures influence the supervisor's interaction with the student, independently of the student or supervisor characteristics. The structures included i) non-hierarchical, non-judgmental, safe, culturally attuned, and inclusive environment, ii) continuity of mentorship, iii) more time spent with a respectful, supportive and genuine supervisors, iv) immediate accessibility to up-to-date clinical skills, v) clinical supervisors modelling of standardised procedures and vi) standardised training by experienced clinical supervisors.

d) *Optimal physical and social environmental characteristics*: Thirteen characteristics related to the physical and social environment were divided into three categories namely, 1) sites; 2) cultural and organisational characteristics; and 3) teaching aids.

    1) Sites. This category include specific considerations for placement, particularly when or where a placement takes place. We identified the positive learning experience related to each clinical site, i) hospitals, provide a breath of experience related to clinical procedures, ii) clinics, encourage a strong rapport with clinical supervisors, iii) specialised care centres, offered students more

time with patients, iv) rural centres, correlated with stronger clinical supervisor rapport and v) night shifts provided students with more learning opportunities.

2) Cultural and organisational characteristics. This category describes the characteristics that contribute to a cultural environment that i) highly values students and provides a sense of belonging, ii) an educational facilitator that liaises between the university educators, clinical staff, and managers in placement, iii) readiness of the whole unit to teach and assess students, iv) longer placement and v) a positive supervisor relationship.
3) Teaching aids. The category identifies the beneficial use of i) digital devices, ii) instructional materials and iii) smaller class sizes for student learning.

It was evident that there is no international consensus on an optimal model of clinical supervision for nursing and midwifery students. The review has therefore identified a selection of characteristics from the evidence that contribute to optimal clinical learning environments for students. There is no consistent use of a clinical supervisor role in the literature internationally, however clinical supervisor is the most frequently used term.

6. Discussion

It is evident that there is a need for senior nursing and midwifery leadership contribution to healthcare policy. This senior leadership contribution is not only to provide accurate knowledge on the role of nurses and midwives as governed by national legislation and regulation, but to discuss the potential contribution the large professional groups can make in future direction of healthcare. This is an opinion shared by the International Council of Nurses and the WHO (Hajizadeh et al., 2021). It is evident from the findings in this research that healthcare policy is familiar to all nurses and midwives, but there is a lack of clarity pertaining to the future direction of the professions. There is a need to provide the nurses and midwives closest to the patients/women with a space to have a voice to influence leadership. It is suggested in the literature that the professions must work collectively and integrate research, clinical expertise and leadership into policy development (Radford and Maxwell, 2022). The authors propose introducing policy development into the undergraduate curriculum and teaching this at a specialist level in taught graduate education, as this is an opportunity for the profession to become key influencers in the wider space of policy, not just healthcare policy development (Radford and Maxwell, 2022). It is evident, from this research, that there are innovative ideas to improve patient care, however the findings suggest that clinical nurses and midwives are not regularly asked for their voice to be heard. Nurses and midwives should not only be called upon to implement healthcare policy but influence in its development.

There is an excellent opportunity for the academic community to reflect on the changing healthcare environment. This includes enhanced digital healthcare, the shift to community healthcare and the growth and development of the workforce with an increased number of advanced practice roles integrating the community and acute hospital healthcare environments. This provides an opportunity to redesign teaching and learning by applying new student-centred learning pedagogy that supports clinical practice for both professions. There is a potential to embrace and lead with technological advances for the professions, not only by replacing or supplementing learning and assessments with simulation, but advancing technological developments in innovative learning. There is evidence to suggest that simulation-based education has demonstrated positive benefits for undergraduate nursing

and midwifery students in Ireland (Moloney et al., 2022), and wider implementation should be supported nationally. There is also evidence to support alternative student-centred pedagogical approaches for healthcare education in the classroom (Sultan et al., 2023). The findings in this research are consistent with recent literature that the social determinants of health should be deeply embedded in all aspects of the curriculum.

The social determinants of health are very present in the world healthcare agenda. There is a need to embed these in nursing and midwifery healthcare. Person centred care is deeply embedded in the current curriculum, as is health promotion. However, the social determinants of health provide an international evidence-based understanding of social factors affecting the health of an individual that go beyond a medical care. The social determinants of health will enhance student preparation for working in community healthcare settings (Porter et al., 2020). In addition, the social determinants of health provide a framework to expand the curriculum content related to health inclusion and diversity that continues to expand and evolve across society. There is evidence from the United States of America (USA) that reports whilst a number of nursing curricula refer to the social determinants of health in curricula documents, the concept is not well integrated (Colburn, 2022). It is suggested that a concept-based curriculum provides an effective platform to embed teaching related to the social determinants of health in a nursing curriculum (Porter et al., 2020). The evidence supports that through various modes of integration in the nursing curricula resulted in improved knowledge, patient assessment, increased empathy and sensitivity, resulting in strengthening nurses ability to achieve optimal patient outcomes (Phan et al., 2020; Porter et al., 2020; Muirhead et al., 2022). There is a dearth of evidence related to the social determinants of health in midwifery curricula, and midwifery is often incorporated within nursing research (Ea et al., 2023). The language related to social determinants of health very substantially in the literature, from population health, social justice, decolonization of curricula, but the language from the WHO and the Department of Health in Ireland use the terminology social determinants of health, which is an essential component of person centred care (Porter et al., 2020) and can arguably be applied to both professions.

Developing a greater understanding of the social determinants of health is important for the professions to ensure there is greater flexibility and choice in the curricula. There is an appetite to increase the academic entry pathways into the professions (Neal et al., 2023; Jennings et al., 2023) and this requires greater flexibility in the academic environment to support multiple learners equally and in the clinical environment to support students in career development in an area of interest to them. There is a paucity of literature related to accessing higher education for nursing and midwifery. The literature available relates to access from rural locations rather than alternative entry routes to academia.

Nursing and midwifery education internationally sits within higher education with 50% in clinical practice placement. The international standard is baccalaureate award with variances in the duration of the degree. It is evident that the EU directive stipulates a greater number of contact hours both academically and clinically. Four years is the longest duration for the bachelor degree internationally, with little evidence of multiple divisions of the register for nursing in other countries. It is not uncommon for a nursing registration to be a requirement to enter midwifery. However, where direct entry midwifery exists, the curriculum is more aligned internationally. There is evidence that international placements are offered to undergraduate students in the United Kingdom and Australia (Browne and Featherston, 2018; Morley and Cunningham, 2021). The value of this initiative for student learning is not yet conclusive. This research has identified that more clinical practice placement locations should be identified to support and prepare the workforce for the future.

This research affirms that bachelor level degree education is highly valued by the professions, as is the supernumerary status granted to students followed by the internship phase which enables students consolidate their learning in the clinical environment. The current supervision model in the curricula poses the greatest concern for the professions. The current model places student nurses and midwives in a vulnerable position, where 50% of their course assessment is being tasked to overworked preceptors, whose principal role is in the delivery of quality and safe person centred care. The findings of this research suggests that the clinical learning environment is not only challenging for nursing and midwifery students in Ireland, rather it is an international concern (Ryan et al., 2022). There are a myriad of clinical supervision models in existence worldwide in the clinical education of nurses and midwives,

without evidence supporting one model to be superior to others. Students clinical learning is completely dependent on an individual who's teaching and assessing role is subject to multiple external factors of greater priority beyond their control. The evidence indicated however that there are four separate entities that influence the optimal clinical learning environment and not just the clinical supervisor/preceptor. The entities include, students, supervisors, organisations and the learning pedagogy. There is an opportunity to embed this evidence into preparation for clinical practice placements for students, supervisors and organisations. The review has identified substantial evidence to support optimal clinical learning environments for nursing and midwifery students. The evidence also suggests that the characteristics for optimal clinical learning environments for nursing and midwifery students are consistent irrespective of the model of clinical supervision that is in effect. Similar processes have begun to emerge in the literature from an international perspective (Ryan et al., 2022). The findings suggest that a clinical supervision model that is supportive to both the student and clinical environment would have a positive impact on the experiences of students and preceptors in nursing and midwifery. The findings present an opportunity to improve current environmental challenges whilst the model of clinical supervision is under review.

This research identified that there is strong support for the undergraduate nursing and midwifery curricula across all sectors of the professions. There is an acknowledgement of challenges and a sentiment to change the current curriculum to improve student learning and align with healthcare policies. It is evident however that there is a need to strengthen the academic/clinical nursing and midwifery relationships to benefit the undergraduate students. This finding is not unique to Irish nursing and midwifery, indeed it is noted that these relationships are misaligned and the partnerships fade following completion of specific collaborative projects (Bvumbwe, 2016; Gillis et al., 2021; Bowles et al., 2022). An integration framework that begins with leadership working together is proposed to improve academic/clinical collaborations and partnerships to include a number of outcomes including student related outcomes (Gillis et al., 2021). These partnerships are important as care becomes increasingly complex and care delivery transcends multiple locations (Bowles et al., 2022). It is proposed that failure to establish and build on academic/clinical nursing and midwifery partnerships is a missed opportunity for the professions to collaboratively build

the workforce for the future. The curriculum is delivered in a split environment therefore strong collaborations and should be established. Arguably the undergraduate students should not be the only shared personnel between the organisations, which is consistent with the findings in this research.

6.2. Conclusion

This was the first review of the undergraduate nursing and midwifery curricula in ten years. The review is timely as the professional nursing and midwifery education is in its second decade in the higher education sector and the transition has been remarkable in many ways and equally challenging in others. The composition of the nursing and midwifery workforce has significantly changed since the transition, not just in Ireland but internationally. The nursing and midwifery workforce is becoming increasingly more global and fluid. In addition, the outstanding contribution of the workforce to the unprecedented global pandemic, there has been a significant shift in healthcare delivery to coincide with a philosophy of health and wellness whilst developing a deeper understanding of the social influences to the health of an individual.

It is evident that the professions of nursing and midwifery are committed to and continue to meet the challenges to evolve to meet the challenges presented by policy and population changes. This review has identified the positive components of the current undergraduate curricula and in addition has revealed the current workforce collaboratively have the determination and solutions to build a novel curriculum to meet the demands for the future-proofing the nursing and midwifery workforce. A curriculum designed with the student at the centre requires strengthening existing collaborations and building new relationships with new partners. New partnerships across the nursing profession are required in addition to new educational partnerships with inter-professional colleagues for both professions that have co-existed in clinical relationships for years but have not yet shared educational preparation at significant levels. Student centred teaching pedagogies integrating digital health and simulation with core curriculum components across the divisions of the register, are required to shape nurses and midwives with transferrable skills between the acute and community

sectors. Central to this, is student focused clinical supervisors who instructs, and assesses students in all clinical practice sites across the health sector.

Strong leadership collaborations will enable a flexible student learning environment to prepare a flexible workforce. In addition, accurately informed healthcare policy by nursing and midwifery leaders will provide opportunities to utilise the workforce to their full potential in the future.

6.3. Limitations

This research reviewed the current undergraduate nursing and midwifery curricula. It is worth noting that the clinical practice component of the current curricula is primarily focused on acute hospitals, the participants represented this sector of healthcare. There was limited representation from the community-based sector to accurately inform the readiness or requirements for undergraduates to undertake increased community practice placements.

The findings in this research are also limited by challenges presented including the contribution of participants. Graduates were invited to express their interest in participating in focus groups following completion of the online survey. All participants that provided an email address were contacted to participate in focus groups, however, only one graduate responded to contribute. Therefore, it was not possible to ascertain the graduate perceptions through open peer discussions using appreciative inquiry semi-structure focus groups.

Efforts were made to gather a diverse group of participants working in the clinical areas to contribute their opinions to the research through focus groups. The focus groups were well attended, however the research team concluded that there was a lack of cultural diversity in the focus groups despite the cultural diversity in the student population and the workforce. A large proportion of the nursing and midwifery workforce in Ireland completed their education outside of this country. The research team noted that internationally educated nurses were not well represented as participants in this research.

7. Recommendations

The independent evaluation of the undergraduate nursing and midwifery curricula recommends the following to improve and strengthen the education of nurses and midwives in Ireland to meet the future healthcare demands:

7.1. Recommendations for all undergraduate curricula

1. **It is recommended that the undergraduate programmes should remain at the Bachelor of Science honours degree level.** The equal split between theory and practice should remain for both nursing and midwifery education.
2. **is recommended that the supernumerary model remains for students in the nursing and midwifery undergraduate curricula.**
3. **It is recommended that the internship component of the curricula remains for students.** It is recommended that students are offered a degree of flexibility and choice of placement for internship.
4. **It is recommended that there is an increase in community placements for nurses and midwives in line with national healthcare policies.** It is recommended that whatever structure is established to operationalise this recommendation that the education bodies, regulator, department of health and health service providers should be represented.
5. **Revise the preceptorship model of clinical supervision, teaching and assessment.** It is recommended that an NMBI-led task force is established as a priority to address the multiple concerns raised by all stakeholders related to the operationalisation of the current model. The NMBI-led task force should identify structures and processes that could more effectively support students to achieve the clinical learning outcomes of the programme.
6. **It is recommended that the evidence-based characteristics related to optimal clinical learning environments for nursing and midwifery students are incorporated into the process of preparation for clinical practice placement.** Specific characteristics associated with optimal clinical learning environments include student characteristics, supervisor characteristics, pedagogical characteristics and optimal physical, social and environmental characteristics of the clinical learning environment.
7. **It is recommended that there is a greater emphasis on healthcare policy and its development in the curriculum.** Healthcare policy development and implementation

requires a visible voice from all grades of the professions of nursing and midwifery, pertaining to their professional roles and healthcare design and delivery.

8. **The funding model for student nurse and midwife education should be revised.** The current funding model supports a learning infrastructure that is predominantly based in the acute hospital settings that are based on an illness model of healthcare. In line with health policy, namely community focused healthcare and increased interprofessional working, the funding model must ensure that adequate learning supports are in place where students will be placed. Learning supports include personnel to support clinical teaching, simulation and assessing in the education bodies and clinical setting across community and institutions are required in any funding model. Students need to have access to adequate financial supports to avail of community placement opportunities.
9. **There is a need for greater integration of the clinical placement coordinator (CPC) and clinical skills instructor/tutor roles across clinical sites and education bodies in teaching and assessing clinical skills for students throughout the curricula.** It is recommended that this recommendation be explored further as part of the overall taskforce on clinical support for students in parallel to the review of preceptorship.
10. **There is a need for greater engagement and understanding of the undergraduate curricula across all levels of academic and clinical nurses and midwives in the design and delivery of undergraduate curricula.** It is evident that there is inadequate knowledge of the components of the curricula amongst the majority of nurses and midwives of all grades and levels. As the curriculum is split equally between education bodies and healthcare providers, it is essential that the curriculum is understood by all. This strong understanding of the curricula is crucial for delivering effective healthcare services and education.
11. **In line with the digital health transformation policy, it is recommended that education bodies explore instructional design or similar frameworks to support flexible self-directed learning.**
12. **It is recommended that education bodies adopt an inclusive teaching pedagogy that enables transformative and flexible nurses and midwives to fulfil their roles in patient safety and impact on the social determinants of health.** Engaging in a learner centred approach to the curricula can help to broaden and enhance the accessibility and inclusivity of learning activities. Theoretical modules in the undergraduate nursing and midwifery

curriculum require review and consolidation. There is evidence of significant repetition in the theoretical modules which are overburdening students with content and assessments. In addition, there is a reported lack of preparation supporting students in applying theoretical learning in clinical practice. It is recommended that simulation and simulated learning is included to support practice preparation for students.

13. **It is recommended that a learner-centred approach is applied in developing a future focused flexible curriculum. Choice and autonomy are central to the future curricula**. It is recommended that this flexibility is extended to include an option for students to select practice placements, timing of placements outside of traditional semesters, shifts options, and rosters. It is recommended that the social determinants of health, principal of social inclusion and non-discrimination is applied for students.
14. **The future curricula require a greater focus on the social determinants of health across the lifespan**. The social determinants of health are the conditions in which people are born, grow, live, work and age that can influence their health outcomes. The determinants are related to individual social and economic circumstances including socioeconomic status and social supports, environmental factors and health behaviours, access to healthcare, discrimination and social inequities and social and community engagement. This includes health, wellness and safety across the lifespan of a person. Efforts to engage with diverse cultures in the service user population should also be increased to reflect inclusive social determinants of health.
15. **Future guidance documents from NMBI should move towards outcome-based standards with less emphasis on prescriptive content.** The current guidance documents from the regulator are more prescriptive than other nursing and midwifery curricula internationally. The current format limits flexibility to respond to changing healthcare needs.
16. **Increase capacity on nursing and midwifery programmes to enhance access to nursing and midwifery education.** There is strong support to increase the access to nursing and midwifery education. Increased places should be offered for existing healthcare employees who wish to study nursing and midwifery. There should be an increase in the number of places offered via the Quality, Qualifications Ireland (QQI) entry route and mature entry students.

7.2. Nursing Specific Recommendations

1. **It is recommended that the nursing profession explore options for integrated curricula leading to dual qualifications across all divisions of the register.** With the significant changes to healthcare there is a need for students to have a diverse range of clinical skills to respond to healthcare needs across acute and community care. It is recommended that an inclusive, flexible and equitable approach is applied to all divisions of nursing to support student flexibility and career development.
2. **It is recommended that a core foundation across the disciplines of nursing should be explored to support student centred inclusive flexible pathways.** Where multiple disciplines of nursing are taught together, consideration of discipline specific learning needs should be incorporated through tailored examples. It is recommended to explore options where students could choose one of the integrated pathways during the curriculum. Interdisciplinary core modules should be explored for first year undergraduate students.
3. **Interdisciplinary learning should be explored through simulated scenarios in preparation for clinical practice placements.** Shared simulation could provide students with an opportunity to prepare for interprofessional team working in clinical practice.
4. **It is recommended that there is a greater emphasis on medication management across the nursing curricula**. It is recommended that medication management is further enhanced through innovative digital learning and is incorporated into simulated scenarios in the curriculum.

7.3. Midwifery Specific Recommendations

1. **The midwifery profession should be acknowledged as a distinctly separate profession**. The midwifery profession should be acknowledged as interprofessional rather than co-professional. Where nurses and midwives are taught together, consideration of midwifery learning needs should be incorporated through tailored examples from midwifery practice.

2. **It is recommended that the distinct pathways are defined in the midwifery curriculum.** Women are being placed under the following pathways at booking: Supported pathway, assisted pathway or specialised pathway. It should be clarified how the practice placement for the pathway fits in with the philosophy of Midwifery Care.

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Appendix 1: Completed Search String for Scoping Review

Database	Date	Search String Used	Specific Database Limits Applied	Notes	Hits	Processed FOR Screening
PubMed	29/06/2023	(((((Nurs* OR Midwi*)) AND ((Student* OR Trainee* OR Undergraduate* OR Baccalaureate OR First-Year OR Pre-licensure OR Novice* OR Pre-Professional OR Entry-Level OR Pupil*))) OR (("Students, Nursing"[MeSH Terms]))) AND ((("Clinical" OR "Clinical learning" OR "Clinical education" OR "Clinical practicum$" OR "Clinical practi*" OR "Hands-on training" OR "Simulation-based learning" OR "Simulation Training$" OR "High Fidelity Simulation Training$" OR "Outcome and Process Assessment$" OR MentOR* OR PreceptOR*) OR ((Simulation Training/ OR High Fidelity Simulation Training/ OR "Outcome and Process Assessment, Health Care"[MeSH Terms]) OR PreceptORship/ OR MentORs/ OR MentORing/ OR Health Services/ OR Health Facilities/)) AND ((environment$ OR "environment comparison$" OR "environment innovation" OR "environment optimization" OR placement$ OR program* OR setting$ OR site$)))) AND ((((Optimal OR high-quality OR excellent OR positive OR best)) AND ((factOR$ OR element$ OR indicatOR$ OR characteristic$))) OR (("optimal characteristics" OR "best characteristic" OR "effective characteristic" OR "high quality characteristics" OR "excellent characteristics" OR "positive characteristics" OR "optimal elements" OR "best elements" OR "excellent elements" OR "high quality elements" OR "effective elements" OR "positive elements" OR "optimal indicatORs" OR "high quality indicatORs" OR "excellent indicatORs" OR "best indicatORs" OR "effective indicatORs" OR "optimal factORs" OR "high quality factORs" OR "best factORs" OR "effective factORs"))) Filters Full text, from 2012 - 2023	Full-Text and 2012-Current	The search was not limited to Title and Abstract due to the results being unsatisfactORy	1709	1707
CINAHL Complete	29/06/2023	Same as PubMED	Full-Text and 2012-Current	Only the term "Outcome and Process Assessment, Health Care" could not be used when compared to the PubMED search	818	726
PsycINFO	20/07/2023	((Nurs* OR Midwi*) AND (Student* OR Trainee* OR Undergraduate* OR Baccalaureate OR First-Year OR Pre-licensure OR Novice* OR Pre-Professional OR Entry-Level OR Pupil*) OR (SU students, nursing, DE "Nursing Student) AND (((environment* OR "environment comparison*" OR "environment innovation" OR "environment optimization" OR placement* OR program* OR setting* OR site*)) AND (("Clinical" OR "Clinical learning" OR "Clinical education" OR "Clinical practicum*" OR "Clinical practi*" OR "Hands-on training" OR "Simulation-based learning" OR "Simulation Training*" OR "High Fidelity Simulation Training*" OR "Outcome and Process Assessment*" OR MentOR* OR PreceptOR*) OR (DE "Simulation-Based Assessment" OR DE "Virtual Environment" OR DE "Virtual Reality Exposure Therapy") OR (mentORs OR mentORing) OR (health services OR health facilities))) AND (((Optimal OR high-quality OR excellent OR positive OR best)) AND ((factOR* OR element* OR indicatOR* OR characteristic*)) OR (("optimal characteristics" OR "best characteristic" OR "effective characteristic" OR "high quality characteristics" OR "excellent characteristics" OR "positive characteristics" OR "optimal elements" OR "best elements" OR "excellent elements" OR "high quality elements" OR "effective elements" OR "positive elements" OR "optimal indicatORs" OR "high quality indicatORs" OR "excellent indicatORs" OR "best indicatORs" OR "effective indicatORs" OR "optimal factORs" OR "high quality factORs" OR "best factORs" OR "effective factORs"))	Full-Text and 2012-Current	Some of the Mesh Terms concerned with Simulation had to be changed to adapt to the PsycINFO Thesaurus	21	5
EMBASE	20/07/2023	"(((nurs* OR midwi* OR 'nurse'/syn OR 'midwife'/syn) AND (student* OR trainee* OR undergraduate* OR baccalaureate OR 'first year' OR 'pre licensure' OR novice* OR 'pre professional' OR 'entry level' OR pupil*) OR ('nursing student'/syn OR 'undergraduate student'/syn OR 'undergraduate education'/syn OR 'midwifery student'/syn)) AND ((((('clinical' OR 'clinical learning' OR 'clinical education' OR 'clinical practicum*' OR 'clinical practi*' OR 'hands-on training' OR 'simulation-based learning' OR 'simulation training*' OR 'high fidelity simulation training*' OR 'outcome and process assessment*' OR mentor* OR preceptor*) AND [2012-2023]/py) OR (('simulation training'/syn OR 'high fidelity simulation training'/syn OR 'treatment outcome'/syn OR 'high fidelity simulation') AND [2012-2023]/py) OR ((preceptorship OR 'mentor'/syn OR 'mentoring'/syn OR 'health service'/syn OR 'health care facility'/syn) AND [2012-2023]/py)) AND ((environment* OR 'environment comparison*' OR 'environment innovation' OR 'environment optimization' OR placement* OR program* OR setting* OR site*) AND [2012-2023]/py))) AND (((optimal OR 'high quality' OR excellent OR positive OR best) AND [2012-2023]/py) AND (((factor* OR element* OR indicator* OR characteristic*) AND [2012-2023]/py) OR (('optimal characteristics' OR 'best characteristic' OR 'effective characteristic' OR 'high quality characteristics' OR 'excellent characteristics' OR 'positive characteristics' OR 'optimal elements' OR 'best elements' OR 'excellent elements' OR 'high quality elements' OR 'effective elements' OR 'positive elements' OR 'optimal indicators' OR 'high quality indicators' OR 'excellent indicators' OR 'best indicators' OR 'effective indicators' OR 'optimal factors' OR 'high quality factors' OR 'best factors' OR 'effective factors') AND [2012-2023]/py)))"	Full-Text and 2012-Current	These terms were searched in the Thesaurus too but those in bold could not be matched **Trainee*** OR Undergraduate* OR Baccalaureate OR **First-Year** OR **Pre-licensure** OR **Novice*** OR **Pre-Professional** OR **Entry-Level** OR **Pupil***	2,114	1081
ERIC International	21/07/2023	Nurs* OR Midwi* AND (Student* OR Trainee* OR Undergraduate* OR Baccalaureate OR First-Year OR Pre-licensure OR Novice* OR Pre-Professional OR Entry-Level OR Pupil*) OR (SU Nurses OR SU Nursing OR SU Nursing education OR Nursing students OR SU Undergraduate students OR SU Undergraduate study OR SU Bachelors degrees) AND ("Clinical" OR "Clinical learning" OR "Clinical education" OR "Clinical practicum*" OR "Clinical practi*" OR "Hands-on training" OR "Simulation-based learning" OR "Simulation Training*" OR "High Fidelity Simulation Training*" OR "Outcome and Process Assessment*" OR Mentor* OR Preceptor*) OR (SU Outcomes of treatment OR SU mentors OR SU Community health services) AND (environment* OR "environment comparison*" OR "environment innovation" OR "environment optimization" OR placement* OR program* OR setting* OR site*) Filters Full text, from 2012 - 2023		The search string does not contain OPTIMAL CHARACTERISTICS as this new terms reduced the results to only 3 papers of which 2 were irrelevant, whereas holding these terms back, gave a somewhat better list of results	104	89

Appendix 2: Data Extraction Template

General Details	Methods	Participants	Setting
Title:	**Study Methodology**	**Professional Pathway**	[ ] Acute Hospital
Lead Author:	[ ] Qualitative	[ ] Nursing	[ ] Clinical Setting
Year:	[ ] Quantitative	[ ] Midwifery	[ ] Community Setting
Aim of Study:	[ ] Mixed Methods Quantitative Study	[ ] Nursing & Midwifery	[ ] Generic Clinical Learning
Country in which the study was	**Design**	**Student Population Descriptors**	**Environment**
conducted:	[ ] Correlational Analysis	[ ] 1st Year	[ ] Mental health
[ ] Africa	[ ] Descriptive Statistics	[ ] 2nd Year	[ ] Multiple Sites
[ ] Asia	[ ] Quasi-Experimental Data Collection	[ ] 3rd Year	[ ] Nursing Home
[ ] Australia & New Zealand	**Data Collection Method**	[ ] 4th Year	[ ] Rural Settings
[ ] Europe	[ ] Appreciative Inquiry	[ ] Non Defined	[ ] University Campus
[ ] Middle East	[ ] Cross Sectional Survey	**Staff Population Descriptors**	[ ] Ward
[ ] North and South America	[ ] In-Depth Interviews	[ ] Academic Support/s	[ ] Non Defined
[ ] Other	[ ] Focused Group Interviews	[ ] Clinical Supervisor/s	**Supervisory Model**
	[ ] Participatory Action Research	[ ] Clinical Instructors/Educators	[ ] Academic Staff
	[ ] Picture Taking and Reflective Interviews	[ ] Mentor/s	[ ] Clinical Supervisor
		[ ] Preceptor/s	[ ] Clinical Instructor/
	[ ] Pre-Intervention Survey	[ ] Registered Professionals	Educator

	[ ] Post-Intervention Survey [ ] Reflective Entries [ ] Semi-Structured Interviews [ ] Structured Interviews [ ] Methods Non-Defined **Survey Instrument** [ ] Demographic Data Form [ ] CLE [ ] CLEI [ ] CLE+T [ ] CLES [ ] CLES+T [ ] Ad-Hoc Self-Administered Questionnaire [ ] Australian Rural Health Education Network [ ] Clinical Competence Scale [ ] Clinical Education Environment Measure	[ ] Non Defined ****Total number of participants** (**post study if applicable):**	[ ] Preceptor [ ] Mentor [ ] Peers [ ] Non Defined

	[ ] Clinical Preceptor's Performance Questionnaire [ ] Cultural and Linguistic Diversity Scale [ ] Delphi Technique [ ] Dundee Ready Educational Environment Measure [ ] Learning Climate Questionnaire [ ] Midwifery Student Evaluation of Practice [ ] Nursing Clinical Teacher Effectiveness Inventory [ ] Placement Evaluation Tool [ ] Professional Self-Concept Scale [ ] Professor Trust Scale [ ] Self-Confidence in Learning Scale [ ] Self-Rating Anxiety Scale [ ] Self-Regulated Learning Scale in Clinical Nursing Practice		

	[ ] Short Nurse Professional Competence Scale [ ] Student Survey Working Group [ ] Student Evaluation of Clinical Education Environment Inventory [ ] Student Evaluation of Preceptorship [ ] Therapeutic Relationship Scale [ ] Transition Shock Scale for Nursing Student [ ] Undergraduate Modules Experience Questionnaire [ ] Work Readiness Scale for Graduate Nurses [ ] Other		

Appendix 3: Scoping Review Analysis

Study ID	Method	Country	Profession	QT Study Design	Data Collection Method	Survey Instrument	Numb. of Part.
Mbakaya 2020	MM	Africa	Nurs. & Midw.	Corr. Anal.	Crss. Sec. Surv.; FG Int.	CLEI	126 (36 Students in FG)
Kamphinda 2019	MM	Africa	Nursing	Corr. Anal.	Crss. Sec. Surv.; In-Dep. Int.	CLE	145
Enyan 2022	MM	Africa	Nursing	Q-Exp.	Pre-Int. Surv.; Post-Int. Surv.; S.Struc. Int.		45 (QT) + 7 (QL)
Russell 2019	MM	Aust. & N. Zeal.	Nursing	Corr. Anal.	Crss. Sec. Surv.; Reflective Entries; S.Struc. Int.	Ad-Hoc Self-Administered Questionnaire	199
vandeMortel 2021	MM	Aust. & N. Zeal.	Nursing	Corr. Anal.	FG Int.; Post-Int. Surv.	Ad-Hoc Self-Administered Questionnaire	70 (Survey) & 1 Group (Interview)
McTier 2023	MM	Aust. & N. Zeal.	Nursing	Corr. Anal.	Modified Delphi tech.	Ad-Hoc Self-Administered Questionnaire; Delphi Technique	51
Moncrieff 2023	MM	Europe	Midwifery	Desc. Stat.	Crss. Sec. Surv.; Struc. Int.	Ad-Hoc Self-Administered Questionnaire	148 (49 Students and 99 midwives)
Williamson 2020	MM	Europe	Nursing	Desc. Stat.	Crss. Sec. Surv.; FG Int.	CLEI	209 (200 Survey + 9 in FG)
Juan 2023	MM	The Americas	Nursing	Corr. Anal.	Crss. Sec. Surv.; S.Struc. Int.	State-Trait Anxiety Inventory; World Health Organization Quality of Life Instruments; S.Struc. Int.	58
George 2020	MM	The Americas	Nursing	Corr. Anal.	Crss. Sec. Surv.; Struc. Int.		154

Hajiesmaello 2022	QL	Africa	Midwifery	Thematic Analysis	S.Struc. Int.		22 (9 Midwifery Students + 6 Midwifery Instructors + 7 Clinical Midwives)
Nuuyoma 2020	QL	Africa	Nursing	Thematic Analysis	FG Int.		18
Donough 2018	QL	Africa	Nursing	Thematic Analysis	FG Int.		36
Nuuyoma 2021	QL	Africa	Nursing	Thematic Analysis	In-Dep. Int.		11
Ugwu 2023	QL	Africa	Nursing	Thematic Analysis	S.Struc. Int.		20
Alsalamah et al. 2022	QL	Africa	Nursing	Thematic Analysis	S.Struc. Int.		21
Ashipala 2022	QL	Africa	Nursing	Thematic Analysis	St. Int.	Other	15
Lopez 2018	QL	Asia	Nursing	Thematic Analysis	FG Int.		19
Tang 2021	QL	Asia	Nursing	Thematic Analysis	FG Int.		20
Yip 2021	QL	Asia	Nursing	Thematic Analysis	S.Struc. Int.		22
Capper 2021 (This paper appears under Evans 2021 in COVIDENCE)	QL	Aust. & N. Zeal.	Midwifery	Thematic Analysis	Open Ended Questions Surv.	Ad-Hoc Self-Administered Questionnaire	335
Jefford 2021	QL	Aust. & N. Zeal.	Midwifery		Appreciative Inquiry		78
Walker 2023	QL	Aust. & N. Zeal.	Nurs. & Midw.	Thematic Analysis	S.Struc. Int.		36

Rebeiro 2021	QL	Aust. & N. Zeal.	Nursing	Thematic Analysis	S.Struc. Int.		10 (Clinical educator, Preceptor, Buddy Nurse)
Vermeulen 2019	QL	Europe	Midwifery	Thematic Analysis	FG Int.		20
Brook 2021	QL	Europe	Nurs. & Midw.	Thematic Analysis	FG Int.; S.Struc. Int.		7 Nurses, 6 Midwives, 5 various ward staff (total 18)
Brady 2019	QL	Europe	Nursing	Thematic Analysis	FG Int.	Ad-Hoc Self-Administered Questionnaire	21 students (questionnaire) + 5 Students for FG + 9 Academics for FG
King 2018	QL	Europe	Nursing	Thematic Analysis	In-Dep. Int.		3
Adamson 2018	QL	Europe	Nursing	Thematic Analysis	In-Dep. Int.; FG Int.		55
Farrington 2020	QL	Europe	Nursing	Thematic Analysis	S.Struc. Int.		4
Baxter 2022	QL	Europe	Nursing	Thematic Analysis	S.Struc. Int.		6
Connor 2019	QL	Europe	Nursing	Thematic Analysis	S.Struc. Int.		8
Mathisen 2023	QL	Europe	Nursing	Thematic Analysis	S.Struc. Int.		12
Laugaland 2021	QL	Europe	Nursing	Thematic Analysis	S.Struc. Int.		13
Dyar 2021	QL	Europe	Nursing	Thematic Analysis	S.Struc. Int.		17
Mahasneh 2021	QL	Middle East	Nursing	Thematic Analysis	FG Int.		32

Mahasneh 2020	QL	Middle East	Nursing	Thematic Analysis	FG Int.		48
Soroush 2021	QL	Middle East	Nursing	Thematic Analysis	S.Struc. Int.		12
Tehranineshat 2022	QL	Middle East	Nursing	Thematic Analysis	S.Struc. Int.		21
Parchebafieh 2020	QL	Middle East	Nursing	Thematic Analysis	S.Struc. Int.		19 (12 Students + 3 Instructors + 4 Nurses)
Hood 2021	QL	The Americas	Nursing	Thematic Analysis	S.Struc. Int.	Other	14
Oosterbroek 2019	QL	The Americas	Nursing		Participatory Action Research; Picture Taking and Reflective Interviews	Other	14 (9 Students + 5 Faculty Advisors)
Mann 2023	QT	Africa	Midwifery	Corr. Anal.	Crss. Sec. Surv.		200
Angasu 2021	QT	Africa	Nurs. & Midw.	Corr. Anal.	Crss. Sec. Surv.	Ad-Hoc Self-Administered Questionnaire	147
Ziba 2021	QT	Africa	Nurs. & Midw.	Corr. Anal.	Crss. Sec. Surv.	CLES+T; Other	225
Enyan 2021	QT	Africa	Nurs. & Midw.	Corr. Anal.	Crss. Sec. Surv.	Ad-Hoc Self-Administered Questionnaire	442
Akram 2018	QT	Africa	Nursing	Corr. Anal.	Crss. Sec. Surv.	Demographic Data Form; Ad-Hoc Self-Administered Questionnaire; Other	135
Abdelkader 2021	QT	Africa	Nursing	Corr. Anal.	Crss. Sec. Surv.	Ad-Hoc Self-Administered Questionnaire; Nursing Clinical Teacher Effectiveness Inventory; Self-Confidence in Learning Scale	179
Fadlalmola 2023	QT	Africa	Nursing	Corr. Anal.	Crss. Sec. Surv.	CLEI	204

Terefe 2022	QT	Africa	Nursing	Corr. Anal.	Crss. Sec. Surv.	CLE; CLES+T; Other	208
Hababeh 2020	QT	Africa	Nursing	Corr. Anal.	Crss. Sec. Surv.	Nursing Clinical Teacher Effectiveness Inventory	296
Abuadas 2022	QT	Africa	Nursing	Corr. Anal.	Crss. Sec. Surv.	CLEI; Ad-Hoc Self-Administered Questionnaire; Dundee Ready Educational Environment Measure; Short Nurse Professional Competence Scale	518
Kolawole 2019	QT	Africa	Nursing	Corr. Anal.	Crss. Sec. Surv.	Ad-Hoc Self-Administered Questionnaire	100 (54 Students + 46 Registered Nurses)
Moselhy 2021	QT	Africa	Nursing	Desc. Stat.	Crss. Sec. Surv.	Demographic Data Form; Student Evaluation of Clinical Education Environment Inventory; Undergraduate Modules Experience Questionnaire; Other	186
Ahmed 2023	QT	Africa	Nursing	Desc. Stat.	Crss. Sec. Surv.	Other	1052
Masruroh 2018	QT	Asia	Nursing	Corr. Anal.	Crss. Sec. Surv.	Ad-Hoc Self-Administered Questionnaire	53
Kim 2020	QT	Asia	Nursing	Corr. Anal.	Crss. Sec. Surv.	Professional Self-Concept Scale; Professor Trust Scale; Transition Shock Scale for Nursing Student	184
Ramsbotham 2019	QT	Asia	Nursing	Corr. Anal.	Crss. Sec. Surv.	CLEI; Dundee Ready Educational Environment Measure	891
Alshahrani 2018	QT	Aust. & N. Zeal.	Nursing	Corr. Anal.	Crss. Sec. Surv.	Ad-Hoc Self-Administered Questionnaire	58
Dudley 2020	QT	Aust. & N. Zeal.	Nursing	Corr. Anal.	Crss. Sec. Surv.	CLEI; Work Readiness Scale for Graduate Nurses	75
Lienert-Brown 2018	QT	Aust. & N. Zeal.	Nursing	Corr. Anal.	Crss. Sec. Surv.	Ad-Hoc Self-Administered Questionnaire	89

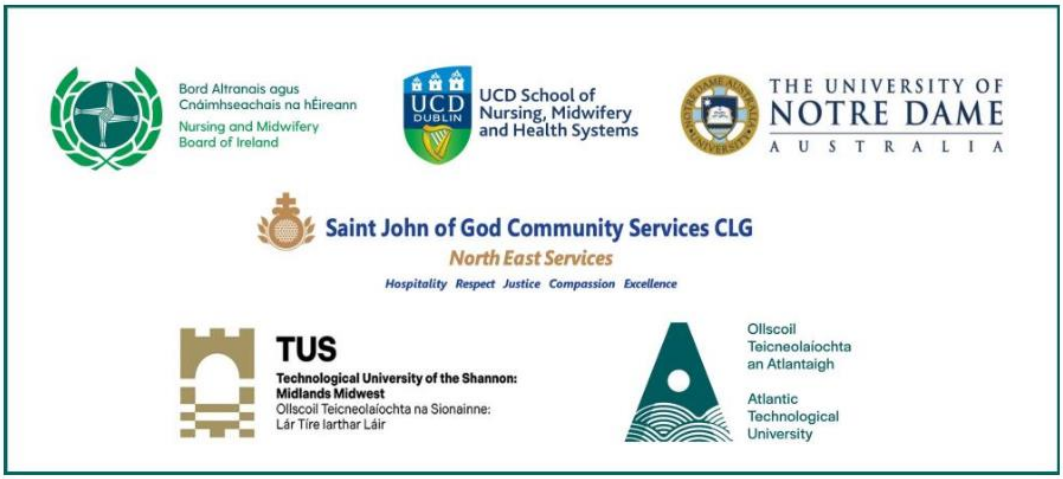
CAMPBELL 2022	QT	Aust. & N. Zeal.	Nursing	Corr. Anal.	Crss. Sec. Surv.		163
Luders 2021	QT	Aust. & N. Zeal.	Nursing	Corr. Anal.	Crss. Sec. Surv.	Placement Evaluation Tool	1263
Perlman 2022	QT	Aust. & N. Zeal.	Nursing	Q-Exp.	Pre-Int. Surv; Post-Int. Surv.	Learning Climate Questionnaire; Therapeutic Relationship Scale	210
Mikkonen 2020	QT	Europe	Nursing	Corr. Anal.	Crss. Sec. Surv.	CLES+T; Cultural and Linguistic Diversity Scale	143
Ekstedt 2019	QT	Europe	Nursing	Corr. Anal.	Crss. Sec. Surv.	Demographic Data Form; CLE+T; Ad-Hoc Self-Administered Questionnaire	244
Fernández-García 2021	QT	Europe	Nursing	Corr. Anal.	Crss. Sec. Surv.	Ad-Hoc Self-Administered Questionnaire	714
Visiers-Jiménez 2021	QT	Europe	Nursing	Corr. Anal.	Crss. Sec. Surv.	CLES; Short Nurse Professional Competence Scale	1746
Strandell-Laine 2022	QT	Europe	Nursing	Corr. Anal.	Crss. Sec. Surv.	CLES+T	1796
González-García 2021	QT	Europe	Nursing	Corr. Anal.	Crss. Sec. Surv.	Crss. Sec. Surv.	1903 (pre-registration nursing students)
Sharifipour 2020	QT	Middle East	Nurs. & Midw.	Desc. Stat.	Crss. Sec. Surv.	Clinical Education Environment Measure	119
Suliman 2022	QT	Middle East	Nursing	Corr. Anal.	Crss. Sec. Surv.	Ad-Hoc Self-Administered Questionnaire	131
Suliman 2023	QT	Middle East	Nursing	Corr. Anal.	Crss. Sec. Surv.	CLES+T; Ad-Hoc Self-Administered Questionnaire; Short Nurse Professional Competence Scale	178
Kol 2018	QT	Middle East	Nursing	Corr. Anal.	Crss. Sec. Surv.	Ad-Hoc Self-Administered Questionnaire	225

Subaş 2023	QT	Middle East	Nursing	Corr. Anal.	Crss. Sec. Surv.	Ad-Hoc Self-Administered Questionnaire; Self-Regulated Learning Scale in Clinical Nursing Practice	764
Yazdankhahfard 2020	QT	Middle East	Nursing	Desc. Stat.	Crss. Sec. Surv.	CLEI	86
Phillips 2019	QT	The Americas	Nursing	Corr. Anal.	Crss. Sec. Surv.	CLEI	202
Flott 2022	QT	The Americas	Nursing	Corr. Anal.	Crss. Sec. Surv.	Student Evaluation of Preceptorship	571
DiMattioMJK 2020	QT	The Americas	Nursing	Corr. Anal.	Crss. Sec. Surv.	CLEI	202 (Generation Z was a categorical characteristic)

Appendix 4: Graduate Survey

Block 1

Consent.



Participant Information

Study Title: Review of Undergraduate Nursing and Midwifery Education Programmes Leading to Registration in Ireland
Approval Number: Principal Researcher: Associate Professor Mary Ryder

You are invited to participate in the research project described below.

What is the project about?
This research project will conduct a full-scale review of undergraduate nursing and midwifery programmes leading to registration in Ireland, with the aim of future-proofing the programmes for the decade to come. Programmes to prepare nurses and midwives for the future will need to be high quality, sustainable and innovative in order to develop registrants who are equipped to respond to the continually changing needs of the people in their care. This is in the context of person-centered care where future leaders will retain the values of compassion, care, and commitment. The nursing and midwifery workforce is itself an ever-changing demographic, as are the population cared for, so equality, diversity and inclusion need to be at the core of curriculum development. Education and training for future nurses and midwives equips them to work effectively in interprofessional teams, and have the capacity for leadership, in order to address future challenges in an agile and flexible way.The review affords a significant opportunity in the context of an aging nursing and midwifery workforce and

the need to ensure that the numbers of nurses and midwives being educated is increased by 2-3% on a yearly basis for the foreseeable future in order to meet health services demands. In addition, this research may act as a basis for future research.

Who is undertaking the project?
This project is being conducted by Associate Professor Mary Ryder (Principal Investigator) University College Dublin (UCD), Associate Professor Michael Connolly (UCD), Professor Maria Brenner (UCD), Dr Freda Browne (UCD), Associate Professor Sadie Geraghty University of Notre Dame Australia (UNDA), Assistant Professor Mary Curtin (UCD, Associate Professor Eileen Furlong (UCD), Ms Margaret Prendergast Atlantic Technological University (ATU), Mr John Larkin Technology University of Shannon (TUS), and Ms Margaret Meegan St John of God North-East Community Services (SJOG).

What will I be asked to do?
If you consent to take part in this research study, it is important that you understand the purpose of the study and what you will be asked to do. Please make sure that you ask any questions you may have and that all your questions have been answered to your satisfaction before you agree to participate. This study involves participants completing an online survey that should take no longer that 15 minutes, and some participants will be asked if they would like to join a focus group/s.

Are there any risks associated with participating in this project?
There are no specific risks anticipated with participating in the online survey. However, if you find that discussions from the focus group / s cause you to have difficult feelings, or you become distressed as a result of the topic discussed, we can arrange for you to access support from counselling or other appropriate services such as your medical practitioner, beyond blue, lifeline or free counselling through your employer-provided counselling service.

What are the benefits of the research project?
There is no immediate benefit to the participant. However, it is hoped that the outcome of this study over time will contribute to a greater understanding and improvement of the undergraduate nursing and midwifery curricula in Ireland. Ultimately, the goal is to ensure undergraduate nursing and midwifery education is pivotal in ensuring that future nurses and midwives are equipped with the knowledge and skills needed for the provision of high-quality care for all patients, women, and client groups, wherever healthcare is needed. Consequently, nurse and midwife education needs to remain

responsive to the changing needs, developments, priorities, and expectations in health care.

What if I change my mind?
Participation in this study is completely voluntary. The survey will be anonymous with no identifiable data recorded unless you add your name to the survey to participate in the focus groups. Once the information has been submitted there will be no ability to withdraw your data from the survey, due to the anonymous nature of the data. Your decision to take part will not affect your relationship with the research team.

How will you keep my information private and confidential?
By selecting 'I consent to participate in the survey', you are granting the research team permission to collect and use data for the purpose of the study. As the survey is anonymous there are no identifiable features on the survey. Your information gathered will only be used for the purpose of this study and will not be released by the researcher to a third party unless required to do so by law. It is anticipated that the results of the study will be published and or presented in a variety of forums and formats. Once the survey is completed, the data will be stored securely as per university policy for research data management. As per University Policy for Research Data Management only the researchers will have access to this information during the project.

Will I be able to find out the results of the project?
The results of this research are intended to be made available through publications in a journal article.

Who do I contact if I have questions about the project?
If you have any questions about this project, please feel free to contact the following people:
Principal Researcher: A/Prof Mary Ryder.
Email: Mary.ryder@ucd.ie

What if I have a concern or complaint?
A declaration from the full ethical review has been accepted by UCD Office of Research Ethics. UCD Research Ethics Exemption reference number: LS-C-22-164-Ryder.

How do I sign up to participate?

If you decide you want to take part in the survey please click on the green option below 'I consent to participate

By consenting, you are telling us that you:

- Understand the information you have read;
- Consenting to participating in the described research project;
- Give your consent for the indicated use of your responses.

Once you have agreed to consent to the survey by clicking on the tick box you will then be taken to the start of the survey.

- ○ I consent to participate in the survey
- ○ I do not consent to participate in the survey

Instruction. Below is a list of statements about your experience of your nursing/ midwifery programme leading to registration. Please read each statement and indicate the extent to which you agree with each statement below from 1 (definitely disagree) to 5 (definitely agree).

Section 1. Good teaching scale

	Definitely disagree 1	2	3	4	Definitely agree 5
The teaching staff of this course motivate students to do their best work	○	○	○	○	○
Staff here put a lot of time into commenting on students' work	○	○	○	○	○
The staff make a real effort to understand difficulties students may be having with their work	○	○	○	○	○
Teaching staff normally give helpful feedback on how you are doing	○	○	○	○	○
Our lecturers are extremely good at explaining things to us	○	○	○	○	○

	Definitely disagree 1	2	3	4	Definitely agree 5
Teaching staff work hard to make subjects interesting	○	○	○	○	○
Staff show no real interest in what students have to say	○	○	○	○	○
This course really tries to get the best out of all its students	○	○	○	○	○

Section 2. Clear goals and structures scale

	Definitely disagree 1	2	3	4	Definitely agree 5
It's always easy here to know the standard of work expected	○	○	○	○	○
You usually have a clear idea of where you're going and what's expected of you	○	○	○	○	○
It's often hard to discover what's expected of you in this course	○	○	○	○	○
The aims and objectives of this course are NOT made very clear	○	○	○	○	○
The staff here make it clear right from the start what they expect from students	○	○	○	○	○

Section 3. Generic skills scale

	Definitely disagree 1	2	3	4	Definitely agree 5
This course has helped me to develop my problem-solving skills	○	○	○	○	○
This course has sharpened my analytic skills	○	○	○	○	○

	Definitely disagree 1	2	3	4	Definitely agree 5
This course has helped develop my ability to work as a team member	○	○	○	○	○
As a result of doing this course, I feel more confident about tackling unfamiliar problems	○	○	○	○	○
This course has improved my written communication skills	○	○	○	○	○
This course has helped me develop the ability to plan my own work	○	○	○	○	○

Section 4. Appropriate assessment scale

	Definitely disagree 1	2	3	4	Definitely agree 5
Lecturers frequently give the impression they have nothing to learn from students	○	○	○	○	○
To do well on this course all you really need is a good memory	○	○	○	○	○
Staff seem more interested in testing what you remember more than what you understand	○	○	○	○	○
Too many staff ask us questions just about facts	○	○	○	○	○
Feedback on student work is usually provided ONLY in the form of marks and grades	○	○	○	○	○
It would be possible to get through this course just by working hard around exam times	○	○	○	○	○

Section 5. Appropriate workload scale

	Definitely disagree 1	2	3	4	Definitely agree 5
The workload is too heavy	○	○	○	○	○
This course has sharpened my analytical skills	○	○	○	○	○
It seems to me that the syllabus tries to cover too many topics	○	○	○	○	○
We are generally given enough time to understand the things we have to learn	○	○	○	○	○
There's a lot of pressure on you as a student	○	○	○	○	○
The sheer volume of work to be got through in this course means you can't comprehend it all thoroughly	○	○	○	○	○

Section 6. Emphasis on independence scale

	Definitely disagree 1	2	3	4	Definitely agree 5
There are few opportunities to choose the particular areas you want to study	○	○	○	○	○
The course has encouraged me to develop my own academic interests as far as possible	○	○	○	○	○
Students have a great deal of choice over how they are going to learn in this course	○	○	○	○	○
Students here are given a lot of choice in the work they have to do	○	○	○	○	○

	Definitely disagree 1	2	3	4	Definitely agree 5
We often discuss with our lecturers or tutors how we are going to learn in this course	○	○	○	○	○
There's very little choice in this course in the ways you are assessed	○	○	○	○	○

Section 7. Overall satisfaction

	Definitely disagree 1	2	3	4	Definitely agree 5
Overall, I am satisfied with the quality of the course	○	○	○	○	○

Section 8. Practice placements

	Definitely disagree 1	2	3	4	Definitely agree 5
I received sufficient preparatory information prior to my placement(s)	○	○	○	○	○
I was allocated placement(s) suitable for my course	○	○	○	○	○
I received appropriate supervision on placement(s)	○	○	○	○	○
I was given opportunities to meet my required practice learning outcomes / competences	○	○	○	○	○
My contribution during placement(s) as part of the clinical team was valued.	○	○	○	○	○
My practice supervisor(s) understood how my placement(s) related to the broader requirements of my course	○	○	○	○	○

Part 2

Section 9. I am a candidate nurse/midwife in the following division of the NMBI Register

- ○ Children's and General
- ○ General
- ○ Intellectual Disability
- ○ Psychiatric
- ○ Midwifery

Section 10. Mode of entry to programme

- ○ CAO
- ○ CAO Mature Entry
- ○ Disability Access Route to Education (DARE)
- ○ Sponsored entry by HSE
- ○ Prefer not to say

Section 11. Any additional comments

Section 12. If you wish to be contacted to consider participating in a focus group with your peers please click this link to submit your contact details which will not be linked to your responses provided in this survey:

Contact Details Form