Strategies and interventions used to provide communication education for midwifery students. A scoping review

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ABSTRACT

Aim: To examine the current literature on educational strategies and interventions developed with the objective of teaching or enhancing communication skills of student midwives during their pre-registration education programmes.

Design: A scoping review based on the Joanna Briggs Institute framework was conducted using predefined criteria and reported according to the Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) Checklist.

Methods: A comprehensive search was conducted using various databases (Medline, Cumulative Index to Nursing and Allied Health Literature (CINAHL), EMBASE, PsycINFO, Maternity and Infant Care Database (MIDIRS), Web of Science and Education Resources Information Centre (ERIC)) in October 2023.

Results: A total of 120 titles and abstracts were screened. A final number of eight articles were subjected to quality appraisal and included in the scoping review. Five themes were identified which describe educational strategies and interventions including: *simulation-based training, the use of role-play, pedagogical approaches, theory-based information workshops and debrief and reflection.*

Conclusions: This review highlights a gap in research focusing on the importance of communication skills training for student midwives throughout midwifery education. Despite the limited numbers of studies, different interventions and educational strategies have been recognized for enhancing these skills. To equip midwives with strong communication skills, a combination of interventions is recommended, including communication-focused workshops tailored for midwifery education and debriefing and student reflection sessions specifically designed to enhanced communication skills.

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1. Introduction

Globally, midwives are recognised as experts in providing maternity care for women during the antenatal, intrapartum and postnatal phases of childbirth. In the United Kingdom (UK), the Nursing and Midwifery Council (NMC) describes midwives as autonomous practitioners who provide skilled, knowledgeable, respectful and compassionate care for women, infants and families (NMC, 2019). One of the core philosophical values underpinning midwifery practice is a commitment to place the woman at the centre of her own care, viewing her as a partner and involving her in any necessary decision making (ICM 2019; NMC 2019).

There is an increasing move towards woman-centred midwifery continuity of care(r) models (COAG Health Council, 2019; Brady et al., 2023; NHS England, 2016; Scottish Government, 2017). These models advocate for holistic care provided by a lead midwife, or a team of midwives, working in partnership with the woman and her family throughout the childbirth continuum. This woman-centred approach is multifaceted and a key professional attribute involves having effective interpersonal skills that facilitate the woman to exercise her autonomy, whilst concurrently providing advocacy as required (Fontein-Kuipers et al., 2018). Therefore, effective communication skills are needed, where the midwife can initiate and maintain a dialogue about topics that are often sensitive and uncomfortable, ensuring that the woman is supported in making informed choices about her care.

Midwives are committed to practice in partnership with women, which requires listening to understand their preferences, concerns and

needs (Wright et al., 2018). Midwives are also responsible to provide information regarding pregnancy, labour, birth and the postnatal period to encourage informed choice and individualised care. Risk assessment, referral, advocacy and the provision of public health information are also central roles to midwifery practice (NMC, 2019). All these requirements demand that the midwife is an effective communicator. However, research suggests that midwives currently learn their communication skills 'on the job' and largely self-assess whether they are 'good' communicators or not (Greig et al., 2021).

Communication in midwifery care takes on many forms. The International Confederation of Midwives (ICM) competency standards (2019) provide a comprehensive overview of the information that midwives are expected to share and discuss with women. Terms such as *provide information*, *inform*, *discuss*, *provide counselling* and *make recommendations* are repeatedly emphasized in these standards. Examples of these are 'provide information about conditions that may be detected by screening', 'discuss findings and potential implications with woman and mutually determine plan of care' (ICM, 2019, p. 13) and 'counsel woman about options to maintain or end the pregnancy and respect the ultimate decision' (ICM, 2019, p. 16). Similarly, the NMC standards of proficiency (2019) document that when working with women, midwives should respond honestly to questions, provide evidence-based information, discuss complex and sensitive topics and ensure that individualised care is provided. No advice is given for midwives about how to effectively put this into practice. These standards (NMC, 2019) have a central focus on communication skills, with the expectation that all midwives have been well educated with respect to communication and have adequately honed communication skills. Notably, no specific advice is provided for midwives as to *how* information should be delivered despite acknowledging that sensitive health and social topics should be discussed.

Silverman et al. (2013) assert that communication skills are key to clinical practice and should be taught as robustly as any other clinical skill. Provision of communication education in medical schools is now widely accepted as a core element of curricula (Bachmann et al., 2017; Witt and Jorgensen, 2016). In addition, Bachmann et al. (2017) assert that there is a need to develop curricula constructively aligning communication. Information about how midwives are taught communication skills during undergraduate programmes seems to be lacking. This scoping review explored the existing literature regarding how communication is taught to pre-registration midwifery students.

2. Methods

To ensure a robust methodological process for this review, we adhered to the Joanna Briggs Institute (JBI) protocol for scoping reviews (Peters MDJ et al., 2020). This ensured that a logical stepwise approach, appropriate for our review, was followed by the authors throughout the process.

2.1. Review question

The aim of this review was to identify the existing evidence about communication skills education in pre-registration midwifery programmes. Specifically, the review aimed to examine the current literature related to educational strategies and interventions implemented by Higher Education Institutions (HEIs) to support the development of communication skills of student midwives. This review addressed the following questions:

1) What are the educational strategies and interventions used in higher education to enhance communication skills education and development in student midwives?
2) How effective are these educational strategies and interventions in improving communication skills among student midwives?

2.2. Search strategy

A comprehensive electronic search in seven databases was conducted (October 2023), including Medline, Cumulative Index to Nursing and Allied Health Literature (CINAHL), EMBASE, PsycINFO, Maternity and Infant Care Database (MIDIRS), Web of Science and Education Resources Information Centre (ERIC). Initially, a librarian was consulted to assist with identifying key search terms and advising on the most appropriate database to search. This advice resulted in a final search string that was used for our search.

2.3. Inclusion/exclusion criteria

Inclusion criteria included studies focused on student midwives in pre-registration higher education programmes, with the primary emphasis on educational interventions aimed at teaching and enhancing communication skills development. Exclusion criteria included articles not in the English language, where full text was not available or published before 2000 and where student midwives were not part of the population of study. The terms used for the database searches using the population, concept and context (PCC) framework are listed in Table 1.

2.4. Screening

Search results from all databases were imported into EndNote X9.3 reference manager software for screening. The search resulted in a total of 135 records. After removing duplicates, 120 papers remained. During the first screening records title and abstracts were reviewed independently by the authors (X and X), after which 24 articles were retrieved in full text for the second screening. A further 19 records were excluded based on the inclusion/exclusion criteria by three authors (X, X, X). Hand searching of relevant articles and citation searching yielded 7 additional titles that were assessed for eligibility by the authors (X and X). A total of eight articles were included in the scoping review (Fig. 1). Any disagreement in the selection of studies were discussed and consensus was achieved.

2.5. Data extraction

Study characteristics were extracted independently by one author (X) and checked independently by two other authors (X, X). Information extraction included: author, year, country, methodology, data collection, sample size, population, research question, research design, outcomes, educational application and quality (Table 2).

2.6. Quality assessment

Although not required in a scoping review (Peters MDJ et al., 2020), the authors chose to assess the quality of the articles included in the review as an additional measure to further evaluate the quality of the studies. The quality assessment employed the Mixed Methods Appraisal

Table 1
Terms used for databases searches using the Population/Concept/Context framework.

| Terms used for database searches for main review using PCC framework		
Population	**Concept**	**Context**
exp Midwives/ or Student Midwives (midwi$ student or student midwi$ or student nurse midwi $ or trainne$ or graduate)	exp educational intervention/ or provision/ consultation skills/ or counselling skills/ or communication skills/ or enhanced communication skills (aptitude or communication or health communication)	exp Undergraduate/ or Pre-registration/ or Training/ or Learning/or Education/ or Development/ or Pedagogy
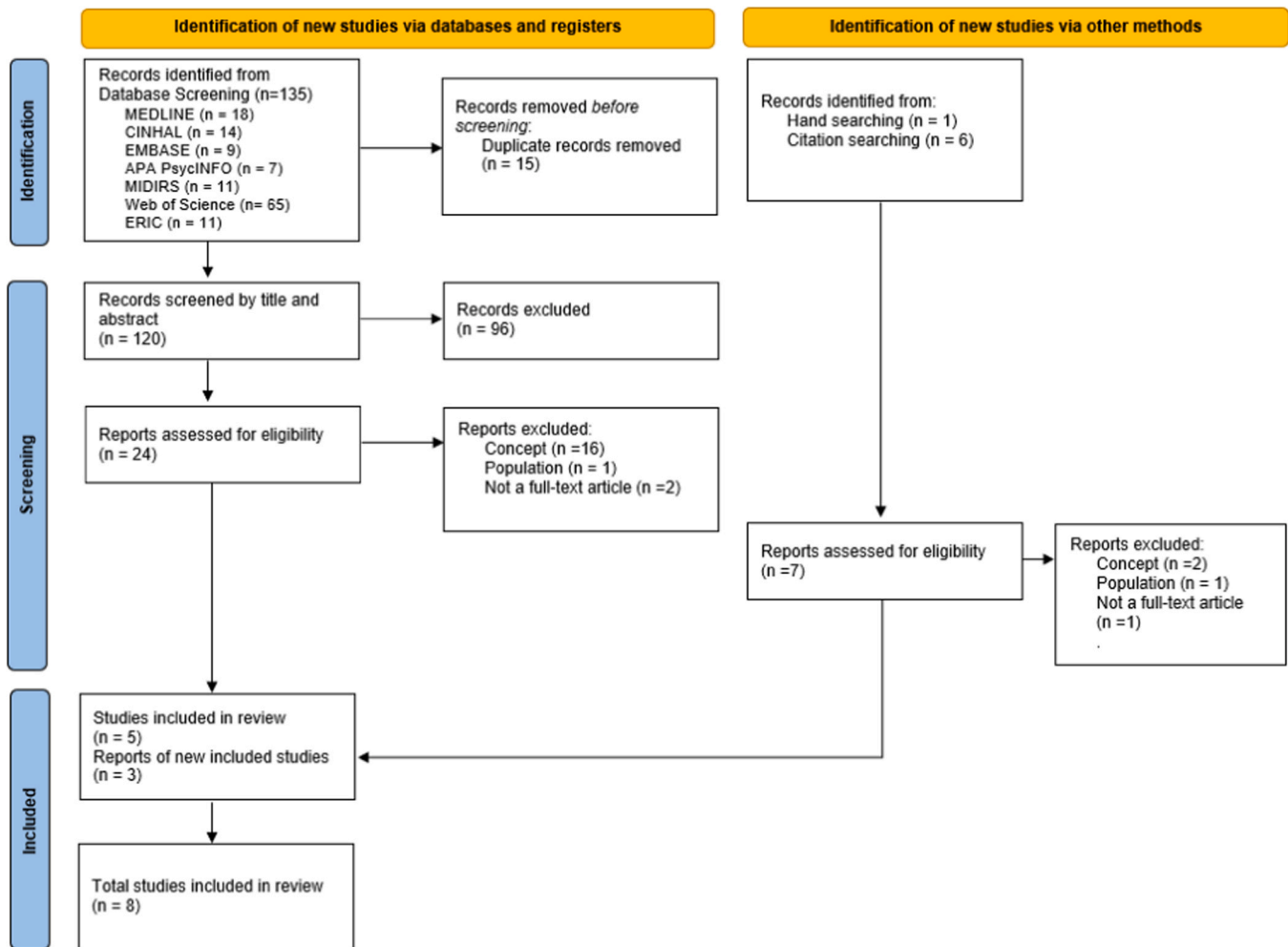
Fig. 1. Prisma Flow diagram showing the process of study identification with reasons for exclusion (Page et al., 2021).

Tool (MMAT), designed to appraise the methodological aspects of qualitative, quantitative and mixed methods studies (Hong et al., 2018; Pace et al., 2012). The tool provides an overall quality score by evaluating publications against a predetermined set of criteria and screening questions. Scores ranged from 5* = 100% of quality criteria met to 1* = 20% quality criteria met (Table 2). The articles were assessed and scored using the MMAT-recommended guidelines by two researchers (X, X) independently. Discussions among the authors were conducted to reach a consensus on the scores. A quality score of 2* (40% of quality criteria met) was agreed as sufficient to include the studies in the review. This score was determined considering the limited available literature. All articles achieved a score of 3* or higher and were included in the review, as detailed in Table 2. Details of quality assessment can be found in Supplementary Material section (Table S2.1, S2.2 and S2.3).

3. Results

3.1. Study characteristics

The review included eight studies, four were conducted in Australia (Donovan and Forster, 2015; Warland and Smith, 2012; Cominos et al., 2021; Cooper et al., 2020), two in Iran (Baniaghil et al., 2022; Mohebbi et al., 2022;), one in Sweden (Lendahls and Oscarsson, 2017) and one in Turkey (Şimşek Çetinkaya et. al., 2022).

Several research methodologies were employed across the included studies. Qualitative approaches were used in two studies, including focus groups and semi-structured interviews (Donovan and Forster,

2015; Lendahls and Oscarsson, 2017). Three studies had a quantitative methodology, (Baniaghil et al., 2022; Mohebbi et al., 2022; Şimşek Çetinkaya et al., 2022) and three studies used mixed methods (Cominos et al., 2021; Cooper et al., 2020; Warland and Smith, 2012).

Study samples ranged between 10 and 93 student midwives, enrolled in a dual Nursing and Midwifery programme (Donovan and Forster, 2015; Lendahls and Oscarsson, 2017; Mohebbi et al., 2022) or Midwifery only programme (Baniaghil et al., 2022; Cominos et al., 2021; Cooper et al., 2020; Şimşek Çetinkaya et al., 2022; Warland and Smith, 2012). Educational stages varied across the different studies. In two studies, students were in their final year (Donovan and Forster, 2015; Warland and Smith, 2012), one study included students in their last two years of study (Şimşek Çetinkaya et al., 2022), one study included all students enrolled in the Midwifery programme (Lendahls and Oscarsson, 2017), three included first year students only (Cominos et al., 2021; Cooper et al., 2020; Mohebbi et al., 2022) and one study did not specify the year of study (Baniaghil et al., 2022).

In terms of data collection tools, one study used a checklist (Şimşek Çetinkaya et al., 2022), while others employed questionnaires specifically designed to assess communication skills (Baniaghil et al., 2022; Cominos et al., 2021; Cooper et al., 2020; Mohebbi et al., 2022). Donovan and Forster (2015) examined students' communication by analysing video recordings of students' use of language and behaviour during a simulation exercise. Lendahls and Oscarsson (2017), as well as Cooper et. al. (2022), identified communication themes that emerged from students' interview transcripts, brainstorming sheets and observation notes. Warland and Smith (2012) assessed students'

Table 2

Data extraction table.

Author/Year	Country	Sample Size	Methodology	Population	Aim of the study	Data Collection	Outcomes	Clinical Application/ Educational application	Quality
Cetinkaya, S, S. Calis, G, C., Kibris, S., & Topal, M., 2022	Turkey	93	Quantitative	Third- and fourth-year student midwives	Comparative educational intervention study assessing family planning knowledge pre- and post-test and evaluating communication skills according to educational environment	Student self-completed form	Virtual patient simulation resulted in better scores in communication skills than those from peer simulation (p< 0.00)	Workshops with patient simulation enhanced communication skills.	****
Lendahls, L. & Oscarsson, & M. mG., 2017	Sweden	61	Qualitative	Student midwives	Exploration of students' perspective of effectiveness of simulation training with respect to birth (normal and complicated) and pelvic examination.	Semi-structured interviews	Students found it useful to be able to practice and develop the clinical skills without thinking about 'talking to the patient'. Once they become more competent, they focus on communication with women.	Workshops where students could 'practice' difficult conversations were helpful.	*****
Mohebbi, Z., Mortezaei-Haftador, A., & Mehrabi, M., 2022	Iran	84	Quantitative	First year nursing and midwifery students	Synchronous online lecturing was compared with blended and flipped classroom and jigsaw learning.	Questionnaires	Blended methods of learning significantly improved communication (p<0.001) and critical thinking skills (p<0.071) over the synchronous online teaching. Didactic education was found to be less effective a method of educating students about communication than 'jigsaw' teaching and more acceptable to students.	Employing blended and 'jigsaw' educational techniques in education may improve communication.	*****
Warland, J. & Smith, M., 2012	Australia	19	Mixed method	Final year student midwives	A simulated summit was created with students given particular roles to play. the various characters represented several views.	Survey with 3 open comment questions	Online roleplay allowed students to utilise and develop their communication skills and assisted with further development	Workshop education enhanced communication skills development. In addition, students were able to view the issues from different perspectives.	***
Donovan, H. & Forster, E., 2015	Australia	10	Qualitative	Final year (fourth year) dual-degree nursing and midwifery students	Observational study of 2 simulated scenarios involving unsuccessful neonatal resuscitation and immediate bereavement support to 'the woman'.	Video recordings of simulation performance and audio recording of debriefing session	Simulation highlighted challenges that student midwives face when needing to adjust communications and behaviours.	Simulation workshops enhanced students' communication skills, self-awareness and body language. Debrief element of workshop is an	*****

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4

Table 2 (*continued*)

Author/Year	Country	Sample Size	Methodology	Population	Aim of the study	Data Collection	Outcomes	Clinical Application/ Educational application	Quality
Cooper, M., Cominos, N., Thoirs, K., Harper, R., & Cross, G., 2020	Australia	70	Mixed method	First year student midwives	Implementation of a preparatory workshop focused on communication before students' first clinical placement	Survey, group brainstorming sheets, rubrics, and observation notes	Clinical communication effectively enhanced students' comprehension, knowledge, and application of communication skills in their clinical practice.	important part of students learning. Communication skills training to be integrated into the academic curriculum and focused on year 1 students, before their first clinical placement	*****
Baniaghil, A. S., Ghasemi, S., Rezaei-Aval, M., Behnampour, N., 2022	Iran	30	Quantitative	Student midwives	Randomized trial of a communication skills training based on the Calgary-Cambridge model.	History-taking Rating Scale pre-test and 4 weeks post-intervention.	Communication skills training through the Calgary-Cambridge model significantly improved interviewing skills in student midwives (p<0.001) compared to control group (p=0.85).	Communication skills training to be integrated into the academic curriculum.	*****
Cominos, N., Thoirs, K., Harper, R., Cross, G., Cooper, M., 2021	Australia	70	Mixed method	First year student midwives	Development, implementation, and evaluation of digital learning resources to teach clinical communication skills.	Self-evaluation pre-workshop, post-workshop and after clinical placement.	Digital learning packages for teaching clinical communication can be adapted to different health disciplines and led to improved self-rating for communication.	Communication skills training to be integrated into the academic curriculum and focused on year 1 students, before their first clinical placement	*****

communication based on students' own reflection.

3.2. Findings/emergent themes

Five themes representing education strategies and interventions emerged from the papers*: simulation-based training, the use of role-play, pedagogical approaches, providing theory-based information and debrief and reflection.* Some overlap existed between simulation and role-play where individuals were expected to 'act' as a parent or pregnant woman in a stipulated scenario. Each theme offers unique insights into the multifaceted aspects of preparing student midwives for their professional roles. These categories underscore the importance of adaptability, technology integration and targeted skills development in fostering effective communication in midwifery education.

3.2.1. Simulation-based training

Simulation is a teaching tool widely used in healthcare education that allows students to be immersed in a situation that closely reflects practice (Changuiti et al., 2022). Five of the included papers reported on the use of simulation (Baniaghil et al., 2022; Cooper et al., 2020; Donovan and Forster, 2015; Lendhals and Oscarsson, 2017; Şimşek Cetinkaya, et al., 2022). Donovan and Forster (2015) developed two consecutive midwifery focused scenarios where a newborn required resuscitation and subsequently died. The 'mother' was played by a member of teaching team. Lendahls and Oscarsson's (2017) study had a wider focus and explored students' experience of simulation education pertaining to complex birth throughout their midwifery programmes. Şimşek Cetinkaya et al., (2022) compared a virtual simulation event

with one where peers were asked to be 'patients' in the context of delivering family planning advice, whilst Bangiahil et al., (2022) and Cooper et al., (2020) explored students' self-assessment before and after interventions that included both theoretical and simulated events. These studies all employed 'pre and post' testing to explore the differences that communication skills training may have made to students.

The findings from Donovan and Forster (2015) and Lendahls and Oscarrson (2017) suggest that learning communication skills is considered a secondary learning outcome when mastering 'hands on' clinical skills was the primary focus for students, leading to students prioritising clinical skills over the development of communication skills. Supporting this finding, Bangiahil et al. (2020), Cooper et al. (2020) and Şimşek Cetinkaya et al. (2022) concluded that students' knowledge and confidence in communication skills improved when the primary focus was on the development of communication skills as a concept.

3.2.2. The use of role-play

Role-play is a form of simulation achieved by using an individual to 'act' as a 'patient' or service user (Ronning and Bjorkly, 2019). There is overlap between the themes of simulation and role-play in education however, role-play was discussed as a distinct element of simulation and appeared to influence learning.

Role-play as a teaching and learning activity featured in six of the studies (Warland and Smith, 2012, Donovan and Forster, 2015; Lendhals and Oscarsson, 2017, Cooper et al., 2020, Baniaghil et al.,2022 and Şimşek Cetinkaya, et al., 2022). In four studies students were asked to practice their communication and/or clinical tasks using role-play (Cooper et al., 2020; Lendhals and Oscarsson, 2017; Şimşek Çetinkaya

et al., 2022; Warland and Smith, 2012). Şimşek Cetinkaya et. al. (2022) explored the difference between the value of using students to play a 'woman' versus a 'virtual patient'. In three studies students were expected to take on assumed roles as both midwives, women and observer in a rotational fashion (Cooper et al., 2020; Lendhals and Oscarsson, 2017; Warland and Smith, 2012). Warland and Smith's (2012) study differed as it employed both face-to-face and online discussions where students had been asked to research their 'roles' prior to attending a public health topic. Baniaghil et al., (2022) and Şimşek Cetinkaya et al., (2022) both made use of people unknown to the students in their role-play scenarios; a student from a science discipline and the voices of researchers in virtual scenarios were used respectively. In contrast to asking students to role-play 'women', Donovan and Forster (2015) chose to use a member of the midwifery teaching team, who was known to the students, to assume the role of a newly bereaved mother.

Students were expected to practice their communication skills with respect to various scenarios in a 'safe' environment and be cognisant about their developing skills. However, findings suggest that when role-playing themselves, students were self-conscious and uncomfortable. Where use was made of strangers, in the studies of Baniaghil et al. (2022) and Şimşek Cetinkaya et al. (2022), learning events appeared to be more effective with students demonstrating increased knowledge and insight with respect to communication skills development (p<0.001 reported in both studies).

3.2.3. Pedagogical approaches

A pedagogical approach refers to the intervention or strategy used by educators to teach and facilitate learning (Kapur, 2020). Pedagogical approaches can vary depending on factors such as educational context, subject and learning goals. Each approach may emphasize different aspects of teaching and learning, such as active participation, critical thinking, problem-solving, collaboration. This theme includes educational interventions incorporated in the delivery of the theory component of the midwifery curriculum.

Mohebbi et al. (2022) evaluated two different educational interventions by comparing a synchronous online lecturing and blended 'flipped' classrooms with 'jigsaw' and how these influenced on students' communication skills, critical thinking skills and learning. Students were first introduced to the learning material before attending to class (flipped classroom), enabling classroom time to focus on enriching their understanding through peer discussions and problem-solving activities (jigsaw) (Persky and McLaughlin, 2017). The jigsaw element of this approach requires students to study and comprehend the topic. Subsequently, students actively engage in knowledge sharing with other learners (Leyva-Moral and Riu Camps, 2016). Students were randomised into one of these teaching approaches, that is blended flipped classroom/jigsaw and synchronous online teaching. Students' communication skills were assessed before and after the educational intervention using the validated Interpersonal Communication Skills Questionnaire (Fetro et al., 2010). The results showed that the synchronous online sessions were less effective than blended flipped/jigsaw sessions (p=0.59 and p<0.001, respectively). Students found the latter approach significantly more effective in developing and enhancing their interpersonal communication skills (p=0.005) including assertiveness conflict resolution (p=0.009) and listening skills (p=0.049).

Cominos et al. (2021) developed and implemented digital communication modules tailored for health professionals. The collaboration between clinicians and a multidisciplinary team, including lecturers, clinical educators, clinicians and language and literacy experts, facilitated the adaptation of the learning materials to specific fields, including midwifery. This collaborative effort resulted in the creation of digital learning resources, including videos, quizzes and other useful materials.

3.2.4. Theory-based information workshop

This type of educational session is structured around principles and concepts derived from established theories. The aim of this session is to provide participants with knowledge, skills and insights based on well-established theories relevant to the workshop's topic.

Baniaghil et al. (2022), Cooper et al. (2020) and Cominos et al. (2021) presented data on outcomes of communication skills training for student midwives. Baniaghil et al. (2022) based their communication training on the Calgary-Cambridge Model (Kurtz and Silverman, 1996), a framework designed for teaching skills for effective clinical communication between medical professionals and patients. In their randomized controlled trial, Baniaghil et al. (2022) delivered four sessions of communication skills training. Evaluations of students' interviewing skills were conducted both before and after the intervention by an independent observer. The control group did not receive any specific intervention and served as a basis for comparison. The pre-test evaluation of interviewing skills revealed no significant difference between the control and the intervention groups (p=0.97). However, the post-intervention assessment demonstrated a statistically significant improvement in all elements of interviewing skills evaluated (p<0.001) (interview beginning, implementation and termination) compared with the control group (p= 0.85), where no significant difference was identified.

Cooper et. al. (2020) and Cominos et. al. (2021) conducted studies that shared a similar structure. In both projects, first-year student midwives participated in a communication-focused workshop prior to their first clinical placements. While the workshop content slightly varied, they both included an initial brainstorming session on communication. Additionally, both workshops included several videos portraying two versions of clinical scenarios, one demonstrating effective communication and a second one showing a less effective communication scenario. The workshop also included role-play activities where students practice their communication skills by completing several tasks, including clinical history taking.

In both studies, the research team developed specific rubrics to assist students in providing feedback on the different activities of the workshop. Students were asked to complete a pre- and post-workshop survey, along with post-clinical placement assessment. In addition to surveys, Cooper et al. (2020) collected qualitative data through observation notes, brainstorming sheets and completed rubrics. In contrast, Cominos et. al (2021) interviewed lecturers for workshop feedback. Workshops were scored highly amongst students. Post-workshop and post-clinical placement surveys showed improved understanding of communication elements, with students demonstrating enhanced self-reflection in their own communication skills, specifically when interacting with women.

3.2.5. Debrief and reflection

Student reflection and debrief plays a crucial role in developing both clinical skills and communication. Lendahls and Oscarsson (2017) study included student group reflections where students could discuss their learning experiences. In clinical practice, these opportunities are not always available. Cooper et. al. (2020) Donovan and Foster (2015), Şimşek Çetinkaya et al. (2022) and Warland and Smith (2012) facilitated debriefing sessions for students. These sessions provided students with the opportunity to reflect on and identify areas that required further development in terms of communication. In the studies by Donovan and Foster (2015) and Şimşek Çetinkaya et al. (2022), students were video recorded during their simulation and virtual patient consultations. Academic staff had the opportunity to discuss students' performance by watching the recordings with the students, providing a debrief session and promoting students' self-reflection. In Warland and Smith's (2012) study, students participated in a face-to-face debriefing session one week after a role-play exercise. During this session students were encouraged to reflect on their own communication performance; however, the effect of debriefing and reflection on student's skills development was not evaluated.

4. Discussion

From the literature included, studies incorporated clinical simulation exercises, while others delivered communication skills training sessions. Various methods, including digital learning material, virtual patient simulations and role-play activities were employed. Additionally, this review highlighted that communication-focused, blended flipped/jig-saw teaching approaches appear to be more effective in developing communication skills among student midwives.

To our knowledge, this is the first scoping review to examine how student midwives learn, develop and enhance their communication skills. An extensive literature search revealed that, despite such skills being identified as essential proficiencies in practice (NMC, 2019), little has been published regarding how midwifery students are taught communication skills. This lack of evidence, albeit of good quality, raises various questions about midwifery education, such as whether and/or how communication is integrated in the midwifery curricula and if the aquision of communication skills is formally evaluated or assessed by HEIs. If so, it would be highly recommended for these HEIs to share their findings, allowing other institutions to learn and if necessary, adapt their curricula accordingly. The limited number of studies found on this topic also raises the question of whether it represents the perceived importance of the topic.

This review suggests that students do not necessarily prioritise communication over clinical competency development. When simulation exercises focused on practical skills, students appeared to regard communication as of secondary importance until they gain confidence in performing the specific clinical task being taught (Lendahls and Oscarsson, 2017). The study does not provide any cognitive reason for why this might be, however it could be speculated that students focus their attention only on those skills they are assessed on. This highlights the need to develop simulation scenarios where communication is the primary skill being developed and assessed. Alternatively, it suggests simultaneously supporting students in developing effective communication skills while practising clinical tasks, as in practise these occur in tandem and not in isolation. However, on some occasions, a disconnection between hands-on practical skills and communication skills, with a sole focus on the clinical tasks, can also be observed in practice, as reported by Heidari and Mardani Hamooleh (2015) in the context of nursing education.

Because communiction seem to play such an important role in woman-centred care (Fontein-Kuipers et al., 2018), being globally emphasized as a default approach to care (ICM, 2019), midwifery education plays an essential role to prepare student midwives to be effective communicators as woman-centred care practitioners. If teaching communication skills has not been formally implemented, evaluated or assessed, we must ask why. Therefore, it would be of merit to gain more insight into how communiction skills education is being embedded in midwifery curricula

Despite the key role in midwifery practice, it is interesting that there is a greater body of literature documenting communication education for both pre-registration medical students and junior doctors in preparation for practice (Bachmann et al., 2013; George et al., 2022; Nayak and Kadeangadi, 2019; von Fragstein et al., 2008; Yedidia et al., 2003). Over the years, a clear link between patient-medical staff communication and patient satisfaction, treatment compliance and clinical outcomes has been demonstrated (Shilling et al., 2003; Tamblyn et al., 2007; Zolnierek and Dimatteo, 2009), however this connection is not exclusive to the medical profession. Communication has consistently been identified as a central factor in adverse outcomes in maternity services, as reported by several enquiries into maternal mortality and morbidity (Draper et al., 2017; Knight et al., 2022; Knight et al., 2023) and latterly by the Ockenden report (Ockenden, 2020). Even the recent Maternity Survey published by the Care Quality Commission (2024) has identified communication as a key area for improvement in maternity services in England. The lack of midwifery specific literature highlights the significant gap in research and evaluation of strategies to support effective communication education for midwifery students.

The significance of simulations in supporting the development of communication abilities among health care students has been previously reported (Adnan, 2022; Schlegel et al., 2012). Clinical simulation is a welcome educational strategy for students because they do not experience the stress of making 'real life' mistakes and can practice in a safe environment (Harder, 2018). The same applies to developing communication skills. Simulation allows students to experience authentic scenarios where they can safely rehearse communication with women and families in challenging situations. Donovan et al. (2015) demonstrated the importance of relevant and realistic simulation environments, particularly when addressing complex and difficult situations such as providing care for bereaved parents. This emphasizes the importance of focusing educational efforts on enhancing communication skills in challenging scenarios, allowing students to build their confidence for effective communication in practice.

When developing skills sessions for student midwives, educators may also need to consider the fidelity or level of realism in the experience. Brady et al. (2015) demonstrated that students who practiced their skills in an environment with increasing clinical scenario realism across different stations, achieved higher scores. These higher scores were observed not only in hands-on skills but also in communication.

Warland and Smith (2012) demonstrated the effectiveness of role-play, a recognised effective teaching strategy (Latif et al., 2018; Nair, 2019; Stoodley et al., 2020). However, students in their study struggled to communicate with other students during role-play. This challenge in communication might originate from the specific roles assigned to students, insufficient preparation time, the interactions with other students, lack of realism or lack of seriousness from either students or instructors (Nestel and Tierney, 2007). Şimşek Çetinkaya et al. (2022) used virtual patient and compared it to peer simulation. Students valued both approaches for enhancing their communication skills, however stress levels appear to be heightened during role-play with peers. Notably, this stress was linked to the fact that they were communicating with a real person in an environment closely mimicking reality (Şimşek Çetinkaya et al., 2022).This finding also raises several questions: What is the nature of students' stress levels when practicing communication skills in a simulation environment? Do students experience similar levels of stress when practicing communication skills during placements, where they interact with women and their families?

This review has also drawn attention to the importance of 'debriefing' following simulation exercises, particularly when focusing on communication skills. To ensure substantive learning, debriefing should be an intrinsic component of the simulation exercise (Schertzer and Patti, 2022). Also, debriefing appears to be more valuable when it occurs immediately after the simulation event, ensuring that students reflect on and learn about their performance (Brady et al., 2015; Cantrell, 2008). In those studies where debriefing session was provided (Cooper et al., 2020; Donovan, 2015; Şimşek Çetinkaya, 2022; Warland and Smith, 2012), students had the opportunity to reflect on their own performance and communication and identify areas that may require strengthening or further learning before engaging with families in a clinical environment. Ensuring that any form of simulation where student midwives participate includes a debriefing phase, during which educators and students discuss the simulated exercise and offer constructive feedback,

should be an integral component of their education.

To ensure student midwives receive learning experiences that not only focus on accumulation of knowledge but also enhance their communication skills, it is important for HEIs to review their teaching methods. This involves ensuring a consistent format of midwifery curricula, which includes student-centred activities and cooperative learning. By exposing student midwives to pedagogical approaches that foster cooperative learning, HEIs can facilitate the development and improvement of students' communication and collaborative skills. Mohebii et al. (2022) demonstrated the efficacy of this approach, reporting on improved interpersonal communication skills in students who participated in jigsaw/flipped sessions. These sessions provide the opportunity to students to interact and collaborate with others, leading to an improvement on their communication skills. Benefits of this pedagogical approach on communication skills development have also been reported on nursing and medical education (Abobaker et al., 2023; Istiqomah et al., 2021; Jeppu et al., 2023).

Interestingly, the Calgary-Cambridge model, initially designed for medical professionals (Kurtz and Silverman, 1996); has found applicability in the communication skills training of various health professionals, including nurses, physiotherapists and pharmacists (Iversen et al., 2021; Sommer et al., 2016). In this review, Baniaghil et al., (2022) adopted this framework and demonstrated how it can be successfully adapted to midwifery education. The significant improvement in students' interviewing skills after communication training should inspire HEIs to incorporate this kind of training in midwifery education curricula. Moreover, communication-focused training should be introduced early in midwifery education (Cominos et al., 2021; Cooper et al., 2020). Being prepared to interact and communicate with women, their families and multidisciplinary teams can help students to be less stressed during their first clinical placement (Cummins et al., 2014), positively influencing students' understanding of communication, enhancing their self-awareness and confidence in clinical communication (Cominos et al., 2021; Cooper et al., 2020).

These findings collectively underscore the need for comprehensive and diverse strategies and interventions in midwifery education, ensuring a focus on the development of communication skills right from the beginning of students' education, alongside other clinical competencies. It is crucial to ensure an effective delivery of education by providing more detailed guidelines from regulatory bodies on how to teach and assess acquisition of skills. HEIs should also explore ways to evaluate the effectiveness of their teaching methodologies on students' communication skills development. Further research is needed to evaluate the most effective teaching methods for communication skills development and ensure a consistent approach amongst HEIs.

4.1. Strengths and limitations

This scoping review followed a robust and methodological process using an established framework. It has identified a gap in the existing literature concerning the development and enhancement of communication skills among student midwives during their pre-registration education. However, this review also has limitations. One of the notable limitations pertains to the lack of eligible studies regarding the content and methodologies used by HEIs in teaching communication skills to their student midwives. Additionally, the choice to restrict the review to publications in English may exclude relevant studies and experiences conducted in non-English-speaking countries.

5. Conclusions

This aim of this review was to identify educational strategies and interventions currently employed by HEIs to develop and enhance communication skills in student midwives. While the number of studies on this topic is limited various interventions and educational strategies were identified that appear to enhance knowledge and skills pertaining

to communication. Strategies found to be most effective for developing communications skills included the use of virtual patients in simulation and role-play and jigsaw/flipped sessions fostering collaborative working. The integration of debriefing sessions should also be considered when designing simulation/role-play educational sessions, facilitating reflection of personal performance and allowing consideration of how individuals' future practice will be developed. Communication-focused workshops specially tailored for student midwives and introduced early in midwifery education has been shown to have a positive impact on communication skills for this group of professionals.

Despite the number of strategies identified as beneficial for communication skills development amongst student midwives, there is a lack of guidance in how HEIs can effectively teach and assess students on effective acquisition of these skills. Understanding how different HEIs approach communication skills education and assessment for student midwives would provide clarity on this significant aspect of midwifery education. Evaluating and implementing effective teaching approaches will ensure that student midwives are well-prepared to provide effective and safe woman-centred care.

CRediT authorship contribution statement

Yvonne Kuipers: Writing – review & editing, Conceptualization. **Yvonne Greig:** Writing – review & editing, Writing – original draft, Formal analysis, Conceptualization. **Sara Rodriguez Martin:** Writing – review & editing, Writing – original draft, Visualization, Formal analysis, Conceptualization. **Lois McKellar:** Writing – review & editing, Conceptualization. **Ellen Shaw:** Formal analysis.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at doi:10.1016/j.nepr.2024.103995.

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