



## Examining arts-based practice in midwifery education: An integrative review

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### ABSTRACT

**Aims:** The aim of this integrative review is to synthesise the literature on creative teaching methods in midwifery education. The review question seeks to investigate the experiences of student midwives and midwifery educators of using creative methods as a learning approach.

**Background:** The benefits of creative teaching methods are widely acknowledged but the ways in which this may impact midwifery students' learning processes, or how this relates to their developing professional development, is not well understood. Research focused specifically on student midwives is yet to be synthesised.

**Design:** An integrative review was undertaken using data comparison with reflexive thematic analysis to identify common themes.

**Methods:** Eight electronic databases were searched with key terms in June 2022. English language studies from qualitative, quantitative, mixed-methods and wider literature were included.

**Results:** Twenty-two texts were included in the synthesis. Four themes were generated from the data; 1) What is the offering - More than a lecture; exploring the educator and student exchange and environment for learning; 2) Working in parallel - examining the change in teaching dynamic and collaborative partnerships; 3) Journeying towards holism - focused on student's integration of learning processes; and 4) Stepping into the professional - engaging with how using creativity can aid students' growing sense of themselves as professionals. This highlights improvements in levels of confidence, professional development and emotional intelligence in midwifery students.

**Conclusion:** Creative teaching and learning methods enable student midwives to make meaningful connections between theoretical and practice learning environments, assisting knowledge and skills acquisition.

### 1. Introduction

Midwifery knowledge comprises different types of knowing, some grounded in technical competency-based skills determined by governing bodies (Nursing & Midwifery Council (NMC), 2019; 2018; International Confederation of Midwives International Confederation of Midwives (ICM), 2018); others arising from the 'art' in midwifery practice; that of embodied knowledge and intuition (Hunter, 2008). The midwifery community acknowledges how these two paradigms create a holistic overview of the midwifery role, regardless of their area of practice (Wickham, 1999; Davies, 2007; Power, 2015).

Because midwifery education is delivered in academic and health-care settings both primarily emphasising science, this can create

challenges for the inclusion of Arts-Based Pedagogy (ABP) in teaching, due to the prominence of positivist discourses in health sciences (Lampum, 2018; Gibson, 2010). Offering different forms of student-centred learning, emphasising the import of both scientific and creative thinking in midwifery practice must be introduced early to address the potential divide this could cause in student understanding between theory and practice. This work is positioned within a holistic midwifery philosophy underpinned by arts-based research practices.

### 2. Background

Art is known to enhance the human experience and ABP is a form of developing holistic health practitioners (Reiger et al., 2020; Pavill,

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2011). Many definitions of the arts exist, explained simply by some educational scholars as alternative languages or literacies (Anderson and Kachorsky, 2019), a form of cultural text to derive meaning from.

Creativity is challenging to define, containing divergent conceptual associations depending on country, culture and the context where it resides. This lack of clarity results in disparity about what 'creative practice' means. Owing to its complexity, during this paper creativity will be considered not purely as a process of 'making something from nothing' (Kara, 2020, p15), but reinventing new combinations of things already in existence. It is however, also about the process of creation, not purely the result, acknowledged as forms of behaviours or an attitude to thinking. Creativity is a form of knowledge construction and stimulating this in educational environments has shown to enhance self-learning, enabling students to reach beyond academic possession towards the construction of personalised meaning (Ferrari et al., 2009).

Arts-Based Research (ABR) methods aim to enhance perspectives and explore possibilities rather than seeking the certainty (Lampum, 2018) pursued in science-based learning; with creative activities initiating new thinking patterns in students (Gibson, 2010; McKie, 2012). Providing educational alternatives to complex issues, to develop problem-solving, critical-thinking skills and the ability to assess situations from alternative viewpoints (Chan, 2013; Mumford et al., 2010; World Health Organisation, 2013), are important tools for student midwives.

'Creative teaching' has been defined as 'a unique, customised and meaningful exchange of knowledge among all individuals in a learning context' (Rinkevich, 2011; p 219). Teaching creatively requires willingness from students, involving active participation, collaboration and risk-taking; and from educators, providing opportunities for inquiry-based learning, using creative approaches to inspire and motivate student learning (Gibson, 2010; Rance and Sweet, 2016; Paek and Sumner, 2017).

Although contemporary literature explores practices relating to nursing and allied health professionals (Rieger et al., 2016; Chan, 2013; McKie, 2012), there is little examining creative teaching solely in midwifery education.

### 2.1. Aims

The aim of this integrative review is to synthesise the literature on creative teaching methods in midwifery education. The review question seeks to investigate the experiences of student midwives and midwifery educators of using creative methods as a learning approach.

## 3. Methods

Considering the broad nature of ABR and practice and the complexities of terminology, an integrative review (Coughlan and Cronin, 2017) was deemed the most suitable form of review enabling a comprehensive exploration of the full range of literature pertinent to the topic. This approach mirrors the complex nature of midwifery comprising multiple forms of knowing and practice. The 5 integrative review stages as described by Whittemore and Knafl (2005) have been followed; (1) problem identification; (2) literature search; (3) data evaluation; (4) data analysis; and (5) presentation of findings.

### 3.1. Problem identification

This comprised of initial literature scoping, identifying creative practices throughout midwifery education as areas of interest. Creativity, creative teaching, arts-based practice and arts-based pedagogy were terms of interest in the literature search.

### 3.2. Literature search

The literature search took a systematic three tier approach, initially a protocol-driven approach searching electronic databases (Table 1), a

**Table 1**

Search Terms.

Population	Midwife or midwives or midwifery or student midwife or midwifery student
Intervention	Creative arts or creative teaching methods or creative learning or creativ* or art based pedagogy or narrative arts or story* or poems or poetry or film or photo* or collage or theatre or drama or draw or paint
Comparison	NA
Outcome	Effect or efficacy or learn* or experiential learning or experience* or pedagog* or knowledge or skill or stud* or evaluat* or asses* or apprais* or value* or benefit or impact or view or reflect or perspective
Study Type	Quantitative or qualitative or mixed method or conference papers or editorial or questionnaire or commentary or discussion or opinion
Setting	Midwifery curriculum or midwifery education

secondary 'snowballing' approach, via reference list searches and citation tracking and a final broad web-based search to exhaust all sources of data.

The search was conducted using eight databases: AMED, ASSIA, BEI, Cinahl, Medline (Ebsco), PsychInfo, Scopus and Social Science Citation Index (Table 2), in June 2022. A total of 2353 papers were identified from databases, with a further 14 sourced from manual searches over a period of 2006–2021.

#### 3.2.1. Inclusion criteria

Included literature were texts focused on creative teaching methods experienced by student midwives with findings related to student learning. Peer reviewed articles were included from research, theoretical articles, discussion pieces, commentaries, or opinion pieces from any country with texts available in English. Conference abstracts and theses were also included.

#### 3.2.2. Exclusion criteria

Excluded from the review were papers focusing on qualified midwives, for example continued professional development or antenatal classes and those which did not separate student midwives from other professions. Papers focusing solely on study skills such as mind maps, were also excluded (Table 3). The full process is depicted in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flowchart in Fig. 1.

### 3.3. Data evaluation

The data evaluation phase reviewed literature for quality appraisal. Most papers were assessed by appraisal checklists for text and opinion and qualitative methods, with fewer assessed by quasi-experimental, or cohort studies checklists (Joanna Briggs Institute (JBI), 2020, 2020a, 2020b, 2020c). The single mixed-methods paper was reviewed considering the above checklists, influenced by Greenhalgh work (2019). Methodological quality, informational importance and representativeness of the wider literature were aspects considered alongside the most

**Table 2**

Databases accessed.

DATABASES	
ALLIED AND COMPLEMENTARY MEDICINE DATABASE (AMED)	12
APPLIED SOCIAL SCIENCES INDEX & ABSTRACTS (ASSIA)	1738
BRITISH EDUCATION INDEX	4
CUMULATIVE INDEX TO NURSING AND ALLIED HEALTH LITERATURE (CINAHL)	45
MEDLINE (EBSCO)	168
PSYCHINFO	47
SCOPUS	151
SOCIAL SCIENCE CITATION INDEX	188
TOTAL PAPERS	2353

**Table 3**  
Inclusion/Exclusion Criteria.

Inclusion	Exclusion	Rationale
Student midwives	Other healthcare students	Focus is midwifery, role differences in caring (eg nursing, medicine)
Literature focused on midwives or student midwives with differentiation between status	Literature reporting on midwives and student midwives with no differentiation between findings	Challenging to ensure accurate data collection
Literature focused on creative art-based methods used for educational purposes	Literature focused on creative methods for qualified midwives CPD or patient initiatives, not in an educational context	Student focused rather than qualified staff
Outcomes related to student learning	Outcomes not related to student learning	Focus is on educational contexts and learning
Creative/art-based methods (poetry, drama, role-play, storytelling, art, drawing, photography)	Simulation or study skills	Simulation has its own pedagogical approach to active learning

appropriate evaluation tool. This process was discussed with the second reviewer/supervisor, with any concerns discussed until consensus was agreed. Three papers were excluded at this point for limited and insufficient data, limited relevance for area of interest and methodological limitations.

**3.4. Data analysis**

Data from both qualitative and quantitative papers was analysed using a reflexive thematic analysis approach guided by Braun and Clarke’s principles (2022). Data comparison sought relationships, patterns and concepts across sources offering fresh considerations of the holistic phenomenon of interest. First order quotes from student midwives’ or midwifery educators were sourced from data extraction forms, followed by second order concepts which epitomised authors’ research process, findings and overall insights. These were decontextualised from sources and categorised to create a reflexive process, allowing themes to emerge through a quote-by-quote basis. Quotes were re-examined for key concepts and themes to generate categories and codes. Codes were applied to key points in aims, findings and recommendations from qualitative and quantitative texts. These were then revised, compared

and renegotiated throughout the analysis process. Similar codes were assigned groups and groups then designated a theme, striving to synthesise information from a broad knowledgebase across the ‘community of practice’ (Cronin and George, 2020, p. 2), providing opportunity for knowledge generation from multiple perspectives.

Reflexive activities were undertaken to investigate researcher positionality to the review, ensuring that findings arose from the data, informed by existing knowledge, beliefs and perceptions, acknowledging that knowledge production includes practices of the researcher, that the researcher is integral to the process, considered an ‘essential resource’ for analysis (Braun & Clarke, 2022 p. 232). This approach is broadly aligned to the guiding ethical principles laid out by Suri (2020), ethically considering the researchers context and input into the work.

**4. Results**

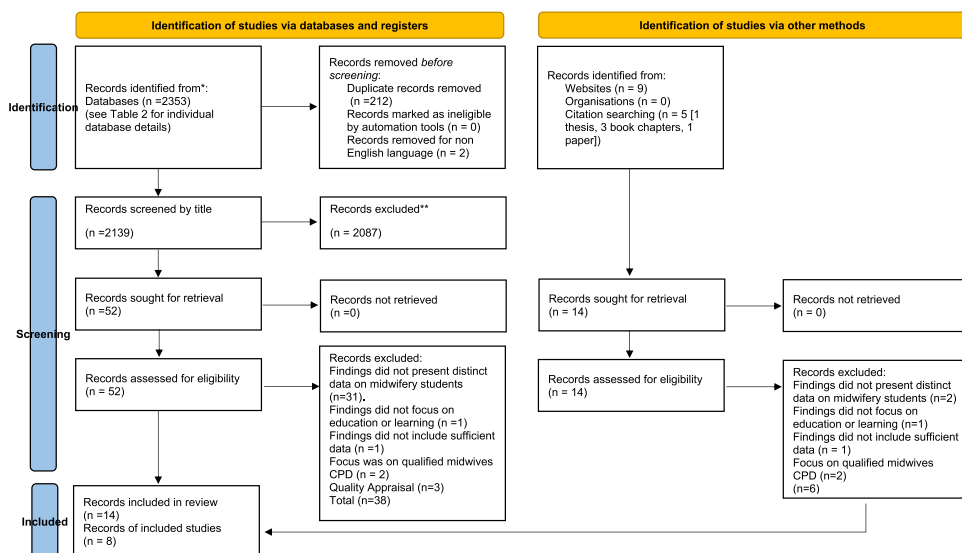
**4.1. Synthesis results**

**4.1.1. Study characteristics**

2353 records were identified from databases, 214 removed as duplicates and non-English language and 2087 were removed after title screening. The remaining 52 texts were assessed for eligibility and 38 removed for not presenting distinct data on student midwives, lack of educational focus, insufficient data and quality appraisal. In addition, 14 texts were sourced from website and citation searching and assessed for suitability. 6 were removed for the above reasons, resulting in a total number of 22. The 22 final texts represented a range of methodologies, originating from Australia (Hartney et al., 2021; Jackson and Sullivan, 1999), Iran (Mohamadirizi et al., 2018; Shirazi et al., 2020), Italy (Fieschi et al., 2015), Japan, (Noya et al., 2021) New Zealand, (Gilkison et al., 2016), United Kingdom (Barry et al., 2017; Bass, 2007; Davies and Wickham, 2007; Hall and Mitchell, 2008; Hall and Mitchell, 2017; Kemp, 2009; Leamon et al., 2009; Mitchell and Hall, 2007; Noble and Pearce, 2014; Patel et al., 2017; Patterson et al., 2016; Rankin and Brown, 2016; Uppal et al., 2014; Uppal et al., 2016) and USA (Hunter and Hunter, 2006). Samples ranged from six students to groups of fifty, most representing undergraduate students. One study focused solely on student midwives (Barry et al., 2017) who had been nurses previously. Most texts included educator’s experiences of engaging with creative methodologies in facilitation of student learning.

**4.1.2. Qualitative papers**

The nine qualitative papers were diverse in creative methods and design. Areas explored included bereavement (Barry et al., 2017; Fieschi



**Fig. 1.** PRISMA diagram or Literature review flow chart. \*Consider, if feasible to do so, reporting the number of records identified from each database or register searched (rather than the total number across all databases/registers). \*\*If automation tools were used, indicate how many records were excluded by a human and how many were excluded by automation tools. From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71. For more information, visit: <http://www.prisma-statement.org/>.

et al., 2015; Patterson et al., 2016), a narrative-centred curriculum, storytelling (Gilkinson et al., 2016), spirituality workshops (Hall and Mitchell, 2008, 2007), story-sharing sessions study (Leamon et al., 2009), storytelling videos, (Noya et al., 2021). Rankin and Brown (2016) explored numerous methods including role play, drama and scenarios, storytelling, music, poems, recipes, crafts and games. The only mixed-methods study, examined whether animation was an effective pedagogical tool (Hartney et al., 2021).

#### 4.1.3. Quantitative papers

Quantitative research focused on different topics including post-partum haemorrhage (Mohamadirizi et al., 2019), transition to parenthood (Noble and Pearce, 2014) and creative thinking ability (Shirazi et al., 2020). As measures in each of the quantitative papers varied a narrative approach was taken to analysis.

#### 4.1.4. Theoretical literature

The nine theoretical pieces included texts focused on midwife educators' experiences of creativity (Bass, 2007; Davies and Wickham, 2007), including purposive storytelling (Hunter and Hunter, 2006). More abstract midwifery concepts (empathy, love, power and suffering) used creative methods (theatre, workshops, readings, exhibition visits) to uncover student understanding (Hall and Mitchell, 2017; Jackson and Sullivan, 1999; Kemp, 2009; Uppal et al., 2014) and participatory approaches to learning. Parent experiences of neonatal intensive care were explored via film (Patel et al., 2017) and other sources such as social media content were used as a tool for furthering class discussion (Uppal et al., 2016).

It is clear from the included literature that there are certain topics which midwifery educators chose to teach creatively, often citing ethereal or complex conceptual elements of midwifery practice (see Table 4 for text characteristics).

Four themes were generated from the synthesis:

##### 1. What is the offering? More than a lecture...

*'Art and creative media have the capability to communicate, educate and inspire people in the most powerful ways (Patel et al., 2017, p 739, educator)*

This theme concentrates on what is needed to ensure a conducive learning environment where creativity can flourish. Texts explicitly demonstrated that integrating creativity into health education was well established (Jackson and Sullivan, 2009; Hall and Mitchell, 2007; Bass, 2007; Davies and Wickham, 2007; Fieschi et al., 2015; Jackson and Sullivan, 1999; Noble and Pearce, 2014; Patel et al., 2017; Uppal et al., 2014), yet certain elements were paramount for successful learning, a notion supported by the wider literature (Davies, 2007; Chan, 2013; Reiger et al., 2016). Certain texts (Bass, 2007; Davies and Wickham, 2007; Gilkinson et al., 2016; Hall and Mitchell, 2017, 2007; Mitchell and Hall, 2008) emphasised the importance of not defining 'creativity' at the outset of teaching, ensuring learners came without preconceived assumptions to inhibit their experiences, as some students had never undertaken artistic interaction;

*'I've never been to an art gallery not what I expected & more interactive regarding reading each piece. And perhaps the discussion' (Uppal et al., 2014, student).*

Creativity is considered as a way of 'seeing something new' (Bass, 2007; Gilkinson et al., 2016; Leamon et al., 2009; Noble and Pearce, 2014; Rankin and Brown; Uppal et al., 2014), accepted pedagogically as an important element of active learning (Rankin and Brown, 2016). This requires flexibility, considering what is existing and established and investigating and exploring new perspectives and through this process new insight and understanding is gained. As a cognitive skill, creativity is a way of 'looking at familiar things in a different way (Kara, 2020, p 13) and to facilitate this motivation, time and space are required. Educators describe unlearning traditional

teaching modes, guaranteeing that learning is engaging for students and fresh for themselves, providing fun opportunities that shift the learner towards active approaches of transformative learning (Mezirow, 1997):

*Learning to learn is a key factor in personal learning for both students and teachers (Rankin and Brown, 2016)*

The desire to keep learners active, avoiding boring, dull content (Hartney et al., 2021; Mohamadirizi et al., 2018), supports a playful approach, enabling innovative ideas rather than what Bass describes as 'death by overhead' (2007, p 176). Space for learners and tutors demonstrates that innovation is generated from motivation, desire to seek newness in the learning relationship. Time and space are needed to alleviate the pressure students feel having to produce ideas for their tasks. Incorporating classroom innovation can be a slower evolving process than planning traditional teaching, so educators require freedom, seeking permission to be creative from their wider organisation, often considered luxurious and at odds with scientific knowledge that pervades the learning environment. Constraints on time and space were seen as positive and negative (Fieschi et al., 2016), making helpful parameters for creativity, which Hartney et al., suggest are beneficial to lessen students' 'cognitive load' (2021, p 2), but also a stifling element if left unchecked (Bass, 2007; Noble and Pearce, 2014):

*'Perhaps creative art would be useful. but we do not have the time in midwifery.'*

(Noble and Pearce, 2014, student).

Creative engagement has the potential to place students and tutors in vulnerable states, sharing vicarious experiences or private elements which may be personal, prompting deeper emotions than usual classes (Hall and Mitchell, 2017; Leamon et al., 2009; Patterson et al., 2015). Preparatory work is needed with more lecturers present to facilitate the work (Mitchell and Hall, 2007; Hall and Mitchell, 2017), supporting students to enter more private states than would be usual in a classroom setting (Barry et al., 2017). A harmonious association emerges between workshop environments and students' ability to work at a deeper emotional level due to feeling safe, representing the community of spirit generated from the creative methods discussed across the texts.

Welcome relief was commonly felt following creative activities with participants reporting the break from conventional learning assisted them to enjoy expressing their thoughts on midwifery. Creative learning was novel, offering respite from course pressures, practice learning and revision (Davies and Wickham, 2007; Jackson and Sullivan, 1999; Hall and Mitchell, 2008; Mitchell and Hall, 2007/2017). This learning had lasting impact on students' confidence and ability to comprehend newly acquired perspectives:

*'Well I did think that at the time, "why are we doing this when we have so much on?" But it had a positive effect, as it made me look at how I was doing on the course, in clinical practice how I was feeling bogged down with all the academic stuff and it defused all that, it was really positive' (Leamon et al., 2009, student)*

Overall, these elements move learning beyond the didactic transmissional culture into what participants discussed as *more than a lecture*:

*'Use of artwork to enter the private world of infant death resonated with the students more than any lecture could have done' (Barry et al., 2017, educator)*

Learners changed from passive receivers to active participants, looking outside immediate experiences to start applying knowledge to their practice environments (Barry et al., 2017; Noya et al., 2021, Patterson et al., 2015, Jackson and Sullivan, 1999; Uppal et al., 2014):

*The value of the project being 'to show student midwifery isn't just taught & learnt through textbooks' (Uppal et al., 2014, educator)*

##### 2. Working in Parallel - Collaborative Partnership

This theme focuses on collaboration within the learning space.



**Table 4**  
Summary of Papers.

AUTHORS	TITLE	AIMS	METHODS	POPULATION/ PARTICIPANT	ANALYSIS	QUALITY ASSESSMENT TOOL	FINDINGS & CONCLUSIONS
Barry et al. 2017 Ireland	Exploring perinatal death with midwifery students' using a collaborative art project	To explore the influence of amulet artwork and exhibition on midwifery students' perception of caring for parents experiencing	Qualitative descriptive approach	6 student midwives included, purposive sampling-semi structured interviews Interview guide guided by Gibbs cycle	Burnard's content framework	Majority of criteria met Study design and methodologically appropriate. Useful insight into area of interest.	Bereavement focus. Reflection on artwork provides students with additional insight into the grieving process and stimulates critical thinking. Offers access into the world of Midwife teachers use multiple strategies to manage the tensions in contemporary midwifery. Creative teaching involves whole brain thinking and is embedded within a continuum of creative dimensions.
Bass, 2007 UK	A Soulful Journey: Creativity and Midwife Educators. In Davies L The Art & Soul of Midwifery	To explore the creative teaching and learning approaches used to facilitate aspiring midwives and consider how this was affected by personal philosophy.	Grounded Theory	7 midwife teachers, experience as teachers from 1- over 15 years. All but 1 was engaged in current midwifery practice	Grounded Theory	All criteria met. Methodologically appropriate with rich data	Critical discussion about educational theory applied to midwifery practice. Many examples of successful exercises and triggers. Exploring student teacher relationship.
Davis and Wickham, 2007 UK	Feeling the Fear and Doing it Regardless! Creative ideas for Midwifery education. In Davies L The Art & Soul of Midwifery	Chapter emphasis on doing not saying – practical creative ideas for use in midwifery education.	NA	No participants but discussion around successes or challenges of strategies with colleagues and students	NA	No analysis but context of education and usefulness of creative methods.	Students recognized the value of reflection, on many levels, emotional, understanding of others, recognition of suffering and their own limitations in relation to bereavement.
Fieshi et al. 2015 Italy	Teaching midwife students how to break bad news using the cinema: An Italian qualitative study	Verify whether a course which uses reflection as a method of learning and the cinema as a teaching tool can foster in students	Qualitative narrative methodology	9 female Third year midwifery students. Anonymous satisfaction questionnaire with 9 open-ended questions administered to students at the end of the course.	Thematic content analysis	Study design and methodology appropriate. Rich data.	When real life narratives are central students' learning about the art of midwifery practice was enhanced.
Gilkison et al., 2016 New Zealand	Real life narratives enhance learning about the 'art and science' of midwifery practice	To explore the experience of teachers and students of implementing a narrative-centred curriculum in undergraduate midwifery education.	Participatory hermeneutic study	5 midwifery lecturers & 14 undergraduate students drawn from a class of 50 at AUT Teachers conversations, student focus groups and written reflections	Ricoeur's (1984, 1985, 1988) theory of narrative interpretation	All criteria met, rich data. Study design and methodologically appropriate.	When real life narratives are central students' learning about the art of midwifery practice was enhanced.
Hall and Mitchell, 2008 UK	Exploring student midwives creative expression of the meaning of birth	To explore meanings student midwives attribute to birth through examination of creative pieces and explanations produced. Also, to explore the effectiveness and value of this creative activity as a teaching method.	Retrospective exploration of five creative pieces the students made showing their personal meaning of birth was carried out using a framework devised from visual methodology in addition with a questionnaire	16 midwifery students in their second year. Five students returned the questionnaire, two included the creative piece and a description, and two others did not include a personal description and one only returned the questionnaire.	Informed by Rose's (2001) framework for visual analysis	Majority of criteria met. Levels of analysis unreported in places. Use of questionnaire rather than interview, methodology therefore limited.	Finding ways to approach the meaning of birth and the concepts of spirituality may be a valuable component of creating holistic midwives and will need to be explored by further research
Hall and Mitchell,	Educating student midwives	The aim of this discussion paper is to describe an	NA	Undergraduate students from multiple groups of	NA	All elements of criteria met, no	The use of creative teaching approaches in a

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Table 4 (continued)

AUTHORS	TITLE	AIMS	METHODS	POPULATION/ PARTICIPANT	ANALYSIS	QUALITY ASSESSMENT TOOL	FINDINGS & CONCLUSIONS
2017 UK	around dignity and respect	educational workshop that enables learning to promote dignity and respect in maternity care.		around 50. All female aged between 18 and 45		formal analysis as discussion paper.	workshop setting appears to provide an effective learning opportunity around dignified and respectful care. These workshops have evoked a deep emotional response for some participants, and facilitators must be prepared for this outcome to ensure a safe space for learning.
Hartney et al. 2021 Australia	Using animation to teach breastfeeding physiology: a proof of concept study	To evaluate Breastfeeding Hormones in Play [15], an instructional animation resource to teach breastfeeding physiology to student and practising midwives and gain insights into the acceptability of this novel approach to learning.	Cross sectional survey design using both quantitative and qualitative approaches. Structured online questionnaire for midwives and midwifery students and descriptive statistics were used to present the quantitative data.	110 participants Snowball sampling Midwives (n = 28) student midwives (n = 21). A total of 81 midwife responses and 25 midwifery student responses were included in the analysis.	Data was analysed using descriptive statistics including frequencies and percentages to summarise the data. Open-ended responses were analysed deductively using the objectives of the study to assist in coding.	Methodologically appropriate and analysis clear, level of analysis unreported in places.	Majority of student midwives found animation an interesting and useful tool with many watching the animation multiple times to consolidate learning of complex ideas. This instructional animation resource has enabled learners to make the connection between theory and practice and provided the tools and language with which to explain these concepts to the woman. Students' responses although not necessarily generalizable, do clearly demonstrate evidence to support the benefits of storytelling as a creative, worthwhile teaching strategy. Students demonstrated their developing understanding of the artistry and creativity embedded in the practice of midwifery through the creative innovation and creation of their own artwork.
Hunter and Hunter 2006 USA	Storytelling as an Educational Strategy for Midwifery Students	Aim to discuss the implementation and evaluation of a purposive storytelling program that was developed as an educational strategy	NA	Second year midwifery students Evaluation via 6 short open ended questions over 4 years	NA	Discussion paper so analysis unreported appropriate	Students' responses although not necessarily generalizable, do clearly demonstrate evidence to support the benefits of storytelling as a creative, worthwhile teaching strategy. Students demonstrated their developing understanding of the artistry and creativity embedded in the practice of midwifery through the creative innovation and creation of their own artwork.
Jackson and Sullivan 1999 Australia	Integrating the creative arts into a midwifery curriculum: a teaching innovation report	Teaching innovation aimed at facilitating student exploration of fundamental, complex and ethereal concepts which are essential to the effective and skilful practice of midwifery.	Evaluative information was gathered using interview techniques and open-ended questionnaires, and subject to qualitative analysis (DiFlorio et al. 1989).	20 graduate diploma midwifery students – 2 days on campus and 24 h employed in a unit	NA-	All criteria met Brief description of analysis and evaluation Methodologically appropriate	Students demonstrated their developing understanding of the artistry and creativity embedded in the practice of midwifery through the creative innovation and creation of their own artwork.
Kemp J 2009 UK	Exploring empowerment issues with student midwives using forum theatre	Report on using forum theatre to explore empowerment	NA	Midwifery students	NA	Majority of criteria met. Minimal discussion of extent literature but relevant discussion of teaching practice. Analysis not present.	Forum theatre provides a participatory framework within the classroom for exploring and possibly transforming complex issues.

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Table 4 (continued)

AUTHORS	TITLE	AIMS	METHODS	POPULATION/ PARTICIPANT	ANALYSIS	QUALITY ASSESSMENT TOOL	FINDINGS & CONCLUSIONS
Leamon et al. 2009 UK	Student midwives' views on story sharing: the BUMP study	Reports the qualitative feedback from students and tutors about their experiences of story sharing and the implications for educational practice.	Qualitative exploration as part of a larger Action research study	Midwifery students from each year of an undergraduate programme at Bournemouth University	NA	Majority of criteria met. Ethics not discussed. Aspects of methodology and analysis under reported as reported in previous papers However, rich data	Story sharing can enhance both the teller and the listener's communication, creativity and problem solving skills. These aid the development of the 'mindful' student midwife and could translate into practice a more holistic midwife. Students learned from using the creative methods taught and considered how it would be used in their own practice.
Hall and Mitchell 2017 UK	Teaching spirituality to student midwives: A creative approach	Aimed to develop an understanding of student's views on the meaning of birth by examining creative work produced by the student midwives.	Retrospective exploratory investigation of the creative pieces produced by a sample of student midwives and an evaluation of the teaching methods	16 student midwives also some data in the form of a questionnaire responses from a student who had attended a previous pilot study	Thematic analysis using open ended questionnaires	Partial criteria met. Some issue with using method for qualitative data. However, rich data.	Students learned from using the creative methods taught and considered how it would be used in their own practice.
Mohamadirizi et al. 2018 Iran	The effect of speed and precaution technique on postpartum bleeding among midwifery students in the clinical field	Aim to investigate theater in the clinical stage on postpartum hemorrhage management among midwifery students	Quasi-experimental study using random sampling, using satisfactions questionnaire and clinical practice checklists.	Midwifery students in Isfahan University of Medical Sciences	Data was analysed using independent t-test and paired test.	All criteria met. Methodologically appropriate and analysis clear. Little discussion.	Theater method in postpartum hemorrhage can be increased satisfaction and clinical practice levels in midwifery students.
Noble and Pearce 2014 UK	Student midwives views on incorporating creative arts as a learning strategy	Study seeking to ascertain student midwives' views on incorporating creative arts as a learning strategy into pre-registration midwifery curriculum	Survey using non-probability sampling n = 53. Space to add qualitative answers but not mixed methods approach.	Third year midwifery students from two universities, chosen for their exposure to a range of teaching styles.	The data collection tool used was a Likert scale questionnaire, which contained an equally balanced set of positive and negative questions about the use of creative arts in midwifery education.	Majority of criteria met. Aspects of analysis lacked detail. Qualitative data used only to support the results. Rich data provided.	The principle of creative arts pedagogy has shown to be successful in developing individual qualities, vital to developing emotionally intelligent practitioners and warrants further research.
Noya et al. 2021 Japan	Professional learning using storytelling videos of childbirth experiences: A qualitative pilot study of student midwives' perceptions in Myanmar	To explore and describe Myanmar student midwives' perceptions of professional learning using storytelling videos of women's childbirth experiences and to assess potential pedagogical uses of storytelling videos in midwifery education.	Pilot study. Qualitative content analysis Focus group discussions	5 s year midwifery students	Thorough discussion of process of analysis and theme generation.	All criteria met. Detailed analysis section.	Findings suggest that listening to mother's voices indicate that storytelling broadened student's perspectives of pregnancy and childbirth and motivated them to provide better maternity care.
Patel et al. 2017 UK	Art and science: Promoting understanding and empathy through film	Cross disciplinary collaboration of film (art) and midwifery (art & science) to examine whether this innovative interaction between art and science can provide an appropriate pedagogic	Discussion paper focusing on pre and post screening responses from student midwives	Student midwives	N/A	All criteria met. Some analysis of student experiences	Using innovative interaction between art and science can provide a pedagogic framework for deep learning through student-centred rather than instructor led teaching and learning

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Table 4 (continued)

AUTHORS	TITLE	AIMS	METHODS	POPULATION/ PARTICIPANT	ANALYSIS	QUALITY ASSESSMENT TOOL	FINDINGS & CONCLUSIONS
Paterson et al. 2015 UK	An evaluation of a teaching strategy: The use of literature when teaching pre-registration midwifery students on pregnancy and loss	framework for effective learning through creative and artistic means To illustrate how poetry can be used to facilitate emotional intelligence and insight in midwifery	Descriptive Qualitative Study based on naturalistic inquiry	Second year undergraduate midwifery students, non-probability convenience sample of 35 students was used six being the minimum to compile a focus group and 35 being the maximum number in the class	Content analysis using data from the questionnaires and the focus group was collected over one collection point (cross sectional)	All criteria met. Some aspects of analysis not present.	The response of students to this method of teaching has been a very positive and rewarding experience for all involved and for some was more meaningful than a session confine to a lecture only session. Sometimes young or inexperienced midwives lack this insight into the needs of women. This problem can be overcome by using literature to nurture insight into issues facing others.
Rankin and Brown 2016 UK	Creative teaching method as a learning strategy for student midwives: A qualitative study	The study aimed to explore student midwives perceptions of a creative teaching method as a learning strategy.	Qualitative design using Husserl's phenomenological approach	Undergraduate midwifery students.	Colaizzi's framework for analyzing qualitative data	All criteria met. Very rich data	Introducing creative teaching methods, within a safe and supportive environment, can stimulate a meaningful and deep learning experience for students.
etal.,2020 Iran	Technical Simulation Using Goldfish Bowl Method: A Medical Teaching Method for Increasing Student's Creativity	The study aimed to assess whether using goldfish bowl as a creative intervention improved student midwives' creative thinking.	This study has a quasi-experimental design by convenience sampling (non-randomized allocation assignment).	70 midwifery students in two groups (n = 35 midwifery students in each group)	Students creative thinking was assessed using Dr. Abedi's standardized creative thinking questionnaire	Detailed analysis section	The statistical results showed changes at different levels after intervention, indicating an improvement in the students' creative thinking.
Uppal et al. 2016 UK	Exploring undisturbed birth through art and social media: An interactive project with student midwives	The aim of this study was to share with students representations of unmedicalised, undisturbed birth, to capture their reactions and encourage discussion of issues raised.	Class discussion and anonymised comments submitted on paper	Midwifery students from across all levels of the midwifery programme	Discussion paper No analysis discussed.	All criteria met. Interesting use of technology, lacking in analysis.	Interaction with YouTube stills and videos were valued by students.
Uppal et al., 2014 UK	The art of midwifery: Can creative images of birth enhance holistic care?	Discussion of how student midwives interact with art and create their own work	Comments following exhibition visit and experiences of undertaking workshops	Midwifery students	Discussion paper. No discussion of analysis although acknowledgement of wider literature throughout	All criteria met. Rich data regarding student engagement	The work has enabled students to develop confidence and think differently about their chosen profession, exploring a more aesthetic approach to midwifery and broadening their horizons.



Bass describes 'knowledge making rather than knowledge telling' (2007, p. 180) with student and educator together centrally, building knowledge with openness and exploration. Lecturer familiarity may be important to this collaborative process, with students feeling more comfortable with known tutors, (Hall and Mitchell, 2008). The lecturer can then 'midwife' students by supporting their understanding (Leamon et al., 2009), offering positive role-modelling through sharing their own experiences and taking part alongside students. By role-modelling vulnerability as educators, a more compassionate, inclusive and supportive atmosphere is achieved, with tutors demonstrating reflective and problem-solving skills (Rankin and Brown, 2016; Kemp, 2009). Togetherness and belonging boosted confidence in student's abilities, improved teamworking and knowledge and was not confined to student experience:

*'I learn a great deal from the sessions about what is happening in practice; one amazing story about how a first-year student felt during her first emergency section was very provocative. The student has let me use her story in other teaching sessions and has provided food for thought to many.'* (Leamon et al., 2009, educator)

This sense of connection fosters imaginative problem-solving, drawing on expertise within the student group. Storytelling was particularly prevalent across the texts (Fieschi et al., 2015; Hunter and Hunter, 2006; Jackson and Sullivan, 1999; Leamon et al., 2009; Noya et al., 2021, Uppal et al., 2014), helping students refine their listening skills which they could apply to practice. Kemp describes 'collective empowerment' (2009, p. 438), when students realise that they are not alone, acknowledging each other's experiences without value-judgements. Sharing experiences relating to practice consolidated their community of spirit (Bass, 2007). Positivity was not ever-present and tension and conflict arose from group working, with some people not wanting to engage, whilst some of the wider education teams demonstrated negativity toward creative methods.

Transformational learning features educators discussing how expertise moves from the educator toward the student, placing the student centrally (Davies and Wickham, 2007). Lecturers should reflect in this role so as not to take over and return to didactic methods or attempt to control the situation:

*'Deborah encouraged students to think about midwifery practice, rather than inform students about midwifery practice as she might in a lecture situation'* (Gilkison et al., 2016, educator)

Collaborative creativity highlights a new educational dynamic, to share in the togetherness of knowledge creation by flattening the power hierarchy in the classroom (Hall and Mitchell, 2017). The emphasis shifts from the act of teaching to the focus on learning, offering students tools for critical-thinking, awareness and a broader outlook (Mohamadirizi et al., 2018; Noble and Pearce, 2014). This type of teaching requires commitment to the creative act, self-reflection and aligning themselves with students' experience, trusting that transformational learning will occur and move student's perspectives into new forms of knowing:

*'It's risk taking isn't it, creative people are risk takers'* (Bass, 2007, educator)

Educators justified creative methods to students as well as colleagues, sometimes battling a perception that *'the traditional didactic ways of teaching is the preferred way to prepare students for the role as midwife'* (Rankin and Brown, 2016, p. 98). This requires a complex level of awareness from the tutor, to be cognisant of student needs and their own, understanding that this may change the teaching relationship for future interactions (Leamon et al., 2009). The need for students to feel safe means educators must enter the experience themselves whilst observing the group and success of the method as it unfolds, holding both the insider and outsider positions frequently seen in participatory action research (Woodfield et al., 2021):

*'I think the difference I would want to make, would be to get them to think for themselves, to be creative thinkers.'* (Rankin and Brown, 2016, educator)

Some students discussed reticence at the prospect of undertaking creativity within structured university time. Unless clearly linked to an assessment some students did not consider creativity valuable, reporting time should be spent focusing on work which would be marked (Leamon et al., 2009). Making conceptual leaps and trusting the learning process contains risk, especially with newly introduced teaching methods. Davies (2007) contextualises this as the challenge of creativity which can be stifled or diminished as individuals mature. Students were brought into the process by educators whom they described as 'radical, artistic' and 'out of the box' (Bass, 2007) exploring issues beyond the written word with meaningful exchange across the group. This heightened student motivation to learn, emphasising the importance of effective facilitation in group cohesion promoting professional thinking and the ability to contextualise themselves in their work; what Rankin and Brown describe as the context of 'authentic practice' (2016, p.98).

Risk-taking is exemplified as meeting a threshold concept (Meyer and Land, 2005), the challenging yet transformational moment where the act of acquiring knowledge is realised, expertise transferring from educator to student, which once experienced cannot be unlearned (Hartney et al., 2021). This perception change is seen across the data with students being unsure before creative interventions of the possibility of improved insight or self-awareness. However, following creative activities participants were overwhelmingly in agreement of the additional value creative learning offers (Hunter and Hunter, 2006; Jackson and Sullivan, 1999; Noble and Pearce, 2014; Uppal et al., 2016):

*'Tessa, wrote that her 'eyes had been opened' by the diversity of experience'* (Gilkison et al., 2016)

Students could see from new vantage points, challenging teaching norms and questioning typical midwifery practices (Hall and Mitchell, 2017). Overcoming threshold concepts, students appreciated the value of creative activities, moving toward an insider perspective in their midwifery practice, revealing *'the "inside" aspects of practice that a textbook cannot teach them.'* (Hunter and Hunter, 2006, p.277):

*'I wasn't looking forward to the sessions. I thought it would be a waste of time. However, as these progressed then I found myself 'interested' and really wanted to learn more and do a really good activity and presentation'* (Rankin and Brown, 2016, student)

### 3. Journeying towards holism

*'The integration of theoretical and practical learning is possibly one of the most central considerations for health professional educators.'* (Gilkison et al., 2016)

This theme explores the process of integration throughout student midwives' development, a goal exemplified by Lucas (Lucas, 2002; Mitchell and Hall, 2007, p. 38) *'creativity is a state of mind in which all our intelligences are working together'*. Authors report a desire to integrate theory and practice and how creativity can work towards an aesthetic approach directing students to consider midwifery more broadly, while staff develop their teaching expertise (Bass, 2007). This described enhancement of creative thinking, making links between the philosophical practical application of midwifery, with some interventions being enacted in the practice setting to make learning more cohesive (Mohamadirizi et al., 2018, Rankin and Brown, 2016; Uppal et al., 2014).

Warne and Andrew (2010, p.130) raise concerns about losing the artistry of midwifery 'splitting', where midwives' and students become saturated, focusing solely on the physical tasks of caring as a coping mechanism. They suggest this imbalance between art and science needs addressing, rather than allowing scientific knowledge to dominate and out-weigh tacit experience. Creative teaching connects students on both *'a cognitive and an emotional level, contributing to the art and science of midwifery practice'* (Hall and Mitchell, 2017, p. 215). Davies : p.17) (2008) considers this separation as an 'apartheid' and by harnessing nurturing teaching techniques we can

coalesce skills to become more holistic practitioners:

*'...made us think about the art and science of midwifery and enabled everyone to look at the art rather than the total focus being on the science of midwifery ... we were able to look at the wider issues in midwifery.'* (Jackson and Sullivan, 1999, student)

Gilkison et al. (2016) propose that midwifery skills without integrating artistic and tacit knowledge, or a holistic outlook are inadequate, while Jackson and Sullivan (1999) warn of losing the artistic expression of midwifery work. Bass (2007, p.169) suggests educators are *'doing more than teaching and facilitating learning'* suggesting that to move toward holism students must unite all aspects of their midwifery practice – both professional and personal, revealing the need for authentic emotion.

Contending with emotional responses to humanistic aspects of childbearing initiates complex decision-making, enhancing compassion and the self-reflection required for practice (Jackson and Sullivan, 1999; Noya et al., 2021; Patterson et al., 2016; Uppal et al., 2014). Fieschi et al., (2015) suggest that unless emotionally present, students' absorption of learning may lack longevity. Students discuss emotional emergence from the private to public world, using creativity as a vehicle realising how they truly felt, reporting a kind of catharsis. This way participants consolidated their internal meaning-making, checking with peers, critiquing and discussing how to approach practice situations, raising ethical and confidential matters (Leamon et al., 2009; Patel et al., 2017). Educators felt this initiated deeper analysis and incorporated a type of spiritual inquiry.

The texts discussed the potential of creative enquiry to cause distress, re-living practice experiences, or exploring feelings may prompt difficult emotions. Lecturers mitigated this by ensuring multiple tutors attended, giving guidance beforehand to lessen difficult reactions (Barry et al., 2017; Mitchell and Hall, 2007; Patterson et al., 2015). This has transformative potential, making a negative experience positive, the act of creation and sharing unburdening the student from the vicarious traumatic experience, helping them realise they were more capable than they imagined (Leamon et al., 2009). It is acknowledged that associations exist between poor emotional wellbeing and unsatisfactory training (Cramer and Hunter, 2019), with some lecturers finding creative sessions more energetically draining.

Students increased reflective ability is apparent across the data, each method offering different reflective potentials. Film offered sensory experiences of otherness, presenting a different world view (Patel et al., 2017), highlighting the importance of reflecting on students own emotional responses as burgeoning professionals (Fieschi et al., 2015), enabling them to observe whilst not having the pressure of being in the room (Uppal et al., 2016). Students realised that elements of their midwifery education were 'missing' such as how to provide spiritual support in labour (Noya et al., 2021). This helped them identify with families, to comprehend what it was like for women to share experiences and feel listened to and cared for (Leamon et al., 2009). Feelings are an inherent part of the reflective process and must be incorporated into learning if students are to reach their reflective learning potential, cited in the development of creative workshops (Gibbs, 1988).

#### 4. Stepping into the professional

This theme is about how creativity can aid students' growing sense of themselves as professionals. The tension between 'ideal midwifery practice' and the reality students observe in practice can lead to confusion and frustration (Kemp, 2009). It is the educator who can prompt the student to question what kind of midwife they aspire to be. Noble and Pearce (2015) explore how students may be fit for qualified practice, but may not fulfil their professional, holistic scope. The texts suggest creativity could support inexperienced midwives to become more intuitive and that opportunities to develop emotional intelligence assist with complex decision-making, essential when qualified

(Patterson et al., 2016; Patel et al., 2017). Seeing things from families' perspectives using experiential and embodied learning, means students can continually improve their understanding, developing expertise, intuition and reflexivity. Students reported creative learning meant that they could more readily become involved with women's care (Fieschi et al., 2015; Noble and Pearce, 2015; Mitchell and Hall, 2008):

*'I felt that it allowed me to take more out of the placement than just clinical skills.'* (Patel et al., 2017, student).

Students had increased awareness of women's needs, recognising the midwifery impact, emphasising that this type of learning should be experienced by all students:

*'I believe this to be a vital (her emphasis) aspect of any form of midwifery training. I strongly believe this should be a permanent and extensive part of midwifery training, as it is the very essence of a midwife's role.'* (Hall and Mitchell, 2007).

Students identified how learning could be applied in clinical environments as tools for parent education settings. They were able to see what may be challenging for women, understanding what women wanted from their care. They appreciated how, by using imagination and interrogating their knowledge base, they could apply this learning in their own practice. There were overwhelmingly positive student reports of creative learning methods, even from initially reluctant students, discussing activities as *'interesting, motivating, inspiring, insightful, enjoyable, enlightening, never lost interest' recommending this to student colleagues'* (Fieschi et al., 2015; Hunter and Hunter, 2006, Kemp, 2009; Noble and Pearce, 2015; Hall and Mitchell, 2017; Patel et al., 2017; Rankin and Brown, 2016, Uppal et al., 2014; Uppal et al., 2016).

Increased ability to retain information was demonstrated as well as heightened levels of understanding, improved creative thinking abilities and speed of care in complex management (Fieschi et al., 2015; Hartney et al., 2021; Mohamadirizi et al., 2018; Noya et al., 2021; Shirazi et al., 2020). Additionally, educators saw improvement in women-centred skills such as communication, with feedback from clinical practice areas reporting improvements in student performance (Gilkison et al., 2016; Patel et al., 2017).

## 5. Discussion

Although arts-based practice was integrated and established within healthcare learning (Jackson and Sullivan, 2009; Hall and Mitchell, 2007; Bass, 2007, Davies and Wickham, 2007; Fieschi et al., 2015; Uppal et al., 2014), key aspects were essential for successful, impactful learning. Students identified these as valuable midwifery knowledge, highly applicable to practice learning and development as future professionals (Rankin and Brown, 2016). Certain topics - bereavement, spirituality, dignity and empowerment, lent themselves to creative activities, appearing frequently through use of film, storytelling and making artworks, for teaching these topics.

Educators expressed excitement about teaching creatively, reporting although it requires more emotionally, witnessing moments of knowledge realisation was rewarding (Bass, 2007). A conducive environment is crucial to foster a reciprocal educational exchange and creative spirit, not only the physical space but the attitude, expectation and freedom present. Complex interactions occur inside this holistic collaboration, flattening the power dynamic between educator and learner to one of equal contribution (Leamon et al., 2009). Space and time are needed for divergent thinking, somewhat determined by the wider institution, occasionally manifesting as a barrier to educational development.

Educators must be flexible, demonstrating the value of using creativity, such as increased sensitivity to women's needs, emotional intelligence and improving creative thinking, necessary for flexible inventive problem-solving skills in clinical practice (Chan, 2013). Expertise transfers from educator to student via trust, facilitation and willingness to engage, taking risks and seeking knowledge-making rather than knowledge transmission and reception, transferring responsibility solely from the individual to a group dynamic, allowing new insights to

emerge. Students and educators changed their perceptions of what constituted the lecturer-student relationship, with existing methods becoming renewed and a different perspective coming into focus (Gilkinson et al., 2015). Educators can shift roles within the learning space, enabling students to arrive at realisation through increased self-awareness, reflection and interactive support from their peers (Bass, 2007).

The review found students reported heightened satisfaction when connected to each other emotionally, these methods giving personal insights never experienced before (Leamon et al., 2009). This 'togetherness' is present only when the lecturer assumes an insider position, accompanying the students, joining the empathetic responses and sharing emotions by facilitating a collaborative community. Students stated that classroom creativity improved subject understanding, developing skills to listen and respond to peers without judgement, empowering them to identify with themselves as future midwives (Patel et al., 2017). This was echoed by the feedback from practice learning areas and teaching teams (Noya et al., 2021, Shirazi et al., 2018). Because this educational method required active input from students, this led to frustration when students were less willing to participate. Individual learners were encouraged to embrace threshold concepts, being vulnerable but able to transform their learning when supported by peers, a form of midwifery each other. Arts-based practice was considered as a way of inserting the human element into learning, prompting practice reflection and the clarity to visualise others' positions (Jackson and Sullivan, 1999).

To fully engage, students needed safety to divulge more of themselves, to reveal personal beliefs about childbirth with lecturers joining this and role-modelling emotional intelligence (Patterson et al., 2015). Strong emotions arose when sharing work due to the realisation and reflection that arts-based practices and transformational learning provoke. This review reveals that student and educator interaction is a holistic step within the wider context of midwifery arts and science, an integrated learning exchange, offering unification of students' personhood (Hall and Mitchell, 2017). The synthesis demonstrates an additional layer of learning which occurs when students align themselves with self-held beliefs inside the professional context, exploring their 'otherness' (Hunter and Hunter, 2006) and acknowledging the potential for holism (Volpe et al., 2019). These deeply reflective students took new ways of knowing into practice, creating a satisfying, holistic learning experience (Mitchell and Hall, 2008). There is potential revelation for students and educators using creative teaching and so a willingness to be authentic and emotionally present provides meaningful transformational learning moments, which can then be applied to future midwifery practice. Although Chan's (2013) review found similar outcomes across the qualitative only papers, the themes of authenticity and emotional aspects of integrating learning was novel.

### 5.1. Strengths and limitations

This review has several strengths including a robust method to the integrative process, engaging with a recognised framework and the use of best practice guidance such as PRISMA to enhance reporting. Similarly, others who have investigated ABP in allied fields also found much literature used poor methodological descriptions and identified further work required to increase rigour (Reiger et al., 2019).

Because of high numbers of text and opinion pieces, many included texts could be considered low quality, yet all included pieces met over half the appraisal criteria on the relevant tool. Whittmore and Knaf (2005) describe the complexity in evaluation of the integrative review method, suggesting evaluation may not be appropriate for reviews with such disparate literature.

### 5.2. Limitations

Limitations relate to how this review contains only English language

texts, potentially inhibiting international perspectives. Quality appraisal although applied to each text, did not provide parameters for inclusion, making the interaction between interpretation and quality appraisal challenging. Students learn differently and studies included did not report for whom creative practices work well for and whom it does not. In relation to competency-based education theory, this review considers midwifery education, approaching the knowledge and skills required to be a holistic practitioner rather than being solely focused clinical competencies. There is a need for further evaluation, with no longer lasting report of implications of creative teaching methods or the application of these in clinical environments.

## 6. Conclusion

This review synthesises existing literature on the process and potential outcomes of creative teaching and learning using arts-based pedagogy in midwifery education. The review indicates that creative teaching could improve student midwives' learning experiences, providing additional and alternative ways of knowing, contributing to their professional development. Key themes were identified including re-envisioning the educational environment, the integration of midwifery knowledge, enhanced emotional intelligence and the development of professionalism. Students frequently compartmentalise theoretical and practical learning and creative approaches bridge this theory-practice divide (Davies and Wickham, 2007). Sharing experience and connecting on deep, emotional levels using creativity for learning, provide fresh perspectives, emphasising new embodied knowledge. This unites art and science, community and collaboration into a safe non-threatening space where students can explore complex concepts without the pressure of being clinically present (Uppal et al., 2016).

This review identifies a significant body of literature in support of using arts-based pedagogy with student midwives, emphasising the strength of creativity in knowledge-making, reflective skills acquisition and active transformative learning that helps bridge the theory/practice divide. In the current midwifery climate, it is imperative that all efforts are made to augment the art of practice wisdom, enhancing students empathetic, emotional ability and practical knowledge so that it can be more easily translated into professional practice. Creativity may be applicable to a much wider range of midwifery subjects, tailoring method to midwifery topic, with a flexible approach.

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