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# Bespoke Search Blended learning

**Prepared for:** Birte Harlev-Iam  
**Created:** 20/07/2020

Maternity and Infant Care (MIC) comprises more than 270,000 citations relating to the midwifery profession, pregnancy, labour, birth, postnatal care and the 'transition to parenthood', infant feeding and neonatal/infant care up to 24 months. Material selected for inclusion comes from over 400 journals as well as book chapters, reports, guidelines, audio visual materials, news items, conference proceedings and other 'grey literature'. MIC includes citations for records from the Cochrane Database of Systematic Reviews, as well as from government bodies and professional organisations which include the Department of Health, the National Institute for Health and Clinical Excellence, the Royal College of Obstetricians and Gynaecologists, the Royal College of Midwives, and the World Health Organization [this is not an exhaustive list].

**Keywords:** "Blended learning", "Distance learning", "Flexible learning", "Online learning", "Midwifery education", midwifery, midwife, midwives, education, virtual

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# Bespoke Search

Prepared for: Birte Harlev-Iam  
Created: 20/07/2020

## Blended learning (2015-2020)

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### 20150107-44

**Survey results of first and second year New Zealand midwifery students' level of engagement in a flexible delivery programme.** Milne T; Skinner J; Baird K, (2014). *New Zealand College of Midwives Journal*, no 50, December 2014, pp 5-10.

Objective: This paper describes the survey results of first and second year New Zealand (NZ) midwifery students' level of engagement while being taught in face-to-face, videoconference (VC) and online activities as part of a fully flexible delivery curriculum. Methods: First and second year undergraduate midwifery students (n = 104) from one New Zealand midwifery education provider were invited to participate and complete an online survey. Students were recruited from the main city campus learning hub and three smaller regional learning hubs (RLH). Measurements: The survey asked for: demographic information, skills, experience and confidence with modes of flexible learning, information technology, online student learning platforms, and engagement with learning. Data were analysed using descriptive statistics including minimum and maximum scores, means, ranges and weighted averages. Results: 52 % (n = 54) of students provided feedback. 40 % (n = 21) of respondents considered they had minimal experience with online learning platforms and 48 % (n = 49) indicated a lack of confidence to participate in learning sessions delivered via VC. 66 % (n = 67) of respondents rated their involvement in learning much higher in face-to-face sessions than with VC. Respondents felt more engaged with their peers from their own regional learning hub (RLH) and less with the teaching, clinical and administration teams. Conclusion: Students need to be orientated and educated to use technology adequately for their learning. Although flexible modes of delivery in midwifery education enhance student access, the quality of learning requires reliable technology with good capacity, and pedagogy that fosters a high level of interaction. Rural and remote students rated engagement with face-to-face teaching highly. Support and continuing training and education for both faculty and students need to be offered to maximise the potential of flexible delivery modes. This was a small survey with students from one NZ midwifery education provider. Results need to be interpreted with this in mind. (25 references) (Author) (Original research)

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### 20150225-99

**Can breastfeeding support be taught online? An evaluation of a training package for student health visitors.** Condon L; Murray J; Messer S, (2015). *Journal of Health Visiting*, vol 3, no 2, February 2015, pp 100-106.

This study evaluated an online learning package developed to support student health visitors' education about health promotion in infant feeding and how best to support parents in the community. Online learning is increasingly being used in nursing education, in combination with traditional classroom-based teaching and experience in practice. To meet the needs of students across the South West of England, the University of the West of England (UWE) has developed innovative ways of delivering high-quality, evidence-based education. Study participants (n = 66) were enrolled on a specialist community public health nursing course and were part of a cohort that studied at two geographically distant venues in the South West. Quantitative and qualitative data were collected using an online survey. The study found that students had the skills and ability to use the online programme, and enjoyed working at home at a self-directed time and space. Expectations of online learning packages are high in terms of professional presentation and technological quality. While students accepted the concept of online learning, some felt it was not an appropriate method to deliver training about breastfeeding. This evaluation suggests that the majority of students accept online learning as part of a blended learning package, even for practice-based subjects such as breastfeeding promoting and support. (28 references) (Author) (Original research)

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**20150727-32**

**Innovative Uses of Technology in Online Midwifery Education.** Arbour MW; Nypaver CF; Wika JC, (2015). *Journal of Midwifery and Women's Health*, vol 60, no 3, May/June 2015, pp 278-282.

Women's health care in the United States is at a critical juncture. There is increased demand for primary care providers, including women's health specialists such as certified nurse-midwives/certified midwives, women's health nurse practitioners, and obstetrician-gynecologists, yet shortages in numbers of these providers are expected. This deficit in the number of women's health care providers could have adverse consequences for women and their newborns when women have to travel long distances to access maternity health care. Online education using innovative technologies and evidence-based teaching and learning strategies have the potential to increase the number of health care providers in several disciplines, including midwifery. This article reviews 3 innovative uses of online platforms for midwifery education: virtual classrooms, unfolding case studies, and online return demonstrations of clinical skills. These examples of innovative teaching strategies can promote critical and creative thinking and enhance competence in skills. Their use in online education can help enhance the student experience. More students, including those who live in rural and underserved regions and who otherwise might be unable to attend a traditional onsite campus, are provided the opportunity to complete quality midwifery education through online programs, which in turn may help expand the women's health care provider workforce. This article is part of a special series of articles that address midwifery innovations in clinical practice, education, interprofessional collaboration, health policy, and global health. (42 references) (Author) (Review)

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**20150805-34**

**The Virtual International Day of the Midwife: A Synchronous Open Online Conference for Continuing Professional Development and Learning for Midwives.** Sidebotham M; Dalsgaard A; Davis D; et al, (2015). *International Journal of Childbirth*, vol 5, no 2, 2015, pp 91-99.

AIM: To examine the contribution of the Virtual International Day of the Midwife (VIDM) conference to midwives' continuing professional development (CPD). BACKGROUND: Knowledge and understanding of CPD for midwives as synchronous online learning is limited. Studies of e-learning programs for CPD have underlined the need for interaction with others. The VIDM is a synchronous online 24-hour conference freely available for midwives designed to provide a unique CPD opportunity. METHOD: An online survey with a mix of fixed-response, multiple-response, and open-ended freetext questions was available to participants for 1 month after the conference via the wiki page in 2012 and 2013. FINDINGS: The survey was completed by 239 conference participants. Midwifery students and clinical midwives were the largest groups of attendees. The most common countries of residence were Australia, United Kingdom, and United States. Respondents believed that the conference contributed to their professional development by enabling professional growth, facilitating shared learning, and raising awareness of global issues. CONCLUSION: Offering synchronous events is important to facilitate deeper learning for those engaging in online activities. As an annual synchronous 24-hour, open online conference, the VIDM has become a valuable CPD opportunity for midwives. (Author)

(Original research)

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**20150824-25**

**Speaking their language: integrating social media into childbirth education practice.** Weatherspoon D; Weatherspoon C; Ristau C, (2015). *International Journal of Childbirth Education*, vol 30, no 3, July 2015, pp 21-24.

With the advancement of modern technology, the internet has become a standard platform for many forms of communication and education. The majority of pregnant females fall into the cohort known as Millennials and have experienced technology since early in life. Millennials consider technology as part of their everyday life and use it for personal interaction or a source of information. The established comfort with the use of technology combined with busy lifestyles, multiple commitments, transportation costs or logistics, childcare, or a desire for privacy, support the use of perinatal online learning. This article examines options that childbirth educators may consider for integrating social media or other forms of technology into their repertoire. (23 references) (Author) (Overview)

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**20160106-34\***

**Evaluation of the learning components of a blended Bachelor of Midwifery programme: student perceptions of how these contributed to their learning and their readiness for practice.** Patterson J; Baddock S; Pairman S; et al, (2015).

*New Zealand College of Midwives Journal*, no 51, December 2015, pp 50-58.

Background: New information technologies for communication and distance learning enable programmes of study to be delivered, wholly or partly, off campus increasing the choice and flexibility for students. In 2007, Otago Polytechnic (OP) and Christchurch Polytechnic Institution of Technology (CPIT) Schools of Midwifery began a collaborative curriculum development for a jointly owned Bachelor of Midwifery, using a blended learning model for students based in seven regional sites throughout the South Island of New Zealand. Aim: The aim of this survey was to evaluate the effectiveness of this new model of curriculum design and students'

perceptions of their readiness for practice. Method: A non-experimental descriptive survey of a purposive sample was developed to capture student demographics, their experiences of the blended learning components, and their perceptions of their readiness for practice. Graduates in 2011, 2012 and 2013 were invited to complete the survey. Ethical approval was obtained from the Otago Polytechnic Ethics Committee following consultation with the Kaitiaki (Māori Advisor). Findings: A response rate of 93% (14/15) students was achieved in 2011 for a paper survey and 47% (16/34) in 2012 and 50% (20/40) in 2013 with an online survey. Overall, the students agreed or strongly agreed that the weekly face-to-face tutorials, intensive block courses, online learning modules and online tutorials had all contributed positively to their learning, while some disagreed or strongly disagreed that aspects of their ākonga (tutorial) group process, the number of peer group presentations in intensives, and the level of oversight for their practice portfolio facilitated their learning. Almost all (12/13 in 2011, 14/14 in 2012; 11/12 in 2013) participants agreed or strongly agreed about the value of clinical placements and perceived themselves well prepared for midwifery practice. Conclusion: This survey was successful in identifying components of the blended delivery programme that students perceived enhanced their learning, and aspects of these that could be improved. Almost all who participated agreed that the programme had prepared them for beginning practice as a midwife. [Full article available online at: <https://www.midwife.org.nz/resources-events/nzcom-journal/issue-51/evaluation-of-the-learning-components-of-a-blended-bachelor-of-midwifery-programme/>] (42 references) (Author)

(Original research)

Available from: [www.midwife.org.nz](http://www.midwife.org.nz)

Full URL: <https://www.midwife.org.nz/resources-events/nzcom-journal/issue-51/evaluation-of-the-learning-components-of-a-blended-bachelor-of-midwifery-programme/>

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### 20160126-33

#### **Evaluating postgraduate midwifery students' experiences of a model of blended learning.**

Geraghty S; Godwin H, (2016). *British Journal of Midwifery*, vol 24, no 1, January 2016, pp 60-63.

This paper describes an evaluation of postgraduate midwifery students' experiences of a model of blended learning, following completion of a newly accredited Master of Midwifery Practice (MMP) course in a Western Australian university. Successful completion of the course leads to registration as a midwife with a Master's degree. This is the first midwifery degree at Master's level offered in Western Australia, which offers another route into the midwifery profession alongside existing options for postgraduate and undergraduate students. Midwifery students enrolled on the 2-year MMP course are registered nurses, who are offered flexible learning options involving on-campus and online learning, as opposed to traditional on-campus lectures and tutorials. The evaluation consisted of a 10-part questionnaire given to 25 midwifery students, of which 17 were completed and returned. Responses were analysed by the authors and a consensus on the final interpretation was reached. Four main themes were identified from the evaluation: variety of teaching methods, feeling overwhelmed, contextualising midwifery, and support. (10 references) (Author)

(Original research)

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### 20160128-17

#### **A framework for web-based interprofessional education for midwifery and medical students.**

Reis PJ; Faser K; Davis M, (2015). *Journal of Midwifery and Women's Health*, vol 60, no 6, November/December 2015, pp 713-717.

Scheduling interprofessional team-based activities for health sciences students who are geographically dispersed, with divergent and often competing schedules, can be challenging. The use of Web-based technologies such as 3-dimensional (3D) virtual learning environments in interprofessional education is a relatively new phenomenon, which offers promise in helping students come together in online teams when face-to-face encounters are not possible. The purpose of this article is to present the experience of a nurse-midwifery education program in a Southeastern US university in delivering Web-based interprofessional education for nurse-midwifery and third-year medical students utilizing the Virtual Community Clinic Learning Environment (VCCLC). The VCCLC is a 3D, Web-based, asynchronous, immersive clinic environment into which students enter to meet and interact with instructor-controlled virtual patient and virtual preceptor avatars and then move through a classic diagnostic sequence in arriving at a plan of care for women throughout the lifespan. By participating in the problem-based management of virtual patients within the VCCLC, students learn both clinical competencies and competencies for interprofessional collaborative practice, as described by the Interprofessional Education Collaborative Core Competencies for Interprofessional Collaborative Practice. This article is part of a special series of articles that address midwifery innovations in clinical practice, education, interprofessional collaboration, health policy, and global health. (16 references) (Author)

(Review)

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### 20160128-20

#### **Interprofessional obstetric ultrasound education: successful development of online learning modules; case-based seminars; and skills labs for registered and advanced practice nurses, midwives, physicians, and trainees.**

Shaw-Battista J; Young-Lin N; Bearman S, (2015). *Journal of Midwifery and Women's Health*, vol 60, no 6, November/December 2015, pp 727-734.

Ultrasound is an important aid in the clinical diagnosis and management of normal and complicated pregnancy and childbirth. The technology is widely applied to maternity care in the United States, where comprehensive

standard ultrasound examinations are routine. Targeted scans are common and used for an increasing number of clinical indications due to emerging research and a greater availability of equipment with better image resolution at lower cost. These factors contribute to an increased demand for obstetric ultrasound education among students and providers of maternity care, despite a paucity of data to inform education program design and evaluation. To meet this demand, from 2012 to 2015 the University of California, San Francisco nurse-midwifery education program developed and implemented an interprofessional obstetric ultrasound course focused on clinical applications commonly managed by maternity care providers from different professions and disciplines. The course included matriculating students in nursing and medicine, as well as licensed practitioners such as registered and advanced practice nurses, midwives, and physicians and residents in obstetrics and gynecology and family medicine. After completing 10 online modules with a pre- and posttest of knowledge and interprofessional competencies related to teamwork and communication, trainees attended a case-based seminar and hands-on skills practicum with pregnant volunteers. The course aimed to establish a foundation for further supervised clinical training prior to independent practice of obstetric ultrasound. Course development was informed by professional guidelines and clinical and education research literature. This article describes the foundations, with a review of the challenges and solutions encountered in obstetric ultrasound education development and implementation. Our experience will inform educators who wish to facilitate obstetric ultrasound competency development among new and experienced maternity care providers in academic and clinical settings. This article is part of a special series of articles that address midwifery innovations in clinical practice, education, interprofessional collaboration, health policy, and global health. (34 references) (Author) (Review)

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### **20160209-65**

#### **Exploring undisturbed birth through art and social media: an interactive project with student midwives.**

Uppal E; Davies S; Nuttall J; et al, (2016). *British Journal of Midwifery*, vol 24, no 2, February 2016, pp 124-129.

To facilitate exposure of student midwives to images of undisturbed birth by engagement with the YouTube Series of images created by artist Helen Knowles (2015). Although birth in the Western world is a relatively safe process, there is a culture of fear around the process of giving birth. Women search for 'realistic' accounts from other women, as indicated by the number of hits on the YouTube videos on which Knowles' YouTube Series is based. As part of their midwifery education, midwifery students from a range of groups were shown the YouTube Series screen-print images. The associated videos were then played to the students, followed by a class discussion. Themes that arose from the discussions included tensions around using social media in the curriculum, and the educational value of viewing undisturbed birth. It is important for midwifery educationalists to engage with technology and social media to be able to appreciate women's and students' perspectives. It is also necessary to be aware of potential difficulties inherent in the use of social media, such as in relation to professional behaviour, the possible exploitation of women and ownership of the material. The study raised important issues for further investigation and analysis, and suggests that the videos and artwork have significant potential as tools for learning. (16 references) (Author) (Original research)

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### **20160425-25**

#### **An evaluation of direct-entry student midwives' perceptions of normal birth.**

Anderson G, (2015). *Evidence Based Midwifery*, vol 13, no 2, June 2015, pp 66-70.

Background. 'Normal birth' as a term is used widely within midwifery and obstetric practice, in addition to midwifery education programmes. It is also a term which is complex, subjective and culturally experienced. Objective. This evaluation aimed to explore the perception of 'normal birth' as experienced by final-year direct-entry student midwives with a purpose of informing curriculum planning. Design. An explorative evaluation using a qualitative approach to gather student midwives' experiences of normal birth within the clinical setting. Data were collected via routine evaluation questionnaires and an online discussion forum; in addition, two tape-recorded focus group interviews were held and analysed using thematic content analysis. The use of routine curriculum evaluation procedures obviated the requirement for formal ethical approval, but on the advice of the School research ethics committee, voluntary written informed consent was requested from all potential participants, who were assured of confidentiality and that non-participation would have no deleterious consequences. Participants. All final-year student midwives (n=35) were invited to complete routine evaluation questionnaires and participate within the online discussion forum and 14 student midwives participated in the focus group interviews. Findings. The students identified a number of barriers perceived to hinder the promotion of normality in clinical practice. These perceived barriers included a lack of consensus on a definition of normal birth; medicalisation of childbirth; the influence of midwives and policies or protocols leading to defensive practice. The interactive themes of environment, education and empowerment emerged as necessary components to promote normality in childbirth. Implications. There is a need to move beyond the debate of what normal birth is and gain an acceptable universal definition on which midwifery and obstetric practice can be measured. (44 references) (Author) (Original research)

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**20161102-36**

**FLAME Flip learning for midwifery education.** Williams J, (2016). MIDIRS Midwifery Digest , vol 26, no 4, December 2016, pp 434-440.

The Division of Midwifery at the author's university completely re-wrote its curriculum for launch in September 2015. The 'flipped' learning approach to module delivery has been chosen to increase the module content delivered outside of the classroom to enhance the learning within. The midwifery lecturers are working closely with learning technologists and academics in the Health E-Learning and Media team to develop their curriculum in this way. This discussion paper will present the current literature in this field and provide an overview of the flipped learning approach in the midwifery curriculum and the challenges involved. (40 references) (Author) (Review)

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**20170302-97\***

**Using the RCPCH e-portfolio for trainee ANNs: a three-year evaluative study.** Crathern L; Clark SJ; Longden J; et al, (2017). Infant , vol 13, no 1, January 2017, pp 29-32.

This article reflects on the findings of a three-year evaluative project within the School of Nursing and Midwifery, University of Sheffield, on the Royal College of Paediatrics and Child Health (RCPCH) electronic portfolio's functionality as an online assessment tool for trainee advanced neonatal nurse practitioners (ANNs). (Author) (7 references) (Learning resource)

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**20170330-68**

**Innovation in preregistration midwifery education: web based interactive storytelling learning.** Scamell M; Hanley T, (2017). Midwifery , vol 50, July 2017, pp 93-98.

Background Through a critical description of the implementation of a web based interactive storytelling learning activity introduced into an undergraduate, preregistration midwifery education programme, this paper will explore how low-cost, low-fidelity online storytelling, designed using Moodle, can be used to enhance students' understanding of compassion and empathy in practice. Sample Cross sectional sample of first year undergraduate Midwifery students (n111) Method Drawing from both research and audit data collected in an Higher Education Institution in London England, the paper presents the case for using web based technology to create a sustainable model for midwifery education. Results Initial results indicate that it is both the low cost and positive student evaluations of web based interactive storytelling, which make this approach to preregistration midwifery education which suggests that this approach has significant potential for learning and teaching in midwifery education in diverse settings around the world. Or how about: global relevance? (16 references) (Author) (Original research)

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**20171011-41**

**Active blended learning for clinical skills acquisition: innovation to meet professional expectations.** Power A; Cole M, (2017). British Journal of Midwifery , vol 25, no 10, October 2017, pp 668-670.

The standards for pre-registration midwifery education state that the practice-theory ratio of the programme should be no less than 50% practice and no less than 40% theory, adopting a variety of learning and teaching strategies, including simulation. Simulation for skills teaching has been found to bridge gaps between theory and practice, and to positively affect how prepared and confident the student midwife feels to apply knowledge and skills in the practice setting. With changes in regulation under consultation, and an ever more complex clinical environment, it is timely to revisit learning, teaching and assessment strategies in pre-registration education to ensure that they are fit for purpose. The University of Northampton's approach to learning and teaching, termed active blended learning, is a student-centred approach to support the development of subject knowledge and understanding, independent learning, and digital fluency. This involved the modification of a traditional, four-stage, step-by-step approach to teaching clinical skills, by introducing video-assisted technology to prepare students for a summative assessment using simulation. It is anticipated that this innovative approach to the teaching of clinical skills will enhance the 'toolkit' of learning, teaching, and assessment strategies appropriate to contemporary midwifery pre-registration education. (12 references) (Author) (Overview)

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NB: This article also appears in the HEE Knowledge Management Search

**20171030-2\***

**Online postgraduate midwifery education increases knowledge integration into practice: Insights from a survey of Otago Polytechnic's postgraduate midwifery students.** Miller S; Griffiths C, (2017). New Zealand College of Midwives Journal , no 53, December 2017, pp 53-59.

Background: The Midwifery Council of New Zealand requires that registered midwives are engaged in education as one aspect of demonstrating ongoing competence. Barriers to engagement include geographical isolation, inability of workplaces to release midwives, potential for the post-registration student to be unavailable to her Lead Maternity Care clients, and financial constraints associated with travel to where the study is offered. In New Zealand, the Otago Polytechnic postgraduate midwifery programme offers a range of clinically focussed and theoretical papers that are delivered at distance in a blended model, combining online learning with synchronous and asynchronous online discussion opportunities. This model enables midwives to up-skill and build "communities of practice" regardless of their physical location, with no resultant loss of availability to their community or workplace. Aim: This research aimed to explore midwives' perceptions of how their engagement in online postgraduate midwifery education had influenced their practice, potentially benefiting childbearing women in their care. Method: Following ethical approval, an online survey was sent to all midwives who were enrolled in postgraduate midwifery courses at Otago Polytechnic in the period 2012 to 2013. Data were collected in April 2014, from a survey that used a combination of Likert scales, yes/no responses, and provision for qualitative comments. Data were analysed using descriptive statistics and thematic analysis. Results: Fifty-five out of 117 (47%) surveys were returned. Midwife respondents practised across a range of settings from urban to remote rural locations, and midwifery care was provided at home and at primary, secondary and tertiary birth facilities. Respondents felt that participation in online postgraduate midwifery education had improved their knowledge base and their ability to practise in an evidence-informed way, and they felt connected to a community of practice in a virtual sense, gaining the benefits of support and encouragement from fellow learners and lecturers. They believed that the care they provided to women was enhanced because they had practice currency and could apply their knowledge to clinical situations with increased confidence. Conclusion: For these midwives, engagement in online postgraduate midwifery education informed their midwifery practice, and therefore the care that women received. Online postgraduate midwifery education enabled these midwives through its accessibility. (30 references) (Author) Copyright 2018 New Zealand College of Midwives Inc.

(Original research)

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**20180514-1**

**A mixed methods investigation of an online intervention to facilitate student midwives' engagement in effective conversations about weight-related behaviour change with pregnant women,** Hart J; Furber C; Chisholm A; et al, (2018). *Midwifery*, vol 63, August 2018, pp 52-59.

Objective

: (1) To identify whether an online training intervention could increase midwifery students' knowledge of behaviour change techniques (BCTs) and intentions to use them in practice. (2) To identify students' views and current experiences of talking to women about weight-related behaviour change.

Design

: Mixed methods study involving pre- and post-training assessments, and qualitative interviews with midwifery students.

Setting

: Online training course delivered at a University in the North of England, UK.

Participants

: Midwifery students in the third year of their undergraduate degree during 2015-16.

Intervention

: Online training focused on equipping students with knowledge of theoretically-informed BCTs, and the skills to use them opportunistically in existing practice settings.

Measurements

. Likelihood of discussing obesity with women was assessed via a 12-item, 7-point Likert scale assessing students' attitudes, subjective norms, perceived behavioural control, and intentions. A 14-item checklist was used to assess BCT knowledge whereby students selected recognised BCTs (of 7 correct, 7 false). Students' views and experiences of current practice was explored through in-depth, semi-structured one-on-one interviews with a member of the research team.

Findings

. Students' subjective norms, perceived behavioural control, and knowledge of BCTs increased post-training but intention and attitudes did not. Interviews revealed three themes accounting for students experiences and views of behaviour change practice: (1) 'How training fits with current encounters with maternal obesity in midwifery training' (2) 'TEt PEGS prepares students for practice', and (3) 'Value of tailored training'.

Key conclusions

. Online BCT training can improve the midwifery students' confidence, knowledge and beliefs that this is part of their

role. They also reported finding the training helpful in better preparing them for this challenging element of their routine practice.

Implications for practice

. Online BCT training can be used to prepare undergraduate midwifery students for practice.

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### **20180105-20\***

#### **Effectiveness of virtual classroom training in improving the knowledge and key maternal neonatal health skills of general nurse midwifery students in Bihar, India: A pre- and post-intervention study.**

Agrawal N; Kumar S; Balasubramaniam SM; et al, (2016). Nurse Education Today , vol 36, January 2016, pp 293-297.

Background In 2008–09, the National Health Systems Resource Center of India reported overall quality of nurse-midwifery education in Bihar as grossly sub-optimal. To address this, we implemented a competency-based training using virtual classrooms in two general nurse midwives (GNM) schools of Bihar. The students from remotely located nursing institutions were now able to see live demonstrations of maternal and newborn health (MNH) practices performed by a trained faculty on simulation models at instructor location. Objective To evaluate the effectiveness of virtual classroom training in improving the MNH-related skills of the nursing-midwifery students in Bihar, India. Design This study used a pre- and post-intervention design without a control group. Settings Students from two public GNM schools of Bihar. Participants Final-year students from both the GNM schools who have completed their coursework in MNH. Method A total of 83 students from selected GNM schools were assessed for their competencies in six key MNH practices using objective structured clinical examination method prior to intervention. A 72 hour standardized training package was then implemented in these schools through virtual classroom approach. Post-intervention, 92 students from the next batch who attended virtual training were assessed for the same competencies. Results The mean student score assessed before the intervention was 21.3 (95% CI, 19.9–22.6), which increased to 62.0 (95% CI, 60.3–63.7) post-intervention. This difference was statistically significant. When adjusted for clustering using linear regression analysis, the students in post-intervention scored 52.3 (95% CI, 49.4%–55.3%) percentage points higher than pre-intervention, and this was statistically significant. Conclusion Virtual classroom training was found to be effective in improving knowledge and key MNH skills of GNM students in Bihar, India. (15 references) (Author)

(Original research)

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### **20180205-10**

#### **Developing a model of midwifery mentorship for Uganda: The MOMENTUM project 2015–2017.**

Kemp J; Shaw E; Musoke MG, (2018). Midwifery , vol 59, April 2018, pp 127-129.

Highlights •Mentorship for student midwives by trained midwife mentors can enhance competence and contribute to the provision of quality maternity care. •Midwifery twinning projects can support the development of complex health system changes through action research. •Work-based learning is effective for training midwife mentors. •Health partnership projects should plan for sustainability from the outset. •International health professional exchanges within the context of long-term partnerships can be effective. MOMENTUM was a 20 month midwifery twinning project between the Royal College of Midwives UK and the Ugandan Private Midwives Association. It ran from 2015–2017 and was funded by UK-Aid through THET. MOMENTUM aimed to develop a model of mentorship for Ugandan midwifery students. The project achieved its objectives. 41 Ugandan midwives were trained as mentors following a work-based learning curriculum. 142 student midwives from 8 midwifery schools received mentorship in 7 participating clinical sites. All sites showed measured improvement in the clinical learning environment. 7 UK midwives were twinned with Ugandan counterparts and engaged in peer-exchange visits and virtual support via smart-phones. The model is context-specific and may not be replicable in other countries or professions. However it will inform midwifery education in the UK and elsewhere. (15 references) (Author)

(Original research)

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**NB: This article also appears in the HEE Knowledge Management Search**

### **20180206-10\***

#### **Midwifery education and technology enhanced learning: Evaluating online story telling in preregistration midwifery education.**

Scamell M; Hanley T, (2018). Nurse Education Today , vol 62, March 2018, pp 112-117.

Highlights •Student perceptions of and attitudes towards learning is essential for effective curriculum development and delivery •There is a mismatch between recent Technology Enhanced Learning (TEL) developments and student evaluation opportunity •A new and innovative blended learning module evaluation tool was tested for both feasibility and acceptability Abstract Background A major issue regarding the implementation of blended learning for preregistration health programmes is the analysis of students' perceptions and attitudes towards their learning. It is the extent of the embedding of Technology Enhanced Learning (TEL) into the higher education curriculum that makes this analysis so vital. Objectives This paper



reports on the quantitative results of a UK based study that was set up to respond to the apparent disconnect between technology enhanced education provision and reliable student evaluation of this mode of learning. Design Employing a mixed methods research design, the research described here was carried to develop a reliable and valid evaluation tool to measure acceptability of and satisfaction with a blended learning approach, specifically designed for a preregistration midwifery module offered at level 4. Methods Feasibility testing of 46 completed blended learning evaluation questionnaires - Student Midwife Evaluation of Online Learning Effectiveness (SMEOLE) - using descriptive statistics, reliability and internal consistency tests. Results Standard deviations and mean scores all followed predicted pattern. Results from the reliability and internal consistency testing confirm the feasibility of SMEOLE as an effective tool for measuring student satisfaction with a blended learning approach to preregistration learning. Conclusions The analysis presented in this paper suggests that we have been successful in our aim to produce an evaluation tool capable of assessing the quality of technology enhanced, University level learning in Midwifery. This work can provide future benchmarking against which midwifery, and other health, blended learning curriculum planning could be structured and evaluated. (19 references) (Author)  
(Original research)

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### **20180216-13**

**A web-based resource for promoting equity in midwifery education and training: Towards meaningful diversity and inclusion.** Effland KJ; Hays K, (2018). *Midwifery* , vol 61, June 2018, pp 70-73.

Increasing the midwifery workforce requires that aspiring midwives complete education and training, but structural racism and microaggressions impact the lives of underrepresented midwifery students and apprentices, adding stressors and disparities to the usual demanding educational challenges. In order to be resilient, students rely on preceptors, faculty, administrators and institutions to promote equity. Equity-focused learning environments improve student experiences and success rates, and better prepare all students to provide culturally humble and sensitive care to diverse childbearing persons and other essential competencies outlined by the International Confederation of Midwives. The robust web-based resource, [www.equitymidwifery.org](http://www.equitymidwifery.org), is designed to support midwifery educators in promoting equity and social justice in midwifery education and training. The website highlights examples and provides tools including original webinar content and encourages visitors to attend virtual strategy and collaboration calls. It offers a model of continuous professional development that is easily accessible. (Author)  
(Overview)

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### **20180326-23**

**Creation of virtual patients for midwifery education.** Urbanova E; Bašková M; Maskálová E; et al, (2018). *Midwifery* , vol 62, July 2018, pp 1-5.

Highlights •The virtual patents include scenarios of the most common problems seen in midwifery practice: premature birth, stillbirth, homebirth, care for a woman with gestational diabetes and care in a case of ineffective breastfeeding. •The use of the virtual patients can save teachers' working capacity as well institutional capacity of teaching clinical settings. •The virtual patients are free accessible and after development of other language mutations can be used also in abroad. Objective The objective of the study was to create several new, original virtual patients (VPs) in the Slovak language, especially for educational purposes in midwifery. Setting Virtual patients have been created for the needs of university midwifery education in Slovakia. Model The creation of the six virtual patients basically consisted of three fixed stages: preparation, design and development, implementation into the virtual environment. We used the Open Labyrinth (OL) virtual environment, an open-source system for creating VPs. The VPs include six various scenarios of the most common problems seen in midwifery practice: preterm birth, perinatal loss, gestational diabetes, ineffective breastfeeding, postpartum bleeding and sudden home birth. Findings Currently, six original virtual patients are used in university midwifery education in Slovakia. We use them for contact teaching as well as self-study of students. They present the first VPs in Slovakia and the Czech Republic created in academic settings in these countries. Conclusions The future perspective of a virtual patient as an interactive process between the student and the medium is that it can deepen and improve learning outcomes, solve specific midwifery issues, and reduce mistakes in the clinical environment. (11 references) (Author)  
(Original research)

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### **20180413-21\***

**Nursing and midwifery students' perception of learning enablers and gains in the first semester of their BSc programmes: a cross sectional study.** Redmond C; Davies C; Halligan P; et al, (2018). *Nurse Education Today* , vol 65, June 2018, pp 242-249.

Background The student experience in the first year of university is fundamental to successful adaption to the higher education environment and shapes student engagement with their chosen degree. Students' feedback on this experience is essential when designing or reviewing curricula. Objectives The aim of this study was to explore students' perceptions of their learning gains to identify factors that support student learning and identify elements that need improvement if specific learning needs are to be met. Design A cross sectional descriptive study. Setting A large urban university in Ireland that provides undergraduate nursing and midwifery degree programmes. Participants and Methods The study was conducted using the Student Assessment of Learning Gains (SALG) questionnaire. This instrument consists of a series of closed questions which explore perceived student gains in skills, cognitions and attitudes. The questionnaire was adapted for a semester rather than a module evaluation. The tool also includes a series of open questions inviting students to

comment in each section. Results Students (n = 206) positively evaluated teaching and learning approaches used. The greatest enablers of learning were clinical skills laboratory small group teaching and support followed by online learning materials and multiple choice formative assessment questions. They reported gains in knowledge, generic skills development and an increase in confidence and enthusiasm for their chosen career. Conclusion The feedback gained in this study provides valuable knowledge about the elements that support nursing and midwifery students learning and highlights areas that require attention. This is particularly useful for faculty who are involved in curriculum review and enhancement and in student engagement and retention. (Author) © 2018 Elsevier Ltd. All rights reserved (Cross-sectional study)

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### **20190211-16\***

#### **Learning about midwifery in another country from a distance: evaluation of a virtual classroom learning session.**

Daly D; Rasmussen AV; Dalsgaard A, (2019). Nurse Education Today , vol 75, April 2019, pp 47-52.

Background Studying abroad promotes cultural awareness and understanding of different healthcare settings and practices but family or financial constraints prevent some students from taking advantage of these opportunities. We developed a virtual classroom learning session to give Danish and Irish midwifery students an opportunity to explore midwifery and maternity care in another country. Objectives To evaluate the content of midwifery students' chat room discussions about the differences in maternity and midwifery care during an international online learning session, and their opinions of the session. Participants 27 Danish and 37 Irish undergraduate direct entry midwifery students. Methods Content analysis of students' chat room discussions and post-session survey. Findings Students engaged enthusiastically in the chat room discussions throughout the session. Almost all of the interactivity was between students themselves, and questions raised by students from one country were answered by students in the other country. Discussions centred on the lecture content, rates of interventions and birth outcomes, but developed into broader issues relating to one-to-one midwifery care during labour, factors that facilitate normal birth, national data availability, staffing levels, and financial and cultural aspects of having children at earlier or later ages. In the survey, students described the session as awakening curiosity and a fun way to learn. They found it 'cool' to talk with real students from another country, a memorable way of discussing differences between the two maternity care systems and expanding knowledge. Negative comments related to technological problems. Conclusion An international virtual classroom learning session can give midwifery students insights into midwifery elsewhere, stimulate curiosity and be an engaging way to learn. Our students' experiences show that it can offer a real, engaging and positive learning experience and enrich students' knowledge of cultural differences. (Author) (Original research)

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### **20190719-1**

#### **Comparing the effectiveness of a blended learning approach with a conventional learning approach for basic emergency obstetric and newborn care training in Ethiopia.**

Yigzaw M; Tebekaw Y; Kim Y-M; et al, (2019). Midwifery , vol 78, November 2019, pp 42-49.

Background: Lack of trained personnel is a major obstacle to providing the full package of emergency obstetric and newborn care (EmONC) services in Ethiopia and other low-income countries. The aim of this study was to evaluate whether a blended learning approach to in-service EmONC training could be as effective as a conventional learning approach while reducing costs. Methods: A quasi-experimental study design assigned providers in need of EmONC training to blended learning (12 days of offsite training followed by daily SMS and weekly phone calls) or conventional learning (18 days of offsite training followed by a facility visit to mentor participants). A self-administered questionnaire measured provider knowledge before training and three months afterwards. Provider skills were assessed three months post-training with an Objective Structured Clinical Examination (OSCE). Independent sample t test and multiple linear regression analysis were used to assess differences in mean percentage knowledge and skills scores between learning groups. The direct costs and cost-effectiveness of each learning approach were calculated. Result: Knowledge scores were similar for the blended and conventional learning groups before training (58.5% vs 61.5%, p = 0.358) and three months post-training (74.7% vs 75.5% = 0.720), with no significant difference in gains made. Post-training skills scores were significantly higher for conventional than blended learning (85.8% vs 75.3%, p < 0.001). After controlling for other factors in the multiple linear regression analysis, providers with a university degree had significantly higher skills scores than those with a diploma (p < 0.001). Training costs were lower for blended learning than conventional learning (1032 USD vs 1648 USD per trainee). Conclusion: Blended learning approach using SMS and phone calls was as effective as conventional one to increase providers' knowledge with substantially lower costs. Further study is warranted to examine the effect of blended learning on providers' skills. (36 references) (Author) (Original research)

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### **20190729-8**

#### **The new Nursing and Midwifery Council standards for student supervision and assessment (SSSA).**

Marshall JE; Ashwin C, (2019). MIDIRS Midwifery Digest , vol 29, no 3, September 2019, pp 277-282.

In the Hot Topic the development and rationale for the new Nursing and Midwifery Council's standards for student supervision and assessment are discussed. The article gives an insight into how these standards will

work in practice and what the changes mean for students and midwives. (15 references) (ABS)  
(Overview)

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### 20190829-64

#### **Zika and Flint Water Public Health Emergencies: Disaster Training Tool Kits Relevant to Pregnant Women and Children.**

Lavin RP; Veenema TG; Langan JC; et al, (2019). *The Journal of Perinatal and Neonatal Nursing*, vol 33, no 3, July/September 2019, pp 229-237.

Pregnant women and children and individuals suffering from chronic illness are disproportionately impacted by public health emergencies. To meet the healthcare needs of these populations, the nursing workforce must be capable of responding in a timely and appropriate manner. The goal of this project was to create interactive and engaging evidence-based educational tool kits to advance healthcare provider readiness in the management of population health in response to the Zika and Flint Water crises. A multipronged, mixed-methods approach was used to identify essential education needs and required core competencies. Data were synthesized from discussion with key informants, review of relevant documents, and surveys of schools of nursing, public health, and medicine. The ADDIE model was used to integrate results into the development of the online learning tool kits using the ThingLink software program. An innovative online educational program to prepare healthcare providers to rapidly identify, mitigate, and manage the impact of the Zika and Flint Water crises upon pregnant women and children was implemented by the Society for the Advancement of Disaster Nursing. Innovative online learning tool kits can advance healthcare provider readiness by increasing knowledge and understanding of key components of specific public health emergencies. (35 references)

(Author)

(Original research)

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### 20200720-13

#### **Impact of electronic and blended learning programs for manual perineal support on incidence of obstetric anal sphincter injuries: a prospective interventional study.**

Ali-Masri H; Hassan S; Fosse E; et al, (2018). *BMC Medical Education*, vol 18, no 258, 12 November 2018.

**Background:** Obstetric anal sphincter injuries (OASIS) are associated with anal incontinence, dyspareunia and perineal pain. Bimanual perineal support technique (bPST) prevents OASIS. The aim of this study was to assess the effect of two different bPST training-methods on OASIS incidence.

**Methods:** This is a prospective-interventional quality improvement study conducted in two Palestinian maternity units between June 1 2015 and December 31 2016. Women having spontaneous or operative vaginal-delivery at  $\geq 24$  gestational-weeks or a birthweight of  $\geq 1000$  g ( $n = 1694$ ) were recruited and examined vaginally and rectally immediately after vaginal birth by a trained assessor. Data on baseline OASIS incidence were collected during Phase-1 of the study. Subsequently, birth attendants in both maternity units were trained in bPST using two training modalities. A self-directed electronic-learning (e-learning) using an animated video was launched in phase-2 followed by a blended learning method (the animated e-learning video+ structured face-to-face training) in phase-3. OASIS incidence was monitored during phases-2 and 3. Variations in OASIS incidence between the three phases were assessed using Pearson- $\chi^2$ -test (or Fisher's-Exact-test). The impact of each training-method on OASIS incidence was assessed using logistic-regression analysis.

**Results:** A total of 1694 women were included; 376 in phase-1, 626 in phase-2 and 692 in phase-3. Compared to Phase-1, OASIS incidence was reduced by 45% (12.2 to 6.7%, aOR: 0.56, CI; 0.35-0.91,  $p = 0.018$ ) and 74% (12.2 to 3.2%, aOR, 0.29, CI; 0.17-0.50,  $p < 0.001$ ) in phases-2 and 3, respectively. There was also a significant reduction in OASIS incidence by 52% from phase-2 to phase-3 (6.7% (42/626) to 3.2% (22/692),  $p = 0.003$ ). These reductions reached statistical significance among parous-women only (aOR: 0.18, CI; 0.07-0.49,  $p = 0.001$ ) after the first training method tested in phase-2. However, the reduction was significant among both primiparous (aOR: 0.39, CI; 0.21-0.74,  $p = 0.004$ ) and parous-women (aOR: 0.11, CI; 0.04-0.32,  $p < 0.001$ ) after implementing the blended learning method in phase-3.

**Conclusion:** The animated e-learning video had a positive impact on reducing OASIS incidence. However, this reduction was enhanced by the use of a blended learning program combining both e- learning and face-to-face training modalities. (Author)

**Available from:** <https://bmcmeduc.biomedcentral.com/articles/10.1186/s12909-018-1363-3>

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### 20200720-14

#### **Evaluating a model for the capacity building of midwifery educators in Bangladesh through a blended, web-based master's programme.**

Erlandsson K; Byrskog U; Osman F; et al. *Global Health Action*, vol 12, no 1652022, 2019.

**Background:** While setting international standards for midwifery education has attracted considerable global attention, the education and training of midwifery educators has been relatively neglected, particularly in low-resource settings where capacity building is crucial. **Objective:** The aim of this study was to describe the

expectations of midwifery educators in Bangladesh who took part in a blended web-based master's programme in SRHR and the extent to which these were realized after 12 months of part-time study.

**Methods:** Both quantitative and qualitative methods have been used to collect data. A structured baseline questionnaire was distributed to all participants at the start of the first course (n = 30) and a second endpoint questionnaire was distributed after they (n = 29) had completed the core courses one year later. At the start of the first course, five focus group discussions (FGD) were held with the midwifery educators. Descriptive statistics and content analysis were used for the analyses.

**Results:** Midwifery educators who took part in the study identified expectations that can be grouped into three distinct areas. They hoped to become more familiar with technology, anticipated they would learn pedagogical and other skills that would enable them to better support their students' learning and thought they might acquire skills to empower their students as human beings. Participants reported they realized these ambitions, attributing the master's programme with helping them take responsibility for their own teaching and learning, showing them how to enhance their students' learning and how to foster reflective and critical thinking among them.

**Conclusions:** Midwifery educators have taken part in a creative learning environment which has developed their engagement in teaching and learning. They have done this using a blended learning model which combines online learning with face-to-face contact. This model can be scaled up in low resource and remote settings.

(Author)

**Available from:** <https://www.tandfonline.com/doi/full/10.1080/16549716.2019.1652022>

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## **20200720-15**

**The evaluation of an early graduate educational intervention.** O'Connor T; Moore Z; Watson C; et al. *Nurse Education in Practice*, vol 31, July 2018, pp 29-34.

Literature points to a gap which exists in the preparedness of new nursing/midwifery graduates for clinical practice. In Ireland, a two year programme was established in 2013 for all new graduates employed by the public health system. This paper provides a report on the evaluation of the programme which aimed to gauge the impact of the programme on student experience, stakeholder opinion and on health service delivery. A mixed methods approach, combining qualitative and quantitative methodologies, was utilised. Students who undertook the programme, along with non-student stakeholders, were invited to participate. The quantitative element involved an online evaluation survey which was administered to all students participating in the programme, while the qualitative element involved interviews with the participants. Students believed the programme to be relevant to their practice and positively evaluated the use of blended learning, the support of tutors and the contribution to their professional development. Non-student stakeholders also positively evaluated the programme, but the direct impact on clinical practice was not particularly evident. The evaluation offers a positive view of this initiative and broadly supports the concept of early graduate education programmes. A number of recommendations are offered for the development of future programmes. (Author) Copyright © 2018 Elsevier Ltd. All rights reserved.

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## **20200720-17**

**Designing an oral health module for the Bachelor of Midwifery program at an Australian University.** Duff M, Dahlen HG, Burns E, et al. *Nurse Education in Practice*, vol 23, March 2017, pp 76-81.

Maternal oral health is important yet many pregnant women are unaware of its significance. Midwives are advised to promote oral health during pregnancy and are supported to do this in Australia through the Midwifery Initiated Oral Health training program. However, limited undergraduate education is being provided to midwifery students in this area. The objective of this paper is to describe how an innovative oral health education module for an undergraduate midwifery course in Australia was designed using a multidisciplinary approach. Midwives experienced in curriculum development and key investigators from the Midwifery Initiated Oral Health program designed the module using existing literature. Constructive alignment, blended learning and scaffolding were used in the design process. The draft module was then reviewed by midwifery academics and their feedback incorporated. The final module involves 4 h of teaching and learning and contains three components incorporated into first year course units. Each component is aligned with existing learning outcomes and incorporates blended learning approaches and tutorials/class activities as well as online quizzes and personal reflection. The module details key information (current evidence; basic anatomy/physiology; common oral conditions; and guidelines during pregnancy) that could better prepare students to promote oral health in clinical practice. This is the first time such an innovative, multidisciplinary approach has been undertaken embedding oral health in an undergraduate midwifery program in Australia. (Author)

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## **20200720-18**

**iMidwife: midwifery students' use of smartphone technology as a mediated educational tool in clinical environments.** DeLeo A, Geraghty S. *Contemporary Nurse*, vol 54, no 4-5, 2018, pp 522-531.

**Background:** The increasing use of smartphone technology in health care provides midwifery students with unprecedented access to online resources that facilitates the optimal care of women and supports ongoing learning.

**Problem:** A small pilot study was conducted in Western Australia, with 29 undergraduate and postgraduate midwifery students to explore the use of smartphone technology whilst in clinical practice.

**Aim:** This study aimed to define the impact of smartphones in clinical decision-making and learning whilst in clinical areas, by midwifery students at the point of care.

**Methods:** An online survey was used to collect data.

**Findings:** Five consistent themes were identified from the results. Smartphone technology encourages self-directed learning, consolidation of theory, engagement through blended learning, complements online education in clinical practice and is a trend in the future of midwifery curriculum.

**Conclusion:** Smartphones enhance the learning and mobility of supportive resources that consolidate midwifery students' clinical experience in workplace environments. (Author)

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