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# An Integrative Review of English and Japanese Language Studies of Midwifery Education in Relation to Breastfeeding

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## Abstract

The importance of breastfeeding for health and wellbeing is well established. Support of breastfeeding is a basic competency for midwives and midwifery education should address this topic. The aim of this integrative review was to ascertain the evidence regarding effectiveness of midwifery education in relation to breastfeeding. We used guidance developed by the Centre for Reviews and Dissemination to search for, select, appraise and abstract data from relevant papers. Eligible studies were written in English or Japanese, published since 1989 and addressed pre- or post-graduate midwifery education on breastfeeding. Of a possible 760 papers, three were included in the review. Three main themes emerged from a thematic analysis of the results: learning from women, learning in the classroom and learning from practice. Experiential learning and working alongside midwives who demonstrated good practice was important to enable student midwives and midwives to become ‘skilled companions’ to breastfeeding mothers. However, there is little empirical research on educational interventions designed to help student midwives and midwives develop the knowledge, skills and attitudes to support breastfeeding mothers. Further research in this area is required involving both classroom and practice-based teaching.

Keywords：Breastfeeding; Clinical placements; Education; Experiential learning; Midwifery

## Introduction

The importance of breastfeeding for the health and wellbeing of individuals and society is now well established as a result of a growing evidence-base（Horta et al., 2015; Sankar et al., 2015; Victora et al., 2016）. This is supported by reduced mortality rates amongst exclusively breastfed infants compared to those who are either partially or not breastfed（Sankar et al., 2015）. A review of 28 systematic reviews and meta-analyses provided undisputed evidence relating to both short and long-term health consequences of breastfeeding（Victora et al., 2016）; this study identified that breastfeeding provides infants with significant protection against childhood infections, increases intelligence, and provides some reduction in obesity and diabetes. For women who breastfeed, there is evidence of protection against breast cancer, in addition to some protection against ovarian cancer and type 2 diabetes（Victora et al., 2016）: these effects are universal, so apply to women, regardless of income or nationality. However, the prevalence of breastfeeding was identified as lower in high-income countries than in low and middle-income countries（Victora et al., 2016）. Whilst the infant mortality rates in those infants who are not breastfed are lower in high-income countries, the economic impact of low breastfeeding rates has been shown to be significant. In the United Kingdom（UK）, Renfrew et al.（2012）estimated that a modest increase in breastfeeding rates could save over £17 million annually due to the reduction of four infant illnesses alone, specifically gastrointestinal disease, respiratory disease, otitis media, and necrotising

enterocolitis（NEC）.

In addition, there are demonstrable benefits from breastfeeding for infants requiring special care after birth. For example, Tanaka et al.（2009）found that the scores for cognitive function tests at 5 years of age were significantly higher in the breastfed group among very-low-birth-weight-infants, and Vohr et al.（2007）identified that the benefits of vulnerable babies receiving breast milk whilst in the Neonatal Intensive Care Unit（NICU）continued to be evident at 30 months of age; these benefits included higher developmental and behavioural scores, as well as fewer hospitalisations, compared with babies who did not receive breast milk.

Having established the importance of breastfeeding in terms of both health and cost, it is therefore imperative to consider how breastfeeding rates can be effectively increased. The World Health Organisation（WHO）clearly states that maternity services have a special role in protecting, promoting and supporting breast-feeding（WHO, 1990）. The International Confederation of Midwives（ICM）also highlights the importance of midwives in promoting breastfeeding and supporting women to succeed（ICM, 2013）. Indeed the initiation and support for early breastfeeding is listed in the ICM standards as a basic competency that should be an expected outcome of midwifery pre-service education（ICM, 2013）. In addition it is important to note that the promotion of breastfeeding is viewed as a key element in the fourth millennium development goal to reduce infant and child mortality（Oruamabo, 2015）. The ICM is committed to promoting evidence-based practice, and enhancing the health of newborn babies is part of their mission statement. Therefore all midwives should be equipped with the knowledge and skills to support successful breastfeeding. In the UK, the Nursing and Midwifery Council（NMC）, which regulates the midwifery profession, requires midwives to be competent in supporting mothers to breastfeed（NMC 2009）: equally, in Japan such skills are integral to preparing midwives for practice, in line with the guidance of the ICM（2013）and “A Statement by Midwives”（The Japanese Midwives' Association, 2010）.

To promote practices that protect, promote and support breastfeeding globally, the baby friendly hospital initiative（BFHI）was launched as a joint project between the WHO and UNICEF（WHO, 2016）in 1991 following the Innocenti Declaration（WHO, 1990）. A fundamental aspect of the baby friendly initiative（BFI）is the education of staff in order to achieve these aims（UNICEF, 2017a）, and this therefore includes post-registration breastfeeding education for practicing midwives. Several studies across a range of countries have demonstrated that maternity units with BFI accreditation have higher breastfeeding initiation rates than those without accreditation（Munn et al, 2016; Cox et al, 2014）. In addition, Sinha et al.（2015）identified that the greatest improvements in breastfeeding rates were found in areas where improved support and education was offered in a range of home, community and hospital settings; in these circumstances a wide range of qualified health professionals would have received additional breastfeeding education.

Whilst a review of 15 studies by Ward and Byrne（2011）demonstrated that continuing breastfeeding education for nurses and midwives improved knowledge, skills, practices and attitudes, no reference was made to pre-registration breastfeeding education for midwives. However, Ward and Byrne（2011）did recommend that at least 18-20 hours of breastfeeding education should be included in undergraduate programmes. Since 2008 the UNICEF BFI has included an accreditation programme with specific learning outcomes for UK university programmes; these are aimed at Midwifery and Health Visiting/Specialist Community Public Health Nurse programmes（Cummings, 2008）. With this in place a growing number of midwifery programmes in the UK have developed curricula that meet these standards（UNICEF 2017a）by including learning opportunities related to infant feeding across the duration of pre-registration programmes, employing a range of teaching approaches（Angell & Taylor, 2013）. In Japan also, the number of Baby Friendly Hospitals has doubled in the past 10 years, and 73 institutions are accredited as of 2016（Japan Breast Feeding Association 2016）. This enables more student midwives to be exposed to BFI standards during clinical practice placements. In line with Ward and Byrne's（2011）findings relating to a significant change in attitude

following breastfeeding education, Angell and Taylor（2013）suggest that existing attitudes to infant feeding, as a result of personal experience, may be a barrier to learning and should be addressed prior to the learning of factual knowledge.

The institutions of the authors are connected through a memorandum of understanding, the aim of which is to share and improve educational practice in both nursing and midwifery. Both institutions support the Baby Friendly Initiative and we are therefore seeking ways to ensure graduate midwives are able to support mothers to breastfeed. We therefore decided to investigate the available evidence through an integrative review, which is designed to include studies that utilise a range of methodologies（Whittemore and Knafl, 2005）.

### Aim of the review

The aim of the review was to ascertain the evidence regarding effectiveness of midwifery education in relation to breast feeding.

The objectives were:

1. To identify educational methods used to provide midwifery students and midwives with the knowledge, skills and attitudes required to support mothers to breastfeed
2. To ascertain the effectiveness of those methods in enabling student midwives and midwives to support mothers to breastfeed.

## Methods

### Study design

Health professional education should be informed by the scientific evidence available regarding good clinical practice and effective educational strategies. Conducting a literature review in a systematic manner can be used to identify, analyse and synthesise the available evidence on a specific healthcare topic（Centre for Reviews and Dissemination, 2009）. We used the guidance suggested by the Centre for Reviews and Dissemination to undertake this integrative review of midwifery educational practices used to prepare student midwives and midwives to support mothers to breastfeed. This involved using a thorough and systematic search strategy（Table 1）, selection of studies based on rigorous inclusion and exclusion criteria, quality assessment of studies and synthesis of the available evidence（Centre for Reviews and Dissemination, 2009）.

We used PICOS（Table 2）and the PRISMA guidance and checklist（PRISMA 2009）to inform the selection of papers and ensure rigour of the review process.

### Search strategy

Evidence published in either English or Japanese was considered for inclusion.

### Selection of papers

We selected papers based on stringent inclusion and exclusion criteria.

In this study, we defined midwifery education as “Education required for licensure/registration of midwives

Table 1. Search Strategy

| | |
|---|---|
| Databases and other sources | The following databases were used to search for appropriate papers: CINAHL, MedlineScience Direct and PsychInfo（papers in English）. CiNii, ICHUSHI web（papers in Japanese）. We also conducted an ancestral search of relevant journals: Midwifery, Journal of Japanese *Midwifery and BMC Pregnancy* and *Childbirth*. |
| Search terms | The following terms appearing in the title or abstract were used in the search: midwifery OR midwife（midwi*）AND education OR training OR programme OR curriculum OR student AND breast feeding OR breastfeeding |
| Dates | As the document‘10 Steps to Successful Breastfeeding'（WHO, 1990）was launched by UNICEF/WHO in 1989, we searched for papers published between January 1989 and February 2017. |

Table 2. PICOS criteria

| | |
|---|---|
| Participants | Midwifery students, whether pre-registration or post-registration, studying a formal programme at a higher education institution. |
| Interventions | Education related to breast-feeding |
| Comparator/ comparison | Qualitative data on impact of the intervention OR pre and post intervention changes in midwife knowledge or skills or attitudes. |
| Outcomes | Impact of education on student competence |
| Study designs | Primary research of any type: quantitative, qualitative or mixed methods. |

including undergraduate programmes, professional school programmes, and education in postgraduate programmes for licensed midwives”.

The inclusion criteria were:

- Papers reporting original research studies, conducted in any country
- Papers focussed on formal midwifery education（undergraduate or postgraduate programmes or programmes required for licensure/registration of midwives）
- Papers related directly to midwives' support of breast feeding mothers

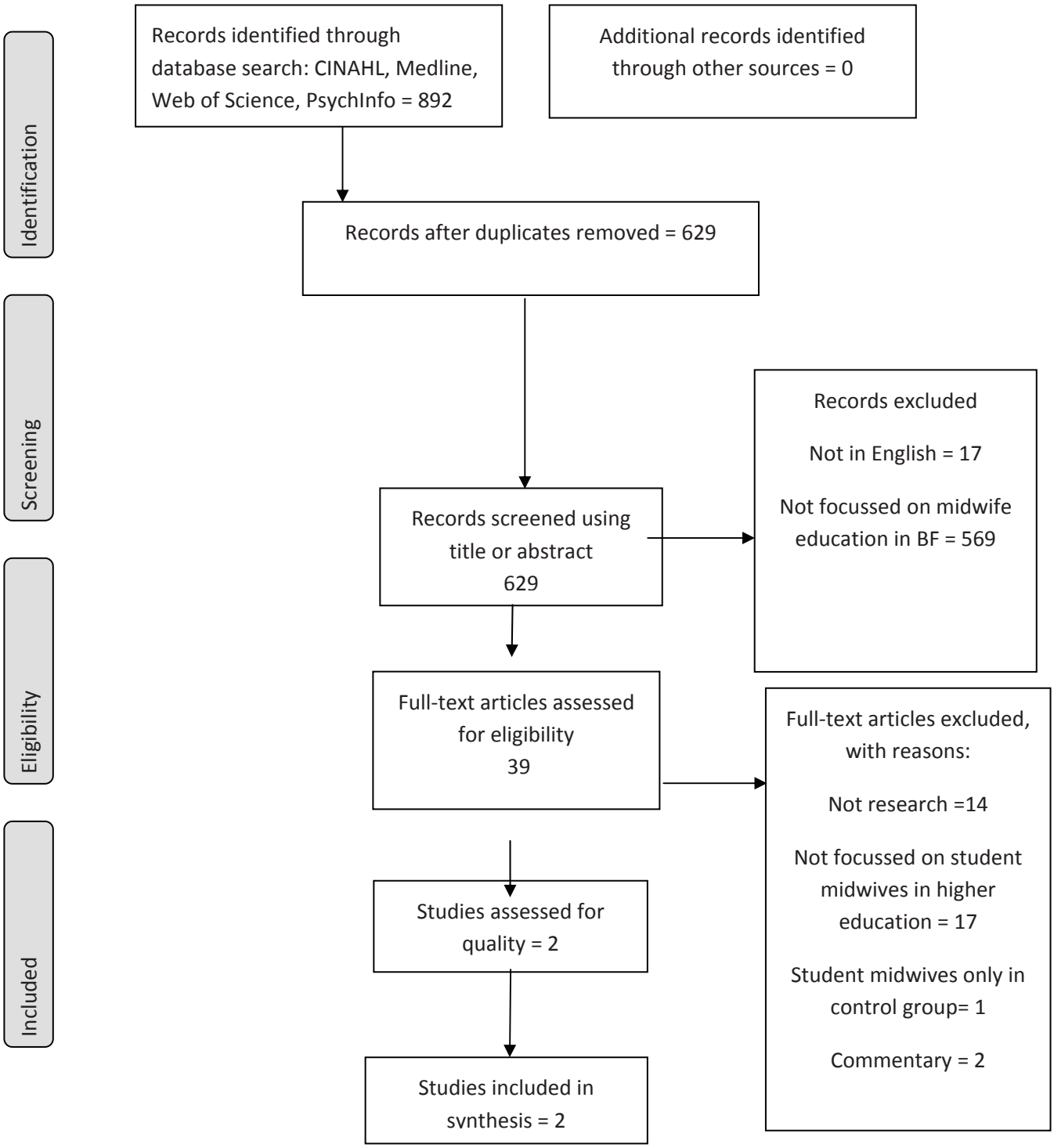


Fig1. PRISMA (2009) Flow Diagram - English papers

- Papers written in either English or Japanese.

We excluded the following papers;

- Those not based on research studies, for example educational papers, opinion papers, reviews
- Those focussed on breastfeeding education for health professionals outside formal educational programmes.

Two authors（HH and HS for English papers, SA and

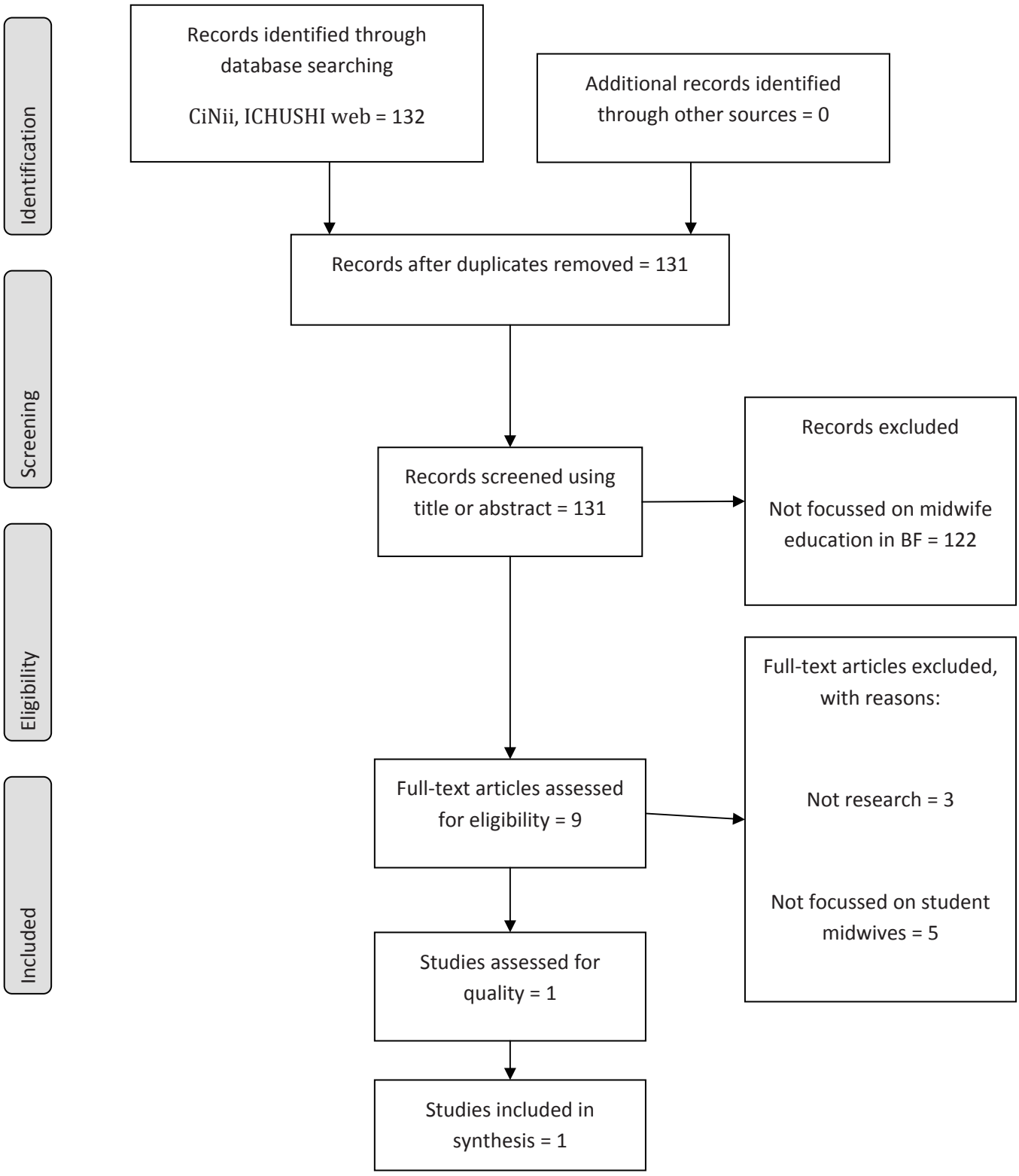


Fig2. PRISMA (2009) Flow Diagram - Japanese papers

KN for Japanese papers）reviewed every paper that was identified during the search, to create a shortlist of papers for possible inclusion. Full text versions of those papers were then read, again by at least two authors, and a decision made as to the inclusion or exclusion of that paper. Throughout this process, all four authors discussed the selection to ensure the criteria were being applied equitably to both English and Japanese papers.

The selection process is illustrated in Figure 1（English papers）and Figure 2（Japanese papers）. Of a total of 760 papers identified as potentially for inclusion, 48 were read in full text and three were selected for the final review.

### Quality appraisal

In order to assess the methodological rigour of the papers selected, we used the checklists designed by Kmet et al.（2004）. These authors devised a list that can be used for qualitative studies, and another for quantitative studies. Two authors（HH and HS for English papers, SA and KN for Japanese papers）assessed each paper independently and met to discuss any discrepancies in the appraisal of each. Guidance from the Centre for Reviews and Dissemination（Centre for Reviews and Dissemination, 2009）indicates that selection of papers based on a numerical score may not be robust, but the quality appraisal is an indicator of the

Table 3. Characteristics of the three included studies

| Authors, year, title, country | Aim | Study design and method | Participants |
|---|---|---|---|
| Blackman et al（2015）<br><br>Using Rasch analysis to identify midwifery students' learning about providing breastfeeding support.<br><br>Australia. | ‘To: (i) determine if midwifery students' self-reported abilities in teaching and supervising breastfeeding mothers vary; (ii) assess whether the midwifery students' self-rated breastfeeding ability tool is an appropriate and reliable method of measurement; and (iii) explore what differences exist between midwifery students' self-rated abilities for breastfeeding teaching and supervision between two time periods, approximately six months apart'.（p229） | Pre and post intervention survey.<br><br>The intervention was a programme of study（delivered as part of the undergraduate midwifery programme）on infant nutrition comprising 36 hours of tutorials, and 108 hours of self-directed learning. | 95 undergraduate midwifery students at one higher education institution. |
| Taylor & Hutchings（2012）<br><br>Using video narratives of omen's lived experience of breastfeeding in midwifery education: exploring its impact on midwives' attitudes to breastfeeding.<br><br>United Kingdom | ‘to explore the impact of an educational intervention using women's video narratives of their lived experience of breastfeeding and guided learning material on midwives' attitudes to providing support for breastfeeding women'（p90） | Qualitative study based on thematic analysis. This was originally part of a sequential mixed methods study but the quantitative phase data were not reported.<br><br>The intervention comprised a programme of study on supporting breastfeeding in which students were asked to watch video diaries compiled by breastfeeding mothers, complete a workbook, reflect on their practice and consider possible changes to their own practice. | Eleven students from a post-graduate midwifery programme in one higher education institution. The students were experienced midwives before starting the programme. |
| Shinohara et al.（2012）<br><br>Contents of lessons learned by midwifery students during maternity home practice Japan. | To identify students' learning in heir midwifery clinical experiences practicing with midwives. | The midwifery students' learning in their midwifery clinical experiences was analysed from their clinical report by KJ methods. | Four midwifery students（4th year of a university nursing programme） |

level to which the results of each study can be trusted. We therefore included all the identified studies.

## Data abstraction

Each paper was studied by at least two authors and table of individual characteristics of each study was prepared（Table 3）. As there was considerable variance in methods used, neither meta-analysis nor meta-synthesis could be used to analyse the data.

We used a three-step approach similar to that previously used in other healthcare reviews（Paalosalo-Harris and Skirton 2017）. First we summarised the topics that emerged from each study: these are reported in Table 4. We then used a thematic analysis approach to analyse data that emerged from the qualitative studies, using the method suggested by Braun and Clarke（2006）. To achieve this, each paper was read by two authors several times and initial codes were identified. The codes were then discussed and organised under themes that emerged naturally from the data（Table 5）. The results of this phase of the analysis are presented in narrative form（Centre for Reviews and Dissemination, 2009）.

| Data collection | Data analysis | Main findings |
|---|---|---|
| The tool was based on a previously developed breastfeeding self-efficacy scale（Dennis, 2003）, with some additions and a brief pilot, resulting in 37 items.<br><br>Students self-rated their ability for each item using a 4 point Likert scale.<br><br>Pre-intervention survey completed on day 1 of the maternal and infant nutrition topic; post-intervention survey completed on the first day of the following semester（6 months later, following some postnatal experience in addition to the taught topic）. | Rasch analysis was used to create a hierarchical linear scale, plotting the perceived difficulty of the activity against the ability of the student.<br><br>The outcomes pre-intervention and post-intervention were then compared.<br><br>A hierarchical linear scale of difficulty of breastfeeding activities was drawn up for both pre and post-intervention surveys. | 34 of the original 37 items were found to be valid; measuring the same underlying attribute. The tool incorporating these 34 items was found to be reliable.<br><br>Of the 34 activities included in the analysis, five activities were perceived by students to be more difficult post-intervention. These were: helping mother to comfortably breastfeed in public places, helping her to hold her baby comfortably during breastfeeding, encouraging her to feed her baby every 2–3 hours, helping her focus on getting through one feed at a time and providing her with a rationale for feeding overnight.<br><br>Five activities were perceived to be easier: helping mother determine if baby had sufficient milk, helping her to take her baby off the breast without pain to the nipple, motivating her to breastfeed successful, encouraging her to feed her baby only breast milk and enabling her to assess when her baby had finished breastfeeding. |
| Two focus groups were conducted: five participants in one, six in the other. | Thematic analysis. | Six themes were identified: listening and learning from women's experiences, generation of emotions; acquisition of new knowledge and learning, reflection on practice, promotion of independent learning and sharing learning with peers. |
| In the students' daily clinical report, the sentences include the words; learned, understood, or realized, were collected as data. | The data was categorised using KJ method. Then the categories were compared in their relationship. | 6 categories were, “Midwife techniques”, “Midwife diagnostic methods”, “Efficacy of health guidance”, “Importance of reconfirmation of knowledge”, “Supporting breastfeeding”, and “Role of midwife in practice”.<br><br>These contents included required assignments from the practice, implying that students could understand the role and supporting methods of midwives in practice. |

Table 4. Topics emerging from the included studies

| Categories of findings | Blackman et al. 2015 | Taylor and Hutchings. 2012 | Shinohara et al., 2012 |
|---|---|---|---|
| | | PG students | |
| Difficulty of skill | X | | |
| Self-rated ability of students | X | | |
| Changes in self-rated ability after education | X | | |
| Learning from women's experiences | | X | |
| Generation of emotions | | X | |
| Acquisition of new knowledge and learning | X | X | X |
| Reflection in practice | | X | X |
| Promoting independent learning | | X | |
| Sharing learning with peers | | X | |
| Learning from experienced midwives in practice | | | X |

Table 5. Themes and sub-themes

| General theme: Enhancing midwives' knowledge, skills and attitudes | | |
|---|---|---|
| Sub-theme | Categories under this theme | Papers in which this sub-theme appeared |
| *Learning from women* | Listening to women's experiences | Taylor & Hutchings（2012） |
| | Generation of emotions | Taylor & Hutchings（2012） |
| *Learning in the classroom* | Independent learning | Taylor & Hutchings（2012） |
| | Sharing with peers | Taylor & Hutchings（2012） |
| | Changes in self-rated ability after education | Blackman et al（2015） |
| | Acquisition of new knowledge | Taylor & Hutchings（2012）<br>Blackman et al（2012） |
| *Learning from practice* | Working with experienced midwives | Shinohara et al.（2012） |
| | Reflection in practice | Taylor & Hutchings（2012）<br>Shinohara et al.（2012） |
| | Difficulty of the skill | Blackman et al（2012） |

## Results

In the review, two papers were written in English: one study was conducted in Australia（Blackman et al., 2015）and one in the United Kingdom（Taylor & Hutchings, 2012）. In the one paper written in Japanese, the authors reported a study conducted in Japan（Shinohara et al., 2012）. The characteristics of each individual study are presented in Table 3.

Two of the studies focussed on undergraduate midwifery programmes, while students of the other were in a postgraduate programme（Taylor & Hutchings, 2012）. The number of participants ranged from four（Shinohara et al., 2012）to 95（Blackman et al., 2015）.

There was a total of 10 topics that emerged, and they reflected the findings of each study, such as acquisition of new knowledge and learning and reflection in practice. Then the topics were compared and categorised into sub-themes.

The over-arching theme that emerged from analysis of the three papers was ‘enhancing student midwives and midwives’ knowledge, skills and attitudes’. Within this major theme we identified three sub-themes that we labelled ‘learning from women’, ‘learning in the classroom’ and ‘learning in practice’. We present the narrative account of our analysis under these sub-themes.

### Learning from women

Under this theme, a sub-theme of listening to women's experiences emerged. However the only authors to address this directly were Taylor and Hutchings（2012）. As part of a post-graduate module on breastfeeding, the authors showed videos of real women speaking about their breastfeeding experiences and their interactions with midwives. These were used in conjunction with guided workbooks. Although the eleven midwives in the group were experienced, they reported that the videos enabled them to see the issues from the women's perspectives, in ways they had not previously done. They appreciated the feedback and reflected that in their daily practice they were often more focussed on tasks and less on what women felt and needed from them. Another interesting reflection concerned the need to be practising safely, with an acknowledgement that if the primary driver was to protect women and babies from harm, then that meant women were less able to exercise choice around how they fed their babies. They felt that the educational videos helped them to re-focus on the women.

The second sub-theme under the theme of learning from women was generation of emotions. Midwives reported that seeing women express their feelings created feelings of empathy and admiration for the women, but also frustration, defensiveness, shock and guilt（Taylor & Hutchings,

2012). For example, it came as a shock to realise that some women had strong negative reactions to midwives touching their breasts when supporting breastfeeding. Some midwives felt that women did not always appreciate the relative priorities of care, for example that commencing breastfeeding might not be appropriate if the mother's life was in danger. It must be remembered that only eleven midwives, from one educational institution, were involved in this study, so the findings may not be transferable to other contexts.

### Learning in the classroom

In the study by Blackman et al. (2015), 95 midwifery students were asked to complete a survey before and after a course on infant nutrition, in which breastfeeding was a major component. The taught component of the course comprised 36 hours of tutorial time, with a further 108 hours of self-directed learning. While clinical placements were not built in to this course, the student midwives were reported to have clinical placements in postnatal settings during the six month period of the course, connected with other parts of their training. Learning therefore may have taken place via classroom teaching or in clinical practice. As the details regarding the amount and type of clinical practice were not stated, we have included the results under the 'learning in the classroom' theme. At the start of the six month course, student midwives rated their confidence in performing a range of skills related to supporting mothers to breastfeeding. At the beginning of the course, the skills student midwives felt most confident about were: conveying the fact that breastfeeding can be time-consuming, explaining the need for skin to skin contact immediately after birth, helping the mother to hold her baby comfortably while feeding, getting friends to support her decision to breastfeed and assessing whether the mother was satisfied with her experience of breastfeeding. Skills student midwives felt least confidence in performing were: encouraging mother to feed 2-3 hourly, helping the mother obtain family support and explaining benefits of breastfeeding to her. However, six months later, at the end of the course, their assessments of their own abilities had altered somewhat. The student midwives had spent clinical time in postnatal wards during this period, and therefore had experience in practice. The authors used the self-rated ability scores to assign the relative difficult of tasks. Changes in self-rated ability of each task were calculated and a logit score for each item was produced. Where a difference of less than one logit between pre and post course ratings occurred, the perceived difficult of the task was said to be unchanged. Following the theory component and practical experience, they reported least confidence in their ability to help the mother understand that she needed to feed 2-3 hourly, to feed on demand, to increase supply by feeding overnight, and explain benefit of breastfeeding. However, they had most confidence in their ability to assess if the mother was satisfied with her experience, to explain that breastfeeding can be time-consuming and to show the mother how to take baby off the breast without nipple damage. The authors indicated that a difference of more than one logit indicated a change, and was considered by the authors to indicate that learning had occurred. One of the weaknesses of this study is that while learning about the difficulty of the tasks may have occurred, this does not necessarily indicate that student midwives had learnt more about how to perform it effectively.

Although initially midwives in the study by Taylor and Hutchings (2012) reported they had not learnt anything specific from the use of videos in classroom teaching, it became obvious during focus group discussions that they intended to change practice (e.g. by encouraging skin to skin contact after Caesarean section), therefore learning had occurred. They also reported that their assumptions about their practice with women had been strongly challenged by the video recordings and this had also precipitated changes in practice. Midwives reported that having protected time during the course to reflect outside everyday practice was also valuable, however this may have been the case for any course and may not have been due to the specific educational intervention. However, it was clear that much of the coursework was delivered via guided workbooks, so the student midwives needed to be highly motivated to maximise the learning opportunities. Student midwives in this study indicated that peer support (via fellow students) helped them to deal with the emotions generated by the mother's accounts.

### Learning from practice

Shinohara et al. (2012) reported on the experience of

undergraduate midwifery students while on a maternity placement. In this study, the daily clinical documents written by four undergraduate midwifery students during their 2-week clinical experience were analysed by the ‘KJ’ method（a form of qualitative analysis suggested by Jiro Kawakita（Scupin, 1997）. The authors reported that student midwives learned how to support the mothers by working with experienced midwives. The six major themes identified were: ‘Midwife techniques’, ‘Midwife diagnostic methods’, ‘Efficacy of health guidance’, ‘Importance of reconfirmation of knowledge’, ‘Supporting breastfeeding’ and ‘The role of the midwife in practice’. Focusing on the category ‘Supporting breastfeeding’, mothers were provided with breastfeeding support and information throughout pregnancy and the breastfeeding period, with emphasis on the relationship between breastfeeding and the infant's health status. Midwives were observed responding sensitively to the mother's feelings, the student midwives particularly described learning from midwives' attitudes towards mothers and their approaches to making suggestions based on their assessments, explaining concepts concretely, and giving positive feedback to mothers. The strength of this setting was the opportunity to observe midwives working autonomously but closely with mothers. However, Shinohara et al.（2012）conclude that while breastfeeding support is an important midwifery role, it is difficult to learn sufficiently about it through clinical experiences during the pre-registration period and this must be built on after registration. However, the author suggests that having the opportunity to experience breastfeeding care by working with midwives in a clinical maternity setting is valuable for student midwives.

The results of the study by Blackman et al.（2015）have been described above, but they may indicate that clinical experience in postnatal settings had taught the student midwives that those tasks that required encouraging the mother（who may well have been tired as a result of labour）to feed frequently, including throughout the night, were more challenging.

On a negative note, midwives attending a postgraduate course（Taylor & Hutchings, 2012）indicated that the pressures of working in practice were so great that this inhibited them from reflecting and also from giving women the support they needed. Several midwives in that study resolved to alter practice, for example by prioritising tasks differently, by acting as a stronger advocate for the mother and by promoting the mother's independence.

## Discussion

While there has long been an acknowledgement that health professional education related to breast feeding has an impact on breast feeding rates, this has been emphasised again in a very recent systematic review by Burgio et al.（2016）.

Swerts et al.（2016）indicate that breast feeding support is more acceptable to mothers when midwives adopt the role of ‘skilled companion’, rather than ‘technical expert’. This involves a ‘hands off’ approach and a focus on the relationship between the mother and the infant, which may develop through experiential learning. In this review, it was clear from the findings in two studies that learning in practice was valuable for student midwives. The students in Shinohara et al.'s study（2012）reported learning from midwives in the clinical setting, however, in this regard effective learning is dependent on observation of appropriate practice. Where student midwives were observing poor practice, for example where midwives were working more as ‘technical experts’ who regarded mothers as novices（Swerts et al., 2016）, this could result in them developing poor habits and attitudes that could work against successful breastfeeding. In the study by Blackman et al.（2015）, it was clear that having experience in clinical practice changed not only the perceived expertise of students, but also their appreciation of the complexity of some activities involved in supporting breastfeeding.

The use of video accounts to enable post graduate students to access the views and experiences of mothers was shown to be a particularly powerful teaching tool（Taylor and Hutchings, 2012）.

Angell and Taylor（2013）, writing about the challenges of preparing student midwives to support breastfeeding, commented on the negative attitudes towards particular types of infant feeding held by some student midwives. These may be based on their own previous experience of infant feeding, although ideas about feeding may be formed at a much younger age（Angell et al., 2011）. Angell and Taylor（2012）discuss methods of challenging midwives' longstanding beliefs so that they can offer

support, regardless of the mothers' chosen mode of feeding. Inclusion of direct input into the classroom teaching, as well as by clinical experience may be effective in helping student midwives and midwives to empathise with mothers and support their decisions. Registered midwives in the study by Taylor and Hutchings（2012）reported that they had been unaware of mothers' feelings about feeding and they were shocked by some of the video accounts. In this case, the ability to have insight into practice requires experience, as a result this method could be effective for qualified midwives. However, midwifery education should aim to produce midwives who are not only supportive of mothers' choices, but also able to communicate effectively with women during this critical period for establishing breast feeding（UNICEF, 2014）.

WHO guidelines enable many mothers around the world the chance to receive standard global support of breastfeeding. In addition, the basic principles regarding breastfeeding are universal. While the ability to support mothers to breastfeed is clearly stated by the ICM as a competence that is essential for midwives internationally（ICM, 2013）, in some countries the re-allocation of midwifery resources works against this. For example, in the UK breastfeeding support for mothers is increasingly assigned to lay peer supporters or to unregistered staff such as maternity support workers（Griffin et al., 2010）. In addition, it is reported that Child Health Nurses and General Practitioners also provide breastfeeding support in Australia（Cox, 2017）. Therefore, the skills required to coordinate a variety of supporters could be included for midwives in their education. In this climate of care, the essential experience needed by midwives to support mothers appropriately could be reduced. In contrast, in Japan, mothers receive care from either registered nurses or registered midwives. There are substantial differences in the initial breastfeeding rates in these countries（98% babies in Japan are breastfed at least once, compared to 81% of babies in the UK）, which is potentially at least partly due to the involvement of midwives in encouraging breastfeeding. Data available on duration of breastfeeding from the most recent UK infant feeding survey, conducted in 2010,（Health and Social Care Information Centre, 2012）shows that exclusive breastfeeding drops from 69% at birth, to 46% at one week of age, to 23% at 6 weeks of age, indicating that the first six weeks of the baby's life are crucial in establishing breastfeeding. However, mothers who stopped breastfeeding in the first week of their baby's life cited problems with attaching the baby, sore breasts, and insufficient milk as reasons for not continuing: these are all issues that a midwife is trained to help the mother to address and indeed, mothers who would have wished to continue feeding for longer reported that they felt more support from midwives would have helped them to do so（Health and Social Care Information Centre, 2012）.

These results are confirmed by results of a review by James et al.（2016）that indicated midwifery support had a considerable impact on mother's ability to breastfeed after early discharge from hospital. However, cultural barriers now exist in the UK because of low breastfeeding rates and the trauma of trying to breastfeed but not succeeding（UNICEF, 2017b）; as a result it is perhaps unsurprising that some mothers feel unable to continue to breastfeed. In turn, this links with the negative attitudes towards breastfeeding held by some student midwives and midwives as they embark on their midwifery education（Angell et al., 2011）, and has resulted in breastfeeding in the UK having become a very emotive topic（UNICEF, 2017a.

## Strengths and limitations of this study

While we followed the guidance of the Centre for Reviews and Dissemination（2009）to conduct this review, the fact that there were only three studies identified for inclusion limits the findings. In addition, the three studies varied hugely in terms of the research question and methods used, making meta-analysis or meta-synthesis impossible.

## Implications for educational practice.

It is clear from this review that in respect of breastfeeding education, midwives benefit from practice in clinical settings. The foundation of knowledge is important, but further time for practice and reflection has been shown to help the midwife develop his or her role in this area. We would suggest that refresher courses in which qualified midwives are encouraged to reflect on their own practice are a useful contribution to midwifery practice. This would also help to ensure that student midwives are working alongside competent practitioners when on clinical placements.

## Conclusions

The educational methods used to provide midwifery students and midwives with the knowledge, skills and attitudes required to support mothers to breastfeed are; learning from women, learning in the classroom, and learning from practice. Post graduate midwives were able to witness breastfeeding issues from the women's perspectives by watching video of breastfeeding women speaking. As a result, this learning from women's experiences gave midwives a new awareness of breastfeeding support as it relates to women's emotions. The self-rated ability of student midwives was altered by learning in the six-month infant nutrition course. Learning from experienced midwives in practice, helped the student midwives learn how to support breastfeeding mothers by observing experienced midwives being close to the women. These education methods for student midwives and midwives led to acquisition of new knowledge and learning.

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＜資料＞

# 助産教育における母乳育児に関する英文および和文論文の統合的レビュー

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**要旨**

母乳育児支援は助産師の基本的コンピテンシーであり，助産教育において扱われるべきトピックである．本レビューの目的は，母乳育児に関連した助産教育の有効性のエビデンスを確認することとした．論文検索，選択，データ抽出は，Centre for Reviews and Dissemination のガイダンスを使用し，助産教育における母乳育児支援に関連した論文を対象とした．

760 件の論文のうち 3 件を対象とした．結果の主題分析から，＜女性から学ぶ＞＜講義で学ぶ＞＜実践から学ぶ＞の 3 テーマが抽出された．母乳育児をする母親にとって身近な存在の熟練助産師になるためには，経験的な学びと，よい実践をする助産師と一緒に関わることからの学びが重要であった．しかし，助産学生および助産師が母乳育児支援するための知識，技術，態度の教育的介入に関する実証的研究はほとんどない．講義と実践，両方の教育が関連したさらなる研究が求められる．

**キーワード**：母乳育児，臨床実習，教育，経験的学習，助産