The role and competence of midwives in supporting women with mental health concerns during the perinatal period: A scoping review

Abstract

Perinatal mental health problems is linked to poor outcomes for mothers, babies and families. Despite a recognition of the significance of this issue, women often do not receive the care they need and fall between the gap of maternity and mental health services. To address this, there is a call for reform in the way in which perinatal mental health care is delivered. This paper responds to this by exploring the role and competence of midwives in delivering mental health care. Using a scoping review methodology, quantitative and qualitative evidence were considered to answer the research question "what is the nature of the evidence relevant to the provision of mental health interventions by midwives?" To identify studies, the databases PubMed, Maternity and Infant Care, Science Citation Index, Social Sciences Citation Index, Medline, Science Direct and CINAHL were searched from 2011 to 2018, and reference lists of included studies were examined. Studies relevant to the role of midwives in the management and treatment of perinatal mental health issues were included; studies focussed on screening and referral were excluded. 30 papers met inclusion criteria, including studies about the knowledge, skills and attitudes of midwives and student midwives; the effectiveness of educational interventions in improving knowledge and skills; the delivery of counselling or psychosocial interventions by midwives; and barriers and enablers to embedding midwife-led mental health care in practice. Synthesis of the included studies indicates that midwives are interested in providing mental health support, but lack the confidence, knowledge and training to do so. This deficit can be addressed with appropriate training and organisational support, and

there is some evidence that mid-wife led counselling interventions are effective. Further research is needed to test midwife-led interventions for women with perinatal mental illness, and to develop and evaluate models of integrated perinatal mental health care.

What is known about this topic:

- Between 15-25% of women have a mental health problem during the perinatal period;
- Women with perinatal mental illness often do not receive the care they need;
- There is for call for reform in the way in which perinatal mental health care is delivered.

What this paper adds:

- Midwives have an interest in incorporating mental health care into their practice but are hindered by organisational- and practitioner-related barriers;
- With training and organisational support, midwives can develop the skills and knowledge required to provide mental health care;
- Midwives may play an important role in supporting women with mental health problems, beyond screening and referring.

Keywords: perinatal mental health, perinatal depression, perinatal anxiety, midwifery, integrated care

Introduction

The mental health care of women in the perinatal period, the time from pregnancy to the first year after the baby is born, is an Australian (Centre for Perinatal Excellence, 2017) and international priority (NICE, 2014). For many women the perinatal period is a time of great social, emotional and physical vulnerability that can impact profoundly on their sense of identity, mental health and wellbeing (Austin, Kildea, & Sullivan, 2007; Doucet, Letourneau, & Blackmore, 2012; Healey et al., 2013; Monzon, di Scalea, & Pearlstein, 2014). Estimates indicate that between 15-25% of women have a mental health problem during this time (Bauer, Parsonage, Knapp, Lemmi, & Adelaja, 2014; Khan, 2015; McCauley, Elsom, Muir-Cochrane, & Lyneham, 2011; Schmied et al., 2013), most commonly depressive and anxiety disorders (Coates, Saleeba, & Howe, 2018; Leach, Christensen, & Mackinnon, 2014; Sidebottom, Hellerstedt, Harrison, & Hennrikus, 2014). Perinatal anxiety is associated with high rates of child birth fear (Halvorsen, Nerum, Øian, & Sørlie, 2008; Räisänen et al., 2013; Rouhe, Salmela-Aro, Gissler, Halmesmäki, & Saisto, 2011), which can be conceptualised as a form of anxiety (Hall et al., 2009), and affects around 25% of pregnant women in Australia (O'Connell, Leahy-Warren, Khashan, Kenny, & O'Neill, 2017; Toohill, Fenwick, Gamble, & Creedy, 2014). Perinatal mental illness is also associated with previous traumatic experiences (Coates, Davis, & Campbell, 2016), including traumatic childbirth (Fenwick et al., 2013).

Perinatal mental health problems impact on women themselves, their families and communities, and also affect the mental, physical, emotional and psychosocial development of infants (beyondblue, 2011; Centre for Perinatal Excellence, 2017; Kendig et al., 2017; Stein et al., 2014). The adverse outcomes for the infant can continue throughout childhood and adulthood, and impact on future generations (Bee, Berzins, Calam, Pryjmachuk, & Abel, 2013; Curley & Champagne, 2015 ; Howe, Batchelor, & Bochynska, 2012; Kundakovic & Champagne, 2015; Numan & Young, 2016;

Siegenthaler, Munder, & Egger, 2012). Furthermore, mental health problems during the antenatal period are associated with obstetric complications, such as preterm birth, low neonatal birth weight, gestational hypertension, and perinatal infant and mother mortality (Grigoriadis et al., 2011).

To promote early access to mental health care, routine screening of women for current or potential mental health problems through maternity services is common practice in Australia and elsewhere (Austin, Middleton, Reilly, & Highet, 2013; Centre for Perinatal Excellence, 2017; Highet & Purtell, 2012; Rollans, Schmied, Kemp, & Meade, 2013). In Australia, midwives conduct routine screening of women for psychosocial vulnerabilities and depression at the first booking-in visit to the maternity service (Centre for Perinatal Excellence, 2017; McCauley et al., 2011). Ideally, women identified as at risk of mental illness or with psychosocial vulnerabilities are then discussed at a multidisciplinary meeting for referral to specialised or secondary services (Austin, Reilly, & Sullivan, 2012; NSW Department of Health, 2009a, 2009b). Only those women identified as at significant risk of severe mental illness are referred to specialist mental health teams (e.g. perinatal and infant mental health (PIMH) services), and the care of women with mild to moderate mental health problems tends to fall on maternity and child and family services, social work services or non-government organisations (NGOs).

The current model of antenatal psychosocial assessment and depression and anxiety screening and referral by midwives has come under critique, with some authors cautioning that there is little evidence that shows that screening improves outcomes (Alderdice, McNeill, & Lynn, 2013; Armstrong & Small, 2010; Austin, Priest, & Sullivan, 2008; Thombs et al., 2014). Despite widespread screening and identification of women at risk, there are limited referral pathways for those women requiring extra support (Austin & Marce International Society, 2014; Noonan, Jomeen, Galvin, & Doody, 2018). Furthermore, women are often reluctant to engage with specialist mental health

services (Schmied et al., 2013; Schmied et al., 2016), for a myriad of reasons including fear of mental health stigma (Byatt et al., 2013; McLoughlin, 2013), and personal values and beliefs in relation to specialist mental health care (Bilszta, Erickken, Buist, & Milgrom, 2010; Evans & Bullock, 2012). Another reason women fall between the gap of maternity and specialist mental health services is because of the lag time between the antenatal screening process and being contacted by a mental health clinician (Myors, Johnson, Cleary, & Schmied, 2015). While screening is effective at identifying women at risk of poor perinatal mental health outcomes, the current service system is fragmented (Bayrampour, Hapsari, & Pavlovic, 2018) and women report that their mental health needs are mostly left unaddressed (Royal College of Obstetricians and Gynaecologists, 2017).

To address this gap, a growing body of literature calls for reform in the way in which perinatal mental health care is delivered (Centre for Perinatal Excellence, 2017; Cox et al., 2017; Davies, Page, Glover, & Sudbury, 2016; Laios, Rio, & Judd, 2013; Myors, Cleary, Johnson, & Schmied, 2015). It is increasingly suggested that midwives play an important role in the provision of mental health care beyond screening and referring, and are well placed to provide counselling interventions (Centre for Perinatal Excellence, 2017; Cox et al., 2017; Johnson & Galal, 2014). However, the appropriateness and efficacy of mental health care provided by midwives is unclear and there are currently no reviews that focus on the role of midwives in terms of the provision of mental health treatment (Alderdice et al., 2013). In response to this, this paper is a review of the role and competence of midwives in the provision of mental health interventions such as counselling to women during the perinatal period, beyond psychosocial assessment and screening.

Method

Using a systematic scoping review methodology (Arksey & O'Malley, 2005; Davis, Drey, & Gould, 2009; Levac, Colquhoun, & O'Brien, 2010; Peters et al., 2015), quantitative and qualitative evidence were systematically considered to answer the broad research question "what is the nature of the evidence relevant to the provision of mental health interventions by midwives?" The aim of a scoping review is to map the literature relevant to a broad research question or topic to gain insight into the nature of the evidence and identify research gaps (Arksey & O'Malley, 2005; Davis et al., 2009; Levac et al., 2010; Peters et al., 2015). Studies relevant to the role of midwives in the management and treatment of perinatal mental health issues as well as studies about knowledge, beliefs, attitudes, competence and training needs are included (see Table 1).

Relevant studies were identified through a range a methods. In the first instance, the databases PubMed, Maternity and Infant Care, Science Citation Index, Social Sciences Citation Index, Medline, Science Direct and CINAHL were searched using the key words 'perinatal' AND 'mental health' in combination with terms such as 'treatment', 'care', 'model of care', 'intervention', and 'counselling'. Following this, the reference lists of articles were examined for further articles (See Figure 1).

The databases were searched for the period from 2011 to 2018. This period was selected as it captures the global position statement in favour of universal perinatal psychosocial assessment (International Marce Society, 2013), national and international guidelines (beyondblue, 2011; Centre for Perinatal Excellence, 2017; NICE, 2014) and a growing body of perinatal mental health research. All articles were reviewed by the first author by reading the title, abstract and if required full text for inclusion as per the criteria outlined in Table 1.

Insert Table 1

Information relevant to the research question (i.e. study aim, participants, methods, and findings) was extracted from each article. Thematic analysis of the extracted information was conducted, and results are reported narratively and tabularly (Table 2). In accordance with the scoping methodology, no formal quality assessment of the included studies was conducted (Arksey & O'Malley, 2005; Grant & Booth, 2009).

Findings/ Narrative synthesis

The review process identified 30 papers that met inclusion criteria (see Table 2). Included studies regard the knowledge, skills and attitudes of midwives (Hauck, Kelly, Dragovic, & et al., 2015; Higgins, Downes, Monahan, & et al., 2018; Jones, Creedy, & Gamble, 2011, 2012a, 2012b; Lau, McCauley, Barnfield, Moss, & Cross, 2015; Legere et al., 2017; Mathibe-Neke, Rothberg, & Langley, 2014; McCauley et al., 2011; Noonan, Doody, Jomeen, & Galvin, 2017; Noonan et al., 2018; Ross-Davie, Elliott, Sarkar, & Green, 2013; Rothera & Oates, 2011), and student midwives (Higgins, Carroll, & Sharek, 2016; Jarrett, 2014, 2015; Phillips, 2015); the effectiveness of educational interventions in improving knowledge and skills (Davies et al., 2016; Fenwick, Toohill, Slavin, Creedy, & Gamble, 2018; McLachlan, Forster, Collins, Gunn, & Hegarty, 2011; Reed, Fenwick, Hauck, Gamble, & Creedy, 2014); the delivery of counselling or psychosocial interventions by midwives (Clarke, King, & Prost, 2013; Fenwick et al., 2013; Fenwick et al., 2015; Larsson, Karlström, Rubertsson, & Hildingsson, 2016; Toohill, Fenwick, Gamble, Creedy, et al., 2014); and barriers and enablers to embedding midwife-led mental health care in practice (Bayrampour et al., 2018; Fenwick et al., 2018; Gamble, Toohill, Slavin, Creedy, & Fenwick, 2017; Higgins et al., 2018; Myors, Cleary, et al., 2015; Myors, Schmied, Johnson, & Cleary, 2013).

The design and size (7-815 participants) of included studies varies as does the participant populations and countries in which studies have been conducted (high, low and middle income countries including Australia, the United Kingdom, Canada, Ireland, Sweden and South Africa). While all studies included midwives as a participant group, other participant populations included midwives, student midwives, nurses, obstetricians, health visitors, childbearing women and medical record reviews.

The body of literature in relation to the knowledge, skills, attitudes and training needs of midwives and student midwives is largely based on survey studies (Hauck et al., 2015; Higgins et al., 2018; Jarrett, 2015; Jones et al., 2011, 2012a, 2012b; Lau et al., 2015; McCauley et al., 2011; Noonan et al., 2018; Ross-Davie et al., 2013; Rothera & Oates, 2011), three qualitative studies with interviews (Jarrett, 2014) and focus groups (Mathibe-Neke et al., 2014; Phillips, 2015), one integrative review study (Noonan et al., 2017) and a systematic review (Legere et al., 2017). Studies that evaluated the effectiveness of educational interventions in improving knowledge and skills of midwives or student midwives to provide mental health care employed pre- post survey design (Higgins et al., 2016; McLachlan et al., 2011), mixed methods (Fenwick et al., 2018; Reed et al., 2014), and one survey study (Davies et al., 2016). Studies in relation to the delivery of counselling or psychosocial interventions by midwives include a systematic review and meta-analysis of 10 randomised controlled trials (RCTs) (Clarke et al., 2013), a single RCT (published in two papers) (Fenwick et al., 2015; Toohill, Fenwick, Gamble, Creedy, et al., 2014), a qualitative interview study (Fenwick et al., 2013) and a national survey study (Larsson et al., 2016). Studies that outline barriers and enablers to embedding midwife-led mental health care (other than knowledge and skills deficits), include two integrative reviews (Bayrampour et al., 2018; Myors et al., 2013) and three mixed method studies (Fenwick et al., 2018; Gamble et al., 2017; Myors, Cleary, et al., 2015).

Insert Table 2: Included studies

Midwives' knowledge, skills and attitude and training needs

Studies in relation to the confidence and perceived competence of midwives indicates that many midwives feel ill-equipped to provide mental health care and experience a lack of confidence (Hauck et al., 2015; Jones et al., 2012a; Mathibe-Neke et al., 2014; McCauley et al., 2011; Noonan et al., 2017; Noonan et al., 2018; Ross-Davie et al., 2013; Rothera & Oates, 2011). This is supported by studies that have assessed midwives' levels of knowledge and learning needs, which conclude that midwives generally do not have the necessary knowledge and skills to provide mental health care (Higgins et al., 2018; Jones et al., 2011, 2012b; Lau et al., 2015).

This lack of competence and confidence does not appear reflective of a lack of willingness. Midwives report an interest in providing mental health care, and recognise themselves as having an integral role in the provision of perinatal mental health care (Hauck et al., 2015; Jones et al., 2012a; Mathibe-Neke et al., 2014; Noonan et al., 2017; Ross-Davie et al., 2013). Studies that have assessed attitudes conclude that midwives have positive attitudes towards mental illness and recovery and that their lack of competence is the result of a lack of training rather than a lack of interest or desire (Hauck et al., 2015; Noonan et al., 2018). Midwives consistently report limited access to training and information to provide mental health care (Legere et al., 2017; McCauley et al., 2011; Noonan et al., 2018; Ross-Davie et al., 2013; Rothera & Oates, 2011).

Evidence from student midwives shows similar findings. Studies that have assessed the knowledge, attitudes and training needs of student midwives indicate that midwifery students have an interest

in and demonstrate sensitivity towards mental illness (Jarrett, 2015; Phillips, 2015), but lack confidence and feel ill-prepared to provide mental health care (Jarrett, 2014, 2015).

This body of literature calls for further training and education to build the skills, knowledge and confidence of midwives and student midwives to provide perinatal mental health care (Higgins et al., 2018; Jones et al., 2011, 2012b; Lau et al., 2015). Studies that have assessed the effectiveness of educational interventions in improving midwives' knowledge and skills have found that with appropriate training, midwives can build their skills and knowledge and develop the competence and confidence required to provide perinatal mental health care (Fenwick et al., 2018; McLachlan et al., 2011; Reed et al., 2014). A study by McLachlan et al. (2011) that evaluated a communication skills education package for midwives found that the training increased self-reported comfort and competency of midwives to identify and care for women with psychosocial issues during the postnatal period. A study by Reed et al. (2014) into midwives' experiences of learning new counselling skills and delivering a counselling intervention for women distressed by their birthing experience found that midwives were able to learn and apply advanced counselling skills and by doing so developed confidence in providing mental health support. A study by Fenwick et al. (2018) evaluated the outcomes of a counselling training intervention for midwives found that training significantly improved midwives' knowledge, skills and confidence to counsel women on psychosocial issues.

Two included studies are evaluations of student perinatal mental health training modules. Using a pre post survey design, a study by Higgins et al. (2016) showed that the training material improved knowledge, skills and attitudes of student midwives. A study by Davies et al. (2016) describes the development of a perinatal mental health training module for student midwives and using an online student evaluation survey shows that this module was received.

This body of evidence indicates that with training and organisational support midwives and student midwives may be able to develop the knowledge and skills required to support women with perinatal mental illness and their families.

The delivery of mental health, counselling or psychosocial interventions by midwives

The argument that midwives and student midwives can provide mental health care is further supported by evidence that counselling interventions led by midwives demonstrate positive outcomes, in terms of both physical and mental health outcomes for women (Clarke et al., 2013; Fenwick et al., 2013; Fenwick et al., 2015; Toohill, Fenwick, Gamble, Creedy, et al., 2014). This body of evidence includes midwife led counselling interventions for women who experience emotional distress after a traumatic birth (Fenwick et al., 2013), for women with child birth fear (Fenwick et al., 2015; Fenwick et al., 2018; Toohill, Fenwick, Gamble, Creedy, et al., 2014), and interventions delivered by non-mental health specialists in low and middle income countries (Clarke et al., 2013). Qualitative evidence from Fenwick et al. (2013) shows that women who received a midwife-led perinatal emotional support intervention for women identified as experiencing emotional distress after birth found the intervention helpful. The intervention was based on cognitive-behavioural principles and designed to ameliorate trauma symptoms, and included face to face and telephone counselling components.

In terms of midwife-led interventions for child birth fear, evidence from a single RCT with 339 participants shows that women who received the intervention experienced a reduction in child birth fear and caesarean section rates, improvements in childbirth self-efficacy, less distressing flashbacks of the birth and improved parenting confidence (Fenwick et al., 2015; Toohill, Fenwick, Gamble,

Creedy, et al., 2014). A study by Larsson et al. (2016) into the comprehensiveness of midwife-led counselling for childbirth fear in obstetric clinics in Sweden found that all responding clinics offer midwife-led counselling, highlighting that in some countries midwife-led mental health care is routine. Further evidence that midwives can provide mental health support comes from a systematic review by Clarke et al. (2013) that assessed the role of non-mental health specialists in providing perinatal mental health care in low and middle income countries and found that non-pharmacological interventions, in particular psychological interventions, can be effectively delivered by non-mental health specialists, including midwives.

Barriers and enablers to embedding midwife-led mental health care in practice

As outlined, a key barrier to the delivery of midwife led mental health care is a lack of access to training and education, and in turn limited mental health skills and knowledge reported by midwives (Bayrampour et al., 2018; Higgins et al., 2018; Legere et al., 2017; McCauley et al., 2011; Noonan et al., 2018; Ross-Davie et al., 2013; Rothera & Oates, 2011). In addition to a lack of competence and confidence, midwives report a range of organisational barriers as hindering their ability to incorporate mental health care into their practice, specifically heavy workload, lack of time, lack of privacy, not seeing women frequently enough and conflicts with organisational priorities (Bayrampour et al., 2018; Gamble et al., 2017; Higgins et al., 2018; Jones et al., 2012b). A study by Fenwick et al. (2018) into the perceived barriers and enablers to embedding a midwife led counselling intervention found that the main barriers related to the current fragmentation of care. This study found that counselling was more easily implemented within midwifery caseload models, highlighting continuity of care by a known midwife as an enabler.

An integrative review by Bayrampour et al. (2018) also identified service fragmentation and a lack of continuity of care as key barriers to integrating mental health care into midwifery practice. To provide better mental health care in the perinatal period, these authors call for an expansion of the scope of practice for midwives and enhanced service integration and collaboration between mental health and maternity services. This is supported by a review study by Myors et al. (2013) that concluded that services continue to work in silos, with limited collaboration and integration between mental health and maternity services. A further study by Myors, Cleary, et al. (2015) into the extent of collaboration within two perinatal mental health services in Australia found that although maternity and mental health stakeholders believe collaboration is essential, collaboration is nominal and midwives are not supported by specialist mental health professionals to provide mental health care.

Discussion

This review suggests that midwives have an interest in incorporating mental health care into their practice but are hindered by organisational- and practitioner-related barriers that negatively impact on their ability to do so. While much of the literature highlights that midwives have a lack of confidence, skills and knowledge to provide mental health support, this appears to result from limited training and access to information rather than willingness. With appropriate training and professional development midwives are able to gain the knowledge and skills required to provide mental health care, and midwife-led counselling interventions demonstrate positive outcomes. While most of the evidence of the effectiveness of midwife-led counselling comes from interventions for women with childbirth fear or those who experienced emotional distress at birth (rather than a diagnosed mental illness), this literature indicates that midwives can deliver counselling interventions with positive outcomes. This is consistent with a growing body of

literature that highlights that perinatal mental health interventions can be delivered by non-specialists with positive outcomes, with evidence from low and middle income countries (Nyatsanza, Schneider, Davies, & Lund, 2016; Rahman et al., 2013), the volunteer sector (Coe & Barlow, 2013) and peer support (Jones, Jomeen, & Hayter, 2014).

The role of non-specialist mental health workers in the provision of perinatal mental health care is further supported by evidence that indicates that women who access perinatal mental health care particularly value being listened to without judgement and the safety of the relationship with the worker (Coates et al., 2016; Myors, Cleary, Johnson, & Schmied, 2018; Myors, Schmied, Johnson, & Cleary, 2014). As already outlined, midwives are able to learn counselling skills and deliver counselling interventions, and it is well recognised that many women develop a safe and confiding relationship with their midwife/s (Schmied et al., 2013). Evidence suggests that pregnant women are more likely to accept mental health support from a midwife than a specialist mental health service (Schmied et al., 2013).

In Australia, the current service system is fragmented and many women fall between the gap of maternity and specialist mental health services. To address this, there is an increasing call for better integration of mental health and maternity care (Centre for Perinatal Excellence, 2017; Cox et al., 2017; Davies et al., 2016; Laios et al., 2013; Myors, Cleary, et al., 2015), and for the scope of practice of midwives to be extended to include mental health care (Bayrampour et al., 2018; Cox et al., 2017; Marnes & Hall, 2013). Midwives are generally the primary contact for women in the perinatal period and are therefore well placed to support women with mental health issues (Higgins et al., 2018; Marnes & Hall, 2013; Schmied et al., 2013). It is well established that women benefit from the opportunity to develop a trusting relationship with their midwife and models that support continuity

of care are associated with improved outcomes for women and infants (Sandall, Soltani, Gates, Shennan, & Devane, 2016).

This review suggests that midwives can play an important role in the provision of mental health interventions such as counselling, however, there is little evidence into the effectiveness of midwife-led mental health interventions for women with perinatal mental health concerns. Further research is needed to test the effectiveness of midwife-led counselling for women with perinatal mental illness, and to develop and evaluate models of integrated perinatal mental health care.

Some caution needs to be used interpreting the findings. Specifically, the majority of included studies are from Australia and the UK, and as such the review may not be exhaustive. While it is possible that most of the evidence is produced in these countries, it is also possible that the results reflect the search terms used and the language favoured in those countries. As such this review is limited in its international applicability.

Conclusion

Whilst midwives are well-placed to respond to the mental health needs of women in their care, many report lacking the ability to do so. Midwife-led counselling is impeded by a lack of confidence and competency rather than a lack of willingness, interest or desire. This review suggests that once midwives receive adequate training and support they are capable of providing mental health care and can play an important role in supporting women who experience perinatal mental illness and their families. This review highlights a need for further research to test midwife-led interventions for women with perinatal mental illness, and to develop and evaluate models of integrated perinatal mental health care.

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Table 1: Inclusion and exclusion criteria

Inclusion criteria	Exclusion criteria
Studies relevant to the role of midwives in the management and treatment of perinatal mental health issues (inclusive of emotional distress, child birth fear and trauma)	Studies that are limited to the assessment, screening or referral role of midwives, that do not address treatment or care provision
Studies about the knowledge, beliefs, attitudes, competence and training needs of midwives in relation to mental health	Studies about the knowledge, beliefs, attitudes, competence and training needs of midwives in relation to psychosocial issues such as alcohol and drug use and domestic violence
Studies that include midwives as a participant group or assess care provided by midwives	Studies that focus on other health professionals, exclusive of midwives
Primary qualitative, quantitative and mixed method studies and systematic reviews	Narrative reviews, opinion pieces, commentaries, review articles that did not use a systematic process
Published in peer reviewed journals	Non-peer reviewed studies
Published between 2011 and 2018	Published before 2011
In English	Not written in English
Full text available	No full text available

Table 2: Included studies

Author, Publication year. Country.	Title	Study aim	Methodology and participants	Summary of main findings
Bayrampour et al. (2018). Canada	Barriers to addressing perinatal mental health issues in midwifery settings.	To determine midwives' perceived barriers to the screening, referral, and management of perinatal mental health issues.	**Integrative review** 356 articles were retrieved with 20 studies included.	Insufficient/lack of training, lack of clarity regarding the scope of practice and time constraints were common provider level barriers across various stages of addressing mental health issues from identification to management. The system-level barriers were more complex and diverse and included unclear pathways and unlinked services, lack of local guidelines or policies, continuity of care, structured office procedures, clinical support and supervision and accessible educational resources, scarcity of available referral resources, complex bureaucratic processes and challenges related to expansion of the scope of practice.
Clarke et al. (2013). UK	Psychosocial interventions for perinatal common mental disorders delivered by providers who are not mental health specialists in low- and middle-income countries: a systematic review and meta-analysis.	To explore whether non-pharmacological interventions delivered by non-mental health specialists play a role in treating common perinatal mental health disorders in low and middle income countries.	**Systematic review and mete-analysis** Includes 10 trials with a total of 18,738 participants	Most of the included studies were of high quality and indicated that psychosocial interventions by non-specialists are beneficial, specifically psychological interventions.
Davies (2016). UK	Developing a perinatal mental health module: An integrated care approach	To develop and evaluate a programme-specific perinatal mental health module for student midwives at the University of Surrey	**Survey design** Review of student training module. At the end of each module student undertake an anonymous electronic module evaluation survey. No sample size provided.	Training has been successful at improving the theoretical knowledge, skills, training and attitudes of student midwives towards women with perinatal mental illness.
Fenwick et al. (2013). Australia	Women's perceptions of emotional support following childbirth: A qualitative investigation	To describe the perceptions of women who participated in a midwife-led perinatal emotional support intervention (PRIME - 'Promoting Resilience in Mothers Emotions') for women identified as experiencing emotional distress after birth.	**Interviews** Semi structured interviews with 33 women recruited as part of a larger RCT to test the efficacy of PRIME. Women who had been allocated to either the intervention (N=16) or control group (N=17) participated in a telephone interview at 12 months post-partum.	Women who received the PRIME intervention found it beneficial in helping them understand the source of their emotional distress, getting in touch with their feelings and moving on in a positive way.

Fenwick et al. (2015)*. Australia	Effects of a midwife psycho-education intervention to reduce childbirth fear on women's birth outcomes and postpartum psychological wellbeing	To test a midwife-led counselling intervention (the BELIEF intervention) for women with childbirth fear in terms of obstetric outcomes, maternal psychological well-being, parenting confidence, birth satisfaction, and future birth preference	**Randomised controlled trial (RCT)** A two armed non-blinded parallel (1:1) multi-site RCT. Women with childbirth fear were randomised to receive telephone psycho-education by a midwife (N=170), or usual maternity care (N=169). One hundred and eighty-four women (54 %) returned data for final analysis at 6 weeks postpartum (intervention n = 91; controls n = 93).	The intervention was associated with positive physical and mental health outcomes. Compared to controls the intervention group had a clinically meaningful reduction in overall caesarean section (34 % vs 42 %, p = 0.27) and emergency CS rates (18 % vs 25 %, p = 0.23). Fewer women in the intervention group preferred caesarean section for a future pregnancy (18 % vs 30 %, p = 0.04). There were no differences in postnatal depression symptoms scores, parenting confidence, or satisfaction with maternity care between groups, but a lower incidence of flashbacks about their birth in the intervention group compared to controls (14 % vs 26 %, p = 0.05). Postnatally women who received psycho-education reported that the 'decision aid' helped reduce their fear (53 % vs 37 %, p = 0.02).
Fenwick et al. (2018). Australia	Improving psychoeducation for women fearful of childbirth: Evaluation of a research translation project.	To implement and evaluate the translation of psychoeducation counselling on (1) midwives' knowledge, skills and confidence to provide the counselling; (2) perceived barriers and enablers to embedding the psychoeducation counselling in practice; and (3) pregnant women's levels of fear.	**Mixed method design** Using a mixed methods approach, data were collected using a pre (n=22) and post (n=21) training survey, recorded interviews (n=17), diaries (n=6), and retrospective audit of fear of birth scores. Data were analysed using descriptive statistics, independent sample t-tests, and chi-square tests. Latent content analysis was used to analyse the qualitative data.	Training significantly improved midwives' knowledge, skills and confidence to counsel women on psychosocial issues and reduce fear scores for women reporting high childbirth fear. The main barriers to midwives introducing counselling into routine care related to the fragmentation of care delivery during pregnancy. Continuity of care by a known midwife was considered an enabler. Psychoeducation provided by midwives is of benefit to women experiencing high levels of birth fear. While psychoeducation training was successful in enhancing midwives' knowledge, skills and confidence; embedding the counselling framework in everyday practice was challenging. Counselling is more easily implemented within midwifery caseload models which enable midwives to build relationships with women across their pregnancy.
Gamble et al. (2017). Australia	Identifying Barriers and Enablers as a First Step in the Implementation of a Midwife-Led Psychoeducation Counselling Framework for Women Fearful of Birth	To explore organisational factors, including barriers and possible solutions that may impact on the successful application of the midwife psychoeducation intervention in practice.	**Mixed method design** Methods included a self-administered survey (n = 62), clinician-led focus groups (n = 28), and interviews with key stakeholders (n = 5).	There was disparity between positive attitudes toward evidence-based practice in theory and its clinical application. Barriers to implementing the evidence included time constraints, heavy workloads, and lack of confidence to implement evidence based practice. Service fragmentation was identified as a barrier to evidence based care. Enablers included organizational support, education, local champions, and continuity of midwifery care.
Hauck et al. (2015). Australia	Australian midwives' knowledge, attitude and perceived learning needs around perinatal mental health.	To explore midwives' knowledge and attitudes towards mental health disorders in childbearing women and their perceived mental health learning needs	**Survey design** 238 midwives employed in a public maternity hospital completed a survey comprised of a mixture of custom-designed questions and vignettes presenting various disorders. Response rate of 50.1%.	Only 37.6% of midwives felt well-equipped to support women, whilst 50.2% reported insufficient access to information. Knowledge scores were variable. There were no associations between general knowledge scores and previous mental health experience, recent professional development, or access to information around mental health. Attitudes to recovery were positive but negative stereotypes exist.
Higgins et al. (2016). Ireland	Impact of perinatal mental health	To examine the impact of the perinatal mental	**Pre- post survey design**	Comparison of the pre and post measures, based on paired samples t-tests, showed that the programme statistically increased participants' knowledge

	education on student midwives' knowledge, skills and attitudes: A pre/post evaluation of a module of study.	health module on student midwives' knowledge, skills, and attitudes in addressing mental health issues with women.	Pre-module and Post-module Surveys. Participants were students undertaking a 4-year undergraduate direct entry midwifery degree programme in Ireland. The pre-survey had 28 participants, the post-survey had 26 participants, and there were 25 matched pairs.	and skills. Whilst students' self-reported attitudes towards women and mental health issues were already quite positive, they reported even more positive attitudes following the course. Written feedback provided by students also supported these positive findings.
Higgins et al. (2018). Ireland	Barriers to midwives and nurses addressing mental health issues with women during the perinatal period: The Mind Mothers study.	To explore barriers to midwives and nurses addressing mental health issues with women during the perinatal period.	**Survey design** A total of 809 midwives and nurses completed an anonymous, online or hard copy survey. Designed by the research team, the survey listed 26 potential barriers to the provision of perinatal mental health care.	Participants identified organisational factors as presenting the greatest barriers. Organisational barriers included lack of perinatal mental health services, absence of care pathways, heavy workload, lack of time, lack of privacy and not seeing women regularly enough to build a relationship. Over 50% of participants identified practitioner-related barriers, such as lack of knowledge on perinatal mental health and cultural issues; lack of skill, in particular, skills to respond to a disclosure of a mental health issue; and fears of causing women offence and distress. Findings also indicated that the context of care and education influenced the degree to which participants perceived certain items as barriers.
Jarrett et al. (2014). UK	Attitudes of student midwives caring for women with perinatal mental health problems.	To explore the attitudes of student midwives near completion of their midwifery training, in the care of women with mental health problems in the East end of London.	I**nterviews** Interviews with seven student midwives who were near completion of a BSc in midwifery	The findings of this study indicate students use cultural and illness stereotypes in their identification and provision of care of women with perinatal mental health problems. Students were often critical of evidence-based practice or neglected to use evidence in their care of women with mental health problems.
Jarrett et al. (2015). UK	Student midwives' knowledge of perinatal mental health.	To explore the knowledge and experience of student midwives in the care of women with perinatal mental health problems.	**Survey design** A survey was distributed to soon-to-be qualified student midwives. The sample size was not specified.	Students often under-estimated the risk of women with existing mental health problems developing a serious mental health problem during pregnancy or in the postpartum period. Students felt ill-prepared and lacked confidence in caring for women with serious mental health problems.
Jones et al. (2011). Australia	Australian Midwives' Knowledge of Antenatal and Postpartum Depression: A National Survey.	To assess Australian midwives' levels of knowledge and learning needs regarding antenatal depression and postpartum depression.	**Survey design** 815 members of the Australian College of Midwives completed a postal survey, which consisted of 20 items drawn from the literature and the National Baseline Survey-Health Professional Knowledge Questionnaire.	There are key knowledge deficits relating to onset of, assessment of, and treatment for depressive symptoms during the antenatal and postpartum periods. Respondents correctly answered 62.9% of items related to antenatal depression and 70.7% of questions about postpartum depression. Many midwives were unable to identify the risk factors (70.6%) or prevalence of antenatal depression (49.6%). Nearly all (98.3%) respondents underestimated the percentage of antenatally depressed women that attempts suicide. Significant percentages of midwives did not correctly identify the incidence (44.4%), onset period (71%), and treatment options (32%) associated with postpartum depression. About half did not understand the use of antidepressant medications (48.6%) and incorrectly reported that the Edinburgh Postnatal Depression Scale was a suitable instrument to assess symptoms of psychotic depression (43.8%).

Jones et al. (2012a). Australia	'Australian midwives' attitudes towards care for women with emotional distress'.	To assess Australian midwives' attitudes towards caring for women with emotional distress and their perceptions of the extent to which workplace policies and processes hindered such care.	**Survey design** Survey completed by 815 Australian midwives. Survey consisted of a modified version of the 17-item REASON questionnaire originally developed for GPs.	Participating midwives indicated their willingness to offer assistance and acknowledged the importance of providing emotional care to women. In practice, emotional care by midwives is impeded by perceived lack of competency rather than a lack of interest. Almost half of midwives perceived systemic problems such as workload, organisational priorities, and time factors as hindering their care for women with emotional distress. Midwives' concerns about the systemic problems in health-care services accounted for over 30% of variance in their attitudes and perceptions of emotional care.
Jones et al. (2012b). Australia	Australian midwives' awareness and management of antenatal and postpartum depression.	To describe midwives' self-reported practice in caring for women suffering from antenatal and postpartum depressive symptoms; and assess midwives' ability to detect depression and their knowledge of therapeutic interventions for depressive symptoms in childbearing women.	**Survey design** 815 members of the Australian College of Midwives completed a postal survey, which consisted of items drawn from the "National Baseline Survey--Screening Evaluation Questionnaire" and questions relating to a hypothetical case study of a depressed woman.	Further training is required to ensure midwives' competency in psychosocial assessment and management of women experiencing antenatal and postpartum depression. Time constraints were perceived as the major barrier to effective emotional care. 63.3% of midwives correctly recognised depression in the case study and 82.4% reported that "Mary" required assistance. Antidepressants were more likely to be recommended postnatally (93.2%) than antenatally (61.5%) by midwives.
Larsson et al. (2016). Sweden	Counselling for childbirth fear – a national survey.	To study comprehensiveness, content and organization of the midwife-led counselling for childbirth fear in all obstetric clinics in Sweden.	**Survey design** Cross-sectional study with data were collected using a questionnaire sent to all obstetric clinics in Sweden (n = 45). A total of 43 clinics responded.	All responding obstetric clinics in Sweden offer midwife-led counselling to women with childbirth fear. Major differences were found regarding the time allocated to counselling, with a range between 5.7 and 47.6 minutes per childbirth. Supplementary education for midwives and the availability of treatment options varied at the different clinics and were not associated with the size of the clinic.
Lau et al. (2015). Australia	Attitudes of midwives and maternal child health nurses towards suicide: a cross-sectional study.	To assess the attitudes of midwives and maternal child health nurses to suicide.	**Survey design** A cross-sectional study of midwives' and maternal and child health nurses' attitudes to suicide. A convenience sample of midwives (n = 95) and maternal child health nurses (n = 86) from south-eastern Victoria, Australia completed the Attitudes to Suicide Prevention Scale.	Maternal child health nurses have more positive attitudes towards suicide prevention than midwives, and younger participants have more positive attitudes to suicide prevention compared to older participants. Midwives and maternal child health nurses could benefit from continuing professional education to build their knowledge and skills.
Legere et al. (2017). Canada	Approaches to health-care provider education and professional development in	To provide a synthesis of educational and professional development needs and strategies for health-care providers in perinatal depression.	**Systematic review** 12 studies of moderate and weak quality met inclusion criteria. 6 included studies included midwives	Providers consistently identified a lack of formal education in perinatal mental health and the need for further professional development.

	perinatal depression: a systematic review.			
Mathibe-Neke et al. (2014). South Africa	The perception of midwives regarding psychosocial risk assessment during antenatal care.	To explore and describe the perception of psychosocial risk assessment and psychosocial care by midwives providing antenatal care to pregnant women	**Focus Groups** An interpretive and descriptive qualitative approach consisting of three focus groups with midwives (N=16) working in 3 Maternal Obstetric Units in South Africa	Midwives are aware of and have encountered a high prevalence of psychosocial problems in pregnant women. Furthermore, they acknowledged the importance of psychosocial care for pregnant women although they stated that they were not equipped adequately to offer psychosocial assessment and psychosocial care.
McCauley at al. (2011). Australia	Midwives and assessment of perinatal mental health	To explore the perceptions of midwives of their own mental health skills, knowledge and experiences, when working with women with mental illness in the perinatal period.	**Survey design** 161 midwives of 19 maternity sites in Victoria, Australia completed a survey to measure mental health skills and knowledge	Midwives lack mental health skills and knowledge, and they describe a lack of confidence and feeling uncomfortable and unsafe when providing care for women with mental illness. They also report little knowledge of resources available to provide appropriate services for these women.
McLachlan et al. (2011). Australia	Identifying and supporting women with psychosocial issues during the postnatal period: Evaluating an educational intervention for midwives using a before-and-after survey.	To evaluate an advanced communication skills education package for midwives caring for women during the postnatal period.	**Pre- post survey design** 25 midwives at two Australian hospitals attended seven training sessions over a six-month period and completed a survey before and after the sessions to evaluate the programme. Surveys included items about communication skills, willingness to change, learning style, and knowledge of and attitudes towards psychosocial issues. 21 of the 25 participating midwives (84%) completed both the pre and post survey.	Participants were very positive about the programme. The communication programme increased the self-reported comfort and competency. Following the educational intervention, participants were more likely to feel competent at identifying women in an abusive relationship ($p = 0.002$); encouraging women to talk about any psychosocial issues ($p = 0.02$); actively encouraging women to talk about things on their mind ($p = 0.01$); and encouraging women to talk about how they are really feeling ($p = 0.02$). Participants also felt more confident in their knowledge of psychosocial issues ($p=0.01$) and in supporting women experiencing psychosocial issues in the early postnatal period ($p = 0.02$).
Myors et al. (2013). Australia	Collaboration and integrated services for perinatal mental health: an integrative review.	To synthesise the research related to professionals' perceptions and experiences of working in collaborative and integrated models of perinatal care for women with mental health problems.	**Integrative review** 14 included studies	The overarching theme identified in the review related to the process of 'making it happen'. Eight key elements were identified as central components of this process: funding and resources for collaboration; shared vision, aims and goals; pathways and guidelines; continuity of care; building relationships and trust; role clarity; training and education of staff and support to work in new ways. Professionals need resources and to feel supported to change clinical practice and work in more collaborative ways.
Myors et al. (2015). Australia	A mixed methods study of collaboration between perinatal and infant mental health (PIMH) clinicians and	To examine the nature and extent of collaboration within two PIMH services in Australia.	**Mixed method design** Two hundred and forty four medical records were reviewed, 13 professionals (six PIMH clinicians, two PIMH service managers, and five key	While professionals believe that collaboration is essential for women with complex needs, maternity and specialist mental health services continue to work in silos with limited communication. Perinatal and infant mental health clinicians are skilled at building relationships with women, however further support is needed to build trusting relationships with other service providers.

	other service providers: Do they sit in silos?		stakeholders) and 11 women service-users participated in semi-structured interviews.	
Reed et al. (2014). Australia	Australian midwives' experience of delivering a counselling intervention for women reporting a traumatic birth.	To describes midwives' experiences of learning new counselling skills and delivering a counselling intervention entitled 'Promoting Resilience on Mothers Emotions' (PRIME)	**Qualitative mixed method design** A descriptive exploratory study. The intervention study was conducted in two Australian tertiary maternity hospitals. Eighteen of a possible 20 Australian midwives participated in this study. Data collected included semi-structured interviews (n=42), midwife diary entries (18 pages) and web based postings (169 pages).	The advanced counselling skills the midwives acquired improved their confidence to care for women distressed by their birthing experience and to personally manage stressful situations they encountered in practice.
Noonan et al. (2017). Ireland	Midwives' perceptions and experiences of caring for women who experience perinatal mental health problems: An integrative review.	To synthesise primary research on midwives' perceived role in Perinatal Mental Health (PMH).	**Integrative review** 22 papers were included in the review (15 quantitative, 6 qualitative and one mixed method study).	The quality of the studies included was good overall. Midwives recognise that they have an integral role in perinatal mental health care provision, but that their willingness to offer emotional care to women is compromised by a perceived lack of confidence, competence and practical and emotional support skills.
Noonan et al. (2018). Ireland	Survey of midwives' perinatal mental health knowledge, confidence, attitudes and learning needs.	To determine midwives' (a) knowledge of and confidence to identify and manage perinatal mental health problems, (b) attitudes towards women who experience severe mental illness and (c) perceived learning needs.	**Survey design** 157 midwives from 7 Maternity services in the Republic of Ireland completed the Perinatal Mental Health Questionnaire, the Mental Illness: Clinician's Attitudes scale and the Perinatal Mental Health Learning Needs questionnaire.	Midwives indicated high levels of knowledge (71.1%) and confidence (72%) in identifying women who experience depression and anxiety however, they reported less confidence in caring (43.9%) for women. Only 17.8% (n=28) of midwives felt equipped to support women whilst 15.3% (n=24) reported having access to sufficient information. Midwives desire education on the spectrum of perinatal mental health problems. The mean score for the Mental Illness: Clinician's Attitudes scale was 36.31 (SD=7.60), indicating positive attitudes towards women with severe mental illness. Midwives tend to demonstrate greater competence in the assessment of perinatal mental illness than in providing care.
Phillips L. (2015). UK	Assessing the knowledge of perinatal mental illness among student midwives.	To assess student midwives' awareness of perinatal mental illness.	**Focus group** 7 student midwives who were near completion participated in a focus group	The students expressed knowledge of perinatal mental illness and the importance of the midwife's role in the provision of mental health car.
Ross-Davie et al. (2013). UK	A public health role in perinatal mental health: Are midwives ready?	To identify midwives' attitudes, knowledge and confidence in relation to perinatal mental health	**Survey design** 187 midwives working with an inner London Trust completed a 29 item questionnaire prior to attending a one day study day on perinatal mental health	Midwives are willing to take on a more developed role in relation to mental health but that they often lack training, knowledge and confidence in this area.
Rothera et al. (2011). UK	Managing perinatal mental health: A	To identify the views on the identification, treatment and	**Survey design** 468 midwives, 276 health visitors and 24 obstetricians completed a	Participants lacked the required knowledge/skills to identify and manage these disorders effectively and most had not received any specific pre-qualification or postgraduate training in perinatal mental health. Most

	survey of practitioners' views.	management of a range of perinatal mental health disorders of health professionals involved in the care of women with maternal mental health disorders	questionnaire about their views on the identification, treatment and management of a range of perinatal mental health disorders.	requested additional support, including specialist advice, training and guidelines and agreed that all women with perinatal mental health disorders should have the support of specialized perinatal psychiatric services. Systems are needed to develop and maintain practitioners' knowledge and skills and to ensure improved access to specialist advice and support when required.
Toohill et al. (2014)*. Australia	A randomized controlled trial of a psycho-education intervention by midwives in reducing childbirth fear in pregnant women.	To test an antenatal psycho-education intervention by midwives in reducing women's childbirth fear.	**Randomised controlled trial (RCT)** Women (n = 1,410) attending 3 hospitals in Queensland, Australia, were recruited. Participants reporting high fear were randomly allocated to intervention (n = 170) or control (n = 169) groups. A telephone counselling intervention was offered at 24 and 34 weeks of pregnancy. The control group received usual care offered by public maternity services. Primary outcome was reduction in childbirth fear (WDEQ-A); secondary outcomes were improved childbirth self-efficacy, and reduced decisional conflict and depressive symptoms. Demographic, obstetric & psychometric measures were administered at recruitment, and 36 weeks of pregnancy.	There were significant differences between groups on postintervention scores for fear of birth ($p < 0.001$) and childbirth self-efficacy ($p = 0.002$). Decisional conflict and depressive symptoms reduced but were not significant. Psycho-education by trained midwives was effective in reducing high childbirth fear levels and increasing childbirth confidence in pregnant women. Improving antenatal emotional well-being may have wider positive social and maternity care implications for optimal childbirth experiences.

*Findings from same study