Student midwives' knowledge of perinatal mental health

Abstract

Background: Psychiatric illness is a leading indirect cause of maternal mortality. Earlier studies suggest serious discrepancies in the training and knowledge of midwives with regard to perinatal mental health.
Aims: To explore the knowledge and experience of student midwives in the care of women with perinatal mental health problems.
Methods: A modified questionnaire was distributed to student midwives near completion of 3-year and 78-week midwifery programmes.
Results: 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.
Conclusion: Recommendations from the findings of this study indicate (1) a review of undergraduate midwifery education in relation to perinatal mental health is needed; (2) a larger study, involving a more diverse sample of students, would enable generalisation to a wider population.

Keywords: Student midwives, Perinatal mental health, Questionnaire survey, Education, Quantitative, Practice

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Psychiatric illness is a leading indirect cause of maternal mortality and morbidity in the UK. A confidential report on the causes of maternal death suggests that a significant number of women die during pregnancy and in the postpartum period as a result of suicide (Centre for Maternal and Child Enquiries (CMACE), 2011). Despite recommendations to improve the care women receive, including prediction, detection and referral of mental health problems (National Institute for Health and Care Excellence (NICE), 2007), there have been no significant reductions in maternal suicide of women within 6 months of giving birth since 1997 (CMACE, 2011).

Perinatal mental health

Perinatal mental illness is also associated with maternal and infant morbidity. For example, the infants of women who experience anxiety and depression during pregnancy have increased risk of intrauterine growth retardation (Kim et al, 2013) and pre-term delivery (Grote et al, 2010). Women who experience anxiety and depression are also more susceptible to developing hypertension and pre-eclampsia (Bansil et al, 2010) and have more operative deliveries than other women (Bansil et al, 2010). The behaviour and development of the child may also be affected by maternal anxiety and depression during pregnancy and in the postpartum period (Bauer et al, 2014; Glover, 2014; Graignic-Phillipe et al, 2014). For example, infants of mothers who experienced depression, stress and anxiety during pregnancy have been found to be at increased risk of developing attention deficit disorders, emotional problems and impaired cognitive development (Glover, 2014).

Role of the midwife

Midwives play a vital role in the identification and care of women with perinatal mental health problems. The continuity of care that midwives provide over an extended period of time enables them to build up a close relationship with women and their families (Dearman et al, 2007). There is evidence to suggest that women at high risk of postpartum depression have reduced symptoms of depressive illness when provided with support either through home visitation or through peer support (Caramlau et al, 2011). Midwives, therefore, can play an important role in the detection, care and support of women with mental health problems.

However, midwives have been shown to have a poor understanding and knowledge of mental health issues which occur around the time of pregnancy (Ross-Davie et al, 2006). As a result, midwives often lack confidence in caring for women with mental health problems. For example, studies have indicated that midwives often avoid women who present with serious mental health problems (McCauley et al, 2011). Additionally, midwives often lack awareness and confidence in referring women to appropriate resources and mental health agencies for further mental health assessment (McCauley et al, 2011).

Lack of experience, lack of training, and lack of support from the mental health team have been highlighted as some of the problems midwives experience in caring for women with mental health problems during pregnancy (Tully et al, 2002).

Aim of the study

The aim of this study was to explore the knowledge and experience of student midwives in the care of women with perinatal mental health problems.

Methods

Design

An exploratory descriptive design using a questionnaire survey was used (Polit and Beck, 2010). A modified questionnaire used in a previous study to evaluate midwives' knowledge prior to attending training in perinatal mental health was distributed to students. The questionnaire was distributed and collected on the last day of a Bachelor of Science (BSc) in Midwifery programme.

Ethics approval

Permission to conduct the research project was obtained in 2011 by the School Research Ethics Committee. Approval from the National Research Ethics Service (NRES) was not required as no patients were recruited to the study.

Questionnaire design

The questionnaire used in the current study was a modified version of one used by Ross-Davie et al (2006) to assess the training, confidence and knowledge of midwives in relation to their role in the care of women with perinatal mental health problems. The original questionnaire was developed to evaluate the effectiveness of a training day in perinatal mental health for midwives and obstetricians. A secondary aim of the original questionnaire was to gain insight into midwives' attitudes towards screening and caring for women with mental health problems (Ross-Davie et al, 2006).

For the purpose of the current study, the 29-item questionnaire used by Ross-Davie et al (2006) was modified with the aim of assessing final-year student midwives' knowledge, attitudes and experience of perinatal mental health.

Questionnaire modification

For the purposes of the current study, questions about experience gained or time spent as a registered midwife were removed from the questionnaire. Questions believed to be relevant to student midwives, for example regarding clinical placements attended in perinatal mental health or aspects of training during the BSc in Midwifery programme, were added.

The questionnaire comprised three areas:

- Screening and identification of perinatal mental health
- Experience of caring for women
- Knowledge of perinatal mental health problems.

The questionnaire used Likert scales, closed and open-ended questions and multiple-choice questions to elicit responses from students. The modified questionnaire used in the current study contained 23 questions, compared with the original questionnaire containing 29 questions.

Reliability and validity

To ensure reliability and validity of this study of student midwives, drafts of the questionnaire were reviewed by two experts; the first, a statistician working in maternal health research and the second, a professor of maternal and child health.

Recruitment of student midwives

Convenience sampling was used to recruit student midwives to the study (Polit and Beck, 2010). Information about the study was sent to students via email 4–6 weeks before the midwifery programme evaluation day, when distribution of the questionnaire was scheduled. The email was composed by the author, but distributed to students by the administrator for midwifery education. Students were offered the opportunity to email or phone the administrator before the programme evaluation day to indicate if they did not wish to take part in the study, in which case they would not be approached by the researcher on the programme evaluation day nor would they be asked to complete the questionnaire. The option to contact the administrator, as an impartial first contact, was employed to reduce any uneasiness that a student might experience in having to refuse their participation on the programme evaluation day. While none of the students chose to 'opt out' in this way, nine students chose not to complete the questionnaire on the evaluation day. The reasons for students' non-participation were unclear. Written informed consent was obtained from those student midwives who agreed to participate in the study.

Sample selection

Twenty-three students who were completing an 18-month BSc in Midwifery programme (preregistered nurses completing a shortened midwifery programme) and nineteen students completing a 3-year programme (students with no previous qualification in nursing) were invited to participate in the study. Fourteen (61%) preregistered nurses and nineteen (100%) 3-year students agreed to complete the questionnaire.

All of the students who completed the questionnaire were female, had completed all aspects of the theoretical and practical training as a requirement of the BSc in Midwifery programme and were awaiting the final results. None of the students, neither those who declined nor those who completed the questionnaire were male.

No further demographic or personal data were collected from students.

Data collection

The questionnaires were distributed and collected from students while they were attending an end-of-programme evaluation day in July 2011. The day is typically resourced by midwifery lecturing staff, and students from both the 78-week and 3-year programmes attend the same evaluation day.

Permission was obtained from the lead midwife for education to distribute and collect questionnaires during the programme evaluation day. Students were given a 30-minute time slot during the day in which to complete the questionnaire. It was hoped that organising data collection in this way would help maximise response rates with minimal inconvenience to the students. The research team wanted to assess students' spontaneous responses to the questions and it was expected that students would complete the questionnaire without access to textbooks or other information sources. Although this was not specifically requested, it was taken that students would not use information or other resources when answering the questionnaire.

Venue

The end-of-programme evaluation day was held in one of the university teaching rooms in central London. Questionnaires were collected by the study researchers, both of whom had previously been involved in teaching and supervising the midwifery students.

Data analysis

Data from the questionnaires were coded and entered into the Statistical Package for Social Science (SPSS) software (v. 19.0, IBM®) by the author. The data were checked for errors using frequency counts and were analysed using frequency distribution (i.e. responses from students, in relation to each question, were counted and converted to percentages).

The aim of the analysis was to compare the responses between those students who were qualified nurses and who might have prior experience of care of patients with mental health problems and those who were 3-year students, without any prior nurse training. The original intention was to observe differences between the two groups of students regarding perceptions, knowledge, training and experience of perinatal mental health issues. However, owing to inadequate statistical power in the sample to detect differences between the groups, this was not possible. The aim was, therefore, revised to generally explore the student midwives' knowledge and experience of caring for women with perinatal mental health problems.

Results

A total of 33 student midwives completed the survey questionnaire and, as mentioned earlier in this article, findings are presented under the three headings of screening and identification of perinatal mental health problems; experiences of caring for women with perinatal mental health problems; and student midwives' knowledge of perinatal mental health problems.

Screening and identification of perinatal mental health problems

All students, in both groups, reported that they always asked pregnant women questions about current and past mental health issues, at booking clinic. The majority of students also reported being confident in asking women questions about their mental health. Over 90% of all students reported that they were either 'very confident', 'confident' or 'quite confident' in asking women at booking clinic about their mental health.

The majority of students in both groups (97%) reported that women had disclosed current or previous mental health problems to them, the most frequent being symptoms of depressive illness. However, only a minority of students had experienced women disclosing any of the more serious mental health problems. For example, less than 26% of students had experienced women disclosing previous puerperal psychosis or current bipolar depression and less than 15% of students had experienced women disclosing schizophrenia or previous bipolar depression. Despite this, however, the majority of students in both groups (over 90%) reported having referred at least one woman to mental health services for specialist care.

Although over 90% of students reported being confident in asking women questions about perinatal mental health and had a plan of what to do if a woman answered 'yes', one student believed that asking women questions about mental health at a first meeting was 'too personal' while another student believed it might 'open a can of worms'.

When reporting on what questions they asked women, only one student mentioned standard case-finding questions recommended by NICE (2007). No students from either group referred to use of any validated screening tool or other standardised scale in their identification of perinatal mental health problems in pregnant or postpartum women.

In relation to parity between psychological and physical maternal care, the majority of students from both groups believed psychological care was central to their role (97%) and that midwives were well placed to provide good psychological care (57%). Despite this, however, over 80% of students either 'agreed' or 'strongly agreed' that the care of women with mental health problems should be carried out by specialist midwives.

Additionally, despite all students from both groups believing mental health was as important as physical health in the antenatal, intrapartum and postnatal periods, the majority of students in both groups (74%) believed that the physical wellbeing of the mother and baby were the priority for midwives.

Experience of caring for women with mental health problems

Although students reported being confident in screening for perinatal mental health problems, actually providing care for women with mental health problems, especially for those women who were experiencing serious mental health problems, was problematic for the majority of students; only 6% of all students reported being 'very confident' or 'confident' in providing such care.

The majority of students (69%) reported that they had, on at least one occasion, cared for a woman with a severe mental health problem. However, 64% of students reported being 'not very confident' or 'unconfident' with providing care for women who were experiencing depression, puerperal psychosis, schizophrenia or bipolar disorder. Additionally, 56% of students selected the option 'unsure of what to do for the best' over 'confident I can give good care', when asked about providing care for women with severe mental health problems. In a related question, 51% of students reported feeling 'ill-prepared' as opposed to 'well-prepared' in providing care for women with severe mental health problems.

Students were asked to rate their confidence levels in caring for women with a variety of obstetric, medical and mental health problems of pregnancy, including pre-eclampsia, HIV, depression, obstetric cholestasis and symphysis pubis dysfunction. The majority of students rated their level of confidence as 'high' or 'very high' with regards to providing care to women with pre-eclampsia (78%), nausea and vomiting (97%) and gestational diabetes (85%). However, students were much less confident when providing care to women with a diagnosis of schizophrenia where 89% of students reported being 'not very confident', 'unconfident' or 'very unconfident' in providing care. Additionally, high numbers of students (37%) reported being 'unconfident' or 'not very confident' in advising and caring for women with depression.

> "The majority of students, in both groups, reported feeling comfortable in defining a wide range of serious perinatal mental health problems that affect women."

When students were asked about their feelings in caring for women with severe mental health problems, three students chose the option 'very stressed' as opposed to 'enjoying the challenge'. Additionally, three students reported that caring for women with severe mental health problems was 'not my cup of tea' as opposed to adding 'interest and variety to my work'. When asked whether they felt anxious when caring for someone with severe mental health problems, 43% of students said they were anxious about 'the safety of other women and babies in my care'. A minority of students (12%) also felt anxious about their own personal safety when caring for someone with severe mental health problems. However, despite their lack of confidence and their perceived lack of training, students from both groups (86%) believed they were well supported in delivering care to women who were experiencing these problems.

Student midwives' knowledge of perinatal mental health

In this section, students were asked about their understanding of risk, illness and care related to perinatal mental health. When students were asked to rate their level of comfort in describing or defining mental health and the more serious mental health problems, the majority of students, in both groups, reported feeling comfortable in defining a wide range of serious perinatal mental health problems that affect women. For example, students were able to define postnatal depression (97%), obsessive compulsive disorder (70%) and post-traumatic stress disorder (63%). However, only a minority of students reported being able to define or describe puerperal psychosis (44%) or manic depression (35%).

When asked about the general risk of a woman

developing a mental health problem during pregnancy or the postpartum period, the majority of students (87%) correctly estimated the risk to be between 10–30% (Watson et al, 1984). The majority of students (60%) in both groups also believed correctly that the risk of developing puerperal psychosis in the general population was 1 in 500–1000 (Oates, 1994). However, a substantial number of students (20%) underestimated the risk to women as 1 in 10 000 and one student reported that she 'did not know' the risk of a woman developing puerperal psychosis.

When students were asked which women were at increased risk of developing serious mental health problems, a minority of students (24%) recognised that women with a history of puerperal psychosis in a previous pregnancy had a 1 in 2–4 chance of developing this serious mental health problem again (Oates, 2003).

Similarly, a minority of students (17%) realised that women with a previous history of bipolar disorder had a 1 in 2–4 chance of developing puerperal psychosis after giving birth (Robertson et al, 2005).

When asked about their 'understanding of puerperal psychosis', a large number of students (up to 15%) avoided answering these questions and left them unanswered. Those students who did answer these questions often answered incorrectly. For example, many students (33%) believed incorrectly that puerperal psychosis had a gradual onset in the first 6 months. Furthermore, a substantial minority of students (37%) failed to realise the treatment for puerperal psychosis required medication and hospital care (Jones and Smith, 2009), believing incorrectly that puerperal psychosis would resolve with additional support and counselling. A substantial minority of students (30%) also believed incorrectly that women in the general population had an equal risk of developing puerperal psychosis, regardless of their previous history (Oates, 2003).

Discussion

A confidential report on maternal mortality identified psychiatric illness as one of the leading causes of maternal death (CMACE, 2011). Substandard care and failure to recognise poor standards of care have also been recognised as contributing to the deaths of women (CMACE, 2011). Midwives are recognised as having the potential to play a greater role in the provision of care of women with mental health problems both in pregnancy and during the postpartum period (Dearman et al, 2007).

This article presents responses from soon-to-be qualified student midwives regarding their knowledge and experience of caring for women with mental health problems. A modified questionnaire, used previously to assess the knowledge of qualified midwives, was used to elicit responses from students.

Attitudes towards caring for women with mental health problems

Many positive aspects in the attitudes and knowledge of student midwives were identified. For example, student midwives accepted that the mental health of women was central to their role, and believed that mental health was as important as physical care of women and that midwives were well placed to provide care for women with perinatal mental health problems. Student midwives were confident in asking women questions about their mental health and performed this as part of their care of women. Students often had a plan of care if a woman disclosed a mental health problem and had experience of both referring and caring for women with mental health problems. The attitudes of student midwives towards caring for women with mental health problems, therefore, could generally be considered good. However, shortfalls and deficiencies in students' knowledge and skills were also identified.

Screening for mental health problems

Although students recognised the importance of asking women questions about their current and previous mental health status, they rarely made reference to any validated screening tool in their assessment of women. Additionally, there was little uniformity or consistency in the questions students asked women with the majority of students making no mention of case-finding questions in their assessment of women, as recommended by NICE (2007).

There has been considerable discussion on the benefits of using validated screening tools in the identification of perinatal mental health problems in women (Milgrom et al, 2011; Protopopescu et al, 2012). Many women who commit suicide do so as a result of an undetected psychiatric disorder (Buist et al, 2002). Without the use of appropriate validated screening tools, it would be difficult to correctly assess maternal wellbeing and the mental health problems of many women would likely go undetected (Heneghan et al, 2000).

Lack of confidence in care for women with serious mental health problems

One area where students appeared to lack confidence was in the provision of care to women with serious mental health problems. When students were

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Psychiatric illness is a leading indirect cause of maternal mortality and maternal morbidity in the UK

asked to describe the more serious mental health problems of pregnancy and postpartum and identify appropriate care for women, many students answered incorrectly. Of particular concern was students' inability to describe puerperal psychosis and recognise the onset and management of this serious illness. It is also of concern that soon-to-be qualified midwives should report being 'ill-prepared' and 'unsure of what to do' when caring for a woman who is so seriously unwell. This study indicates that students often felt more comfortable and confident in caring for women with medical and obstetric complications of pregnancy in contrast to mental health problems, highlighting the disparity that exists between physical and mental health in maternity care.

The findings from the current study are supported by others. Midwives' lack of confidence in providing care for women with serious mental health problems (McCauley et al, 2011; Jones et al, 2012), midwives' lack of knowledge of treatment options in perinatal mental health (Jones et al, 2011) and feelings of discomfort when providing care (McCauley et al, 2011) have all been identified by other researchers.

For example, in a previous Australian study, midwives were shown to lack knowledge of mental illness, felt 'out of their depth' and tended to avoid women with serious mental health problems (McCauley et al, 2011). Additionally, and in tandem with the current findings, a second study found midwives were often compromised by their lack of confidence despite being willing to provide emotional care and support to women (Jones et al, 2012). Findings from Jones et al (2012) suggest that it is not only the knowledge base of midwives that requires consideration, but focus should also be centred on improving the self-efficacy and confidence of midwives in caring for women with perinatal mental health issues.

Students' knowledge of risk in perinatal mental health

One of the most important findings from this study was the lack of knowledge among students concerning women's risk of developing a mental health problem in pregnancy or after giving birth. Students tended to underestimate the risk to the general population of developing a mental health problem during pregnancy or after giving birth. Students also underestimated the risk of a woman with a previous serious mental health problem developing puerperal psychosis after childbirth. This apparent lack of knowledge of the aetiology of perinatal mental health was of concern.

Despite the notion that pregnancy provides women with protection against developing depressive illness, a woman is at increased risk of developing mental health problems during pregnancy and childbirth than at any other time in her life. For example, the incidence of developing a severe depressive illness following childbirth can

be five times greater than for non-childbearing women (Oates, 2003). Additionally, those women with previous mental health problems are 50% more likely to develop a serious mental health problem during their current pregnancy or in the postpartum period than women without previous mental health problems. Women who commit suicide as a result of psychiatric illness are more likely to have experienced a previous mental health problem (CMACE, 2011).

A confidential enquiry identified that lack of specialised care from a perinatal mental health team were factors contributing to indirect late maternal deaths (CMACE, 2011). The enquiry also found that poor identification of risk and poor management of those women at increased risk of developing mental health problems contributed to women's death. For example, despite women with pre-existing psychiatric illness facing a substantial risk of recurrence following delivery, many of those women who died often did not receive pre-conception counselling, their risk was not identified at booking, nor was their risk actively managed (CMACE, 2011).

Although students in this study realised the importance of asking women questions about their current and previous mental health status, it is unclear how students used this information, considering their misunderstanding of the risk to women developing a mental health problem.

Limitations

There were a number of limitations to this study. This study involved only a small group of student midwives who had completed a BSc in Midwifery programme and were preparing to register as qualified midwives. The small sample size would, therefore, make generalisations to a wider population of student midwives difficult. However, as stated earlier, many of the findings from this current study are supported by other authors (Jones et al, 2011; McCauley et al, 2011; Jones et al, 2012).

Additionally, a substantial number of students (up to 15%) failed to answer all of the questions, especially those questions related to puerperal psychosis. The reasons for this are unclear; however, in the earlier study conducted by Ross-Davie et al (2006), up to 18% of participants also failed to respond to these same questions (Ross-Davie et al, 2006). Additionally, there was a high degree of variance in knowledge levels from participants, in both studies, with regard to puerperal psychosis. The reasons for this are also unclear. However, in the light of other research, which indicates a need to improve midwives' skills and knowledge in perinatal mental health, these observations are not surprising. It is clear that further research is needed on the training and education needs of midwives in caring for those women experiencing severe mental health problems, such as puerperal psychosis.

An additional limitation was that the researchers who conducted the study were also involved in teaching and supervising those students who participated in the study. Although the questionnaires were completed anonymously and the students reassured that their responses would be confidential, the consequences of using researchers who were also closely involved with students may have affected the responses students provided.

Finally, questionnaire surveys are limited in that only specific questions are asked, therefore limiting the type and scope of information collected from participants (Polit and Beck, 2010). However, as a result of limited resources of time and finance, a survey questionnaire was considered the most appropriate and convenient method of data collection.

Conclusion

Perinatal mental health problems account for a large number of indirect maternal deaths during pregnancy and postpartum. A questionnaire survey distributed to soon-to-be qualified student midwives suggests that, despite the important contribution made by psychiatric illness to maternal mortality and morbidity, serious discrepancies in knowledge and practice exist. The findings would suggest that a larger national study, involving several institutions and with a more diverse group of students, would help generalise these findings to a wider population. A review of current undergraduate midwifery education in relation to perinatal mental health, and especially in relation to care of women with serious mental health problems, is also needed. BJM

Key points

- Suicide is one of the largest causes of indirect late maternal death
- Women with pre-existing mental health problems are at increased risk of developing serious mental health problems during pregnancy and postpartum
- Failure to recognise and act on risk has been identified as an important factor in contributing to maternal death
- This study indicates that student midwives, near completion of their training, underestimate the risk to women developing a serious perinatal mental health problem and often lack confidence in providing appropriate care to women in this regard

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