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EVIDENCE BASED MIDWIFERY

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EVIDENCE BASED MIDWIFERY IS A STANDALONE PEER-REVIEWED JOURNAL PRODUCED BY THE ROYAL COLLEGE OF MIDWIVES

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Virtual birth in 2030

Key words: Virtual birth, appropriate use of technology, normal birth, evidence-based midwifery

Imagine the normal birth scene 10 years from now. A woman is preparing for birth using a headset and sensor pads from the comfort of her own home!

She is calm and well prepared having experienced virtual birth as part of her antenatal education programme, during which she created her own virtual birth environment using standard technology provided to all women by the hospital. She has selected key people to be with her, to offer her their support, and her personal midwife has been invited into this virtual world. She has a fear of childbirth based on a previous traumatic birth and emergency caesarean section due to a true knot in the umbilical cord. She was triaged in the antenatal system and assessed following online completion of a range of psychiatric instruments to detect post traumatic stress syndrome and depression.

Following online consultation, she was offered virtual and applied eye-movement desensitisation reprocessing therapy to facilitate her in processing the negative birth memories. Applied virtual reality enabled her to use the techniques learnt in treatment at home. Following successful therapy, she no longer fears birth and decides to opt for a vaginal birth after caesarean section. The midwife caring for her received her profile and history prior to the first antenatal booking in the clinic.

The woman has completed a series of online apps downloadable to her mobile phone and this data was ready for the midwife and the obstetrician to view before the woman entered the room. The birth memories were selected from a menu of options with a range of items from positive to negative and the data were presented in an infographic wordle. This provided the midwife and the obstetrician with an early insight into the previous birth experience of this woman and its impact on her mental health. The app also collected data on her medical and social history, including medication profile. Data on birth choices and birth expectations were also collected. Linkage to biochemistry results, ultra-sonographic data and previous hospital admissions and social work referrals were all inter-connected and available for download if and when required. Alerts were in the system so that any social issues could be flagged. Data on educational attainment and employment status were also retrievable.

As we move forward, imagine this woman has been treated for her previous birth trauma and is ready to engage in a normal birth. The system is now offering her an opportunity to prepare for birth using applied virtual technology and she can choose to create her perfect birthing environment. This woman goes to the virtual reality maternity centre to prepare her birth support materials. She is going to create her own virtual reality. She decides what is important, what to include in the video footage, whom to film, what sounds, pictures and objects need to be in the frame. She decides to use reflexology for pain relief and has video-recorded a complete session. She has sensors to put on her feet to re-create the activity when she goes into labour. She has recorded her reflexologist and together they relive the experience. This is modern childbirth. No systemic analgesia required, no fear experienced: a woman at home, comfortable with telemumandbabymonitoring to a local midwifery hub.

Now imagine the birth is imminent: the woman is 39 weeks, cephalic presentation, longitudinal lie and contracting 1:5 with contractions lasting 45 seconds. The woman is mobile, comfortable, wearing her head and sensory technology. She has alerted her midwife and contacted the hospital so that her e-world becomes live and she is linked to the maternity hub. She sees the midwifery team online and knows the obstetrician is on call if she needs a caesarean section.

Her partner is with her and she is in established labour. The midwives check the sensor monitors for the CTG reading and maternal vital signs, and they are happy she is progressing well. The woman has inserted a small vaginal probe like a tampon and this assesses her cervical dilation. She is 4-5 cms with 50% effacement and spines -2/3. This data is picked up by sensor technology and visible to the midwives in the central hub.

A midwife on call with a delivery pack sets out to be with the woman. Her journey is guided by satellite navigation and her presence is monitored. The woman relives her experience of reflexology, listens to selected sounds and music and sees the people who are important to her with her in this virtual world. She is calm and safe and relaxed.

The midwife on route has visual and sensory data downloaded to her mobile phone and can speak directly to the woman. The midwives at the central hub see the same data. The woman has a special relationship with the midwife who will attend the birth and together they have pre-prepared the virtual reality footage, including how to manage the birth if the midwife does not arrive in time. The calm voice and visual image of the midwife are essential to maintaining the intimacy of the birthing environment. The midwife arrives and the woman is clearly ready for birth. She and her partner experience a birth that has been supported by assistive virtual technology.

For some of you this will be a comfortable vision and you will see the benefits of being in a safe and known environment where technology is being used appropriately to support and enable a woman to give birth. The experience described here is one where the midwife is crucially involved in the complete birthing experience. Technology is assistive in providing visible data on every stage of the pregnancy and the birth. Landmarks of fetal descent and vital monitoring are easily read and interpreted and picked up from the central maternity unit for assessment and monitoring. Human and technological support are enmeshed to provide the best birth possible.

The future of virtual reality applied to birth really is in our hands!

Professor Marlene Sinclair (editor)

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Malay traditional practices surrounding the postpartum period: a qualitative case study

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Abstract

Study background. In Malaysia, traditional postpartum practices have long been practised among the community. Although the cultural aspects of postpartum practices among the Malays are widely described in the literature, no one has attempted to describe in detail the treatment regimen applied in Malay traditional postpartum care (TPC). Thus, it has been impossible to draw any conclusion on the efficacy of these treatment methods. Detailed information on treatment regimens is essential when developing a standard treatment protocol based on the common Malay traditional practices and prior to conducting further research on the effectiveness of its treatments.

Objective. The aim of this study was to explore Malay postpartum practices in detail, examining the preferred treatment regimens, the treatment duration, timing and methods.

Method. This qualitative case study involved data collection in northern Malaysia. The selected 17 key participants were from a group of recommended Malay traditional practitioners who were identified by purposive and snowball sampling. Twelve other key informers included traditional practitioners' clients who have received and experienced Malay traditional postpartum care.

Findings. This study indicated that the commonly preferred postpartum regimens were *berurut* (massage), *bertungku/bertuam* (hot compression), and *berbengkung/berbarut* (abdominal wrapping), while *bersalai/berdiang* (body basking by a heat source) was not mentioned by the participants in this study.

Conclusion. Malay TPC was believed to provide physiological and psychological support to postpartum mothers. Detailed information gathered about Malay TPC regimens in this study may help in expanding the range of technical information available to relevant policy makers and healthcare experts, without neglecting the traditional practices that are still being practised today. A deeper study of appropriate training and policy regarding postpartum care is highly encouraged.

Key words: Postpartum care, Malay postpartum practices, qualitative case study, evidence-based midwifery

Background

The postpartum period is a critical phase in the life of a mother and her newborn. The World Health Organization (WHO) defines the postpartum period as the first six weeks after childbirth, from the first one-hour of post-placenta delivery until the sixth week (42 days) following the birth of the infant (WHO, 2010). Most women in Asia adhere to many cultural beliefs and practices during this period. Reasons for women to follow postpartum practices may include the perceived prevention of illness and ensuring the wellbeing of mothers and newborns (Dennis et al, 2007).

In Malaysia, traditional Malay practices that are widely observed by postpartum mothers are in the form of physical therapy (Institute for Public Health, 2015). Such treatments include: massage (*berurut*); traditional herbal abdominal wrap (*berbengkung*); hot compression (*bertungku/bertuam*); vaginal steam (*bertangas*); sauna; body heating by sitting near burning embers (*bersalai/berdiang*); and herbal bath. These are provided by a traditional practitioner over a specified period, also known as the confinement period (translated in Malay as *tempoh berpantang*) (Fadzil et al, 2016; Hishamshah et al, 2010; Zamani, 2001).

Previous studies have suggested that Malay traditional postpartum practices may have beneficial health effects. For example, a study by Kit et al (1997) demonstrated low postpartum depression symptoms among Malay mothers who faithfully adhered to postpartum rituals and behaviour. Similarly, the majority of a Malay study sample population identified that postpartum traditional massage had a protective effect on the development of postpartum depression (Azidah et al, 2006). A study by Fadzil et al about postpartum weight retention discovered an interesting finding relating to the use of hot compression, in that not applying hot stone compression was a predictor for postpartum weight retention (Fadzil et al, 2018). However, they failed to provide details on the intensity, frequency, and duration of the hot stone application, data which is essential for this association to be further tested in a clinically controlled study design.

Although the cultural aspects of postpartum practices among Malays are widely described in the literature, there are no exact details of the treatment regimen applied in Malay traditional postpartum care (TPC). Thus, it is impossible to draw any conclusion on the efficacy of these treatment methods. Exploration and detailed information on treatment regimens is essential to developing a standard treatment protocol based on the common Malay traditional practices and prior to conducting further research on the effectiveness of its treatments.

Aim

The aim of this study was to explore Malay postpartum practices in further detail, examining the preferred treatment regimens which include the treatment duration, timing, and methods.

Materials and methods

This study employed an exploratory and descriptive qualitative case study methodology. The study was conducted between May 2015 and December 2015 in North Peninsular Malaysia (Kedah, Perlis, Penang and North Perak). This location was chosen because the populations that observed traditional postpartum practices were easily available and accessible. The limited funds and logistical constraints were other deciding factors. The key participants for the study were Malay traditional practitioners (TPs) and post-partum mothers who were their clients. A purposive sampling approach was used, with a list of names of the TPs obtained from the Health District office. Additionally, exploration through social media resources such as Facebook and blogs were conducted to identify practitioners who were recommended by their clients.

Out of 20 TPs approached via formal invitation letters, only one responded and agreed to participate. Another 16 TPs were identified using a snowball sampling technique. TPs were initially contacted via telephone and short messaging system (SMS) before a formal invitation letter was sent to them. Seventeen TPs were interviewed, followed by 12 postpartum mothers who were their clients.

Data were collected using semi-structured interviews and observation of the treatments performed. The semi-structured interview was employed as this provided clear guidance for each interview in order to generate reliable, comparable qualitative data. It also allowed focused, conversational, two-way communication, which is preferable when exploring and discussing personal experiences (Bogdan and Biklen, 2007). Furthermore, the semi-structured format was sufficient to meet the research objectives. In order to avoid unnecessary information during interview sessions, topic-guided questions were prepared (Boyce and Neale, 2006). These were constructed based on the current situation and the nature of the participant's profession. The questions were designed to encourage the flow of information and to ensure that they focused on the issues and topics relevant to the research question (Mason, 2000). They were also designed to build rapport with the participant since this would enable them to feel more comfortable (Qu and Dumay, 2011).

During the interview, the researcher actively participated in listening and asking the specifically constructed questions for this study (Doody and Noonan, 2013). The TPs were interviewed individually due to perceived dissimilarities in their practices. The interviewer requested the TPs describe their postpartum practices in detail, including the common treatments offered and preferred by the postpartum mothers. The questions included: *"Why was the treatment proposed?"*, *"How could the postpartum mothers benefit from the treatment?"*, *"When should the treatment start?"* and *"How to conduct the treatment?"*. Another set of questions was prepared for the postpartum mothers who were receiving TPC. These included: *"Tell me about your experience with the treatment?"* and *"How did the treatment benefit you?"* in order to gain an understanding about postpartum mothers' experiences and perspectives regarding TPC.

Prior to conducting the interview sessions, respondents' consent was obtained. All interviews were done by the first author in Malay language. This option allows the participant ease in narrating their views. Most of the participants were from Penang and Kedah with five participants each; four from North Perak and three from Perlis. The interview sessions were conducted at the house of the client (postpartum mothers) before the treatment started. Only three participants out of 17 were interviewed at the TP's own house.

Most of the individual interview sessions lasted 40–60 minutes; the conversation was audio-taped with consent to ensure the accuracy of the transcriptions and replay for analysis purposes. Observations were recorded throughout the treatment sessions performed by the TPs; their clients' responses towards the treatments were also noted. Since the researcher was able to reach data saturation at an early stage of data collection, this study was conducted with only 17 TPs, followed by 12 postpartum mothers who were their clients. Although Morse (2000) proposed a guideline for standard sample size in qualitative research to be 30-50 interviews, there is evidence that some researchers do not strictly adhere to it. According to Charmaz (2006), data saturation is reached if there is enough information to replicate the study, especially when the ability to obtain new information has been attained and further coding was no longer feasible. This study met these requirements.

The data analysis for this study began with the compilation and sorting of the data recorded from the field notes and interviews, allowing the researcher to familiarise themselves and be reminded of the field observations and interviews; this was followed by data transcription. The interview data was transcribed and analysed using the same language, which is Malay. However, for the purposed of the study after the analysis, the result was translated into English with consideration given to aiming to contribute to the best possible way to represent the participants understanding and experiences. Some words were left the same without translation to avoid misinterpretation, such as *berurut*, *bertungku/bertuam* and *berbengkung/berbarut*.

All interviews were transcribed using ATLAS.ti (ATLAS.ti Scientific Software Development GmbH). The field notes made during interview sessions were also consulted. In the first coding phase, transcripts were prepared to determine recurring words, phrases, and ideas. At every stage of the analysis, each interview was independently coded by the first author. The final transcriptions were verified and finalised through discussions with other members of the research team. Research themes were developed based on the research objectives to explore the Malay postpartum practices in further detail: the preferred treatment regimens, treatment duration, timing, methods and any subject relevant to the objectives were all coded as themes.

To enhance the reliability of the study, a member checking strategy was employed to ensure the credibility of the study and to improve the accuracy, credibility, validity and

transferability of the study data. The credibility of the data was determined by the participants' approval based on the data transcriptions. Participants' comments served as a check on the validity of the interview transcripts.

The study was granted an ethical approval from Medical Research Ethical Committee of the Ministry of Health Malaysia (NMRR-14-1585-21858) as part of the requirements for medical research. A supporting letter from the university was also presented to the participant while requesting their consent if interested and willingness to participate in the research. To address issues regarding confidentiality and anonymity, the names of the participants were made anonymous, although their demographic profiles were recorded for research purposes.

Results

Participant demographics

The age of the TPs in this study ranged between 34 and 70 years. Two of the TPs were former government servants; most of them started practising postpartum care because of their interest in this field. The majority of the TPs gained support from their family members, especially from those who were also involved in practising TPC. Most TPs had more than five years' experience in TPC and acquired their knowledge informally from generation to generation. Most of the treatment sessions were conducted at the postpartum mothers' houses. Older TPs had postpartum mothers visit them at their residence for treatment.

Common Malay traditional postpartum regimens

Regarding the commonly preferred treatment regimens, all participants mentioned the following three: *berurut*, *bertungku/bertuam*, and *berbengkung/berbarut*. These findings were consistent with the results obtained by Hishamshah et al (2010) in Malaysia. The three treatment regimens were reported as the most common physical treatments practised for postpartum mothers. A summary of Malay TPC regimens and the timing of treatments are presented in Figure 1. Based on the data from the interview transcripts, many factors influence the after-birth treatment for postpartum mothers. Among the factors are treatment availability, postpartum mothers' self-belief, time suitability between TPs and clients, and financial constraint.

Based on the findings, these themes were identified as addressing the research objectives:

1.0 'Berurut'

All 17 TPs mentioned that berurut has been one of the most requested treatments during the postpartum period, while the majority of postpartum mothers stated that berurut has been the most desirable treatment as it helped to ease physical pain and to help in relieving breastfeeding problems. For example:

"I choose berurut because I wanted to, my whole body was in so much pain after giving birth. When I am lying down, I cannot turn my body to the other side. It was such a pain. I feel so relieved after berurut and my body feels so light" (Mrs. L, 27, client).

Berurut consists of body and breast massage. It is common to deliver breast massage within the first week of the postpartum period to assist mothers who may encounter difficulties in breastfeeding.

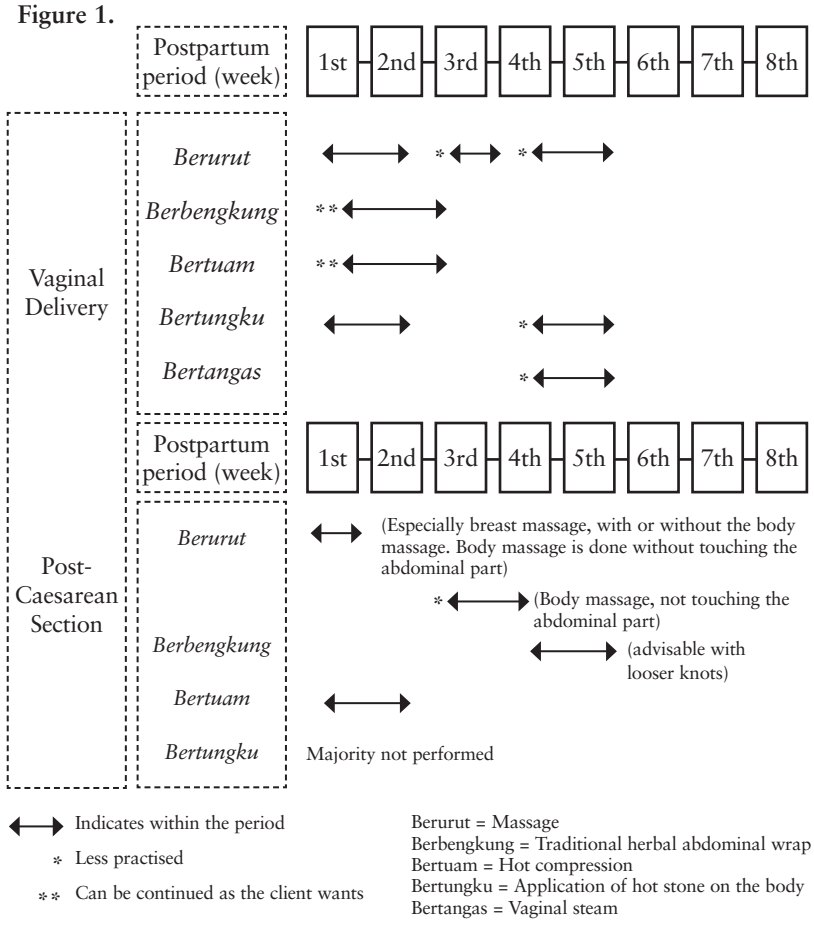
"Those with 'bengkak susu' (engorged breasts), need to be massaged immediately. Sometimes mothers can develop a fever. Massage can relieve the pain and usually after the massage, the milk will come out. After luka jahit (perineum wound) is a bit healed, only then we can do a whole-body massage. Usually, it takes approximately five days for the wound to heal" (Madam C, TP).

1.1 Duration and timing of 'berurut'

Most TPs indicated that a minimum of three *berurut* sessions is required. It is preferable for mothers to have the treatment on a consecutive basis over several days.

"The first berurut helps to expel the 'angin' (wind). We will know there is a lot of 'angin' while massaging the body as the body muscle is usually stiff. The second day is to treat, and after the third time, the mother will feel better" (Madam A, TP).

Figure 1.



Generally, the frequency of treatment provided during the postpartum period could reach eight sessions depending on the postpartum mother's needs. It is typically provided at the beginning, middle and end of the 44 days of confinement. *Berurut* also requires the postpartum mother to be in good shape, which includes recovery from any perineum wound. The TPs would normally use the perineum wound as the main indicator as to whether the mother has fully recovered and is fit for *berurut* to avoid unnecessary harm such as postpartum bleeding. Therefore, mothers with extensive perineum wounds would have to wait for their wound to heal prior to commencing treatment. As for the mothers with minimal wounds, *berurut* is performed at the end of the first week or in the second week of the confinement period.

A thorough *berurut* treatment that aims to treat the whole body can only be performed upon full recovery of postpartum mothers, which is usually towards the end of the confinement period. Most of the TPs also claimed that *berurut* is suitable for all postpartum mothers. Nevertheless, it is recommended to practice extra precaution with mothers who have undergone a caesarean section, have evident pathological diseases, or postpartum complications.

1.2 Methods of 'berurut'

Based on the observation, no blood pressure measurement was done to confirm the mother's condition before the treatment because the TPs' backgrounds and training do not involve any medical care, rather they focus only on providing traditional care. Most of the postpartum mothers were placed in a prone position, on either a *pangkin* (a platform made of wood), comforter, a screw-pine mat covered with linen, or on a bed. Postpartum mothers who were suffering from breast engorgement or had undergone a caesarean section were placed in either a lying or lateral position.

The massage stroke starts from the front of the body, followed by the back, down to the lower limbs, and finally moves upwards until it reaches the head. The stroke techniques applied during the early weeks of postpartum were soft gliding, kneading and rubbing. Towards the end of the postpartum period, the massage incorporated body stretching.

Seven of the TPs described different approaches of massage techniques:

i. Massage beginning from the back (with the client in a sitting position), followed by the feet, and lastly upward towards the head.

The direction of massage is decided according to the chief complaints related to breastfeeding difficulties, including breast engorgement or low breast milk supply. Massage on the back is usually performed by applying light pressure. Furthermore, low-intensity massage on the back of the body is more appropriate during the first day of treatment.

ii. Massage commencing from the stomach, followed by the feet, then upward towards the head.

Sakit rengat also known as after-birth pain is one of the most common symptoms during the first week after childbirth. It is believed that starting the massage from the abdomen helps reduce any pain experienced by the mothers.

Apart from that, during the massage sessions, more than half of the TPs associated the stroking direction with the direction of blood flow towards the heart and lymphatic flow. Older TPs believe that each part of the body is related to another:

- Massaging between the thighs is thought to be a key to restoring female sexual function.
- Massaging the back and underarms could boost breast milk production. Extending the strokes to the upper part of the breast and chest may reduce breast pain due to engorgement.
- Stretching or pressing the big toes and heels is avoided as it is believed to cause more vaginal bleeding.

Different methods used by the TPs for breast massage included massaging the back, armpit and the surrounding area of the breasts. The majority of the TPs believed that if the massage is performed directly on the swollen breast, it can worsen the pain:

"I will not directly massage the breast because it will worsen the pain. My own experience with 'bengkak susu', I suffer so much, and it became more swollen. So, I have learned that we were supposed to massage the back and the armpit. You do not want to put pressure on the painful breast" (Madam A, TP).

2.0 'Bertungku/Bertuam'

Bertungku (application of hot stone, only on the abdomen) is performed to dissolve residual clots in the womb. The majority of TPs believed that blood and discharge must flow smoothly throughout the confinement period. They also believed that if the flow stops too soon, it indicates that the womb is not cleaned thoroughly, hence it would pose a threat to the mother's health. A TP stated:

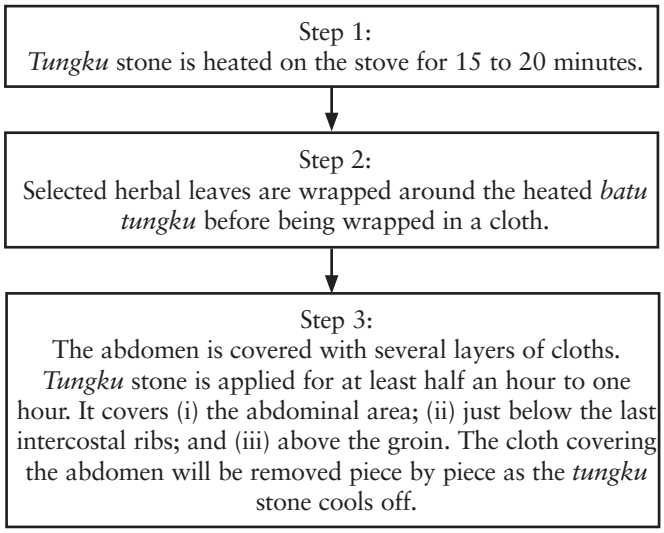
"The mother's womb will eventually get back to its normal size, especially when the mother breastfeeds the baby. But the process will hasten with bertungku and berurut. It also helps to expel the residual 'darah bantal' (placental tissue) and 'darah merian' (lochia). Almost 90% of my clients' experience this" (Madam M, TP).

Based on the findings, apart from *bertungku*, several TPs also offered *bertuam*. *Bertuam* (application of hot stone on the body) was conducted as it is believed to remove excess water from the body, to warm the body, relieve muscle pain, and avoid muscle cramps. However, the majority of the postpartum mothers prefer *bertungku* as it is believed to be more beneficial compared to *bertuam*.

During *bertungku* sessions, most of the TPs applied stones weighing around two to 2.5 kilograms onto the abdomen of the postpartum mothers. The stones can be divided into two types: river stone or stone made of iron. Most TPs practise a similar way of handling and taking care of the stones. Oil is applied onto the stones before they are heated on a fire; this is a popular method to ensure the stones are durable and retain the heat longer. Other alternatives to tungku stones include a portable electrical hot pillow or using *bunjut* (herbal compress ball). However, the majority of the TPs claimed that the effect differs based on the stones used. As a precaution during the treatment, the TP will cover the stone and remove the cloth layer by layer as the stone cools off.

One TP said:

Figure 2: Bertungku procedure.



"If you use batu tungku, you can feel it deep into the muscle and to the bone." (Madam S, TP).

Based on the interviews, both *bertungku* and *bertuam* were found to be usually performed after *berurut* during the early postpartum phase. However, these treatments are less likely to be performed towards the end of the postpartum period.

In addition, the majority of TPs claimed that *bertungku* or *bertuam* are time-consuming and require strength due to the weight of the *tungku* stones used during the sessions. Two of the TPs claimed that they would only carry out *bertungku* if time permitted. As for the majority of the older TPs, they were no longer able to provide *bertungku* due to unsatisfactory health claims by the TPs.

2.1 Duration and timing of 'bertungku/bertuam'

Most TPs performed *bertungku* during the second week of the confinement period for three consecutive days. The treatment is done following *berurut* and might continue for any length of time as requested by the postpartum mothers. The *tungku* stones are applied from about 20 minutes to half an hour, depending on the mother's condition. The treatment may be extended up to an hour, focusing on the pain point and its surrounding area.

2.2 Methods of 'bertungku'

Figure 2 illustrates the steps involved in *bertungku*.

3.0 '*Berbengkung/berbarut*'

Bengkung/barut cloth is a piece of cotton cloth or girdle, that is used to wrap around the abdomen. Mothers following normal birth are encouraged to wear *bengkung*, but not post-caesarean mothers. This is due to the belief that the *berbengkung* will trigger more abdominal pain to mothers who have undergone caesarean. However, the majority of TPs would consider suggesting *berbengkung* with looser knots and wrapping after four to six weeks post-caesarean to the postpartum mothers. The majority of TPs believed that *berbengkung* helps in aiding weight loss, reshaping the body by toning the abdominal muscles, and preventing abdominal pain or back pain by supporting both the spine and abdomen.

3.1 Duration and timing of 'berbengkung/berbarut'

Most TPs used *bengkung* soon after the *berurut* and *bertungku* sessions. Some TPs would suggest the clients wear *bengkung* for the entire day and only remove it before taking a bath.

3.2 Methods of 'berbengkung/berbarut'

Based on the observations, the *berbengkung* process begins with the application of a herbal paste on the stomach. The area is smeared with herbal paste, covered with a piece of cloth, followed by abdominal wrapping. The strength of the wrap and tie-knots depends on the client's comfort. The *bengkung* cloth usually covers the hip and the whole abdominal muscle up to just below the breast.

Other observed practices

'Bertangas'

Bertangas basah (herbal vaginal steam) or *bertangas kering* (herbal vaginal sauna) is another treatment conducted at the end of a confinement period. The purpose is to: maintain cervical health; protect healthy vaginal tissue; strengthen vaginal muscle; and help get rid of unpleasant vaginal odour.

According to TPs, *bertangas* is currently the least popular treatment among practitioners. *Bertangas* is time-consuming and is only possible if there are no other postpartum clients on the same day. However, all 17 participants (TPs) acknowledged the benefits of *bertangas* and stated that the demand for the treatment also depended on time and financial factors.

'Berdiang'

Two TPs described *berdiang* as a method of body basking that was performed soon before *bertungku* using a heated *tungku* stone. For example:

"The mother is positioned on one side. The body is applied with massage oil. The hot stone is placed right beside the mother's waist. Cover the mother's whole body, except for the face, with a blanket, together with the hot stone underneath. Keep the body still. This practice provides heat to the body and strengthens the muscles in the waist area. After 10 minutes, you can see the body sweating a lot" (Madam Pa, TP).

Discussion

In the literature, the various forms of physical treatment that exist in Malay TPC are aimed at restoring the health of women after childbirth and preventing prolonged pain (Fadzil et al, 2016). However, based on the interview sessions, this study found that only certain types of treatments were commonly practised by TPs and postpartum mothers.

All participants (TPs and postpartum mothers) mentioned the following three treatment regimens: *berurut*, *bertungku/bertuam* and *berbengkung/berbarut*. These findings were consistent with the results obtained by Hishamshah et al (2010) in Malaysia, where *berurut*, *berbengkung/berbarut*, and *bertungku* were reported as the most common physical treatments practised on postpartum mothers.

Overall, the procedures observed in this study mainly focused on pain management, maintaining cervical health and healthy vaginal tissue by aiding the dissolution of residual

clots in the womb, avoiding fluid retention, relieving muscle pain, as well as avoiding muscle cramps. Interestingly, the traditional practices examined in this study covered some of the important immediate or long-term postpartum care practices recommended by WHO (2015), suggesting that these traditional Malay practices partially overlapped with the evidence-based care practices recommended by WHO.

In the present study, *berurut* was found to be the treatment of choice because it offered immediate pain relief after childbirth. The severity of any perineum tear was one of the indicators as to whether intensive massage treatment should be conducted because unhealed stitches could increase pain, especially when conducted before the perineum had healed. As a result, the mother may face difficulties performing normal activities such as walking, sitting and breastfeeding. Additionally, the physical demands of taking care of a new-born baby would become burdensome for postpartum mothers.

Although bodily pain will ease naturally after childbirth, sometimes the healing process takes a long time, especially when there are extensive injuries (Steen, 2007). Hence, postpartum pain must be addressed quickly to avoid prolonged suffering and consequent depression during the first few months after childbirth (Schaffir et al, 2018; Eisenach et al, 2008). Nonetheless, treatment during the early stages of the postpartum period needs to be conducted with caution, especially when the mother is still weak and in pain. Hence, it is appropriate to suggest suitable timing for mothers with perineal pain to engage with Malay TPC.

Furthermore, this study revealed that treatment methods may differ from one TP to another. This variation may be due to the different levels of knowledge and understanding among the TPs regarding the anatomy and physiological processes happening to the mothers during the postpartum period. Moreover, it was observed that the choice of methods may also be based on the TP's experience and level of confidence in carrying out the treatments. For example, a TP who is knowledgeable about the common breastfeeding problems during the early postpartum period would offer breast massage treatment to reduce the risk of swollen breasts. An experienced practitioner sees physical pain after childbirth as a burden to the mother and would initiate treatment in stages so as not to exacerbate existing pain. The TPs treatment principles revolve around the concept of 'do no harm', i.e. with the intention to heal and avoid further harm.

In addition, based on the findings, TPs do not view caesarean surgery as an obstacle to performing Malay TPC for the affected women. It was observed that the treatment was conducted with care, considering the general condition of the mother where specific areas of her body were avoided when delivering the treatment.

To the contrary, the policy on practising Malay TPC on caesarean mothers differs between hospitals across Malaysia that offer traditional and complementary medicine, where they restrain Malay TPC from being conducted on mothers who have undergone surgical delivery (Traditional and Complementary Medicine, 2009). Hence, issues regarding TPC treatments received by mothers post-caesarean need to be addressed.

Besides that, studies found that post-caesarean mothers often face various complications during the postpartum period, which include pain as well as impaired physical, social, and psychological functions that may ultimately impinge on the mother's quality of life (Nikpour et al, 2011). The risk of prolonged physical pain is higher among mothers who delivered via caesarean section, and this increases the risk of depression (Xie et al, 2011). Therefore, extra caution should be considered by TPs especially when handling caesarean mothers.

Proper training is needed to ensure TPs understand the implications of their actions and possess the knowledge of suitable alternatives to address symptoms of complications during postpartum care when handling caesarean mothers.

Moreover, from the researcher's point of view, besides caesarean mothers, mothers with perineal trauma would also gain benefit from Malay TPC.

A study conducted by Webb et al (2014) on managing perineal trauma after birth suggested different approaches in managing perineal tears: for instance, undertake regular gentle physical activity such as walking and pelvic floor muscle exercises within five to seven days of delivery. The study suggested that detailed attention to the mother's wellbeing, including diet and daily activities, might help in reducing postpartum pain experienced by mothers who also suffer from perineal trauma.

According to Beckmann and Garrett (2006), perineal trauma can also be reduced using antenatal prenatal massage. Therefore, researchers in this study believe that massage such as *berurut* in Malay TPC might be able to help postpartum mothers to manage physical and emotional pain. However, caesarean mothers, alongside mothers with perineum trauma, require detailed and proper care. Therefore, several Malay TPC such as *berurut* and *bertangas* require a detailed study on the implications of the activities on the mothers' wound, although the benefits of these treatment regimens on the mother's physical and emotional support cannot be denied. It is appropriate to suggest a future study on the effectiveness of Malay TPC for perineum mothers and caesarean mothers.

Limitations

The several limitations faced during this study include a poor response from the participants, especially among the postpartum mothers in regards to their understanding of postpartum care benefits and implications. Apart from that, it is believed that postpartum mothers' opinions to some extent may be influenced by the TPs recommendations while receiving treatments. Therefore, it is believed that their perceptions regarding TPC might not represent their true understanding. On the other hand, TPs' understanding and knowledge regarding postpartum care were mostly inherited from previous generations. Hence, it is based on inherited knowledge, without proper guidelines and medical explanations to support their claims regarding the needs, benefits and proper treatments that should be received by postpartum mothers.

However, despite all the limitations, the findings from this study provide an insight into TPC practices. These should be

followed up with more rigorous clinical studies to reinforce the validity of Malay TPC treatments that have been practised for centuries across the diverse communities in Malaysia. These future studies could involve a broader group of participants from all over Malaysia.

Conclusion

Malay traditional postpartum practices have been practised by our ancestors for many decades. However, it is encouraging for the treatment to be performed by experienced and specially trained TPs with patients being advised to take note of the symptoms experienced after treatments to avoid unnecessary incidents and, in the case of emergencies, to visit the nearest hospital available. Based on the findings from this study, Malay TPC were seen to provide physiological and psychological support to postpartum mothers. The detailed information gathered about Malay traditional postpartum treatment regimens in this study is hoped to provide beneficial information for future research and healthcare experts, without neglecting the traditional practices that are still being practised today. A deeper study of appropriate training and policy regarding postpartum care is highly encouraged.

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Changing the narrative around childbirth: whose responsibility is it?

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Abstract

Background. There has been growing interest in all aspects of childbirth, which is reflected in social and traditional media. Stories often focus on dramatic, risky and mostly unrealistic events, misrepresenting childbirth and maternity care professionals. The question is whose responsibility is it to ensure accurate representations of childbirth?

Methods. Semi-structured in-depth interviews were conducted with ten midwives working in different UK settings: the NHS, higher education, and independent practice. Participants were purposively selected based on their place of practice, years of experience and views on the relationship between the media and midwifery/maternity care. Data were analysed using a thematic approach.

Findings. Four separate but inter-related themes arose from the interviews: 'not my responsibility'; 'fear of retribution'; 'power balance'; and 'social media'. The themes sat within two wider societal issues that reflect the current challenges for midwifery: (a) the ongoing battle between the social and the medical models of childbirth; and (b) the impact of gender.

Implications for practice. The finding that midwives fear the media resonates with experiences from a number of countries and professional groups. There is a need to change media discourse in fictional and factual representations of childbirth, and midwives have a critical role to play in this, but to do this they need to equip themselves with the skills necessary to engage with the media. Guidelines on responsible media reporting could ensure that media producers portray pregnancy, midwifery and maternity care as naturally as possible.

Key words: Childbirth, midwives, media engagement, social media, evidence-based midwifery

Introduction

The last decade has seen a growth in programmes portraying pregnancy and childbirth on television in several English-speaking countries – for example, *Call the Midwife* and *Sixteen and Pregnant*.

However, midwives and the media do not always agree about the way childbirth should be represented.

Midwives frequently blame the media, both fictional and factual, for inaccurate representations of birth that they suggest lead to rising rates of interventions such as caesarean section (Hundley et al, 2015). There is evidence that childbirth on television is shown in a dramatic and medicalised way, and that normal birth is missing in the popular media (Luce et al, 2016; Morris and McInerney, 2010). Similar representations have been found in newspapers, where stories tend to focus on dramatic and risky events, mostly unrealistic (MacLean, 2014). For example, the popular UK television show *One Born Every Minute* is argued to misrepresent the midwifery profession (Roberts et al, 2017).

The question is: whose responsibility is it to ensure accurate representations of childbirth and the professionals providing care at the time of birth?

One could argue that media and healthcare professionals should share the responsibility, but healthcare professionals are the ones with the inside knowledge and experience. Thus media producers and journalists could be defended for not knowing about childbirth, other than what they learn through social exposure. In addition, journalists have a need to report in an interesting and engaging manner. As such, a dramatic angle often provides a hook on which to draw in the reader (Allan, 2010). There has been significant debate about whether health reporting requires a more balanced approach than other areas of the news (Hundley et al, 2014; Schwitzer et al, 2005). Guidelines have been drawn up to assist the media in reporting sensitive areas such as suicide, domestic violence and mental health (Tallon 2019; Zero Tolerance, 2018; WHO and IASP 2017) and it has been suggested that similar guidelines are needed in relation to birth (Hundley et al, 2014). However, in order to report responsibly, journalists need access to accurate information about the topic (Luce 2016, 2013) and it could be argued that health professionals have a duty to engage with the media in order to make this information available (Hundley et al, 2014).

Some maternity organisations are engaging with the media, for example, providing media kits that detail information about birth (American College of Nurse Midwives, 2019; New Zealand College of Midwives, 2016), while others have media centres (The Royal College of Midwives, 2019). However, this could still be argued to be a form of passive interaction. Media advocacy is widely recognised in industry

as a means of conveying a company's objectives or promoting a particular cause. However, in health such interactions have been limited to public health messaging (Wakefield et al, 2010) rather than being seen as a mechanism for changing the perceptions about health services or care. In a number of countries health professionals are generally discouraged from engaging with the media (The Royal College of Midwives, 2014), and there is evidence that hospitals (Laja, 2011) and regulatory bodies, such as US Boards of Nursing (Cronquist and Spector, 2011), have taken action against staff for improper use of social media, which further discourages engagement.

With this backdrop we set out to explore midwives' views and experiences of engaging with the media. Previous research has examined how midwives view the way that the media represents childbirth and the impact that they believe this has on women (Luce et al, 2017). This paper focuses specifically on midwives' views of responsibility for reporting and their views of engaging with the media.

Methods

This qualitative study used semi-structured in-depth interviews (Flick, 1998), conducted with ten midwives working in different UK settings across the NHS, higher education and independent practice.

Participants were purposively selected based on their place of practice, experience (ranging from one to 35 years) and views of the relationship between the media and midwifery/maternity care (for example, we selected two midwives who we knew engaged with Twitter and one who had participated in a radio interview). Participants' ages ranged from 28 to 63 (one participant chose not to disclose her age), with those working in higher education tending to be older and to have been qualified for longer. All participants were educated to graduate level, with a few educated to post-graduate levels.

Ethical approval was obtained from Bournemouth University's Science, Technology and Health Research Ethics Panel. Participants were provided with information about the study and consent was obtained.

Interviews were conducted one-to-one by Sophie Edlund, the student research assistant, who has a background in communication and media studies. None of the participants were known to her in advance of the interview. The interview schedule contained questions on the interviewees' demographics, their work experience as a midwife, their perception of the portrayal of childbirth in the media, and how they as midwives were affected by the media representations of midwifery. Follow-up questions and prompts were used as and when appropriate. Participants were offered a choice of location for the interview, most chose a quiet room on the university campus. Interviews were audio-recorded (with permission) and were transcribed (Bailey, 2008).

Data were analysed using a thematic approach (Forrest Keenan et al, 2005). All ten transcripts were read and coded thematically, independently by all authors. Any discrepancies and difference of opinion regarding the coding were discussed and incorporated into the analysis. Quotes are used in the text below to illustrate the key themes. Unique identifiers are used to link quotes to particular interviewees (Pitchforth et al, 2005).

Findings

The qualitative analysis indicated that there were four separate but inter-related themes: 'not my responsibility', 'fear of retribution', 'power balance' and 'social media'. These themes reflected two wider societal issues, the so-called 'social/medical model of pregnancy and childbirth' and 'gender'.

Not my responsibility

Despite feeling that the media misrepresented birth and midwives, participants felt strongly that it was not their responsibility to correct these inaccuracies:

"If I wanted to go on telly [television] I would be an actress. I'm not craving that sort of attention" (Participant 2).

Others were very suspicious about the reasons why someone would engage with the media, suggesting there was usually an ulterior motive:

"The less I engage with them the better. I just think they're out for their own ends, whether that's politicians, and maybe you get used to that in your job, but it's [talking to the press] not a pressure that you should have, being a midwife" (Participant 7).

Participants tended to see media engagement as something that should be done by senior managers, for example:

"I think midwives of a certain level should… midwives, on a fairly senior position should really be thinking about those issues" (Participant 3).

Or, they suggested, it was a role for leaders in the Royal College of Midwives (RCM), the professional organisation for midwives in the UK:

"I don't think I want to do it. No, I think it's better to use people that are very good at it, like Cathy Warwick [RCM CEO of at the time of the interview], you know people from the RCM. They are very skilled in their communication, and we have elected [sic] her, so I'd like her to speak for me. It's a union so I think that's more appropriate. I mean, if someone's got talent for expressing themselves, great, I don't think that it's really me" (Participant 2).

Fear of retribution

Some midwives felt that they could be doing more but had reservations about being judged or getting 'into trouble' if they spoke out:

"Certainly midwives ought to be out there doing more media I think. I've always felt that really and putting the right message across. However, it's not politically acceptable" (Participant 8).

Some participants suggested that training would perhaps help to overcome the barriers of speaking to the media:

"I would like to talk to the media if I had training on it, but I don't have and I don't feel comfortable… I don't want to say something that might get me into trouble" (Participant 4).

Employers were frequently cited as controlling access to the media:

"We can't ever bring our employer into disrepute. So, it would be risky to speak to a reporter, say, because they might twist what you say and we have to communicate through our communications department, which I think is fair enough" (Participant 2).

Midwives were quick to mention occasions where others had got themselves into trouble with their employer:

"I know a midwife that talked out of turn a number of years ago and got into so much trouble. She was criticising the Trust [hospital organisation]… I'm sure that it's written somewhere in the policies within the Trust about media and your involvement, that you just shouldn't talk to them, you need to seek advice" (Participant 6).

The threat of the involvement of the regulatory body was raised by one midwife:

"You'd have to go in front of the Nursing Midwifery Council and justify that [your words]. I'm a little bit wary about saying what I really think, because I don't want to be brought up before my Council to say, 'Why did you say that?' If I wasn't working as a midwife I would be definitely saying a lot more things, for sure… maybe speaking to the media" (Participant 1).

Power balance

Only one participant expressed the opinion that midwives should be prepared to speak to the media:

"Yeah definitely. I think that if we don't then we can't really complain if the media puts out the wrong stuff, stuff which is incorrect or well largely incorrect, unless we are prepared to stand up to be counted and correct it" (Participant 5).

A number of participants stated that midwives and midwifery in general were perceived by society as being weak and that made it easy for reporters to make negative comments:

"But it's easy to pick on a midwife in the media, because we can't speak back. I don't think we are perceived as having power, because if you criticise the doctors I think it would have been a different matter" (Participant 2).

"It's [midwifery] a small, distinct profession. It's not very strong… although we have a union that talks for us, it's not as strong as the voice of nurses… that's why our voice is not heard" (Participant 1).

Not only was midwifery regarded as a weak profession in society, some midwives recognised that opponents of the profession were very influential:

"There's very powerful voices out there that are talking against midwifery… then you get programmes that don't show midwives in a positive way, or they don't show midwives at all" (Participant 1).

In order to establish better media engagement there is a need for a good working relationship. However, midwives expressed a significant distrust of journalists:

"I know some people engage with them well, but I only ever see the engagement on the defensive. You know, something's happened so let's have the midwives now try to defend themselves" (Participant 7).

There was a fear of being misquoted:

"It is the fear that what they [midwives] would say potentially would be taken out of context, and also you've got data protection, confidentiality" (Participant 9).

Or the worry that what you would say as midwife could be taken out of context:

"Things you say could be taken out of context, or could be distorted. They can take out part of your sentence and make it relate to something else entirely" (Participant 10).

More generally, participants thought that media reporting could be of dubious quality:

"I think there is just a mistrust of the media because they are not going to understand and they twist it to make it newsworthy" (Participant 2).

Some were very negative in the way their expressed their feeling about the way the media operated:

"You should be able to get on and do your job, and not have to deal with all the crap that the media is throwing at you all the time" (Participant 7).

Social media

Some midwives felt more comfortable addressing misrepresentations through social media:

"If I choose to engage with media it would be social media. Well I do… amazing what you can say in 140 characters if you choose your words carefully" (Participant 8).

However, others expressed caution:

"For example, say I put something on Facebook, even if it was in a midwives group, if it's negative, it's not just that comment, it's the way other people interpret and build, and that would be a disciplinary offence to do that. We have to be very careful with our use of social media, and I think that's fair enough, that is a good part of our framework" (Participant 2).

Particularly, the fear that there would be a permanent record of what was said on the internet:

"Be careful what you say online, because when it's out there it's out there. It's very hard to retract those words" (Participant 1).

Stories were often used to highlight the dangers:

"Some midwives haven't understood the rules about social media and even have lost their registration due to what they have said or done there" (Participant 9).

And a couple of the midwives felt very strongly that it was not something midwives should engage in:

"We always say to students that they should be wary about using Facebook, and that they shouldn't write anything that has to do with their studies, or anything that has to do with any experiences of midwifery, because it can get them into trouble… qualified midwives could lose their jobs if they put up stuff on there, so it's a bit of a battle isn't it?" (Participant 4).

Knowing someone else who got into trouble at work through using social media appeared to be a strong disincentive:

"No. I make sure I have nothing to do with Facebook and Twitter. I have friends who using social media have actually come a cropper and almost lost their jobs… I don't need that, so I don't use it" (Participant 7).

Discussion

Responsible media reporting is increasingly being discussed in relation to shaping how society perceives events such as domestic violence (Zero Tolerance, 2018), and as a means of preventing imitative effects – for example, in relation to suicide (Luce, 2019; WHO, 2015; Bohanna and Wang, 2012). However, it has been suggested that while significant energy has been invested in demonstrating the link between media reporting of suicide and subsequent suicidal acts, little has been done to engage with media producers in terms of developing and shaping the stories (Luce, 2019; Pirkis and Machlin, 2013). In relation to media reporting on childbirth, there is some evidence that interventions to change the narrative in relation to childbirth can influence young women (Young and Miller, 2015).

We propose that midwives have a professional responsibility to engage with the media in order to create a balanced narrative. However, there is evidence from our study that this is something that they are not comfortable doing. The midwives in this study reported uncertainty in relation to professional boundaries and a fear that engaging with the media would put them in conflict with their employer, and possibly risk losing their license.

Such fears are not without reason, particularly in relation to social media. A 2010 survey by the National Council of State Boards of Nursing in the US found that more than three-quarters of these boards had received complaints about nurses in relation to social media and more than half had taken action against the nurse in question (Cronquist and Spector, 2011). In the UK a Freedom of Information request in 2013 indicated that nine nurses had been "found proven of misconduct due to the misuse of social media" and a third were struck off the register with a further third receiving a suspension order (Smith, 2013). An Australian study of recently graduated nurses and midwives found that the majority were very aware of the governing standards for the use of social media in their profession (Tuckett and Turner, 2016).

In order to engage with the media, midwives need to equip themselves with the skills necessary to engage with the media (Luce et al, 2017). This includes education on how to use social media effectively, on how to break through the barriers of Twitter and understand how Facebook can be harnessed to support the work midwives do, while also adhering to regulatory guidelines (Nursing Midwifery Council, 2016).

However, it is arguable that engaging with social media alone may be insufficient to change the narrative around childbirth. Midwives already have a fairly active social media presence, with one of the UK's top health-related Tweeters being a midwife, @SagefemmeSB (McCrea, 2014), and there are various groups that promote normal birth (for example, PositiveBirthMovement). This engagement with social media is clearly not permeating into the general depiction of childbirth (Luce et al, 2016; MacLean, 2014), which may indicate that a multi-pronged approach to midwife engagement with journalists, journalism and the media is needed. Indeed a recent study indicates that less than a quarter of respondents think that social media do a good job in separating fact from fiction, compared to 44% for the traditional news media (Newman et al, 2018).

Social media should not be confused with traditional, professional media organisations that include major national newspapers, such as the *Daily Mail* or the *New York Times*, and television broadcasting organisations such as the BBC, Sky News or CNN.

Production practices between traditional media and social media are quite different. Social media alter the circulation of news from a one-way selection and presentation of news (Barnhurst and Nerone, 2001) to a network of users creating, curating and personalising the content that they share (Carlson, 2018). News is constructed by journalists who bring their own ideological baggage to their reporting: journalists ask audiences to believe their version of the 'truth' (Luce et al, 2016; Allan, 2010). Breed's seminal work into journalism reporting practices found that it's not just a journalist's own ideologies or belief system at work when reporting the news, but there is also the added pressure of a socially controlled newsroom, with a strict hierarchy in place that determines what stories are covered and what are not (Breed, 1955). This complicates midwives' engagement with the field of journalism.

Midwives need to understand not only how to engage with journalists, providing accurate information about childbirth and about midwifery as a profession, but they also need to influence the news agenda, which can be difficult to do when journalists have already internalised dominant societal values (Cole and Harcup, 2010).

Midwives also need to engage with fictional media producers, who are responsible for midwifery representation on reality television and soap operas. While midwives might be critical of women seeking out such programmes that often depict inaccurate representations of childbirth, we need to remember that for most women television is their only opportunity to see a birth (Luce et al, 2017). Midwives also need to engage in social media spaces, as Prasad (2013) notes: "social media is where the future is, and most importantly, that's where our patients are going to be". A responsible and ethical approach to midwifery engagement in social media is needed, rather than a blanket culture of fear being applied.

In considering the four inter-related themes identified in this study, it is worth highlighting two wider societal issues. First, the so-called 'social/medical model of pregnancy and childbirth' is specifically focused on the topic (Clesse et al, 2018; van Teijlingen, 2005), and second, 'gender' in maternity care as a more general issue (Benoit et al, 2005; Witz, 1992).

The former dichotomises pregnancy and childbirth with a social model that portrays them as healthy physiological life events versus a medical model that portrays childbirth as pathological and therefore every woman is potentially at risk when she is pregnant and/or in labour (Clesse et al, 2018). Following this line of thinking, the social model argues that pregnancy and childbirth do not normally need medical intervention, nor that a pregnant women

necessarily needs to be in hospital. But the medical model demands that every woman should deliver in hospital with high-technology screening equipment supervised by obstetricians. In other words, pregnancy and childbirth are only safe in retrospect (MacKenzie Bryers and van Teijlingen, 2010).

Currently it is the latter, the medical model, that dominates popular media and therefore societal perceptions. If midwives are to influence childbirth representations then a move towards reporting a social model of childbirth is needed. This could be assisted with guidelines on responsible media reporting to ensure that media producers portray pregnancy, midwifery and maternity care as naturally as possible. Midwives have a role in helping to place normal labour and birth in the background of stories, removing the need for the dramatic.

Midwives face an additional challenge in changing the narrative around childbirth. Gender, as reflected in the themes 'power balance' and also 'fear of retribution' is a wider societal issue, because pregnancy affects women more than men, and because the majority of the world's midwives is female. As women, midwives suffer from being in a lower position in the occupational hierarchy (Witz, 1992), resulting in the common societal perspective that pregnancy and childbirth are women's business.

According to Benoit and colleagues a female-dominated occupation serving an exclusively female clientele, is bound to be of less social importance (Benoit et al, 2005). This can be seen in the absence of midwifery in media representations, which are often dramatic, with doctors rushing in to save the day. A higher profile of normal birth and midwifery would help to move societal thinking towards a social model of childbirth. For example, normal birth could appear as a background story to an episode of a soap opera rather than focusing on the birth as the dramatic storyline.

Midwives have an opportunity to extend their skillset and harness the media to work for them as midwives and as women. This might involve working with media producers to ensure that the narrative is accurate and highlighting the implications of inaccurate reporting. For this to occur, however, buy-in is needed from practising midwives, professionals who are willing to learn to work with media professionals. They must first engage and then teach those midwives coming behind them (Luce et al, 2017).

Conclusion

This qualitative study is context specific, but the finding that midwives fear the media resonates with experiences reported in a number of countries and by other professional groups. There is a need to change media discourse in both fictional and factual representations of childbirth and midwives have a critical role to play in this. In order to do this, midwives need to equip themselves with the skills necessary to engage with the media. They could be assisted with guidelines on responsible media reporting to ensure that media producers portray pregnancy, midwifery and maternity care as naturally as possible.

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Maternal and partner experiences of post-birth high-dependency care for an obstetric complication: an Australian study

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Abstract

Objective. Limited evidence exists around maternal and partner experiences of maternity high-dependency care. Our aim was to explore maternal and partner experience of post-birth high-dependency care for an obstetric complication.

Method. A cross-sectional prospective study recruited women and their nominated support person over an eight-month period in 2016-17 from the high-dependency unit of a tertiary maternity hospital in Western Australia. An open-ended question inviting comment around the experience of maternity high-dependency care was utilised to elicit participants' experiences, as part of a larger questionnaire. A qualitative descriptive design was used for the open-ended question component, and the comments from the 90 parental dyads who shared their experiences were analysed using content analysis. Ethics approval was granted from the study site.

Findings. Analysis revealed two divergent categories. 'Knowing you're in good hands' incorporated three sub-categories: 'a safe place'; 'skilled clinical staff'; and 'being together'. 'Care did not meet expectations' also incorporated three themes: 'bad encounters'; 'dismissing the family'; and 'readiness to leave'.

Implications. Findings offer insight into the feelings and challenges experienced by women and their partners following obstetric complications requiring high-dependency maternity care in the first 24 hours after birth. Further investigation is warranted if the physical and psychological wellbeing of the family unit is to be enhanced.

Key words: Complicated birth; maternity high-dependency care; women's experience; partners' experience; qualitative content analysis, evidence-based midwifery.

Introduction

Limited evidence exists around women's or partners' experiences of a complicated pregnancy or birth that required specialised care.

Evidence is available on patient (male and female) experience within a general intensive care unit (ICU) and this has provided valuable insight for health professionals. A British study that explored experiences and needs over time of patients discharged from an ICU found that anxiety, depression and quality of life scores improved from initial discharge to six months and then remained stable (Pattinson et al, 2015). Qualitative data also revealed a core theme of 'adjustment of normality', reflecting how recovery was shaped by ongoing illness and treatment.

However, the experiences of ICU patients and family members do not always align. For example, a Norwegian study found that a quarter of ICU patients reported severe symptoms of post-traumatic stress that were triggered by memories about pain, lack of control and inability to express needs (Myhren et al, 2009). Interestingly, relatives expected the ICU patient to be more distressed than was reported by the actual patient.

The experience of patients and families within a general ICU may not reflect the unique experiences of childbearing women and their families who have undergone a complex birth requiring specialised care. Women's experience of a complicated birth involving admission to an ICU has been explored qualitatively with eight Swedish women who shared how 'wishing to be in control and together as a family' was the main theme capturing their experience (Engström and Lindberg, 2011).

Nonetheless, there is limited evidence around childbearing women's experience of specialised care within a maternity high-dependency unit rather than an ICU. A maternity high-dependency unit differs as patients are not ventilated, though they may still receive 1:1 or 1:2 care.

One exceptional British study explored 35 women and 11 partners' experience of critical care within an ICU or a high-dependency unit after childbirth, capturing the shock at requiring critical care. Mothers were devastated at being separated from their babies, confirmed the importance of breastfeeding, felt challenged with being transferred out of ICU, and valued follow up support (Hinton et al, 2015).

A meta-synthesis exploring the psychosocial implications of a traumatic birth on maternal wellbeing, found experiencing a traumatic birth has the potential to cause long term, negative repercussions on maternal self-identify and relationships (Fenech and Thomson, 2014).

Fathers' experiences of a complicated and potentially traumatic birth have been analysed through a meta-ethnographic synthesis involving eight qualitative studies (Elmir et al, 2016). The findings highlighted four

themes: 'unfolding crises', 'stripped of my role: powerless and helpless', 'craving information' and 'scarring the relationship'. Eight Swedish fathers' experiences of care following a complicated birth where their partners had been admitted to an ICU revealed how they felt scared and uncared for, appreciated the opportunity to participate in care and to become a family, and how they needed continued care (Lindberg and Engström, 2013). Studies within this synthesis captured the diverse situations that encompass a complex birth, such as the experience of a severe postpartum haemorrhage (Snowdon et al, 2012), a 'near-miss' event (Fenech and Thomson, 2014), witnessing neonatal resuscitation (Harvey and Pattison, 2012) and an emergency caesarean birth (Johansson et al, 2013; Yokote, 2007). The concept of post-traumatic stress disorder (PTSD) has also been explored with fathers (White, 2007) and couples (Nicholls and Ayers, 2007).

Recognition of the importance of the family experience in an ICU has resulted in a number of international studies. The Surgical ICU Family Experience Survey was administered to 53 American participants that included 45 spouses, 19 children, and 13 'other' support people (Twohig et al, 2015). Being a survey, responses were guided by question format which indicated high satisfaction with quality of care provided to patients, communication and availability of nurses and doctors, explanations offered, inclusion in decisions and patient-needs being met.

A German survey including 215 family members visiting an ICU suggested potential areas of improvement to be: consistency; clarity and completeness of information; emotional support; and respect and compassion toward families (Schwarzkoph et al, 2013).

A challenge with satisfaction surveys of family members are the response rates, which ranged from 16% (Twohig et al, 2015) to 28% (Schwarzkoph et al, 2013). Interestingly, a survey conducted with families of patients admitted to an ICU in Hong Kong reported a 77% response rate (n=736) (Lam et al, 2015). Areas for improvement included attention to the ICU environment, agitation management and communication with families.

One qualitative study from Ireland explored the lived experiences of six family members of patients in an ICU (McKiernan et al, 2010). Themes that emerged were: 'the need to know', 'making sense of it all', 'being there with them' and 'caring and support'.

In summary, limited evidence exists around women's and their partners' experiences of a complicated pregnancy or birth that required specialised care in a maternity high-dependency care unit (as opposed to an ICU).

We believed exploring the experiences of parental dyads would enhance understanding of the issues faced by the couple. Therefore our aim was to explore the maternal and partner experience of post-birth high-dependency care for an obstetric complication.

Method

A descriptive qualitative design was selected to explore women's and partners' experiences of a complicated pregnancy or birth that required specialised care in a maternity high-dependency care unit, as this design enabled gaining first-hand knowledge of participants' experiences (Neergaard et al, 2009; Schneider et al, 2014).

Grounded in naturalistic inquiry (Colorafi and Evans, 2016), this design allowed for a descriptive summary that best fits the data. We utilised content analysis to identify patterns in responses to an open-ended question which asked women and their partners to share their post-birth experiences of high-dependency care.

Setting and participants

This study was built on the foundation of a previous cross-sectional study that invited a convenience sample to respond to a questionnaire to elicit women's experiences of maternity high-dependency care following a complicated birth (Hauck et al, 2019). Women and their nominated partner were recruited over an eight month period in 2016-17 at the sole tertiary maternity hospital in Western Australia. The high-dependency unit in this maternity hospital provides gynaecological and obstetric care for women. However, only obstetric women were eligible for the study if they had birthed a live baby at ≥28 weeks gestation and received postnatal care in the first 24 hours of their stay in the high-dependency unit. Women identified their partners for inclusion in the study and 90 parental dyads completed questionnaires. Using the woman's individual hospital number we checked the hospital's database to confirm the woman met the criteria.

Ethical approval

Human research ethics committee approval was granted from the study site for the exploration and analysis of maternal and partner experiences (approval 2017036QK and 2017035QK).

Data collection

An information sheet, questionnaire and reply-paid envelope were sent to women four weeks post-birth. If a survey response was not received within two weeks the woman was telephoned to encourage her to return the questionnaire and assess if a replacement was needed.

The information sheet also explained that an additional questionnaire and reply-paid envelope had been included for their primary support person (if they wanted to nominate them to participate).

If a questionnaire was not received within two weeks, during our telephone reminder we also enquired about their support person's questionnaire.

Piloting of the questionnaires highlighted the need for an open-ended question inviting further comment around post-birth experiences of high-dependency care.

Data analysis

This study utilised information gleaned from an open-ended question placed at the end of the questionnaire, inviting comment from women and their support person around the post-birth experience of maternity high-dependency care.

This method of data collection has been used previously to explore family involvement in an ICU environment (Hetland et al, 2018; Hollman Frisman et al, 2018).

We utilised qualitative content analysis to identify patterns in responses to an open-ended question. Data analysis was guided by the six phases outlined by Braun and Clark (2006): becoming familiar with the data, generating initial codes, searching for categories, reviewing themes, defining and naming the gategories, and producing a report. Data saturation was achieved when the same themes were recurring, and no new insights were apparent with further analysis (Colorafi and Evans, 2016).

Three members of the research team analysed each data source. The research team then deconstructed the data which enabled patterns and similarities to be identified from the maternal and partner comments (Braun and Clarke, 2006). The team met weekly over two months to negotiate, clarify and refine the themes. Disagreements around the interpretation were negotiated by referring back to the data. The research team analysing the data were female and consisted of two clinical midwives and one academic midwife.

Findings

This research was an extension of previous work (Hauck et al, 2019) by members of this research team, which invited women to respond to a questionnaire to elicit their experiences of maternity high-dependency care following a complicated birth.

At the same time, these women were invited to nominate a primary support person who could also respond to a questionnaire. Of the women surveyed, 90 nominated a partner who participated. Therefore we had 90 dyads (n=90 women and n=90 partners). The majority (96%, n=86) of partners were male, with 4% (n=4) being female. In addition, 82% (74 of 90) of the women and 69% (62 of 90) of partners provided a response to the open-ended question. Two categories were identified: 'knowing you're in good hands' and 'care did not meet expectations' (see Table 1).

Findings are supported with verbatim quotes (italics) allocated a postfix to indicate the group ('M' for a mother and 'P' for her partner). A numerical coding system was used to ensure confidentiality.

Knowing you're in good hands

Women and partners perceived that quality care incorporated both physical and psychological care, with many identifying that a high standard of care eased their stress. 'Knowing you're in good hands' was linked to three subcategories: 'a safe place'; 'skilled clinical staff'; and 'being together'.

A safe place

Reflections in this subcategory recognised that *"this [the unit] is obviously the place no one wants to be if they can avoid it"* (P148P). Two partners expressed gratitude to the clinical staff *"for the care you provided in a very scary event in our lives"* (P246P) and *"very attentive midwives that took great care of mum and baby at such a stressful time."* (P89P).

One mother described how she perceived the unit was a safe place where she could recover from the stress and trauma of her experience:

"I had a very scary experience caused by postpartum haemorrhage. However, as soon as I was admitted to the unit (which was night time) the midwives and the nurses cared for me and my baby so well and I felt safe" (P111M).

Another mother explained how she perceived the way in which her clinical care had been delivered *"made all the difference for my emotional wellbeing. I couldn't have asked for a better experience despite the challenges I went through"* (P5M). This sentiment was echoed by another who felt *"the staff were amazing, they went out of their way to help me. I had anxiety but they supported me"* (P92M).

It was stated that midwives were *"very supportive and comforting and made a bad experience a little better"* (P79M). Partners' also expressed their belief in the safe hands of midwives:

"It alleviated a lot of concern knowing my partner was in good hands" (P17P).

Safety was also felt in a strange environment:

"I felt my whole experience [of the unit] was very reassuring. Everything was a bit daunting to start with as I am not from there and have no family or friends there" (P237M).

Table 1. Maternal and partner experience of maternity high-dependency care following a complicated birth

Category	Subcategory	Definition
Knowing you're in good hands	A safe place	The unit was perceived to provide support to recover from their labour/birth experience
	Skilled clinical staff	A high standard of well managed care from attentive skilled staff
	Being together	Emotional and physical wellbeing was dependent on being together as a family
Care did not meet expectations	Bad encounters	Encounters perceived as negative had the capacity to adversely impact recovery
	Dismissing the family	Care which did not bring the mother, baby and partner together caused distress
	Readiness to leave	Perception that the mother needed more time in the unit

Skilled clinical staff

Sentiments in this subcategory reflected that *"the staff were absolutely excellent. The standard of care and attention was exceptional"* (P179P).

Quality care was described:

"My experience was incredibly well managed by everyone who cared for me so conscientiously. I believe I received the very best medical care from an incredibly caring and professional team of highly skilled staff" (P14M).

Another mother stated:

"The nurses/midwives and doctors were amazing. I felt respected through the whole time" (P49M).

This high standard of care was summarised by one partner as *"I believe the staff and systems in the unit to be first class and of the highest standard. I am also proud that my taxes are used for this brilliant and necessary service"* (P14P), while another partner said *"the unit did a great job bringing my wife up on her feet"* (P78P).

A number of partners explained that engagement and shared decision-making was central to their perception of receiving high-quality care as a mother and partner dyad. *"Having all our questions answered, no matter how silly they may have been, was important"* (P49P). Another reflected *"everything was explained and we were informed on everything that was to be done"* (P194P).

Being together

For some women, emotional and physical wellbeing was dependent on being together as a family.

One mother explained:

"The staff were excellent as I was very emotional and stressed out as my baby was taken from me at birth (no skin to skin) for an ECG [echocardiogram] and never returned. Six hours later the staff here managed to return him to me" (P51M). This sentiment was echoed by her partner who stated that *"the unit was very helpful in getting our son to his mother"* (P51P).

One woman shared how staff had supported her family:

"I cannot say enough compliments of the ladies that cared for myself, my baby and my husband who at the time of caring for his wife and newborn baby was also grieving the sudden loss of his father. It was a very challenging time for us as a family and the whole team supported us incredible well. We will never be able to thank them enough" (P186M).

Another mother was impressed with the effort made for her to be with her baby:

"I thank everyone who looked after me greatly and even went to the extent of suggesting that I be pushed in bed to the NICU [neonatal intensive care unit] to see my baby for the first time" (P194M).

Care did not meet expectations

There were dyads who perceived the provision of care had failed to meet their expectations.

One encounter was perceived by the woman as negatively impacting recovery:

"I was unfortunate to encounter a midwife, at a time when I was in pain and vulnerable and needed someone to care for me, who failed in her role. She lacked empathy towards me, my condition and what I had been through. She was 'too busy'. I would go as far as to say her treatment of me negatively impacted my whole wellbeing and recovery" (P197M).

Similarly her partner described how: *"I did not find any fault with the care in the unit until the mistreatment of my wife on the second night which overshadowed her stay and my experience… I met with and witnessed unnecessary hostility from the midwives"* (P197P).

Another mother shared her concern with poor communication between staff that contributed to care not meeting expectations:

"My biggest issue was changing nurses and midwives asking me to let them know information that was missing on my chart. When I asked questions/requests to some midwives I was left waiting and found out they finished their shift and asked the new nurse the same request" (P126M).

One partner openly declared that *"the midwife bullied my wife"* (P257P).

Dismissing the family

Sentiments in this subcategory highlighted care that did not focus on bringing the mother, baby and partner together, creating dissatisfaction and stress.

One partner said:

"I was unable to see my wife for three hours. She stayed in recovery and the baby was in NICU" (P217P).

This person's wife told us:

"I am from [regional town]. I was then unable to see him [husband] due to recovery ward rules and separated from my baby who went straight to NICU without being held. Very lonely." (P217M).

It was suggested that it was also important that parents were involved in newborn care decisions:

"My midwife was lovely but another one took my baby away for medication and cleaned my baby without asking… it would have been good if it was darker and quieter for mine but also baby's sake (wanted a calm/dark environment for her)" (P60M).

This subcategory also highlighted how women were upset at the lack of breastfeeding support at a time when they were vulnerable:

"One [midwife] refused to help me feed my baby, even though I didn't have the strength to lift him and had a bruised cannula in each hand and was rudely critical of my inability to do it without help" (P130M).

Another was similarly distressed about the inadequate breastfeeding support received:

"The nightshift nurse… hand expressed me and tried to show me how to. I wasn't told or given a pump and I wasn't sure how/how long my milk would take to come in. When I got transferred to the ward the nurses were shocked I hadn't pumped yet (almost two days after birth)" (P192M).

Readiness to leave

This subcategory illustrated how leaving the unit when they felt they were not ready was challenging for the mothers and

their partners: *"I felt it was too early to transfer my partner to the local hospital. She did not get much help from the midwives. There were few on duty"* (P250P).

One partner described his experience:

"It was clear I was unable to stay when transferred to the ward. This was very distressing being kicked out after arriving [on the ward] late evening. To this point I looked after the baby as my partner was too weak" (P178P).

One mother echoed this sentiment:

"I should have stayed more time in the unit because I wasn't ready to look after the baby alone like happens on the ward" (P34M).

Another mother said:

"I understand [the unit] had limited space but in my case I was released to a normal ward and left to fend for myself with less empathetic and supportive midwives… a few more days having extra support would have been appreciated" (P7M).

Women's comments also illustrated issues around poor communication and misunderstandings about what had happened:

"More information/detail on what happened to me by the doctors would be duly appreciated as I was more debriefed on more details in my postnatal follow up appointment" (P194M).

The following summed up the problems exerienced here:

"*I could have been communicated with a bit more instead of 30 mins before my transfer to the ward"* (P98M).

And, *"due to the day of discharge being Christmas I think some of my medication requirements were overlooked… I was let go with no pain relief and as a result was readmitted"* (P29M).

Discussion

This is the first known study to explore the maternal and partner experience of post-birth high-dependency care for an obstetric complication within an Australian tertiary maternity unit. Qualitative content analysis identified two divergent categories: 'knowing you're in good hands' and 'care did not meet expectations'.

Our discussion will focus on how our findings contribute to the existing literature around psychological wellbeing, acknowledging the family, preparation to leave a high-dependency unit, and the implications for practice.

Psychological wellbeing

The subcategory 'a safe place' illustrated that the maternity high-dependency unit was perceived as a safe place to recover from a complicated and potentially traumatic labour and birth experience.

The perceived need of partners to provide protection may be heightened in a maternity high-dependency unit as there is a need to provide a safe environment for mother and baby. Indeed, an integrated review exploring the needs of families of ICU trauma patients, found there was a need to protect loved ones during a traumatic event that was out of their control (Wetzig and Mitchell, 2017).

However, the category 'care did not meet expectations' highlighted care that did not bring the mother and baby together contributed to distress not only in the mother but also the partner. Other research has identified that the shock of requiring critical care arises due to a difference between birth expectations and what actually happened (Hinton et al, 2015). Often labelled as 'maternal near miss syndrome', this shock is accompanied by feelings of devastation due to being separated from their baby (Norhayati et al, 2017; Hinton et al, 2015; Souza et al, 2009).

Our findings found engagement and shared decision making is an important component of high-quality care. A traumatic birth can have a negative impact on a woman's post-birth wellbeing, increasing her risk of PTSD (Bastos et al, 2015; Chatterjee et al, 2015). Caregivers do acknowledge and respond to women's psychosocial worries following a traumatic birth (Bastos et al, 2015; Fenech and Thomson, 2014). A meta-synthesis of seven studies exploring the impact of childbirth-related PTSD on a couple's relationship concluded that the quality of the relationship is important to family wellbeing (Delicate et al, 2018).

Therefore, it is important that healthcare professionals acknowledge and respond to the psychological needs of the mother and her partner.

However, a Cochrane review (Bastos et al, 2015) exploring debriefing interventions for the prevention of psychological trauma in women following childbirth concluded there was no evidence to support a positive or adverse effect of debriefing interventions for the prevention of psychological trauma in women following childbirth.

Acknowledging the family

Most literature acknowledging the family in trauma care has occurred within an ICU environment. In the subcategory 'dismissing the family', partners and women described the distress at being separated from each other as well as their newborns.

This finding is not new. A descriptive study of 14 Swedish new fathers' experiences of a complicated birth (Lindberg and Engström, 2013) found they struggled to be recognised by staff as a partner. Work exploring mothers' experiences of complicated birth found they wanted to be in control and together with their partner and baby as a family (Engström and Lindberg, 2011).

This subcategory also highlighted how women were upset about receving insufficient care or support with breastfeeding when they felt vulnerable and physically weak. This finding may reflect that mothers perceive they neglected their infant's feeding needs due to a deficiency of midwifery care.

Research around maternal postpartum needs found a common concern of women post birth was related to breastfeeding (Almalik, 2017). Accordingly, non-judgemental family-centred guidance from clinicians is recommended to support mothers in their efforts to establish breastfeeding (Harrison et al, 2018).

Qualitative research with critical care nurses suggested the psychological care needed to bring a family together can be lacking (Engström and Lindberg, 2013). This research

also found the initial focus of staff was around the mother's vital signs and physical care, with no formal responsibility being assumed for the father or baby.

Preparation to leave

Leaving the high-dependency unit for a postnatal ward was challenging for women and their partners.

The subcategory 'readiness to leave' reflected that concerns around transfer were common. Women described feeling that it was too early to be transferred; they were physically not ready; there were issues around communication and understanding what had happened; they had to fend for themselves; and they were separated from their partner on whom they depended to care for the baby.

Our analysis described how partners perceived that midwives on the postnatal ward did not have the capacity to care for the mother and as a result they were reluctant to leave the mother and baby alone in the ward. The concept of transfer anxiety is not new within an ICU environment (Elliott et al, 2016). Indeed, a relocation stress scale has been developed for families (Whitburn et al, 2017). Nevertheless, an Australian study in an ICU measured anxiety before and twice after transfer to a general hospital ward, and found anxiety levels remained static (Gustad et al, 2008).

Implications for practice

The findings suggest that women and their partners experienced transfer anxiety. This was heightened when partners were not able to stay (outside of visiting times) on the postnatal ward with the mothers and their infants. We suggest there should be a number of 'family rooms' on each postnatal ward to accommodate families who have experienced an adverse event.

While research has explored 'maternal near miss syndrome' from the mother's perspective, further work may be required to explore the experiences of the partner within a high-dependency obstetric unit. Finally, we suggest further work should be undertaken to provide breastfeeding support for mothers who experience high-dependency care for an obstetric complication. This should be incorporated into the mother's vital signs, as part of her physical care.

Limitations

This study included a convenience sample of mother-partner dyads admitted to one maternity high-dependency unit following a complicated birth in one Australian state.

The optimum time for recall around birth experience is unique to each individual and may have had an impact on our findings. Although all the women surveyed had birthed a live infant, we were unaware of the health of the baby at the time of data collection at approximately six weeks post birth, which could have had an impact on the responses to the open question.

An alternative method of exploring maternal and partner experiences of high-dependency care for an obstetric complication would have been one-to-one interviews. However, conducting an individual interview could have been overwhelming for some participants due to their recovery from a complicated birth.

Consideration of how to sensitively gather detailed qualitative data from this vulnerable group of parents could be a priority and challenge for future researchers. Transferability of these qualitative findings must be determined by the reader, who must consider how the context of this study applies to their unique clinical setting.

Conclusion

This is the first known study to explore maternal and partner experience of maternity high-dependency care following a complicated birth within an Australian tertiary maternity setting. The study offers insight into the experiences and feelings of this vulnerable cohort of women and their partners, highlighting the complex nature of the issues which follow a complicated birth experience.

Two common categories were identified: 'knowing you're in good hands' and 'care did not meet expectations'. Both warrant further investigation to provide clarity and direction for health professionals to enhance care provision addressing the physical and psychological wellbeing of the family unit.

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How does pelvic girdle pain impact on a woman's experience of her pregnancy and the puerperium?

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Abstract

Background. Pelvic girdle pain is a prevalent condition during pregnancy. The associated pain can be constant and extremely distressing for women; however, the pathogenesis is still unclear. It is important to gain insight into women's experiences of pelvic girdle pain in order to improve these with a view to impacting positively on their physical symptoms, while also improving overall wellbeing and mental health throughout pregnancy and the puerperium.

Aims and objectives. To use published literature to ask the question how pelvic girdle pain can impact on a woman's experience of pregnancy and the puerperium?

Method. A systematic literature review of qualitative research was undertaken. Database searches using Cumulative Index to Nursing and Allied Health, British Nursing Index, PsycINFO and PubMed identified seven studies published between 2005 and 2014 in Sweden and England. Each paper was quality-appraised in order to inform assessment of the credibility of findings. Following Noblit and Hare's (1988) seven-step process for meta-ethnography, findings from each paper were synthesised into key themes which were then developed into a new conceptual model.

Results. A conceptual model consisting of five key themes was identified. The central theme is 'loss of identity and control', the themes leading on from this are: 'adapting to pain', 'inadequacy and independence', 'expectations and perceptions of others', and 'psychological strain'. The model highlights the link between mental wellbeing and perceived intensity of pain.

Conclusions. Pelvic girdle pain has a debilitating impact on the lives of pregnant women and further research is necessary to identify effective treatment methods.

Key words: Pelvic girdle pain, women's experience, puerperium, pregnancy, impact, pain, evidence-based midwifery

Introduction

Pelvic girdle pain (PGP) is defined as: 'The pelvic girdle is a ring of bones around your body at the base of your spine. PGP is pain in the front and/or the back of your pelvis that can also affect other areas such as the hips or thighs. It can affect the sacroiliac joints at the back and/or the symphysis pubis joint at the front' (RCOG, 2015: 1).

PGP can occur due to a combination of factors, including the pelvic girdle joints moving asymmetrically and abnormal pelvic girdle biomechanics from altered activity in the spinal, abdominal, pelvic girdle, hip and/or pelvic floor muscles. There is often no known aetiology (Pelvic Obstetric & Gynaecological Physiotherapy (POGP), 2015).

PGP is a prevalent condition among pregnant women, associated with functional disability (Bjelland et al, 2010). General lumbo-pelvic pain affects 50-70% of women, with up to 45% suffering from PGP specifically (POGP, 2015; Bjelland et al, 2010). Some studies suggest the prevalence in late pregnancy may even be above 50% (Robinson et al, 2010; Gutke et al, 2006; Mogren, 2006). POGP (2015) reveals that 14-22% of women will have serious PGP, with 5-8% suffering with severe pain and disability.

Risk factors for PGP include multiparity, previous lower back pain, emotional distress, BMI ≥25kg/m2, low educational level and physically demanding work, higher level of stress and job dissatisfaction (Bjelland et al, 2010; Albert et al, 2006). Ceprjna et al (2017) and Malmqvist et al (2012) report a possible genetic link for PGP, but their studies do not distinguish between PGP and lower back pain.

It is known that chronic pain, from whatever source, is not only a highly unpleasant experience for the individual but can also have detrimental effects on many other aspects of life, including mood and capacity to function in daily roles (Persson et al, 2013).

Symptoms of PGP include pain in the pubic region, hips, groin, thighs or knees; pain exacerbated by movement and clicking or grinding in the pelvic area. Prompt diagnosis is essential to increase the chance of improving symptoms or prevent any worsening (RCOG, 2015). PGP is generally managed and/or treated using exercise and physiotherapy. A Cochrane review found no conclusive evidence of an effective treatment for PGP, although one study showed craniosacral therapy made significant improvements to functional disability, compared with usual antenatal care, although only for morning pelvic pain (Liddle and Pennick, 2015).

This systematic literature review is concerned with exploring the subjective experiences of women who have suffered with PGP in order to understand how their symptoms impact on their pregnancy and the puerperium. This will enable possible improvements in care to be identified which may help improve women's experiences and address some of the psychosocial effects of the condition.

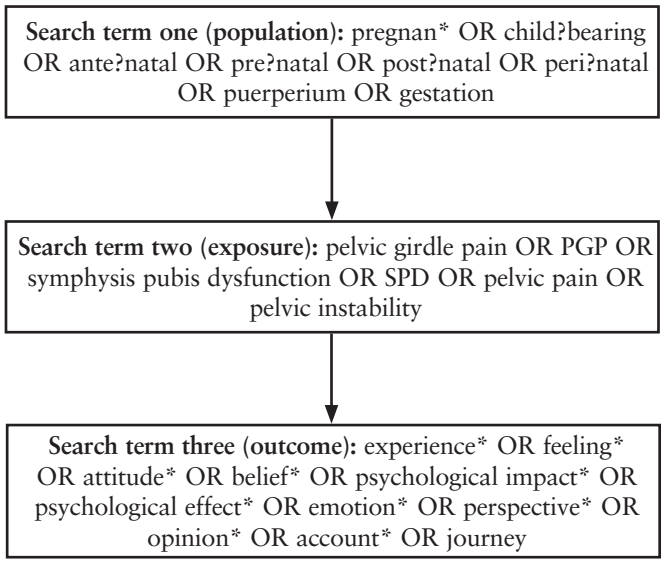
Methods

The Centre for Reviews and Dissemination (CRD) (2009) discussed the importance of systematic literature reviews in the context of providing good quality,

Table 1. Inclusion and exclusion criteria

Inclusion criteria	Exclusion criteria
Research conducted from 2005 to present	Research conducted pre 2005
Women of any parity or risk status, with a specific diagnosis of PGP, either in isolation or alongside general lumbo-pelvic pain	Women without a specific diagnosis of PGP
Research specifically including women's experiences in the antenatal or postnatal period	Research that does not include women's experiences in the antenatal or postnatal period
Research looking at the experience of primiparous women, multiparous women, or a mix	

Figure 1. Search strings



evidence-based information.

A systematic approach was employed to search for qualitative literature exploring the phenomenon of PGP from the viewpoint of women with the condition. Although qualitative studies cannot be used to assess effectiveness, they are central to understanding experiences. The synthesis of the findings from the retrieved studies was guided by Noblit and Hare's seven-step process for meta-ethnography, an interpretive approach which allows for the creation of a new and deeper understanding of a topic (Noblit and Hare, 1988). Rigorous synthesis can draw out the importance and relevance of qualitative findings, helping to ensure their contribution towards informing guidelines, service design and care (France et al, 2015).

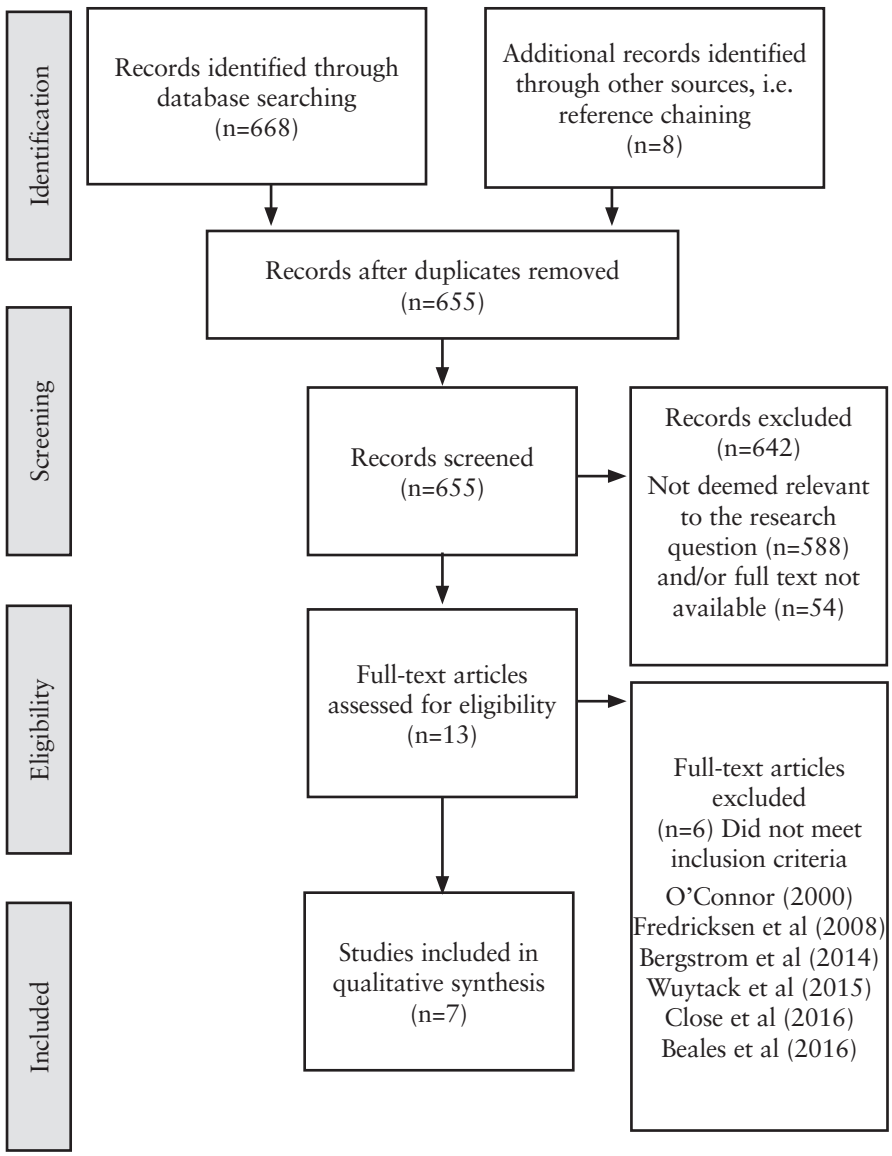
Search strategy

A search strategy was developed to answer the research question: "How does PGP impact on a woman's experience of her pregnancy and the puerperium?" The following inclusion and exclusion criteria were applied (Table 1).

Author 1 applied the inclusion/exclusion criteria to the papers identified and consulted author 2 who agreed with the final selection. Blind review was not thought to be necessary as the selection criteria were objective.

The databases searched were: Cumulative Index to Nursing and

Figure 2. PRISMA flowchart



Allied Health (CINAHL), British Nursing Index (BNI), PsycINFO, and PubMed. The Population, Exposure, Outcome (PEO) model was used to develop search terms from the research question (Glasper and Rees, 2013). The population was childbearing women, the exposure was PGP and the outcome women's experiences of the condition. MeSH headings were then identified and synonyms systematically considered. The final search strings can be seen in Figure 1.

The PRISMA flowchart (Liberati et al, 2009) (Figure 2) gives an overview of the search process.

Key authors for this subject were identified and contacted in an attempt to widen the search and identify any grey literature. No further papers were identified through this method.

Critical appraisal is 'the process of systematically

Table 2. Quality rating questions (Kmet et al, 2004)

Question/objective sufficiently described?
Study design evident and appropriate?
Context for the study clear?
Connection to a theoretical framework/wider body of knowledge?
Sampling strategy described, relevant and justified?
Data collection methods clearly described and systematic?
Data analysis clearly described and systematic?
Use of verification procedure(s) to establish credibility?
Conclusions supported by the results?
Reflexivity of the account?

Table 3. Summary of the studies

Study	Aims	Sample	Methods of data collection	Methodological approach
Shepherd (2005) England	To describe symphysis pubis dysfunction (SPD) from a woman's perspective of living with the condition	Purposive sampling n=9 women	Semi-structured interviews Interviews conducted in participants' homes Participants interviewed twice; one and three months postnatally Length of interviews is not given Interviews audiotaped	Colaizzi's (1978) Phenomenological framework Thematic analysis
Crichton and Wellcock (2008) Wellcock and Crichton (2008) England	To explore the disabling effects of SPD on the lives of pregnant and newly-delivered women and their families	Purposive sampling n=28 women	Semi-structured interviews Women interviewed in a place of their choosing, usually their own home Interviews proposed to take place at three designated points. Three women were interviewed on three occasions; 17 were interviewed twice; and eight, once. Gestation not provided Interviews lasted 30-90 minutes Interviews audio-taped	Colaizzi's (1978) phenomenological framework Themes and sub-themes were identified, explored and fully discussed Women were consulted about the final themes to provide confirmation
Persson et al (2013) Sweden	To investigate the experiences of women living with PGP in pregnancy	Purposive sampling n=9 pregnant women	Semi-structured interviews Interviews conducted in a place chosen by the informant, usually the woman's home Participants interviewed once Interviews conducted in last trimester of pregnancy Interviews lasted 30-90 minutes Interviews audio-taped	Followed the grounded theory design
Elden et al (2013) Elden et al (2014) Sweden	To describe pregnant women's experiences of PGP as related to daily life	Purposive sampling n=27 women	Semi-structured interviews Participants interviewed once, gestation at time of interview not provided Interviews lasted around one hour Interviews audiotaped	Qualitative content analysis
Engeset et al Norway (2014)	To explore how PGP after delivery influences women's daily life	Purposive sampling n=5 women	Semi-structured interviews Women interviewed in connection with planned treatment All women interviewed once, gestation at time of interview is not provided Interviews lasted 40-60 minutes Interviews audiotaped	Phenomenological-hermeneutical approach Data imported into NVivo 9 and analysed according to Lindseth and Norberg's (2004) three steps

Table 4. Main strengths and limitations of studies

	Strengths	Limitations
Shepherd (2005) *QR: 14/20*	In-depth description of the data analysis process, which appeared sufficiently rigorous Anonymous transcript and data were returned to a participant and a physiotherapist who has studied PGP to confirm trustworthiness of interpretation. This increased reliability	Lack of description of the information provided to participants. All nine women approached agreed to participate after being provided with an information sheet. The researcher contacted them to obtain consent. Could be seen as persuasive Credibility of findings were not discussed at any stage, with no documented consideration of the relationship between the researcher and participants. Increases the risk of potential bias
Crichton and Wellcock (2008) Wellcock and Crichton (2008) *QR: 15/20*	Provides excellent recommendations for practice and suggestions for future research are made Discussion surrounding findings is detailed and relates to existing knowledge and current practice	Critical examination of the author's role is not provided, increasing the risk of potential bias
Persson et al (2013) *QR: 18/20*	Data collection was well justified. Data saturation was discussed and achieved The relationship between the researchers and participants was considered at length, increasing the reliability Authors considered their own vast experiences of caring for women with PGP and reflected on how this could affect their analysis of findings. To counteract this, the two co-authors without this experience were involved. This helped to make it possible to explore and discuss data in a balanced manner	No clear implications for practice are provided Lack of information regarding ethical considerations
Elden et al (2013) Elden et al (2014) *QR: 12/20*	Follow-up support was offered to participants, this was an important ethical consideration The studies strengths and limitations were discussed by authors, indicating that they considered the credibility of findings	The relationship between the researcher and participants has not been critically examined at any stage The recruitment process is unclear, and limited information about the development of the interview guide and their rationale
Engeset et al (2014) *QR: 16/20*	Provides information about well-thought-out ethical considerations The setting for data was well justified and data saturation is discussed Credibility of their findings was also discussed, noting the small sample size and that none of the women were single	Although there is a description of the analysis process provided, there is not sufficient data presented to support the findings

examining research evidence to assess its validity, results and relevance before using it to inform a decision' (Hannes, 2011). Although the use of critical appraisal in qualitative syntheses is contested (Majid and Vanstone, 2018), it was felt that the use of appraisal tools to make an informed and relatively objective assessment of quality would enable judgements of the credibility of findings from different studies to be made.

Each paper in the final sample was therefore analysed using the Critical Appraisal Skills Programme (CASP) (2013) tool for qualitative research, and then graded according to the quality checklist outlined by Kmet et al (2004). While the CASP tool is the most widely used and provides an ideal framework for the discussion of process (Newton et al 2012), the scoring system developed by Kmet et al (2004) allows papers to be assigned a quality ranking. Quality rating scores were calculated by answering a set of questions for each paper, listed in Table 2: sum = (number of 'yes' * 2) + (number of 'partials' * 1), total possible sum = 20 (See Table 2). However, both tools are subjective checklists which could introduce unintentional bias. Furthermore, the evaluation can only be undertaken on the basis of information in the published work, which may not always reflect the quality (Newton et al, 2012).

Results

Seven studies were included in the review. The studies were published between 2005 and 2014, and conducted in Sweden and England. A summary of the studies is provided in Table 3. Table 4 lists the main strengths and limitations arising from the critical analysis.

Data analysis

Data analysis was guided by the seven-step process for

meta-ethnography proposed by Noblit and Hare (1988). The first two steps were completed at the literature search stage: refining the research question and screening all literature found. Retrieved studies were then read repeatedly to derive concepts and themes that arose in each paper, using the initial themes identified by the authors of each paper. Next, common themes and concepts were identified and an initial assumption about how the studies are related was made. Key metaphors, phrases, ideas and concepts were collated, then colour-coded and organised into relating categories. From this, new themes (or 'first level translations') were identified and synthesised into a conceptual model.

Findings

Five themes were identified: loss of identity and control, dependence and inadequacy, expectations and perceptions of others, adapting to pain, and reframing the future and psychological strain. Table 5 illustrates the papers in which each theme appears: the papers are listed from left to right in the order of their quality rating (Kmet et al, 2004). Different shades of blue have been used to demonstrate the scale of themes within each paper, darker colours represent the theme being more dominant. This is an important step to distinguish the strength and quality of each theme. To clarify this further, the table is also ordered from top to bottom according to the prominence of each theme across all seven studies.

Figure 3. Final concept

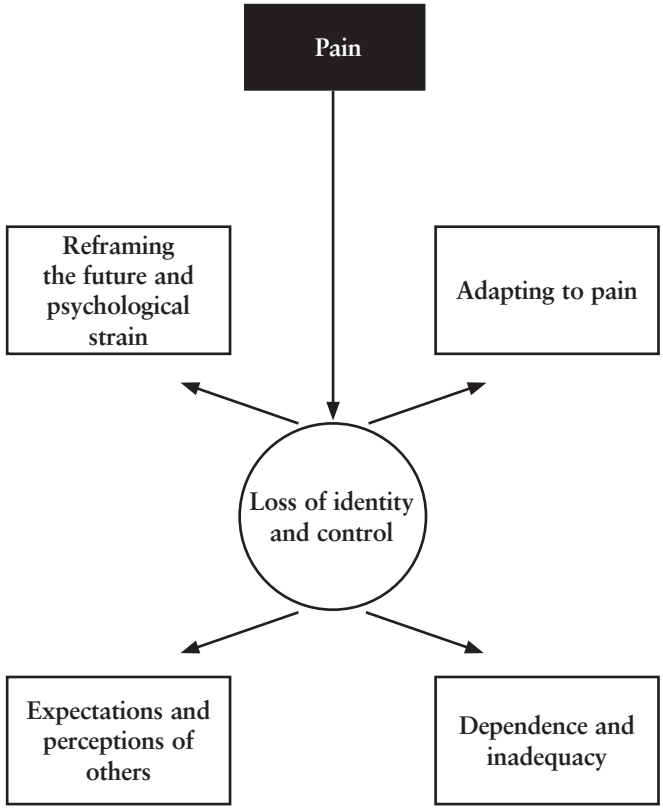


Table 5. Themes

	Elden et al (2013) Elden et al (2014)	Shepherd (2005)	Crichton and Wellcock (2008) Wellcock and Crichton (2008)	Engeset et al (2014)	Persson et al (2013)
Quality rating	12/20	14/20	15/20	16/20	18/20
Loss of identity and control					
Dependence and inadequacy					
Expectations and perceptions of others					
Adapting to pain					
Reframing the future and psychological strain					

The themes were developed into a conceptual model (Figure 3). The model portrays loss of identity and control as a central concept, encapsulated by the remark "You are nobody when you are sick" (Persson et al, 2013). Pain is a key contributor to this sense of loss, which leads to a reframing of self and relationships, and necessitates a process of adaptation and reappraisal of the future. Each theme is now discussed in more detail.

Theme one: loss of identity and control

Diminished control linked to the loss of identity was prevalent. This was apparent in four studies (Elden et al, 2013/2014; Persson et al, 2013; Crichton and Wellcock, 2008).

"I seem to have lost control over my life…" (Crichton and Wellcock, 2008).

Overall, this theme seemed to be the central point from which other emotions stemmed. Loss of control could be recognised as beginning at the first signs of PGP. Persson et al (2013) noted that most informants experiencing PGP for the first time were unprepared and had trouble understanding what PGP was. Elden et al (2014) also found that women were disappointed by the lack of education about the existence of PGP, emphasising that the first time they experienced PGP they worried something was seriously wrong.

"You feel you're on your own. Why hasn't anyone told me when it's so common? You almost feel cheated. You want to cry out – tell me about it! At least you will then be a little bit more prepared." (Elden et al, 2014).

Women referred to their bodies as a separate entity, over which they had lost control:

"Stupid body, why are you treating me like this?" (Elden et al, 2014).

This loss of control resulted in a loss of identity in at least one aspect of their lives, as a mother, daughter, wife/partner, or professionally, as women struggled to carry on:

"This can feel very isolating. You feel different. You blame yourself for not being able to cope… and you say – put some effort into it. Some days you are able to force yourself to get up and get going, other days you just can't." (Elden et al, 2013).

The loss of identity experienced by women in relation to their mothering role was revealed in all papers. Women expressed a sense of guilt and frustration, particularly when children did not understand why their mothers could no longer provide the same level of care. Women felt sad that they were unable to fulfil their children's need for closeness and attention due to PGP. Elden et al (2013) and Crichton and Wellcock (2008) picked up on women's perceptions that their dependence on others resulted in children needing to become more independent when there was no-one else available to help:

"Unless you've got the support of others… it means there's you all day with a baby that you feel you can't look after adequately…" (Crichton and Wellcock, 2008).

They felt this affected bonding considerably, and felt frustration and anger towards their unborn baby.

"I haven't really been able to enjoy my little boy… I feel cheated" (Shepherd, 2005).

Some women referred to the impact PGP had on the whole family. One participant was particularly distressed that the pain caused her to become irritable, resulting in her quickly losing her temper.

The effect on the participant's role as a wife/partner was picked up in six studies (Engeset et al, 2014; Persson et al, 2013; Elden et al, 2013; Crichton and Wellcock, 2008; Wellcock and Crichton, 2008; Shepherd, 2005). PGP caused women to become more sensitive and they struggled with changed roles: partners had to do more things at home, and this made women feel uneasy.

"It must feel strange to him that I can't do certain things. I'm not sure he wants to know about it. He has a hard time realising I don't really mean it. He's a bit snappy himself. I said you just have to think a bit like me… to be in constant pain is hard work. You are not yourself all the time" (Elden et al, 2013).

The impact on women's sexual relationships is discussed in four studies (Persson et al, 2013; Elden et al, 2013; Crichton and Wellcock, 2008; Wellcock and Crichton, 2008). The pain physically inhibited sexual activity. However, women still sought intimacy in other ways. This was further exacerbated by having to sleep in separate beds to their partner due to the space needed to turn over in bed during the night,

The loss of professional identity specifically, was referred to in three papers (Elden et al, 2013; Persson et al, 2013; Crichton and Wellcock, 2008). Loss of professional identity often caused great psychological strain, affecting self-worth. Many women initially felt defeated for having to take sick leave. However, when they acknowledged they had to accept their limitations they found they could cope better once they had done this (Elden et al, 2013).

Theme two: adapting to pain

The pain from PGP was the source of most of the problems encountered by women. It is described in detail across all the studies. The pain was experienced by women as exhausting and constant.

"My whole pelvis feels raw, I wish it were possible to apply a lubricant to the inside of my pelvis and bottom of my spine so that it wouldn't grind…" (Wellcock and Crichton, 2008).

Women had to make adaptions in all aspects of their lives to cope with the pain, including altering the way they walked, planning movements and activities in advance, and assessing every situation based on how much pain it was worth (Elden et al, 2013/2014; Persson et al, 2013; Crichton and Wellcock, 2008; Wellcock and Crichton, 2008).

Sleep deprivation was mentioned in six studies (Elden et al, 2013/2014; Persson et al, 2013; Crichton and Wellcock, 2008; Wellcock and Crichton, 2008; Shepherd, 2005). Women had to adapt how and where they slept. Some began using slippery sheets in bed to assist them when they needed to turn over.

Others had to wake their partners whenever they needed

to move, further exacerbating relationship difficulties. PGP required women to rest and obtain more sleep: however, they were unable to get this due to the pain, causing further exhaustion, exacerbating the physical pain and resulting in women feeling less able to cope emotionally.

"I was so tired because one thing is the pregnancy but also you have pain, because I had pain 24 hours… it takes so much of your energy. It really drains your system of resources" (Crichton and Wellcock, 2008).

Theme three: dependence and inadequacy

Inadequacy and dependence is apparent across all studies. PGP caused women to become extremely dependent on others in all aspects of their lives, including personal hygiene needs.

Dependence was both an emotional problem and a practical issue (Elden et al, 2013; Persson et al, 2013; Crichton and Wellcock, 2008; Shepherd, 2005). Women viewed themselves as a burden to their families, which caused significant emotional stress.

"It's devastating to be a married 27-year old with a family of my own and be dependent of my parents to make my daily life function. It really gnaws my self-esteem" (Persson et al, 2013).

The ability to continue with housework as before was affected. Interestingly, women perceived this issue in different ways, some emphasised feelings of inadequacy and frustration, whereas others found it to be a good thing, and focussed on the appreciation of help from others.

"I just couldn't do it (housework). From about 30 weeks it got to the point where I couldn't be on my feet for long, I literally would do about half an hour and then I would have to stop, I was utterly exhausted" (Shepherd, 2005).

Embarrassment was felt for several reasons, including the severity of their dependence on others. Crichton and Wellcock (2008) noted that some women were often unable to reach the toilet in time.

"'Sometimes in the bedroom, I have to roll on to the floor… and you get up to go to the bathroom and it's very difficult… one time I had to crawl to the bathroom…' (This woman reported that she wet herself before she reached the bathroom and became very upset)" (Crichton and Wellcock, 2008)

Theme four: expectations and perceptions of others

Expectations and perceptions of others is apparent in five studies (Engeset et al, 2014; Elden et al, 2013/2014; Persson et al, 2013; Shepherd 2005). The theme is most prominent in the highest quality paper by Persson et al (2013).

The constant pain that women experienced was perceived as invisible to others, particularly among women's colleagues, friends, family and with the public, causing further anxiety and frustration. Strangers would question what was wrong, saying pregnancy was natural and nothing to complain about.

One woman told how she had been teased for the way she was walking, when she was in excruciating pain and could barely move. When friends did not understand, or continuously questioned the aches and pains, women felt it was important to distance themselves from this negativity, acknowledging the impact this had on their emotional wellbeing.

Engeset et al (2014) found that women sought positive input from others that boosted their wellbeing and self-esteem:

"My closest friends know what I need… they try to give me a comfortable seat on the sofa or such things. It's very nice; that makes me happy" (Engeset et al, 2014).

Two studies reported women's experiences of health professionals (Engeset et al, 2014; Shepherd, 2005). There appeared to be a disparity in the care and advice provided which impacted greatly on women's experiences. Women emphasised the difference it made when their midwife understood the amount of pain PGP can cause. Although women valued extra support and information provided by healthcare professionals, the real value was placed on the acknowledgment and understanding that they had a significant problem. When these needs were not met, women were left feeling dismissed which was detrimental to their emotional wellbeing.

"They should have understood that something might be wrong; for instance, they may have suggested that I could have talked to the physiotherapist before discharge… just simple actions like that… showing that they understand that I actually had a problem" (Engeset et al, 2014).

Theme five: reframing the future and psychological strain

In three papers (Persson et al, 2013; Crichton and Wellcock, 2008; Wellcock and Crichton, 2008), informants revealed that PGP had caused them to regret their planned and eagerly anticipated pregnancy. They struggled with negative thoughts and emotions, which caused considerable psychological strain.

"I thought I don't want this baby… and I was frightened of looking at him and saying and thinking… I don't love you, you have caused me all this pain…" (Crichton and Wellcock, 2008).

Women across six studies emphasised how PGP caused them to reconsider the future (Elden et al, 2013/2014; Persson et al, 2013; Crichton and Wellcock, 2008; Wellcock and Crichton, 2008; Shepherd, 2005).

Previously they had planned to have more children: however, many women were now adamant that they would not go through this again:

"As I feel right now, never more I will torture my body like this" (Persson et al, 2013).

Women were extremely fearful of having a vaginal birth, as they could not bear the thought of any more pain, therefore opting to have elective caesarean sections:

"Psychologically I just had this sort of – how on earth can I have a vaginal birth through all that pain already and the thought of spreading my legs and having a baby come out that way, was just horrendous" (Shepherd, 2005).

For the same reason, women in one medium quality study reconsidered how they were going to feed their baby:

"All I could think about was breastfeeding can be a problem, you can get very sore… I really, really cannot bear the thought of more pain" (Shepherd, 2005).

Depression is explicitly mentioned in three studies (Elden et al, 2014; Crichton and Wellcock, 2008; Shepherd, 2005). However, statements made by women in all studies suggest an element of low mood. One participant confided in a researcher that she had been having suicidal thoughts (Crichton and Wellcock, 2008).

"The pain caused the prenatal depression and postnatal depression this time… I certainly think it's been worse with the amount of pain I've been in" (Shepherd, 2005).

Discussion

The conceptual model developed in this review provides a deeper understanding of the affect PGP can have on a woman's experience of pregnancy and the puerperium, highlighting that the consequences of PGP stem from a loss of identity and control which is caused by pain. Identifying the importance of identity and control may enable better support and treatment to be provided to women with PGP.

Our findings resonate with research in related fields, increasing their credibility. For example, qualitative studies exploring the experiences of men (Bailly et al, 2015), and men and women (Bunzli et al, 2013), with lower back pain report a perceived lack of understanding and support due to the 'invisible' nature of the condition, coupled with a loss of identity at home and work (Bailly et al, 2015). Loss of identity is attributed partly to pain, which altered people's characters, making them irritable with destructive mood changes.

This is also seen in women with PGP, who expressed how they lost their temper more quickly. Participants in both studies describe the negative effects of increased dependency on family and relationship dynamics. As with women with PGP, men with lower back pain appeared to benefit greatly from positive reinforcement and support from others that showed understanding (Bailly et al, 2015).

Similarly, a need for information about their condition is identified in a study investigating the experiences of women living with fibromyalgia (Daraz et al, 2011). Women discussed the need for support and information to overcome uncertainty and suffering, and to regain a sense of control. This resonates with how women with PGP described the need for recognition and diagnosis, while also acknowledging feeling a loss of control, suggesting that support and information may help women to feel more in control in relation to PGP.

Women with fibromyalgia expressed it was helpful to become acquainted with other sufferers, as this provided a sense of hope and a feeling that they were not alone in their suffering (Daraz et al, 2011). This connectivity may also be beneficial to women with PGP, who also spoke of isolation and a lack of support from health professionals.

Overall these studies demonstrate that ongoing and continuous pain, no matter the source, can result in similar psychosocial consequences. Katz (2002) emphasises that when pain is ongoing and uncontrolled, it has a detrimental effect on virtually every aspect of a person's life. Pain causes anxiety and emotional distress, undermines wellbeing, interferes with functional capacity and hinders the ability to maintain and fulfil family, social and occupational roles (Katz, 2002). This is reflected enormously in the current findings. Emotional distress, in turn, may increase awareness of pain symptoms (Bjelland et al, 2012; Edwards et al, 2011).

Symptoms of depression were alluded to in some of the studies in this review (Engeset et al, 2014; Elden et al, 2013; Persson et al, 2013; Crichton and Wellcock, 2008; Shepherd, 2005). Bjelland et al (2012) reported that for women with PGP the presence of emotional distress during pregnancy is independently associated with the persistence of PGP after delivery.

This is an important finding as it clearly demonstrates association between a person's mental health and physical wellbeing in the particular context of PGP.

The implication of these findings is that if emotional distress could be addressed during pregnancy then this may be able to prevent the persistence of PGP after delivery (Bjelland et al, 2012). Furthermore, a cohort study by Gutke et al (2011) found that postpartum depressive symptoms were three times more prevalent in women having lower back pain than those without.

This further emphasises the need to consider psychological as well as physical aspects when identifying treatment strategies (Gutke et al, 2011).

Edwards et al (2011) discussed the process of depression and catastrophising, and the influence on pain-related outcomes. Catastrophising refers to a set of pain-related emotional processes that involve feelings of helplessness, a tendency to ruminate about pain, and a susceptibility to magnifying the value of pain (Edwards et al, 2011). These factors then influence a broad spectrum of pain-related outcomes via a variety of pathways: behavioural, cognitive and physiological.

Catastrophising is apparent in the current study: for example, some women declared they would not have another child because of the pain caused by PGP, while others felt unable to be a good mother to their children (Engeset et al, 2014; Elden et al, 2013; Persson et al, 2013; Crichton and Wellcock, 2008; Shepherd, 2005). However, Engeset et al (2014) found some women adopted a positive outlook, for example, congratulating themselves on small achievements and coping strategies formed, such as ways to unload the dishwasher to minimise time bending down.

This could suggest that when a positive and practical attitude is adopted, women's pain perception is affected positively. Interestingly, these women also expressed that they would not rule out becoming pregnant again. Furthermore, we posit that the link between pain and thought processes is less likely to be a linear process, as suggested in Edwards et al's catastrophising model (2011), than a feedback loop whereby pain can intensify due to depression or catastrophising, which then further exacerbates this mental state, causing a worsening of the pain. Our findings suggest that pain could similarly

be lessened by focusing on addressing negative mental states, and that health professionals should monitor the psychological wellbeing of women with PGP regularly and routinely, particularly noting any symptoms of depression.

Our findings highlight that women experiencing PGP are not always treated with respect and sensitivity by health professionals, further exacerbating their pain and discomfort. Value was placed on being taken seriously, with health professionals recognising women's concerns and acting appropriately (Shepherd, 2005). In particular, women expressed anxiety and fear around giving birth with PGP, suggesting a need for informed and sensitive discussion and planning with their midwife and the multi-professional team.

Similarly, women were reluctant to breastfeed due to fear of further pain, emphasising the importance of breastfeeding support for all women.

National guidelines created by POGP (2015) include management for both physical and psychological aspects of PGP, and consider emotional wellbeing, sexuality, dependence and planning for future pregnancies. However, our findings suggest a lack of awareness of this advice.

We suggest that a National Institute of Health and Care Excellence (NICE) guideline might be more widely implemented. Additional information that could be included is the need to provide early antenatal education about the signs and symptoms of PGP, with a view to reducing distress caused when women experience these symptoms without any prior knowledge of the condition. A more proactive approach to enquiring about PGP symptoms might enable earlier recognition and referral in order to manage the condition and the associated pain more effectively. Continuity of Carer, as recommended by the National Maternity Review (2016), may enable women to feel more comfortable talking about issues such as the impact of PGP on their sexuality

In relation to our final theme of reconsidering the future, we recommend that routine counselling for future pregnancies should be offered to women who have suffered with PGP.

Strengths and limitations

A systematic approach was used when conducting this literature review. Key authors were contacted in order to ensure a comprehensive search.

However, an exhaustive search of grey literature was not possible within the time and resource limitations of this review. Furthermore, data analysis was conducted by a single researcher (author 1), making the findings subject to potential bias. To mitigate this, a systematic, iterative approach coupled with reflection and discussion with author 2 was adopted.

Conclusion

By identifying the overarching issues of loss of identity and control, this review provides a deeper conceptual understanding of the experiences of women with PGP.

While individual papers focussed on the impact on women's everyday lives, such as an inability to participate in routine activities, and an adverse effect on relationships, synthesising the findings using an interpretive approach identified a process that women go through when dealing with PGP.

The link between mental wellbeing and pain intensity has been highlighted, along with the ensuing importance of holistic, woman-centred care, including information-giving, emotional support and birth planning.

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The Wellbeing of Women Entry-level Scholarships and Research Training Fellowships are due to open for applications on 25 June. Entry-level Research Scholarships are to support graduates to develop research interests in basic science, clinical or translational research in pregnancy, birth and the postpartum period, gynaecological cancers or general wellbeing surrounding women's health issues. Scholarships are a maximum of £20,000 and are awarded, normally for up to one year, to contribute to salary and/or research costs. The research must be undertaken in the UK or Ireland. Research Training Fellowships encourage candidates to pursue a career in academic medicine and help build capacity in the field of women's reproductive health. Fellowships should be in the same areas as Entry-level Scholarships. For more information, visit **wellbeingofwomen.org.uk**

RCM Annual Conference

Registration is now open for the 2019 RCM Annual Conference and exhibition. It will be held on 24-25 September at Manchester Central and is free to attend for all RCM members. The two-day conference includes a dedicated strand for student midwives, presentations from the RCM chief executive and president and an opportunity to debate the big issues affecting midwifery care. There will be an exhibition and the opportunity to earn 16 hours towards the 20 hours that are required for revalidation. Sessions will be on topics that include: multidisciplinary teamworking; perinatal mental health; challenging inequality, sexism and discrimination; leadership at every level; stillbirth and systems design and patient safety. For more information, visit **rcmconference.org.uk**

Sign-up for RCN Foundation bursary updates

The RCN Foundation offers grants for nursing- and midwife-led research, provides help around education and hardship, and supports professionals to develop their careers and get through tough time. To be added to their mailing list and receive bursary updates, email **rcnfoundation@rcn.org.uk**

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