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Midwives' experiences of working in an obstetric high dependency unit: A qualitative study

Isabelle J. Eadie, MHSc, RM (Practising Midwife)*, Nicolette F. Sheridan, PhD, MPH, RN

School of Nursing, Faculty of Medical & Health Sciences, University of Auckland, Private Bag 92019, Auckland 1142, New Zealand

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ABSTRACT

Objectives: to understand the challenges experienced by midwives providing obstetric high dependency care and identify the training they perceive is needed for work in an obstetric high dependency unit.

Design: sixteen midwives who worked in the obstetric high dependency unit participated in one of three focus groups. Focus groups lasted 60–90 minutes and were conducted in the workplace and facilitated by author (IE). Data were digitally recorded, transcribed and analysed manually by author (IE), specifically using a 'codebook' model to generate codes, categories and themes.

Setting: a purpose built, two-bed obstetric high dependency unit located in the delivery suite of a large, urban tertiary teaching hospital in New Zealand.

Findings: five themes were conceptualised: Theme 1: 'high dependency care is not our bread and butter'; the midwives felt that working in the obstetric high dependency work did not constitute 'normal' midwifery work. Theme 2: 'we are family… embracing the baby and partner in HDU'; the midwives recognised that an obstetric high dependency unit enabled the mother and infant to be cared for together, was beneficial for maternal psychosocial wellbeing, and supported mother-infant bonding and breastfeeding. Theme 3: '*primum non nocere*; First, do no harm'; the midwives voiced concern that they lacked the skills and training to provide obstetric high dependency care and considered this a potential risk to sick women in their care. Theme 4: 'graceful swans and headless chickens'; the midwives reported feelings of stress, anxiety, fear and of being overwhelmed by the demands of obstetric high dependency care. The more experienced midwives were able to portray calmness and poise despite lots going on beneath the surface. This was in contrast to other, often less experienced midwives, who appeared confused and less organised. Theme 5: 'please sir, can I have some more training?'; the midwives unanimously sought training in the provision of obstetric high dependency care and saw facilitation of training to be a responsibility of the hospital.

Key conclusions: midwives who are competent in obstetric high dependency care are well placed to provide holistic care to sick women within an obstetric high dependency unit. Midwives found this work challenging and identified the need for specific knowledge and skills beyond those required in the provision of care to well women. The midwives sought post-registration training in obstetric high dependency care. These findings are consistent with other studies reported in the literature.

Implications for practice: post-registration training must be made available to midwives providing high dependency care to sick women to ensure they have the specialised skills and knowledge for practice. Responsibility to facilitate training rests with hospitals providing this service.

Introduction

The majority of pregnant women navigate pregnancy, birth and the postnatal period without significant problems. A small percentage of women experience severe morbidity predominantly due to obstetric complications – postpartum haemorrhage or hypertensive disorders (Saravanakumar et al., 2008; Zwart et al., 2010;Crozier and Wallace, 2011; Bandeira et al., 2014; Auckland District Health Board, 2016), or as a consequence of pre-existing disease or other non-modifiable risk factors such as previous caesarean section (Waterstone et al., 2001; Scott and Folely, 2010; Frise et al., 2012; Gray et al., 2012; Tan et al., 2015).

Intensive care unit admissions are frequently used as a proxy for estimating maternal morbidity since numbers are relatively easy to abstract from hospital data sets. However, whilst intensive care unit admissions capture the very sickest women, this approach ignores

* Corresponding author.
E-mail address: izzyeadie@yahoo.com (I.J. Eadie).

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those women receiving high dependency care within the maternity setting (James et al., 2011). *Obstetric HDU* admissions report an incidence of 1–5% of births (Ryan et al., 2000; Zeeman et al., 2003; Saravanakumar et al., 2008). In the study hospital in 2015, there were 205 admissions to the obstetric HDU, representing 3% of births (Auckland District Health Board, 2016).

Women experiencing severe morbidity require an enhanced level of care that facilitates closer surveillance and more intensive treatment. In the UK, four levels of hospital care (see Table 1) have been identified that indicate the patient's severity of illness (Wheatley, 2010; Royal College of Anaethetists et al., 2011; Sultan et al., 2013).

Level 3 care is synonymous with an intensive care unit whereas level 1 and 2 care constitutes the type of care provided in a high dependency unit (HDU). This interpretation of care is adopted in the New Zealand hospital setting. The obstetric HDU in this study provides level 1 and level 2 care.

Table 1
Definitions of level of care in hospitals.

Level 0	Normal ward care
Level 1	Sicker patients requiring closer monitoring, those at risk of deterioration, those 'stepping down' from higher levels of care
Level 2	Patients with single-organ dysfunction, requiring invasive monitoring
Level 3	Patients with multiorgan failure requiring advanced cardiac and respiratory support and mechanical ventilation

Sick women constitute a unique group within the health service because maternal physiology is altered, the management of antenatal maternal morbidity is dominated by the needs of the fetus and the greatest causes of severe morbidity - postpartum haemorrhage and hypertensive disorders are exclusive to pregnancy and parturition (Dhond and Dob, 2000; Soubra and Guntupalli, 2005; Carlin and Alfirevic, 2008; Scott and Folely, 2010). Arguably, obstetricians and midwives will understand these complexities best, whilst intensive care staff may lack experience managing the unique needs of sick women (Martin and Hutchon, 2008; Saravanakumar et al., 2008; Patil et al., 2015). Nevertheless, internationally, the predominant model of care for sick women is within a general intensive care unit where care is provided by nurses and intensivists or anaesthetists. Midwives and obstetricians may have little, if any, input (Saravanakumar et al., 2008; Crozier and Wallace, 2011; Wanderer et al., 2013; Bandeira et al., 2014).

In a large urban tertiary teaching hospital in New Zealand, the majority of women with severe maternal morbidity are cared for by midwives in a purpose built two-bed obstetric HDU located within the delivery suite. The midwife to woman ratio is 1:1 or 1:2, with the infant cared for alongside its mother. Management of the woman's care is directed by obstetricians and obstetric physicians.

There are examples of the obstetric HDU model of care in other countries; some larger feto-maternal centres in the United States provide an obstetric HDU (Brubaker et al., 1988), tertiary maternity units in the Netherlands have obstetric HDU's (Zwart et al., 2010) and some UK hospitals provide this service (Hussain et al., 2011), but this does not represent the dominant model of care.

For several years, confidential enquiries into maternal deaths in the UK have recommended the provision of high dependency (level 2) care on delivery units, such as an obstetric HDU and there are attempts to establish competencies for midwives providing high dependency care (Hardy, 2013; Intercollegiate Maternal Critical Care (MCC) Sub-Committee of the Obstetric Anaesthetist Association, 2015; Royal College of Anaethetists et al., 2011; Wheatley, 2010). In New Zealand, there are no guidelines for the provision of high dependency care within the maternity setting and only three maternity units have a dedicated obstetric HDU.

In the study hospital, the obstetric HDU is located within the maternity department. Historically the maternity department was located on an alternative site from the main hospital where there was no high dependency / intensive care service. Consequently, establishing an obstetric HDU enabled sick women to remain physically close to obstetric expertise within the maternity department. When maternity services moved to the current main hospital site, their remained a preference to keep the obstetric HDU, particularly since this model supports keeping mother and infant together and ensures sick women still receive 'midwifery care'.

In New Zealand, midwifery education and practice focuses primarily upon the care of *well* women. The additional skills needed to provide high dependency obstetric care in the HDU have not been made explicit by either the Midwifery Council or this particular hospital. Consequently there is no advanced level of midwifery practice or experience required. The broader aim of this study is to explore the experiences of those midwives providing high dependency care to sick women within the obstetric HDU.

Methods

This study used focus groups to explore from an emic perspective, midwives' experiences, views, feelings and the meanings that they attached to their work in the obstetric HDU. Purposeful sampling was employed in order to bring together participants who are knowledgeable and familiar with the phenomenon being studied in order that they will be able to contribute to the discussions. The HDU does not have a dedicated staff, but 25 midwives permanently based on the delivery suite 'take turns' working there. These 25 midwives and the delivery suite clinical charge midwives and clinical midwifery advisors also familiar with the HDU, were eligible to participate in a focus group and were invited via a poster advertising the study in the delivery suite staff room. Participant information sheets and consent forms were also available in the delivery suite staff room which was regularly accessed by all eligible midwives. Twenty three midwives consented to take part and 16 participated in one of three focus groups. Of the seven who consented but did not participate, reasons included being on annual leave (2), being rostered to work (2) and having other social commitments (3).

Participants were given several dates / times at a weekend for the focus group and asked to choose the most convenient one. Permission was sought from the director of midwifery to hold the focus groups in a quiet room at the workplace. Three focus groups comprising five, seven and four midwives respectively were conducted between October 2014 and February 2015, each lasting between 60 and 90 minutes. The researcher (IE) gave a small koha ($25 grocery voucher) to the midwives at the end of the focus group in recognition of their time. At the outset of each group, 'ground rules' were established; namely requesting the midwives not to talk simultaneously, to respect each other's contribution and confirmed that the focus group discussion was confidential. Focus groups were facilitated by author IE, herself an experienced midwife who worked in the same delivery suite and HDU. Close relationships between participants and the facilitator are documented in qualitative research. Reflexivity is employed to ensure the facilitator does not steer the discussion in a direction that could potentially jeopardise the integrity of the findings (Hansen, 2006).

The interview guide for the focus groups comprised five topic areas and was used to ensure that all three groups covered the same areas of discussion in order to avoid generating findings derived from just one group as this may just reflect the dynamics of that group as opposed to the feelings of all participants (Morgan, 1997). Topics for discussion included: type of work undertaken in the HDU; sources of support for midwives; skills and knowledge required for high dependency care; midwifery scope of practice; and model of care for sick women.