Midwifery Research Review™

Making Education Easy

Issue 10 – 2015

In this issue:

Abbreviations used in this issue
CS = caesarean section
VBAC = vaginal birth after caesarean

Welcome to the latest issue of Midwifery Research Review.

Highlights include a Cochrane Review that provides high quality evidence that midwife-led continuity of care through pregnancy results in good outcomes for mothers and babies. This is followed by an interesting Australian study that investigated factors associated with variations in hospital VBAC rates, plus a fascinating report of the views of obstetricians and midwives in Finland, Sweden and The Netherlands about the barriers and enablers toward improving rates of VBAC. A longitudinal study provides insight into risk factors for perinatal depression, and this is followed by a review of the mistreatment of women during childbirth in health facilities globally.

I hope you enjoy these and the other selected studies, and look forward to any feedback you may have.

Kind regards,

Jackie Gunn
jackiegunn@researchreview.co.nz

Midwife-led continuity models versus other models of care for childbearing women

Authors: Sandall J et al.

Summary: This Cochrane Review compared midwife-led continuity models of care with other models of care for childbearing women and their infants. A search of the Cochrane Pregnancy and Childbirth Group's Trials Register and reference lists identified 15 randomised trials involving 17,674 women that compared midwife-led continuity models of care with other models of care during pregnancy and birth. Analysis of the data showed that women who had midwife-led continuity models of care were less likely to experience regional analgesia (risk ratio [RR], 0.85), instrumental vaginal birth (RR, 0.90), preterm birth <37 weeks (RR, 0.76) or foetal/neonatal death (RR, 0.84). They were also more likely to experience spontaneous vaginal birth (RR, 1.05).

Comment: This updated Cochrane Review, published online 15 September 2015, includes 15 randomised controlled trials, 11 new reports, subsumes Hodnett's review published in 2000, and incorporates the authors' response to feedback on previous versions of the Review. Many New Zealand midwives will be familiar with many of the studies included in this meta-analysis. It is very pleasing to see the high quality of evidence that is now available to support the good outcomes for women and babies who receive midwife-led continuity of care through pregnancy, intrapartum and postpartum. In particular, it is good to see evidence that the findings of the review applied to studies that included both women considered at 'low risk' for complications (8 studies), and 'low and high risk' or 'high risk' (6 studies). New Zealand has a government funded, midwife-led, continuity of care maternity service for healthy women with uncomplicated pregnancies. This review provides high quality evidence that this model of maternity care results in good outcomes for mothers and babies.

Reference: Cochrane Database of Systematic Reviews 2015;9:CD004667
Abstract

CLICK HERE to read previous issues of Midwifery Research Review

Time spent reading this publication has been approved by the Midwifery Council of New Zealand for NZ midwives as elective education.

FOR MORE INFORMATION ON HOW TO CLAIM POINTS PLEASE
CLICK HERE

Variation in hospital caesarean section rates for women with at least one previous caesarean section

Authors: Schemann K et al.

Summary: This population-based cohort study investigated factors associated with variations in hospital caesarean delivery rates in women with at least 1 previous CS. Data for 61,894 pregnant women in New South Wales (NSW) who had a history of CS who were singleton, cephalic and ≥37 weeks' gestation were included. 82.1% of the women had a CS (72.7% were planned and 9.4% were unplanned) and 17.9% had a vaginal birth. Observed hospital rates of planned CS ranged from 50.7–98.4%. Multilevel regression models showed that 49.0% of between-hospital variation in planned repeat CS rates was explained by patient (17.3%) and hospital factors (31.7%). Private hospital status and lower hospital propensity for vaginal birth after caesarean were both associated with an increased likelihood of planned CS. Among women who intended a vaginal birth, the observed rates of intrapartum CS ranged from 12.9–71.9%. 27.5% of the between-hospital variation was explained by patient (19.5%) and hospital factors (8.0%).

Comment: As the authors say, this is possibly the first study of its kind. NSW has a centralised maternity database that contains records from all of the maternity units in the State. All of the hospitals use the same record keeping dataset on a single database. Data for all of the women in NSW who had a previous CS and who gave birth between 2007 and 2011 in 81 maternity units were able to be accessed and analysed. This study examined the planned repeat CS and planned vaginal birth rates to calculate the state-wide VBAC rate (17.9%). The raw results have been adjusted to take account of the casemix and the type and size of the maternity units. Despite allowing for these factors more than half of the variation between units was not accounted for. There is ongoing concern about the rising rate of CS in developed countries with no accompanying improvement in outcomes for mothers and babies. Much of the rise is accounted for in repeat planned CS. This study analysed the level of propensity for VBAC. What increases the likelihood of higher VBAC rates in a unit or district/country is an area well worth considering. The following paper begins to give some clinician insights into how that is achieved in European countries that are regarded as having a high VBAC rate (45–55% of women who have had a previous CS). An interesting aside from the NSW study is that in their database a postpartum haemorrhage is recorded as 500ml or more after a vaginal birth, but at 750ml or more after a CS. Something to consider when reading studies from NSW.

Reference: BMC Pregnancy and Childbirth 2015;15:179
Abstract

Clinicians' views of factors of importance for improving the rate of VBAC (vaginal birth after caesarean section)

Authors: Lundgren I et al.

Summary: This study evaluated the views of clinicians in countries with high VBAC rates regarding factors of importance for improving VBAC rates. 26 midwives and 18 obstetricians in Finland, Sweden and The Netherlands were interviewed regarding VBAC. Analysis of the data showed that important factors for improving VBAC rates were related to the structure of the maternity care system, the cooperation between midwives and obstetricians, and the care offered during pregnancy and birth.

Comment: Ingela Lundgren, the lead author of this article, is a highly respected and experienced midwife researcher from the health research academy at the University of Gothenberg. She has led high-quality, qualitative studies, especially using phenomenological methodology, into the nature of the childbirth experience of women and fathers and their encounters with midwives and others, the nature of midwifery practice and of maternity care since the mid-1990s. This study is a high quality, qualitative investigation by investigators from university research departments in Sweden, Finland and The Netherlands that is part of a wider 'Optibirth' project. It explores and analyses the views of obstetricians and midwives from Finland, Sweden and The Netherlands about the barriers and enablers toward improving the VBAC rates. These countries have a high VBAC rate of 45–55%.The results show that "the important factors for improving the VBAC rate are related to the structure of the maternity care system in the country, to the cooperation between midwives and obstetricians, and to the care offered during pregnancy and birth". I strongly encourage clinicians to access and read this article in full. It is very readable and provides some rich insights and ideas for practice from obstetricians and midwives that a summary and commentary cannot really convey. Your thoughts about Sweden's 'fear clinics', (which I rather think is a casualty of translation) will be interesting.

Reference: BMC Pregnancy and Childbirth 2015;15:196
Abstract

Independent commentary by Jackie Gunn
MA *Massey* BHSC Ng *C.Sturt* RGON RM
Jackie is a Senior Lecturer in the Dept of Midwifery, Faculty of Health and Environmental Science at AUT University. . **For full bio CLICK HERE.**

Prediction of perinatal depression from adolescence and before conception (VIHCS): 20-year prospective cohort study

Authors: Patton G et al.

Summary: The Victorian Intergenerational Health Cohort Study (VIHCS) investigated whether women with a history of mental health problems before conception would be more likely to have perinatal depressive symptoms. 384 women were assessed for perinatal depressive symptoms (defined as an Edinburgh Postnatal Depression Scale score of 10 or more) during and after 564 pregnancies. 66% of the women had a previous history of mental health problems at some point in adolescence or young adulthood. These women were significantly more likely to have perinatal depressive symptoms than women with no pre-conception history of mental health problems (34% vs 8%; adjusted odds ratio 8.36).

Comment: The importance of pre-conceptual and peri-conceptual health of both parents is increasingly being demonstrated, particularly as information from maturing longitudinal studies becomes available for analysis. This Australian study of participants in a Victorian longitudinal study provides further insights into risk factors for perinatal depression having their origins long before a pregnancy is conceived. As the student midwife mantra says 'it's history, history, history'. This study underscores that persistent, common mental health disorders are an identifiable risk factor for perinatal (includes during as well as after pregnancy) depression. The need for adequate maternal mental health services in New Zealand is underlined again by the results of this study.

Reference: Lancet 2015;386(9996):875-883
Abstract

The mistreatment of women during childbirth in health facilities globally

Authors: Bohren M et al.

Summary: This systematic review examined evidence of the mistreatment of women during childbirth in health facilities globally. A search of PubMed, CINAHL, and Embase databases and grey literature identify 65 studies of the mistreatment of women during childbirth across 34 countries. The researchers organised their findings into 7 categories: physical abuse (e.g. slapping or pinching during delivery); sexual abuse; verbal abuse (e.g. harsh or rude language); stigma and discrimination (e.g. age, ethnicity, socioeconomic status, or medical conditions); failure to meet professional standards of care (e.g. neglect during delivery); poor rapport between women and providers (e.g. ineffective communication, lack of supportive care, and loss of autonomy); and health system conditions and constraints (e.g. lack of privacy). The findings illustrate that women's experiences of childbirth worldwide are marred by mistreatment.

Comment: The comprehensive editor's summary that accompanies this article includes the statement: "Women need to be sure that they will receive dignified and respectful care during childbirth. Unfortunately, recent studies have indicated that women are often exposed to neglectful, abusive, and disrespectful care (care that local consensus regards as humiliating or undignified) during childbirth in health facilities. These findings illustrate how women's experiences of childbirth worldwide are marred by mistreatment. Moreover, they indicate that, although the mistreatment of women during delivery in health facilities often occurs at the level of the interaction between women and healthcare providers, systemic failures at the levels of the health facility and the health system also contribute to its occurrence." The only comment I would like to add is that the study does not only apply to 'them'. Mistreatment begets mistreatment. There have been several recent news articles reporting studies finding significant levels of bullying between and among health professionals in NZ. How we behave with each other can be reflected onto how we behave towards women in childbirth. This study is a reminder to periodically reflect on our own attitudes and practices towards each other and to be kind to ourselves and to others.

Reference: PLoS Med 2015;12(6):e1001847
Abstract

Transfer from primary maternity unit to tertiary hospital in New Zealand – timing, frequency, reasons, urgency and outcomes

Authors: Grigg C et al.

Summary: This analysis from the Evaluating Maternity Units study examined factors associated with transfers from primary maternity units to tertiary hospitals in NZ. Transfer and clinical outcome data for pregnant women booked to give birth in a tertiary maternity hospital (n=285) or a primary maternity unit (n=407) in one region in NZ in 2010–2012 were evaluated. 46.9% of women who planned a primary unit birth actually gave birth there. 117 women who planned a primary unit birth changed their plan antenatally; 73 (62.4%) of them changed because of a clinical indication. 73.8% of changes occurred before admission to the primary unit. The most common reasons for this were a rapid labour (25.0%) or prolonged rupture of membranes (23.7%). Transfers in labour from primary unit to tertiary hospital occurred for 27 women (12.6%); 26 of them were having their first baby. 'Slow progress' of labour accounted for 21 of these transfers and 17 were classified as 'non-emergency'. The average transfer time for an emergency transfer was 58 minutes.

Comment: This article is another from a part of the 'Evaluating Maternity Units Study', one of which was commented on in the previous issue of Midwifery Research Review. The key findings from this study are that transfers between units are not uncommon at all stages of the pregnancy and childbirth year; that most transfers are pre labour, those in labour are mostly not urgent and transfer times are mostly about an hour in the area of the study. This is a comprehensive description of transfers and the reasons they happen. The study adds to our understanding of women's experiences of transfers in the New Zealand maternity service.

Reference: Midwifery 2015;31(9):879-887
Abstract

Time spent reading this publication has been approved for CNE by The College of Nurses Aotearoa (NZ) for RNs and NPs. For more information on how to claim CNE hours please **CLICK HERE**

Predictors of anxiety among pregnant New Zealand women hospitalised for complications and a community comparison group

Authors: Barber C et al.

Summary: This NZ study investigated predictors of anxiety for women experiencing hospitalisation during pregnancy, compared with pregnant women (with or without medical complications) in the community. 118 pregnant women in hospital and 114 pregnant women in the community completed a battery of questions on pregnancy and health history, life events, anxiety, optimism, coping, and relationship factors. Their midwives provided ratings of health status and psychological distress. Both groups of women had state anxiety scores significantly higher than local norms. Women in hospital rated significantly higher than those in the community for state anxiety and worry about their pregnancy. There were no between-group differences for life events, optimism, and coping self-efficacy. Ratings for health and distress made by the women showed poor agreement with those made by their midwives.

Comment: This is a NZ study that reflects the levels of anxiety experienced by women who are hospitalised during pregnancy. While the study was undertaken in one region, and the results are related to the women using the maternity services in that region, it is not unreasonable for clinicians to take these results into consideration when caring for any woman who is hospitalised in a NZ antenatal inpatient facility. In view of the finding that hospitalised women were more highly anxious than those in the community and the finding that the women and the clinicians had differing views on the level of anxiety the women were experiencing, it is reasonable for midwives to consider proactively recognising and supporting the women in their distress, when both referring women for secondary or tertiary care and when providing care during the period of hospitalisation.

Reference: Midwifery 2015;31(9):888-96
Abstract

Maternal physical health symptoms in the first 8 weeks postpartum among primiparous Australian women

Authors: Cooklin A et al.

Summary: This study determined the extent, onset, and persistence of maternal physical health symptoms in the first 8 weeks postpartum. 229 primiparous women were recruited antenatally from a public and a private maternity hospital in Melbourne in 2009–2011. Data were collected by self-report questionnaires at weeks 1, 2, 3, 4, and 8. Birth-related pain was common at week 1. 91% of women who had a caesarean delivery reported pain at 1 week, and 74% of those who had a vaginal birth reported perineal pain at 1 week. Birth-related pain was still present at week 8 in 18% of women who had a caesarean birth. Back pain was reported by approximately half the group at each time point, with 25% reporting a later onset at week 2 or beyond. Fatigue was not relieved between weeks 4 and 8.

Comment: This Australian study underscores the need for careful assessment of maternal health and wellbeing throughout the postpartum period. Intolerance of pain is known to be exacerbated by fatigue. Assessment and acknowledgement of symptoms is the first step to providing support to find solutions that are manageable for individual women, that keep pain relieved, build abdominal and back muscle strength and minimise fatigue. In addition, identification of possible pathological reasons for the symptoms can assist with early referral for treatment. The finding that some symptoms did not appear until two weeks postpartum is a reminder that recovery from birth is not necessarily a linear progression and that assessment of maternal wellbeing remains important throughout the postpartum period.

Reference: Birth 2015;42(3):254-60
Abstract

Midwives experiences of removal of a newborn baby in New South Wales, Australia: being in the 'head' and 'heart' space

Authors: Everitt L et al.

Summary: This study explored the experiences of midwives involved in the 'assumption of care' of a baby soon after birth or in the early postnatal period. 10 midwives involved with the assumption of care of a baby in New South Wales were interviewed. Midwives described feeling unprepared and unsupported in the processes of assumption of care. They were confronted by its profound emotional impact, and experienced professional grief similar to that felt when caring for a woman after a stillbirth. Two overarching themes emerged: "being in the head space" described the activities, tasks and/or processes the midwives engaged in when involved in an assumption of care; and "being in the heart space" described its emotional impact.

Comment: This study begins to reveal the experiences and impact on midwives of this somewhat hidden part of midwives' work. The study's value is that it validates that this part of midwives' practice is extremely difficult and midwives have to 'get into the head space' in order to do it, and that these experiences have a professional and personal impact on midwives. The authors' conclusions underscore the need for proper support so midwives can manage to provide effective care for the women and manage the impact on themselves. This study may also help midwives to recognise that care in this area has a personal impact and it is reasonable to seek professional support to find appropriate ways to work through the effects.

Reference: Women Birth 2015;28(2):95-100
Abstract

Cost-effectiveness analysis of latent versus active labor hospital admission for medically low-risk, term women

Authors: Tilden E et al.

Summary: This study compared outcomes and costs of hospital admission during the latent or active phases of labour. A cost-effectiveness model was built to simulate a theoretical cohort of 3.2 million low-risk women who were admitted in latent labour (<4cm dilation) or active labour (≥4cm dilation). Outcomes included epidural use, mode of delivery, stillbirth, maternal death, and costs of care. It was estimated that delaying admission until active labour would result in 672,000 fewer epidurals, 67,232 fewer caesarean deliveries, and 9.6 fewer maternal deaths than admission during latent labour. In addition, delaying admission would result in an annual cost saving of $US694 million in the US.

Comment: This is an interesting health economics analysis using a theoretical model to examine a hoary old chestnut. How many primary maternity care women are actually admitted to birthing units in early labour in NZ would be interesting to know. The midwife-led continuity of care service that these women receive enables home visits in early labour and immediate phone access to their midwife. Going to the birthing unit in early labour is less likely. However it would be an interesting study to undertake for the women in NZ who still receive fragmented maternity care.

Reference: Birth 2015;42(3):219-226
Abstract