



Midwifery Research Review™

Making Education Easy

Issue 1 – 2013

In this issue:

- *Birth pool outcomes*
- *Care in birth centres*
- *Planned place of birth in NZ*
- *The emotional journey of labour*
- *First-time fathers' experiences*
- *Bristol pregnancy domestic violence programme*
- *Midwives' roles in the third stage of labour*
- *Excessive gestational weight gain*
- *Gestational diabetes self-management*
- *Women's experiences of pre-eclampsia*

Welcome to the first edition of Midwifery Research Review.

A variety of studies have been chosen to hopefully whet your appetite for further reading. All of the studies have something to tell us about everyday midwifery practice. Three recent studies on the continuing discussion about place of birth from the USA, UK and NZ are included. Dixon et al. provide an insight into women's emotional journey in labour and birth. Schytt et al. have explored Swedish fathers' expectations and experiences of childbirth. Domestic violence is an area of continuing importance for health professionals and a 5-year follow up study in Bristol provides insights into barriers and enablers of a routine programme screening for domestic violence. Management of the birth of the placenta continues to generate much interest – the MEET study explored midwives expertise in expectant management of the third stage of labour. An exploration of women's and families' experiences of pre-eclampsia, migrant women coming to terms with gestational diabetes mellitus, and a study on weight gain in late pregnancy and the risk of childhood overweight round out the collection.

I hope you enjoy the selected articles and look forward to any feedback you may have.

Kind regards,

Jackie Gunn

jackiegunn@researchreview.co.nz

Characteristics, interventions, and outcomes of women who used a birthing pool: a prospective observational study

Authors: Burns E et al

Summary: This study examined maternal characteristics, intrapartum events, interventions, and maternal and neonatal outcomes in women who chose to use a birthing pool. 8,924 women at low risk of childbirth complications were included. Overall, 88.9% of women had a spontaneous birth (58.3% water births), of whom 55.5% were nulliparas. Fewer nulliparas whose planned place of birth was the community (home or freestanding midwifery unit) had labour augmentation by artificial membrane rupture, compared with those whose planned place of birth was an alongside midwifery unit or an obstetric unit (11.3%, 22.7% and 26.3%, respectively). Results were similar for epidural analgesia and episiotomy. More community nulliparas had spontaneous birth, compared with birth in an alongside midwifery unit or obstetric unit, and fewer required hospital transfer. Results for multiparas and newborns were similar across care settings. In conclusion, use of a birthing pool was associated with a high frequency of spontaneous birth.

Comment: This is a careful, prospective observational study. The use of pools for labour and birth has been well researched in the past. This study highlights the beneficial effects of water to support women to birth spontaneously. It also revealed once again that there is a positive difference in outcomes and interventions for nulliparous women who birth in the community. Interestingly, outcomes for multipara were similar across all settings. The study reminds us again of the value of birthing pools and midwifery-led primary maternity units.

Reference: *Birth* 2012;39(3):192-202

<http://dx.doi.org/10.1111/j.1523-536X.2012.00548.x>



Receive your own copy of MIDWIFERY RESEARCH REVIEW

SIGN UP AT NO COST BY EMAIL

admin@researchreview.co.nz

OR ONLINE AT

www.researchreview.co.nz

Delivered by email to your inbox



Outcomes of care in birth centers: demonstration of a durable model

Authors: Stapleton S et al

Summary: This study examined outcomes of birth centre care in the present maternity care environment in the US. Women who received care in 79 midwifery-led birth centres in 33 US states from 2007–2010 were included. Of 15,574 women who planned a birth centre birth at the onset of labour, 84% gave birth at the birth centre. 4% were transferred to a hospital prior to admission to the birth centre and 12% were transferred after admission. 93% of women had a spontaneous vaginal birth regardless of where they gave birth. 2.4% of women who gave birth in the birth centre required transfer postpartum, and 2.6% of newborns were transferred. Most transfers were nonemergent. There were no maternal deaths. The intrapartum fetal mortality rate for women who were admitted to the birth centre in labour was 0.47 per 1000. In conclusion, this study demonstrates the safety of the midwifery-led birth centre model of collaborative care.

Comment: This US study reaffirms the findings of the 1989 National Birth Center Study and the 2003 San Diego Birth Center Study, that midwifery led care in primary birthing units is not only safe in terms of outcomes, but continues to show a low incidence of intervention rates, even though the national rate of obstetric intervention in the US has steadily risen in the intervening years.

Reference: *J Midwifery Womens Health* 2013;58:3-14

<http://dx.doi.org/10.1111/jmwh.12003>

Midwifery Research Review

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. She has been involved in leadership of midwifery education at AUT University for more than two decades and has practised midwifery in tertiary and primary maternity units and as an LMC midwife. She is national Educational Consultant on the NZ College of Midwives, of which she is a foundation member. Jackie has a particular interest in midwifery practices that support physiological pregnancy, childbirth and transition to parenthood processes, midwifery education, and development of midwifery practice.

RESEARCH REVIEW

Making Education Easy

Planned place of birth in New Zealand: does it affect mode of birth and intervention rates among low-risk women?

Authors: Davis D et al

Summary: This NZ study evaluated the impact of planned place of birth on mode of birth and intervention rates among low-risk women under the care of midwives. Data for a group of low risk women giving birth in 2006 and 2007 were extracted from the Midwifery Maternity Provider Organisation database. Women planning to give birth in hospital had a higher risk of caesarean section, assisted modes of birth, and intrapartum interventions than those who planned to give birth at home or in primary units. Women planning to give birth in a tertiary unit had a 4.62-fold higher risk of emergency caesarean section than those planning to give birth in a primary unit. Newborns of women planning to give birth in hospital had a higher risk of admission to a neonatal intensive care unit than newborns of women planning to give birth in a primary unit. In conclusion, planned place of birth has a significant impact on mode of birth and intervention rates in childbirth.

Comment: This New Zealand study is included because it is local, the findings are similar to the UK and US studies, and the data were from a similar period. This retrospective study of a cohort of women at low risk of complications also analyses the data in relation to planned place of birth. In all three studies the criteria for 'low risk' are similar, and the spontaneous birth rate in the community setting is higher than for low risk women in obstetric hospitals. Transfer rates are between 15.5% and 16.2%, and women planning to birth in community settings were at less risk of obstetric intervention and caesarean section. In this study, babies born to women planning to birth in a secondary or tertiary maternity hospital had a higher risk of admission to a neonatal unit. The study underscores the importance of primary maternity facilities and midwifery practice.

Reference: *Birth* 2011;38(2):111-9

<http://dx.doi.org/10.1111/j.1523-536X.2010.00458.x>

The emotional journey of labour – women's perspectives of the experience of labour moving towards birth

Authors: Dixon L et al

Summary: This study examined women's emotions during labour and birth. 18 women who had experienced a spontaneous labour and birth, and who had continuity of care from a midwife, were interviewed. The emotions described by the women during labour and birth flowed from excitement at the beginning, to calm as they waited for the labour to strengthen. As the labour intensified, women described moving into a timelessness zone where they let go of control. Some women felt overwhelmed as the birth approached, others felt intensely tired. The women returned to a state of alertness during the birth, and some described shock or disbelief.

Comment: While there is widespread understanding about the physical processes of labour and birth, less attention has been paid to psycho emotional factors influencing the individual woman's experience. This careful, qualitative study provides an important insight into women's emotional journeys in labour and birth. The findings inform midwives' understanding of women's perspectives and assist the selection of appropriate strategies that provide support for women through the process of labour and birth.

Reference: *Midwifery* 2013; published online 9 May

<http://dx.doi.org/10.1016/j.midw.2013.03.009>

First-time fathers' expectations and experiences of childbirth in relation to age

Authors: Schytt E et al

Summary: This study investigated first-time fathers' expectations and experiences of childbirth in relation to their age. 777 expectant fathers were recruited from 15 antenatal clinics in Sweden; data were collected by questionnaires in mid-pregnancy and again 3 months after birth. The men were grouped according to age: young men aged ≤ 27 years; men aged 28–33 years; and men aged ≥ 34 years. In mid-pregnancy, men of advanced age were more likely to have mixed or negative feelings about the upcoming birth than men of average or young age (29%, 26% and 18%, respectively; $p < 0.01$). They also feared the event more than the youngest group ($p < 0.01$). The older men also assessed their partner's labour and birth as more difficult and had a less positive overall birth experience. However, they were more satisfied with care given during the intrapartum period.

Comment: Until recently, there had been little work about fathers' experiences of childbirth. There is now quite a lot. This study is representative of the published information becoming available. The study uses secondary analysis of data that were collected for a randomised controlled trial of antenatal education. I'm not sure how men over 34 would feel about being described as 'advanced age', however, the study shows that younger and older men have different expectations and experiences and therefore require different types of information and levels of support from childbirth educators and midwives.

Reference: *Midwifery 2013*; published online 7 Mar

<http://dx.doi.org/10.1016/j.midw.2013.01.015>

A five year follow-up study of the Bristol pregnancy domestic violence programme to promote routine enquiry

Authors: Baird K et al

Summary: This 5-year follow-up study assessed whether practice changes identified in the 2004/2005 evaluation of the Bristol Pregnancy Domestic Violence Programme (BPDVP) for routine enquiry of domestic abuse have been maintained. 58 midwives completed a 54-item questionnaire; 11 of them also participated in focus group interviews. Across the cohort there was a tendency towards an increase in confidence in asking about domestic violence, and a significant increase in self-reported confidence in asking women about domestic abuse. There was also a significant increase in the degree of self-reported knowledge of how to deal with a disclosure of domestic violence. In conclusion, antenatal enquiries for domestic violence and abuse have improved over time, with the support of mandatory training.

Comment: The findings from this study are pertinent because New Zealand midwives also have a mandatory screening programme for domestic violence and a training programme available, which all midwives undertake. The main point of interest from the study is that despite improvements in antenatal enquiry after a mandatory training programme was put in place there were still barriers to effectiveness. The issue raised about lack of face to face interpreting services is pertinent for our increasingly diverse New Zealand communities.

Reference: *Midwifery 2013*; published online 27 Feb

<http://dx.doi.org/10.1016/j.midw.2013.01.007>

Irish and New Zealand midwives' expertise in expectant management of the third stage of labour: The 'MEET' study

Authors: Begley C et al

Summary: This study assessed the views of midwives in Ireland and New Zealand regarding the skills they use in expectant management of the third stage of labour (EMTSL). 27 midwives who used EMTSL in at least 30% of births (with postpartum haemorrhage rates $< 4\%$) were interviewed. Most of the midwives believed the third stage was a special time for parent-baby discovery and 'watchful waiting', with no intervention necessary. Women's feelings, behaviour and a calm environment were considered highly important. Other important factors were skin-to-skin contact, breastfeeding, not clamping the cord, maternal effort and an upright position. In conclusion, these elements of EMTSL provide a basis for further discussion on how normal physiology can be supported during the third stage of labour.

Comment: The birth of the placenta continues to be a source of much discussion and research. Practice wisdom is not easily captured. This qualitative study has explicitly set out to find out what expertise midwives, experienced in expectant care, bring to this part of the childbirth continuum. The midwives in the study were from Ireland and New Zealand. The study findings contribute to midwives' knowledge of expectant management of the birth of the placenta.

Reference: *Midwifery 2012*;28(6):733-739

<http://dx.doi.org/10.1016/j.midw.2011.08.008>

SUBSCRIBE TO

> **Fertility Research Review** ([CLICK HERE](#))

> **Child Health Research Review** ([CLICK HERE](#))

> **Women's Sexual Health Research Review** ([CLICK HERE](#))

www.researchreview.co.nz



Late pregnancy reversal from excessive gestational weight gain lowers risk of childhood overweight

Authors: von Kries R et al

Summary: This study investigated whether reversal to adequate gestational weight gain (GWG) in the third trimester reverses the risk for childhood overweight. Pre-pregnancy weight and the temporal course of GWG were reviewed for 6,665 mother-child pairs. Overweight was assessed at a mean age of 5.8 years. Logistic regression models adjusted for confounding factors showed that children of women who avoided excessive GWG in the third trimester had a 31% lower probability of being overweight (odds ratio 0.69, 95% CI 0.59–0.82). Similarly, children of women who reversed from excessive GWG in the first or second trimester to normal GWG in the third trimester were 27% less likely to be overweight (odds ratio 0.73, 95% CI 0.53–0.99). In conclusion, avoidance of excessive GWG in the third trimester (even in women with excessive GWG in the first or second trimester) is associated with lower risk of childhood overweight.

Comment: The current obesity epidemic has returned monitoring weight to our attention. This retrospective cohort study highlights the importance of well-founded nutritional advice during pregnancy, and draws attention to the ongoing effect on the child. The key finding is that avoidance of excessive weight gain in the third trimester reduces the risk of the child becoming overweight. The finding was the same even if there was excessive weight gain in the first or second trimester of pregnancy.

Reference: *Obesity* 2013; published online 13 May

<http://dx.doi.org/10.1002/oby.20197>

SUBSCRIBING TO RESEARCH REVIEW

RESEARCH REVIEW screen international peer reviewed journals to identify what really matters and bring it to you in a quick and easy electronic format. We also capture the independent opinion of a NZ specialist in each area for every study featured.

MIDWIFERY RESEARCH REVIEW

will be a regular publication with papers selected by and commented on by Jackie Gunn. Live links allow readers delve deeper into the topic. It is free to receive and the electronic format means you can print, save, and share with ease.

To subscribe or download previous editions of Research Review publications go to

www.researchreview.co.nz

KEEPING UP TO DATE WITH MEDICAL
RESEARCH COULDN'T BE EASIER.

Women's experiences of factors that facilitate or inhibit gestational diabetes self-management

Authors: Carolan M et al

Summary: This study examined the factors associated with gestational diabetes self-management among women in a socially deprived area. 15 pregnant women with gestational diabetes were interviewed and participated in a focus group at approximately 28–38 weeks' gestation. Factors that inhibited the women's self-management of gestational diabetes included: time pressures, physical constraints, social constraints, limited understanding of requirements, and insulin being an easier option. Factors that facilitated gestational diabetes self-management included thinking about the baby and psychological support from partners and families. In conclusion, women from low socioeconomic and migrant backgrounds often struggle to comprehend gestational diabetes self-management requirements and need educational and support services that are both culturally appropriate and aimed at a low literacy level.

Comment: This qualitative study explored the effect of managing a diagnosis of gestational diabetes in women from low socioeconomic and migrant backgrounds. It is pertinent to New Zealand's cultural and economic diversity. The study identified enablers and barriers to self-management of gestational diabetes. Barriers were identified as: limited time to establish the self-management regime after the shock of the diagnosis, lack of support and resources appropriate for either different cultural contexts and/or low levels of literacy. Enablers were: thinking about the baby and psychological support from family and partners. An important insight was that some women viewed insulin as an easier option.

Reference: *BMC Pregnancy Childbirth* 2012;12:99

<http://dx.doi.org/10.1186/1471-2393-12-99>

Women's experiences of preeclampsia: Australian action on preeclampsia survey of women and their confidants

Authors: East C et al

Summary: This study examined women's experiences of pre-eclampsia. 112 members of the consumer group Australian Action on Pre-Eclampsia (AAPEC) were sent a postal survey. Surveys were completed by 68 women and 64 partners, close relatives or friends. The women had experienced pre-eclampsia (n=53), eclampsia (n=5) and/or Hemolysis, Elevated Liver enzymes, and Low Platelets (HELLP syndrome; n=26). 77% of women had no knowledge of pre-eclampsia before their diagnosis, and half of them did not understand how serious or life threatening it was. Women reported that their experience left them anxious about future pregnancies. The families had no prior understanding of pre-eclampsia, and expressed fear for the woman and/or her baby. In conclusion, pre-eclampsia has a substantial impact on affected women and alters their view of future pregnancies.

Comment: There is a plethora of scientific research about pre-eclampsia, but the effect on women and families is less researched. This study informs practice. Women and families responded to the survey. The experience had a profound effect on the women and their families. Families were fearful for the women, women wanted information about their pre-eclampsia, and the experience engenders substantial anxiety about future pregnancies for both women and their families.

Reference: *J Pregnancy* 2011; article ID 375653

<http://dx.doi.org/10.1155/2011/375653>

Research Review publications are intended for New Zealand health professionals.

Privacy Policy: Research Review will record your email details on a secure database and will not release them to anyone without your prior approval. Research Review and you have the right to inspect, update or delete your details at any time.

Disclaimer: This publication is not intended as a replacement for regular medical education but to assist in the process. The reviews are a summarised interpretation of the published study and reflect the opinion of the writer rather than those of the research group or scientific journal. It is suggested readers review the full trial data before forming a final conclusion on its merits.