Midwifery Research Review™

Making Education Easy — Issue 2 – 2013

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Welcome to the second issue of Midwifery Research Review.

Some associations between poor perinatal maternal mental health and experience of domestic violence are discussed in the first article. How we may unconsciously give a different message than we think is Jenny Fenwick and colleagues' finding in their study about breastfeeding education, and a timely qualitative study about women's experience of breastfeeding a baby with a disability or a chronic condition is next. Yet another study about management of the birth of the placenta is followed by two studies, one from the Netherlands and one from Australia about planned home birth outcomes. These are followed by studies about ethnicity as an independent predictor of caesarean section, and dietary intake in the first trimester. I hope that you enjoy them.

Kind regards,

Jackie Gunn

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Domestic violence and perinatal mental disorders: a systematic review and meta-analysis

Authors: Howard L et al.

Summary: This study estimated the prevalence of previous domestic violence among women with antenatal and postnatal mental disorders. A systematic review identified 67 papers that assessed the prevalence and/or odds of previous domestic violence in women, and assessed symptoms of perinatal mental disorder. Pooled estimates suggested a 3-fold increase in the odds of depressive symptoms in the postnatal period in women who had experienced partner violence during pregnancy. An increased likelihood of having experienced domestic violence was consistently seen among women with high levels of depressive, anxiety and post-traumatic stress disorder (PTSD) in the antenatal and postnatal periods. Analyses were limited because of study heterogeneity and lack of baseline data. In conclusion, high levels of perinatal depression, anxiety and PTSD are associated with having experienced domestic violence.

Comment: Maternal mental health issues have been highlighted clinically in the current New Zealand perinatal and maternal mortality review committee's 2013 report. This article is a systematic review and meta-analysis examining studies for any evidence of association between experiencing domestic violence, at any time, and perinatal mental health disorders. From a review of more than 1000 papers up to Feb 2013, 67 studies which included both longitudinal and cross sectional studies were reviewed. Only studies that used validated screening and diagnostic tools were included. The authors concluded that there is a significant association between having experienced domestic violence and perinatal depression, anxiety and PTSD. While there has been much emphasis on postnatal depression, this article also highlights that women with symptoms of depression etc. during pregnancy must not be ignored. The article has an extensive editor's summary that not only summarises the results, but explains the process of systematic review and meta-analysis in plain language.

Reference: PLoS Med 2013;10(5):e1001452

Abstract

We only talk about breastfeeding: a discourse analysis of infant feeding messages in antenatal group-based education

Authors: Fenwick J et al.

Summary: This Australian study examined the dominant discourses that midwives draw on to present information during antenatal breastfeeding education sessions. Discourse analysis was used to assess the language and practises of midwives who facilitated group sessions at two maternity facilities. A total of nine sessions were observed and recorded over a 12-month period. Four dominate discourses were found. The first two, `there is only one feeding option: breast feeding' and 'breast is best' reflected how midwives tried to convince as many pregnant women as possible to commit to breastfeeding. Sessions were organised to ensure women were given as much information as possible about the value of breast milk, successful positioning and attachment, and strategies to deal with problems. The other 2 main discourses presented infants as 'hard wired' to breast feed and male partners as 'protectors' of breast feeding.

Comment: This interesting Australian study holds a mirror up to midwives communication about breastfeeding during antenatal classes. Studies that use the method of discourse analysis are less common than other qualitative research methods. However, it is a very useful method for uncovering underlying, hidden or unconscious messages embedded in conversations, teaching, texts or videos. While 'only' nine sessions were recorded and analysed, they were between one to two and a half hours long. A large amount of analysis indeed. The authors conclude that midwives' passion and enthusiasm for breastfeeding was clear. However, they go on to discuss approaches used that aimed to convince women rather than engaging in conversations about how breastfeeding might be experienced. They conclude with a concern about the fine line between providing information and coercive messages.

Reference: Midwifery 2013 29:425-433
Abstract

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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.

When baby's chronic illness and disability interfere with breastfeeding: women's emotional adjustment

Authors: Ryan K et al.

Summary: This study explored the emotional adjustments women make when their baby's chronic illness or disability threatens breastfeeding. Narratives from 5 breastfeeding women in the UK whose babies experienced a chronic condition were analysed. Three key emotional themes emerged: (1) 'Overwhelmed' – women reported feelings of shock and helplessness; (2) 'Under acknowledged' – women felt they were not being listened to or taken seriously; (3) 'Striving for normality' – reframing the situation and readjusting expectations helped adjustment to a 'normal' life. In conclusion, understanding issues associated with breastfeeding an ill or disabled child can help healthcare providers offer more appropriate care to women who wish to breast feed.

Comment: This qualitative study explores five women's experiences of breastfeeding when their child had a chronic condition. It is a welcome addition to the literature as this area is not commonly researched. The themes identified are not surprising, but they have reminders for us to listen and respond to women and to recognise that breastfeeding gave these women a sense of control and purpose.

Reference: Midwifery 2013;29:794-800
Abstract

Effect of routine controlled cord traction as part of the active management of the third stage of labour on postpartum haemorrhage

Authors: Deneux-Tharaux C et al.

Summary: This study assessed the impact of controlled cord traction on the incidence of postpartum haemorrhage and other features of the third stage of labour. At 5 university hospital maternity units in France, women with a singleton fetus at 35 or more weeks' gestation and planned vaginal delivery were randomised to management of the third stage of labour by controlled cord traction or standard placenta expulsion. All women received prophylactic oxytocin just after birth. The incidence of postpartum haemorrhage did not differ between the controlled cord traction arm and the standard placenta expulsion arm, but the need for manual removal of the placenta was less frequent in the controlled cord traction arm (4.2% vs 6.1%, relative risk 0.69), as was third stage of labour duration >15 minutes (4.5% vs 14.3%, relative risk 0.31). Women in the controlled cord traction arm reported less pain and discomfort during the third stage than those in the standard placenta expulsion arm.

Comment: Another study on the management of the birth of the placenta! This French randomised controlled trial was conducted in five university maternity hospitals and enrolled 4355 women who were randomly assigned to the 'standard placenta expulsion' group (the intervention) or to the 'controlled cord traction' group (the control group). All women routinely received oxytocin just after birth. So this was active management of the placental birth with or without controlled cord traction. The main outcome measure was postpartum haemorrhage of 500ml or more. The results showed no difference in the postpartum haemorrhage rate between the two groups. The controlled cord traction group birthed their placentas in a shorter time (surprise!). The women in this group required fewer manual removals of the placenta and reported less pain and discomfort. In their conclusions the researchers don't comment on the effect of prophylactic oxytocin (which is part of active management procedure) being given when expectant management is being employed. Because it is a randomised controlled trial, the tendency will be to view this study as a 'gold standard'. This is unfortunate as two decades of studies have reached the point where the difference between active management and expectant management practices have finally been clarified. The clear direction from the literature is do not mix methods of management. Expectant management does not include the use of prophylactic uterotonics.

Reference: BMJ 2013;346:f1541
Abstract

Severe adverse maternal outcomes among low risk women with planned home versus hospital births in the Netherlands: nationwide cohort study

Authors: de Jonge A et al.

Summary: This study compared the rates of severe acute maternal morbidity after planned home birth versus planned hospital birth in low risk women. Outcomes data for 146,752 low risk women in primary care at the onset of labour between August 2004 and August 2006 were reviewed. Overall, 62.9% of women had a planned home birth and 37.1% had a planned hospital birth. The rate of severe acute maternal morbidity (admission to an intensive care unit, eclampsia, blood transfusion of four or more packed cells, and other serious events) among planned primary care births was 2.0 per 1000 births. Low risk women with planned home birth had lower rates of severe acute maternal morbidity, postpartum haemorrhage, and manual removal of placenta than those with planned hospital birth. These differences were statistically significant in parous women.

Comment: A pity the title is so unfortunate. It leads the reader to assume that there *are* severe adverse maternal outcomes. When in fact the results of this study mirror the studies about community birthplaces reported in the previous issue of Midwifery Research Review. This study reports that the low risk women who planned a home birth and were in primary care at the onset of labour had lower rates of severe, acute maternal morbidity, postpartum haemorrhage and manual removal of the placenta (note the difference from the previous study), than those low risk women who planned a hospital birth. For multipara the differences were statistically significant. They also note that the absolute risks were small for both groups. The authors conclude, as many have done since Marjorie Tew's publication two decades or more ago, that there is *no evidence* that planned home birth for low risk women leads to an increased risk of severe adverse maternal outcomes, where the system provides well trained midwives and good referral and transportation systems.

Reference: BMJ 2013:346:13263

Abstract

Publicly funded homebirth in Australia: a review of maternal and neonatal outcomes over 6 years

Authors: Catling-Paull C et al., on behalf of the Birthplace in Australia Study and the National Publicly-funded Homebirth Consortium

Summary: This study reviewed maternal and neonatal outcomes for Australian women who planned a publicly funded homebirth between 2005 and 2010. Data from 9 out of 12 publicly funded homebirth programmes in place at the time were analysed. Of the 1807 women who planned to give birth at home at the onset of labour, 84% did so. 17% were transferred to hospital during labour or within a week of giving birth. The rate of stillbirth and early neonatal death was 3.3 per 1000 births. After exclusion of deaths because of fetal anomalies, the stillbirth rate fell to 1.7 per 1000 births. Normal vaginal births occurred in 90% of cases.

Comment: This is a retrospective analysis of data from women who planned a home birth and their babies in 2005–2010 at nine publicly funded homebirth services in Australia. There were 1521 women who gave birth at home. At 17%, the transfer rate to hospital during labour or the first week postpartum is similar to the three studies of primary births reported in the last issue. The normal vaginal birth rate was 90%. When excluding deaths of babies with congenital anomalies, the stillbirth rate was low at 1.7 per 1000 births. Other maternal and neonatal outcomes were comparable to other studies of homebirth for low risk women. The postpartum haemorrhage rate was 1.8%. The authors state correctly that the sample size precludes conclusions about safety. However, large cohorts of women are never going to be available unless a very long period of data collection occurred. There are numerous published studies of a similar size, and increasingly large numbers of women who are birthing in primary maternity units, to collectively show a similar trend in low percentages of transfers, postpartum haemorrhage, perineal injury and standard neonatal outcomes.

Reference: Med J Aust 2013;198(11):616-620

Abstract

Ethnicity and risk of caesarean section in a term, nulliparous New Zealand obstetric cohort

Authors: Anderson N et al.

Summary: This study compared ethnic differences in caesarean section rates among pregnant women at term. Data for 11,848 singleton, nulliparous term births at National Women's Health, Auckland, NZ from 2006–2009 were reviewed. The overall caesarean section rate was 31.2% (7.8% were elective and 23.4% were emergency). Compared with European ethnicity, Pacific and Chinese women were less likely to have an elective caesarean (adjusted odds ratios, 0.42 and 0.68, respectively), while Indian women were more likely to have an emergency caesarean (adjusted odds ratio 1.54). Rates of elective or emergency caesareans for other ethnicities were similar to those in European women. In conclusion, there are ethnic differences in elective and emergency caesarean section rates that might be related to patient and/or care provider factors.

Comment: This New Zealand study is a retrospective cohort analysis that determined whether ethnicity was an independent factor in elective and emergency caesarean section in nulliparous women in the National Women's Health Maternity Service in Auckland DHB. The overall caesarean section rate was 31.2%. The findings show that there is a difference; with Pacific and Chinese women having a lower odds of having a caesarean section than European and Maori women, while Indian women had increased odds of an elective or emergency caesarean section. The study merely shows there is a difference. While they postulate that the women and/or their care provider might be related to the reason, the authors do not discuss reasons, citing further prospective research is required.

Reference: Aust NZ J Obstet Gynaecol 2013;53:258-264

Abstract

First trimester dietary intake, biochemical measures and subsequent gestational hypertension among nulliparous women

Authors: Tande D et al.

Summary: This pilot study evaluated the relationship between first-trimester dietary factors and subsequent risk of gestational hypertension. 57 nulliparous women were included. 22.8% of the women developed gestational hypertension (84.6% of them met criteria for preeclampsia). There were no significant differences in micronutrient or macronutrient dietary intakes between women who had a normotensive pregnancy and those who had gestational hypertension, but serum iron and zinc levels were lower in women with gestational hypertension ($p \leq 0.01$). Low serum zinc levels were found to be associated with a risk of developing gestational hypertension (adjusted odds ratio 0.93). In conclusion, ensuring adequate zinc intake in nulliparous pregnant women may help prevent gestational hypertension.

Comment: This is an interesting quantitative pilot study. It is a good example of the importance of looking at sample size in quantitative work, and for the magic words, pilot study. The discussion in the abstract says 'ensuring adequate intake of zinc and monitoring serum zinc levels in nulliparous pregnant women may help to prevent or contribute to early detection of gestational hypertension'. The problem with that is that there were only 57 women in the study, of whom 44 were normotensive and 13 who developed hypertension. It is a very big leap to then say serum zinc levels should be monitored in all nulliparous women and to make a cause and effect statement about gestational hypertension based on a sample of 13 women. A pilot study can give an indication of whether it is worth doing a fully powered study to establish cause and effect or association, or not.

Reference: J Midwifery Women's Health 2013;58(4):423-30

Abstract

Helping women but hurting ourselves? Neck and upper back musculoskeletal symptoms in a cohort of Australian midwives

Authors: Long M et al.

Summary: This study investigated the prevalence of neck and upper back musculoskeletal symptoms in a group of Australian midwives. Data were collected from qualified Australian midwives aged 23–70 years via an online survey in 2006–2008. 48.8% of the midwives reported neck problems and 28.2% reported upper back problems; work-related prevalence was reported to be 40.8% and 24.5%, respectively. Participants who cared for a dependent adult were 36% more likely to report neck symptoms. Current shift work and total physical activity were associated with decreased likelihood of neck and upper back symptoms. Psychological job demands were only weakly associated with upper back symptoms. Work in awkward postures carried an increased risk of 35% for neck and nearly 50% for upper back symptoms.

Comment: This Australian descriptive study explores the prevalence of neck and upper back musculoskeletal symptoms in 1388 Australian midwives with a mean age of 47.6 years and an average of 13.6 years of midwifery practice. The interesting findings are that these symptoms are common, and there are both workplace and individual factors that were significantly associated with neck and upper back symptoms. In particular, midwives who were caring for adult dependent relatives were at more risk of neck symptoms; and both psychological factors such as stress, and physical factors such as awkward positions were associated with the development of symptoms. A timely reminder for midwives to be mindful of good postural practices to minimise back injury in both the workplace and individual contexts.

Reference: Midwifery 2013;29:359–367

Abstract

Maternal factors associated with heavy periconceptional alcohol intake and drinking following pregnancy recognition: a post-partum survey of New Zealand women

Authors: Mallard S et al.

Summary: This study reported patterns of alcohol consumption before and after pregnancy recognition in New Zealand. 723 post-partum women in maternity wards across New Zealand were surveyed using a self-administered questionnaire. 968 women were invited to participate, and 78% agreed. 82% of women reported drinking alcohol prior to their pregnancy, and 20% said they would typically have >4 standard drinks per occasion. 34% of women said they drank at some time during pregnancy. 12% of pregnancies were at high risk of heavy alcohol exposure in early gestation. Pregnancies most at risk were those of Maori women, Pacific women, smokers and drug users. 24% of drinkers continued to drink after they knew they were pregnant. Continuing to drink was positively associated with frequency of alcohol consumption before pregnancy.

Comment: This interesting and approachable New Zealand study is important because it describes current prevalence and patterns of alcohol consumption before and following pregnancy recognition. I encourage you to read it. There is little known about New Zealand women's patterns of drinking alcohol in the periconceptual period, although it is known that there has been a recent increase in drinking frequency among New Zealand women aged 20–39 years (Huckle et al., 2012). This article backgrounds the teratogenic effects of alcohol and overviews the harm that produces fetal alcohol spectrum disorders. The aim of the study was to describe the prevalence and patterns of alcohol intake among pregnant women in New Zealand, and to characterise subgroups of women most at risk of heavy episodic drinking (4 or more standard drinks per episode) in early pregnancy and most likely to consume alcohol after pregnancy recognition. The study used a self-administered questionnaire from 723 postpartum women, mostly completed before leaving the maternity unit. How the under reporting bias was managed is carefully described, as is the process of analysis. The percentage of Maori and Pacific and Asian women participating is less than the general population, and although the authors have clarified the ways they managed this in the analysis, there were only 37 Pacific women in total. Results for this group should be treated with some caution, although the general picture is an accurate reflection of the study findings. The finding that overall 34% of the women continued to drink at some time during pregnancy and 12% were at high risk of heavy alcohol exposure in early gestation is a sufficient reminder to midwives of the practice points related to alcohol consumption before and during pregnancy.

Reference: Drug Alcohol Rev 2013;32:389-397

Abstract