Midwifery Research Review™

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Issue 4 – 2014

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Welcome to the latest issue of Midwifery Research Review.

A number of interesting Australasian studies have been selected for this issue, starting with a look at midwifery care in socioeconomically deprived areas of NZ. This is followed by an Australian survey of midwives and their experiences with occiput posterior position during second stage labour, plus an assessment of costs and birth outcomes associated with caseload midwifery compared with standard hospital or private obstetric care. My co-reviewer for this issue Nimisha Waller has also selected some studies of interest, including attitudes towards vitamin K prophylaxis in newborns, and a review of the merits of skin-to-skin contact after caesarean section.

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

Kind regards,

Jackie Gunn

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Staying involved "because the need seems so huge": midwives working with women living in areas of high deprivation

Authors: Griffiths C et al.

Summary and comment (JG): This study examined the level of midwifery care provided to women living in the most socioeconomically deprived areas of NZ. The research was actually undertaken more than a decade ago, but has only now been published. I have included it in the selection for several reasons. Firstly, there is very little research into what midwifery care actually is for pregnant women and new mothers who have complexities in their lives, but do not necessarily have obstetric complications. So while the data were collected a long time ago, there have been very few studies in the area during the intervening years and the findings of the research have pertinence today. In addition, the analysis brings focus onto midwifery care that meets the women's needs in pregnancy. The authors have quite properly updated the literature, and make good recommendations for further research, including testing the conceptual model generated by this research in more affluent communities. This is a carefully undertaken study that is fully reported. Secondly, this study uses grounded theory methodology. Grounded theory is one of the less frequently employed qualitative research methodologies. It " … is a highly systematic research approach for collection, organisation and analysis of qualitative data for generating explanatory theory, that furthers the understanding of social and psychological phenomena" (Chenitz & Swanson, 1996; cited in Griffiths et al. 2013). The analysis of the data in this study has generated a conceptual model that brings the four categories identified from the data (i.e. Forming relationships with the wary; Giving an awful lot of support; Remaining close by; and Ensuring personal coping) under the umbrella of the core category of Staying involved 'because the need seems so huge'. Apart from expanding our understanding, one of the benefits a conceptual model has is that it can be tested in further studies to see if it holds true in other settings. Thirdly, the study highlights issues related to accessibility to and engagement with maternity services and begins to identify the extra midwifery time and costs that may need to be invested to provide accessible and acceptable maternity care for women with such complex lives. Lastly, the research identifies the need for a midwife's personal coping in the face of significant dilemmas in practice. The personal coping category analysis has resonance with more recent studies about sustaining midwifery practice in the community.

Reference: Int J Childbirth 2013;3(4):218-232

Abstract

Management of occiput posterior position in the second stage of labour

Authors: Phipps H et al.

Summary: This survey of midwifery practice in Australia determined current midwifery views, knowledge, and use of manual rotation in the management of the occiput posterior (OP) position in the second stage of labour. A self-reported questionnaire was completed by 1817 members of the Australian College of Midwives. 77% of them thought that manual rotation at full dilatation was a valid intervention and 64% thought the procedure was acceptable before instrumental delivery. 93% of midwives had heard of manual rotation, but only 18% had performed one in the last year.

Comment (JG): This study has been selected for comment for two reasons. It demonstrates the value of a carefully conducted survey to inform the feasibility/utility of a larger study, in this case a randomised controlled trial (RCT). Also, the topic is a clinical skill which appears to have value in reducing the assisted/operative birth rate for babies in the OP position in early second stage of labour, but which appears to be slowly disappearing from practice. The report in *Birth* that is commented on here is the Australian midwife arm of a survey conducted among Australian midwives and Australasian obstetricians. The results of the obstetrician arm of the survey are reported elsewhere, and show similar results to the midwives, i.e. manual rotation from OP or occiput transverse to an occiput anterior position is performed by a minority of both groups. In both professional groups, manual rotation was more likely to be practised by more experienced practitioners. The literature sourced for this research found two studies reporting significant reduction in rates of assisted vaginal birth and caesarean section following manual rotation in early second stage labour. The authors identified the biases in both studies, hence their recommendation for an RCT to eliminate the biases in the early studies and to see if the procedure does reduce the assisted/operative birth rate. The survey reported in this article provides a picture of current practice and of the acceptability of manual rotation as a procedure if it does reduce the assisted/operative birth rate, thereby informing the feasibility of the RCT.

Reference: Birth 2014;41(1):64-9
Abstract

Caseload midwifery compared to standard or private hospital obstetric care for first time mothers in a public teaching hospital in Australia

Authors: Tracy S et al.

Summary: This study evaluated the costs and birth outcomes associated with caseload midwifery compared with the two existing models of care, standard hospital care and private obstetric care. Outcomes were described for a cohort of 1379 low-risk first-time mothers who were booked into one of the three available models of care in a tertiary teaching hospital in Australia. Women who received caseload care were more likely to have a spontaneous onset of labour and an unassisted vaginal birth than those receiving standard hospital care or private obstetric care (58.5% vs 48.2% and 30.8%, respectively; p<0.001). They were also less likely to have an elective caesarean section (1.6% vs 5.3% and 17.2%; p<0.001). From the public hospital perspective, the average cost of care for the standard primipara receiving caseload midwifery care was $AU3903.78 per woman per year. This was $AU1375.45 less than private obstetric care and $AU1590.91 less than standard hospital care (p<0.001).

Comment (JG): It isn't often in their busy daily round that practitioners think about overall costs of the maternity care that women receive. However, a cost effective maternity care system is an important consideration for the management of public funds. This is the first such comparison of costs related to caseload midwifery care. This cross-sectional study in an Australian hospital compared caseload midwifery in nine group practices consisting of four employed midwives, with standard, fragmented care and private obstetric care in a large public teaching hospital. The group practices were set up specifically for the study. Costs and birth outcomes were then compared for 'standard primipara' in the three models of care. Standard primiparas are defined as women who are described as low risk, free of medical conditions or obstetric complications, and having their first baby. Analysing the results related to this particular group of women controls for population and case mix variations between the three groups. As reported in other recent studies, the women receiving midwifery care from the caseloading midwives were significantly more likely to birth spontaneously, less likely to have an elective caesarean section, epidural in labour, or babies admitted to the neonatal unit than the other two groups. Over one financial year, the average cost of care for the standard primigravida in the caseloading group was $AU1590.91 and $AU1375.45 less than for the standard care and private obstetric care groups, respectively. The cost reduction was related to the fewer elective caesarean sections, inductions of labour, epidural anaesthetics and admissions to the neonatal unit in the caseload midwifery group of women. The results support caseload midwifery as a cost effective model of care.

Reference: BMC Pregnancy Childbirth 2014;14:46
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. 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. **For full bio CLICK HERE.**

Should a postnatal birth discussion be part of routine midwifery care?

Authors: Fryer J and Weaver J

Summary: This literature review examined the provision of postnatal psychological care in midwifery. Current National Institute for Health and Care Excellence (NICE) guidelines recommend that women should be given the opportunity to discuss their birth experience with a midwife postnatally, but this does not appear to happen routinely. Most women want to talk about their birth experience and, if able to do so, report positively on it. This review makes evidence-based recommendations for improving postnatal midwifery care.

Comment (JG): I selected this literature review as a reminder to us all of the excellent care midwives are enabled to provide to New Zealand women in the postpartum period, by the provisions of the MOH's primary maternity service specifications. All New Zealand women must receive a minimum of 7 postpartum visits from their LMC or from DHB employed community-based midwives in the 4–6 weeks after birth. Many women receive more than this if the need is identified by their midwife. It is very likely that the majority of NZ women have an opportunity to debrief their labour and birth experience, because their midwife is known to them, continues to visit postpartum and understands the importance of this discussion. This literature review is revelatory of what can happen when women are discharged from the maternity service soon after birth and there is little or no midwifery follow up in the community. The service these authors are describing is one where women are discharged early and may get two or three visits from a midwife if they are lucky. The review is comprehensive and supports recommendations for change to midwifery practice to enable postnatal birth discussion among other things. The publicly-funded maternity service in NZ is precious. Postpartum midwifery care must continue to be assiduously practised to an excellent standard, so that opportunities for providing postpartum psycho-emotional support for women are jealously guarded and continue to remain available.

Reference: Br J Midwifery 2014;22(2):118-123
Abstract

Medical and midwifery attitudes towards vitamin K prophylaxis in New Zealand neonates

Authors: Gosai S et al.

Summary: This NZ study examined healthcare professionals' attitudes and perceptions towards neonatal vitamin K administration. Midwives and selected medical staff in the South Island were invited to complete an anonymous survey exploring attitudes and perceptions towards vitamin K prophylaxis in newborns. The survey had a response rate of 57%. Almost all responding medical staff and 76% of midwives agreed with the current vitamin K guideline. All medical staff but only 55% of midwives felt that all babies should receive vitamin K. There were also between-group differences regarding vitamin K education and risks.

Comment (NW): Women and whanau (family) have a right to make autonomous decisions about their baby's care. Midwives generally have the most contact with women and whanau at this time (78% were LMCs in 2010). Hence they play a key role in informing women and whanau about vitamin K prophylaxis. The MOH guidelines suggest that it is the LMC's responsibility to discuss newborn vitamin K prophylaxis so it does not free other LMCs from providing the information. Many studies (NZ and internationally) have highlighted differences in attitudes among midwifery and other relevant healthcare professionals in aspects of maternity care. To ensure underlying principles of informed choice and consent are upheld (Health & Disability Commissioner Act, 1994) all practitioners in NZ should provide unbiased information so women and whanau can make informed decisions. The information should include the MOH guideline on newborn vitamin K prophylaxis, professional organisation's guideline/consensus statements and information available from the Maternity Services Consumer Council (NZ) http://www.maternity.org.nz/hot-topics/vitamin-k/. The study provides an opportunity for practitioners and professional groups to reflect if further education/information sessions are required to update knowledge.

Reference: J Paediatr Child Health 2014;50(7):536-539
Abstract

An exploration of influences on women's birthplace decision-making in New Zealand

Authors: Grigg C et al.

Summary: This analysis of the Evaluating Maternity Units prospective cohort study examined the various influences on women's birthplace decision-making in New Zealand. 576 women who had been booked to give birth at a tertiary maternity hospital or 1 of 4 primary maternity units completed the survey. All of the women received midwifery-led continuity of care, regardless of their intended or actual birthplace. Almost all the respondents considered themselves to be the main decision-makers for birthplace. The tertiary hospital group rated accessing a 'specialist facility' as the most important factor. Those who chose a primary unit identified several important factors, including 'closeness to home', 'ease of access', the 'atmosphere' of the unit and avoidance of 'unnecessary intervention'. The concept of 'safety' was integral to both groups.

Comment (NW): Various studies (Lothian, 2004; Odent, 2007) have suggested that women seek a safe place to birth so their labour is uninterrupted. Women mentioned that they had always known where they would birth –Tertiary Maternity Hospital (TMH) or Primary Maternity Hospital (PMH) and chose midwives that would support their views of birth and birth plans. Women birthing in the TMH did not express confidence in their ability to birth and/or the process of birth itself while the women birthing in the PMH did. Midwives had some influence in the decision women made regarding place of birth. Such knowledge enables midwives and other practitioners to help shape women's beliefs and leads to change in their attitude. Midwives can provide clear information about risk and safety during pregnancy and birth, about the natural aspects of pregnancy and the potential impact place of birth and intervention has on them and their baby. Midwives confident in normal/physiological birth can provide strategies and encourage women to take a more proactive approach to giving birth.

Reference: BMC Pregnancy Childbirth 2014;14(1):210
Abstract

Independent commentary by Nimisha Waller

Nimisha is a Senior Lecturer in the Department of Midwifery, Faculty of Health and Environmental Science at AUT University and an LMC midwife. She is an Academic member of the Ministry of Health Compliance panel to monitor the Code in New Zealand and a DHSc Candidate interested in the impact post-birth conversations have on women and midwives.

Antenatal lifestyle advice for women who are overweight or obese

Authors: Dodd J et al., for the LIMIT Randomised Trial Group

Summary: The LIMIT trial researchers randomised 2212 women with a singleton pregnancy of 10–20 weeks' gestation and BMI ≥25 kg/m^2 to a comprehensive dietary and lifestyle intervention or standard care according to local guidelines. No significant difference was seen between the intervention and control groups for risk of the infant being large for gestational age (19% vs 21%; p=0.24), although infants born to women in the intervention group were significantly less likely to deliver a baby with a birthweight >4000g (15% vs 19%; adjusted relative risk 0.82; p=0.04). No significant between-group differences were seen for maternal pregnancy and birth outcomes.

Comment: It is well recognised that maternal weight is a risk factor for gestational diabetes and associated increased birthweight and adverse pregnancy outcomes for the baby. Therefore it makes good sense that effective weight management during pregnancy might reduce these. This large randomised controlled diet and lifestyle intervention study of overweight women in the second trimester of pregnancy tested this hypothesis. Unfortunately, despite an intensive intervention, there was no difference in gestational birthweight, or rates of pre-eclampsia, hypertension or gestational diabetes. However, there was no difference in weight gain during pregnancy between groups. Therefore it cannot be determined from this study whether effective weight management would have improved these outcomes. *[Comment provided by Dr Jeremy Krebs in Diabetes and Obesity Research Review 2014; issue 81]*

Reference: BMJ 2014;348:g1285

Abstract

Do neonatal hypoglycaemia guidelines in Australia and New Zealand facilitate breast feeding?

Authors: Sundercombe S et al.

Summary: This study evaluated how well postnatal ward neonatal hypoglycaemia guidelines in NZ and Australia facilitate breast feeding and adhere to UNICEF UK Baby Friendly Initiative (BFI) recommendations. 22 tertiary neonatal centres in Australia and NZ provided information about their Baby Friendly Health/Hospital Initiative (BFHI) guidelines. The guidelines generally scored poorly (median 71 on a scale of 31–124 for overall guideline quality, and median 20 on a scale of 9–36 for adherence to recommendations to facilitate breast feeding). Compliance with the recommendation to promote skin-to-skin contact and early breast feeding was poor across all centres. Nine of 22 guidelines mentioned skin-to-skin contact after birth and 14 advised feeding within 1 hour of birth.

Comment (NW): The study is a timely reminder of the importance of reviewing guidelines regularly and when new evidence appears. The guidelines reviewed were developed before the UNICEF UK BFI checklist of 2013 and a very small proportion (3/22) used the UNICEF UK BFI (2007) checklist. The BFHI checklist though not validated helps inclusion of skin-to-skin contact, early breastfeeding and preventing mother-infant separation. Consistent approach regarding blood glucose monitoring is essential to identify neonatal hypoglycaemia. This includes measuring blood glucose level pre-feed as it is more sensitive and less disruptive to the mother and baby as feed can be used to soothe the pain at time of testing. The authors suggest that guidelines should contain flow charts and pictures. Pictures of clinically malnourished (wasted infants) and macrosomic infants would minimise unnecessary interventions in healthy LGA infants. The development of a good guideline does not ensure its use in practice. Auditing of postnatal ward practice would help inform how the guideline is implemented.

Reference: Midwifery 2014; published online May 16

Abstract

Immediate or early skin-to-skin contact after a caesarean section

Authors: Stevens J et al.

Summary: This literature review evaluated the facilitation of immediate (within minutes) or early (within 1 hour) skin-to-skin contact after caesarean section for healthy mothers and their healthy term newborns. A search of various electronic databases identified 7 relevant papers published in 2003–2013. There is some evidence to suggest that, with appropriate collaboration, skin-to-skin contact can be implemented during caesarean surgery. Limited evidence suggests that immediate or early skin-to-skin contact after a caesarean section may enhance breastfeeding initiation, reduce the need for formula supplementation in hospital, increase maternal bonding, and reduce newborn stress.

Comment (NW): Many of the hospitals in New Zealand have introduced or are starting to introduce immediate or early skin-to-skin contact after a caesarean section. Those that have a guideline have included that one of the midwifery responsibilities in operating theatre is to initiate interaction and skin- to-skin contact between the parents and the baby as soon as practicable and after agreement with the anaesthetist, surgeon, neonatal staff members and the mother. This article provides an opportunity for managers, guideline development teams and practitioners to reflect/audit the benefits and barriers to implementation of skin-to-skin contact in the operating theatre. Are all practitioners in agreement at all times? If not, this might be the reason for delay in initiation of skin-to-skin contact at the time of caesarean section.

Reference: Matern Child Nutr 2014; published online Apr 10

Abstract