



# Midwifery Research Review™

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Issue 7 - 2015

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### Abbreviations used in this issue

**LMC** = Lead Maternity Carer  
**PMMRC** = Perinatal and Maternal Mortality Review Committee  
**PPH** = postpartum haemorrhage  
**RCT** = randomised controlled trial

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## Welcome to the latest issue of Midwifery Research Review.

This issue offers commentary on a variety of studies. There has been a lot of discussion about the sustainability of case loading (LMC) midwifery models of care. The first two articles represent recent research in Australia and New Zealand. The findings from the studies support each other. The next two papers report aspects of the LIMIT RCT trial from Adelaide. The first is about a dietary and lifestyle advice intervention for overweight and obese women who are pregnant, and the second about the outcomes for their babies. Given the recent call for 'early booking' from the PMMRC, the next study, an investigation into the prevalence of and reasons for women's late engagement with the maternity services in South Auckland, is timely. The following two articles are reminders about the quality of our midwifery and maternity service as calls for practices we already have are made by the authors of Australian and Swedish papers. The first is for early intervention to reduce the impact of intimate partner violence in pregnancy. This paper reveals the prevalence of this behaviour. There is no reason to suppose that the New Zealand prevalence is very different. The second paper prompts me to make a call to celebrate the widespread adoption of evidence-based practice related to skin-to-skin contact in New Zealand, as other countries still struggle in this area. Having said that, the next paper is a reminder of the crucial nature of a midwife's presence and time for supporting new mothers. Next is a promising preliminary study about the relief of low back pain in pregnancy and finally, a theoretical paper that hypothesises a physiological connection between skin-to-skin contact and breastfeeding from birth with achieving and maintaining uterine contraction and normal blood loss levels.

I hope you enjoy the selection and look forward to any feedback you might have.

Kind regards,

**Jackie Gunn**

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## Comparing satisfaction and burnout between caseload and standard care midwives: findings from two cross-sectional surveys conducted in Victoria, Australia

**Authors:** Newton M et al.

**Summary:** This study explored midwives' attitudes to their professional role, and compared burnout rates in caseload versus standard care midwives at two sites in Victoria, Australia with newly introduced caseload midwifery models. All midwives providing maternity care at the 2 sites were sent structured questionnaires at the commencement of the caseload midwifery model (baseline) and after the model had been in operation for 2 years. 20 caseload midwives and 130 standard care midwives responded to the baseline survey, and 22 caseload midwives and 133 standard care midwives responded to the 2-year survey. At baseline, there were no differences between caseload and standard care midwives in their professional attitude and in their personal burnout and work-related burnout scores, although client-related burnout was lower for caseload midwives ( $p=0.02$ ). After 2 years, caseload midwives had higher mean scores in professional satisfaction, professional support and client interaction than midwives in standard care, and lower scores for personal, work-related and client-related burnout.

**Comment:** The strength of this prospective mixed methods study from Australia is that all the midwives were able to provide baseline data at the outset of the caseload services and then retake the questionnaires 2 years later. I believe this is the first time that a prospective study that takes a longitudinal approach has been undertaken in this area of midwifery practice. While the actual number of case loading midwife participants is small compared to the standard care midwife participants, it is merely a reflection of the size of the services being examined. The open ended questions that provided qualitative data strengthen the quantitative findings. It is heartening to see that there is a solid study that finds midwives can sustain caseload midwifery over time without detriment to their personal well-being. The findings, in particular the one related to structures that maintain work-life balance, mirror those of the New Zealand qualitative study of very experienced caseload midwives who had sustained caseload practice over many years (see next study).

**Reference:** *BMC Pregnancy Childbirth* 2014;14:426

[Abstract](#)

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## Partnership and reciprocity with women sustain Lead Maternity Carer midwives in practice

**Authors:** McAra-Couper J et al.

**Summary:** This study examined the factors that sustain LMC midwives in long-term practice. Eleven midwives with 8–20 years in practice were interviewed. Themes that emerged were that LMC midwives were sustained by the joy of midwifery practice; working in partnership; supportive family relationships; supportive midwifery relationships; generosity of spirit; like-minded midwifery partners; practice arrangements; managing the unpredictability of being on-call; realising one is not indispensable; learning to say “no”; negotiating and keeping boundaries; and passing on the passion for midwifery.

**Comment:** While most New Zealand midwives have had access to this study, it is pertinent to make comment in relation to the Australian study reported on the previous page because New Zealand now has a significant number of midwives who have been caseload (LMC) midwives for more than 8 years. Midwives interviewed for this New Zealand study were in current practice and had successfully managed caseload midwifery care for between 8 and 20 years. This study set out to discover what it is that enables long term sustainability for case loading (LMC) midwives in New Zealand. The findings reveal an interlocking web of philosophical approaches to practice, processes, behaviours and arrangements that have sustained these midwives in case loading practice over career length periods of time. The Australian study mirrors many of these findings.

**Reference:** *NZ Coll Midwives J* 2014;49:29-33  
[Abstract](#)



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## The effects of antenatal dietary and lifestyle advice for women who are overweight or obese on maternal diet and physical activity

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

**Summary:** This analysis of the LIMIT randomised trial investigated the maternal impact of providing antenatal dietary and lifestyle advice to overweight or obese women during pregnancy. 2212 women with a body mass index  $\geq 25$  kg/m<sup>2</sup>, and a singleton gestation between 10 and 20 weeks were randomised to Lifestyle Advice (comprehensive dietary and lifestyle intervention for the pregnancy duration) or Standard Care. Within the intervention group, a subgroup of women was further randomised to receive access to supervised group walking sessions or standard information only. Participants were followed-up at 28 and 36 weeks' gestation. Women randomised to Lifestyle Advice improved their intake of fruit, vegetables and fibre, and reduced their percentage energy intake from saturated fats. Their maternal Healthy Eating Index was significantly improved at both 28 and 36 weeks. There were no between-group differences in dietary glycaemic index or glycaemic load. The Lifestyle Advice group also demonstrated greater total physical activity than the Standard Care group. The supervised walking group was poorly utilised.

**Comment:** This RCT was conducted in Adelaide. It is meticulously reported in this article and the one reporting neonatal outcomes (see next study). There are significant levels of overweight and obesity in the general adult and child population (and therefore pregnant women) in many countries including New Zealand. All health professionals are being encouraged to address this area of health. We know that health professionals who care for pregnant women include some healthy eating and physical activity information and/or advice. A study of New Zealand LMC midwives' approaches to discussing nutrition, activity and weight gain during pregnancy was published at the end of 2014 (<http://dx.doi.org/10.12784/nzcomjnl50.2014.4.24-29>). There is significant attention and funding being directed to health promotion and interventions similar to those reported here. The results of this study are helpful for midwives to know that their practices in this area can result in significant change in the quality of diet and the amount of physical activity in pregnant women who are overweight or obese.

**Reference:** *BMC Medicine* 2014;12:161  
[Abstract](#)

## The effects of antenatal dietary and lifestyle advice for women who are overweight or obese on neonatal health outcomes

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

**Summary:** This analysis of the LIMIT randomised trial investigated the effects of antenatal dietary and lifestyle advice for overweight or obese women on neonatal health outcomes. Women with a body mass index  $\geq 25$  kg/m<sup>2</sup>, and a singleton gestation between 10 and 20 weeks were randomised to Lifestyle Advice (comprehensive dietary and lifestyle intervention for the pregnancy duration) or Standard Care. In total, 2,142 infants were included in the analyses. Infants born to women following lifestyle advice were significantly less likely to have birthweight  $>4.5$ kg or respiratory distress syndrome (particularly moderate or severe disease), and had a shorter length of postnatal hospital stay compared with infants born to women who received standard care.

**Comment:** The LIMIT trial is a large RCT that is meticulously reported over several articles. This paper reports the secondary outcomes from the trial. There were no statistical differences between the groups for the primary neonatal outcomes. Discussing lifestyle advice is sometimes quite difficult for health professionals as they are sensitive issues. Knowing that some benefits to the baby as well as the mother can be confidently discussed may assist both health professionals and women in this regard. It may also reinforce women's intention to take action to make lifestyle behaviour changes if they can see that it is beneficial to their unborn baby.

**Reference:** *BMC Medicine* 2014;12:163  
[Abstract](#)

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\* Results based on PubMed searches (2009 - 2014).



## Barriers to early initiation of antenatal care in a multi-ethnic sample in South Auckland, New Zealand

**Authors:** Corbett S et al.

**Summary:** This study examined barriers to early initiation of antenatal care amongst pregnant women living in South Auckland. 826 women in late pregnancy (>37 weeks' gestation) or who had recently given birth in South Auckland completed a questionnaire about their antenatal care. 137 (17%) of them booked for antenatal care at >18 weeks (late bookers). 43% of late bookers were Pacific women, 20% were Māori, 14% were Asian, and 21% were European or other ethnicities. Multivariate analysis showed that women were significantly more likely to book late for antenatal care if they had limited resources, no tertiary education, or were not living with a husband/partner. In addition, the likelihood of late booking for antenatal care was almost 6-fold higher among Māori and Pacific women than among European (and other ethnicities) women.

**Comment:** While this large descriptive study has a bit of a flavour of 'Well tell us what we don't know!' about it, it is good to have some solid data to support generally held suppositions. It is reassuring that 83% of the sample DID book early. Nonetheless, not engaging early with the maternity services has been reported by the NZ PMMRC as a key factor associated with reported perinatal and maternal death. Therefore, understanding the particular groups of women who don't 'book early' and the barriers they face is very important for the health of these mothers and babies. The South Auckland area has a high level of socio-economic deprivation and a much smaller percentage of LMC midwives than most of the rest of New Zealand. The findings from this study argue for an intersectoral primary health care approach that addresses issues such as limited resources and community structures such as suitable and safe bus services. The study does not appear to have investigated the acceptability of the current maternity services. The small number of LMC midwives in the area means that a large number of women who would be eligible have no access to LMC midwifery care. Fragmented care has been shown in numerous studies from several countries to be a barrier to early engagement with maternity services. A comparative study investigating this issue would be useful.

**Reference:** *NZ Med J* 2014;127:1404

[Abstract](#)

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**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.

**Research Review publications are intended for New Zealand health professionals.**

## The case for early intervention to reduce the impact of intimate partner abuse on child outcomes: results of an Australian cohort of first-time mothers

**Authors:** Gartland D et al.

**Summary:** This study investigated the impact of intimate partner abuse on outcomes in children. A cohort of 1,507 first-time mothers was recruited from 6 public hospitals in Melbourne, Australia. Follow-up included validated measures of intimate partner abuse at 1 and 4 years (Composite Abuse Scale) and child emotional and behavioural difficulties at 4 years (Strengths and Difficulties Questionnaire). 29% of mothers reported partner abuse in the first 4 years postpartum: 20% reported abuse in the first year and 21% at 4 years (12% at both time points). Children of mothers reporting abuse at both times were more than twice as likely to experience emotional and/or behavioural difficulties at age 4, compared to children of mothers not reporting abuse.

**Comment:** This study is included because it is large and it identifies the widespread nature of intimate partner abuse suffered by this population of pregnant women. The study's authors call for early intervention. New Zealand has a comprehensive programme screening pregnant women for intimate partner violence that is primarily delivered by midwives. This study reports 1 in 5 women reported partner abuse in the first year postpartum. The consequences for the children are severe. It serves as a reminder of the vital importance of midwives engaging in the NZ screening programme.

**Reference:** *Birth* 2014;41(4):374-383

[Abstract](#)

## Midwives' time and presence: a key factor in facilitating breastfeeding support for new mothers

**Authors:** Gleeson D et al.

**Summary:** This study examined new mothers' experiences of breastfeeding support from a midwife in the early postnatal period. Six first-time mothers who initiated breastfeeding after birth participated in an in-depth interview. Factors that were identified as enhancing the women's breastfeeding experiences were related to the midwives' ability to spend time with them. Barriers included the midwife's busy-ness and inability to be present for the woman.

**Comment:** Qualitative research methods are the best way to explore people's experiences in depth. The data provide rich and in depth detail that is impossible to achieve from a questionnaire. By its very nature, this type of study has a small number of participants who are responding to an experience in a particular place and time frame. Nonetheless, studies like this one have important things to say to us all. The findings from the study underscore many other qualitative studies that have identified that the midwife's engaged 'presence' and time is crucial to good midwifery care. In addition, this study identifies the negative consequences if that presence and time is not there. While continuity of care provides ongoing support for the first 4-6 weeks postpartum for most, not every woman in New Zealand experiences continuity of care. This is particularly so if complications have resulted in fragmentation of care. This paper underlines how very important the provision of every midwife's time and presence is for women to feel supported and assisted to successfully breastfeed.

**Reference:** *Int J Childbirth* 2014;4(4):219-227

[Abstract](#)

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## Midwives' experiences with mother-infant skin-to-skin contact after a caesarean section: 'fighting an uphill battle'

**Authors:** Zwedberg S et al.

**Summary:** This study explored midwives' experiences and perceptions of skin-to-skin contact between mothers and their healthy full-term infants immediately and during the first day after caesarean section. Eight midwives at 3 different hospitals in Stockholm who provided care for mothers and their newborn infants after caesarean birth were interviewed. Skin-to-skin contact was considered to be important, but the midwives experienced many obstacles to such care in daily practice, including a lack of knowledge among parents and other professionals about the benefits of skin-to-skin contact, the mother's condition after the caesarean section, and other organisational difficulties (e.g. collaboration with other professionals, lack of time). Introducing more skin-to-skin care was a challenge for the midwives as they sometimes felt both dismissed and disappointed when they tried to communicate its benefits.

**Comment:** Why is this study included you might ask? The practice described here is pretty routine in New Zealand. It is doubtful there is a midwife in the country who does not understand the benefits of skin-to-skin contact. It is pretty much universally practised in all settings. This Swedish study is included in this issue because the problem it raises highlights the excellent, evidence-based midwifery and maternity care that is provided in New Zealand. It is very easy to forget that the difficulties highlighted in this paper still exist in other countries of a similar size that have modern, well-staffed maternity services. We should be very proud of the level of evidence-based care New Zealand women receive as 'everyday maternity care'.

**Reference:** *Midwifery* 2015;31(1):215-220

[Abstract](#)

## Effects of progressive muscle relaxation exercises accompanied by music on low back pain and quality of life during pregnancy

**Authors:** Akmeşe Z & Oran N

**Summary:** This study investigated the effects of progressive muscle relaxation (PMR) training accompanied by music on perceived pain and quality of life in pregnant women with low back pain (LBP). 66 pregnant women with LBP were randomised 1:1 to a PMR group or a control group. Compared with controls, the intervention group reported significant improvements in all quality of life subscales and pain after 4 and 8 weeks of intervention. Therefore, PMR accompanied by music may be an effective therapy for improving pain and quality of life in pregnant women with LBP.

**Comment:** This preliminary prospective RCT is included because the results are promising. Low back pain is very common in pregnancy and can severely affect some women's quality of life to the point of disability. This study is well designed and reported. However, it is quite small, with only 33 women in each arm of the trial. As the authors point out, larger RCTs are needed to confirm the findings. However, the intervention is not invasive, and PMR and relaxation to music are widely taught in antenatal education classes. This study confirms that some women may receive a reduction in pain perception and an improvement in perception of quality of life by using PMR accompanied by music.

**Reference:** *J Midwifery Womens Health* 2014;59(5):503-509

[Abstract](#)

## Effects of skin-to-skin contact and breastfeeding at birth on the incidence of PPH: a physiologically based theory

**Authors:** Saxton A et al.

**Summary:** This paper discussed the physiological functioning of the uterus during the 3rd and 4th stages of labour, and the impact of skin-to-skin contact and breastfeeding. The main focus was on the factors affecting the availability and uptake of oxytocin and adrenaline/noradrenaline in the myometrial cells. These 2 key neuro-hormones, active in the 3rd and 4th stages of labour, affect uterine contraction and retraction and therefore determine whether or not the woman will have an atonic postpartum haemorrhage.

**Comment:** This paper proposes a theory. It is not a research paper, but it is included because it presents a well-researched and very readable theoretical position that hypothesises that undisturbed, early and prolonged skin-to-skin contact for mother and baby at birth achieves and maintains physiological uterine contraction and levels of blood loss. The authors provide evidence from recent literature to support their position. They argue that uterine atony and excessive blood loss can be physiologically minimised/prevented by this means. Early, undisturbed and prolonged skin-to-skin contact is widely practised by midwives and doctors in the New Zealand maternity service. An RCT to prove the theory is not practicable in a setting where a beneficial practice is already widely undertaken. However, a retrospective analysis of records and a prospective study examining whether there is a statistical association between prolonged undisturbed skin-to-skin contact and postpartum haemorrhage is quite possible and it would be interesting to find out if the theory is supported. At the very least, this paper accessibly updates practitioners on the literature in this important field.

**Reference:** *Women Birth* 2014;27(4):250-253

[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 a foundation member of the New Zealand College of Midwives. 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.



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