MCHR NEWS

mother & child HEALTH RESEARCH

LA TROBE UNIVERSITY

The safety of home birth: is the evidence good enough?

Helen McLachlan & Della Forster

The recent Australian review of maternity services, described the issue of home birth as 'sensitive and controversial'.[1,p21] The sensitivity and debate around home birth is not a new phenomenon and in Australia and internationally, key professional bodies (midwifery and obstetric) have differing policies; some support home birth and others oppose it.

In Australia, access to home birth is limited and not funded by the federal government. The recent national review of maternity services received many submissions from women advocating and requesting government funding for home birth, however home birth as a mainstream option was not supported.[1] The issues are similar in other developed countries where home birth choices are limited due to factors such as funding, lack of indemnity insurance for midwives and in some countries difficulties with licensing of midwives.

Recently in Australia, the federal government introduced legislation to establish a national midwifery register. Midwives must be insured to join the register, however currently there is no private insurer that covers home birth. In September, more than 2000 women and children attended a rally in Canberra to protest about the proposed legislative changes. However, Health Minister Roxon has announced a two-year exemption allowing independent midwives to continue to provide care without indemnity insurance until a longer term solution can be found.

Recently we were invited to write a Commentary for the Canadian Medical Association Journal (CMAJ) regarding the evidence for the safety of home birth.[2] Most studies of home birth have not found any statistically significant differences in adverse perinatal outcomes, however studies of home birth have been characterised by methodological limitations such as selection bias, lack of comparison groups, insufficient statistical power and uncertainty regarding submission of data.

In the CMAJ Commentary we argue that a well designed and conducted, adequately powered randomised controlled trial (RCT) would assist in answering questions regarding home birth. Childbirth interventions, maternal morbidity, breastfeeding, depression, anxiety, cost, women's experiences and satisfaction, and infant mortality and morbidity are outcomes that could be explored. "An RCT would ensure similar groups at baseline; prospective data collection for pre-specified outcomes; and enable adjustment for known differences and potential confounders."[2,p359]

There is uncertainty however regarding the feasibility of conducting an RCT. A recent attempt to undertake an RCT of home versus hospital birth in the Netherlands was unsuccessful as women were not willing to be randomised and declined participation as they had already chosen their place of birth.[3] In the Netherlands approximately one-third of women give birth at home. It is a standard care option for women and therefore the finding that women were not willing to be randomised cannot be generalised to countries where home birth is uncommon or rare. In the only published RCT of home birth, 15% of women offered participation agreed to participate[4] demonstrating that randomisation was not impossible.

Another challenge in conducting an RCT of the safety of home birth is sample size. Very large numbers of women would need to be recruited because perinatal mortality is relatively rare among low risk women. However a multicentre trial using a composite primary outcome may be a feasible option.

'Safety' can be interpreted in various ways. As Macfarlane states "some people consider it unsafe to give birth anywhere other than a hospital with a consultant unit, while others fear the iatrogenic effects of care given in such settings." [5,p755] There is also evidence that some women choose home birth over hospital birth based on previous traumatic experiences[1,6] and thus consider home to be the safer place to give birth. Safety must also be considered in the context of geographical isolation and readily available medical back-up. In Australia, back-up may be difficult to access in rural and remote areas particularly in light of the closures of many of these services in recent years.

There is a lack of high quality evidence regarding the safety of home birth. Available evidence suggests home birth is safe for women at low risk of complications, cared for by appropriately qualified and licensed midwives, with access to timely transfer to hospital if required.[2]

In Victoria, the Department of Health is currently considering a home birth pilot program.[7] Given the current lack of high quality evidence regarding home birth, this is an opportunity for the introduction of home birth to be undertaken in the context of an RCT, preceded by a feasibility study. If feasibility studies demonstrate that an RCT is not possible, then rigorous prospective designs should be used in evaluating home birth.

1. *Commonwealth of Australia. Improving maternity services in Australia: report of the maternity services review.* Canberra: http://www.health.gov.au/internet/main/publishing.nsf/Content/msr-report. Accessed 1 July 2009.
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Della Forster and Helen McLachlan

Women's use of Complementary and Alternative Medicine **CAM** to enhance fertility

Jo Rayner

Increasingly Australians are using complementary and alternative medicine (CAM) as a health care option with women the primary users.[1] There is also growing evidence of CAM use among women during pregnancy.[2] However there is very little known about CAM use for fertility enhancement: the extent of CAM use to enhance fertility has not been quantified; knowledge of motivations for use and satisfaction with CAM is not understood; nor have the costs associated with this use been evaluated. Factors such as the rising age of Australian women at first birth, increases in the uptake of assisted reproductive technology (ART)[3] and the negative consequences associated with ART[4] may explain the use of CAM for fertility enhancement. A research program at MCHR aims to answer these questions and to date several small projects have been undertaken.

In 2007 focus groups were undertaken with CAM practitioners and women who had consulted them. Practitioners reported an increasing proportion of practice associated with CAM for fertility enhancement, especially among women also using ART. Consistent with the literature these women were older, more educated, and privately insured. All had a strong desire to achieve parenthood, reported unsuccessful or negative experiences of ART; but developed positive relationships with their CAM providers related to their own empowerment, the holistic approach of CAM and the emotional support of the practitioner.

In 2008 an anonymous survey of Victorian infertility specialists yielded a low response rate of 18%. The responses however indicate that specialists are aware of women's use of CAM, agree that they should have some knowledge about the most common CAM modalities to be able to advise women about use, and remain unconvinced of the efficacy and safety of CAM.

During September 2008, an audit of one CAM practice found that 66% of new clients (n=77) were seeking fertility enhancement and 82% were also using ART. The main modalities recommended by practitioners for fertility enhancement were naturopathy, acupuncture and western herbal medicine.

Preliminary findings from an interview study with integrative general practitioners (GPs) in 2009 suggest that factors including family health practices, personal health experiences, dissatisfaction with orthodox medicine and inspirational lecturers motivate GPs to become integrative practitioners; that they incorporate a philosophy of 'wellness', and they draw on clinical experience as well as evidence to inform decision making.

It is important that further research is undertaken and we will continue to contribute to building knowledge and evidence in this area.

1. Xue C, Zhang A, Lin V, *et al*. Complementary and alternative medicine use in Australia: A National population-based survey. *J Altern Complement Med* 2007; 13:643-50.
2. Forster D, Denning A, Wills G, *et al*. Herbal medicine use during pregnancy in a group of Australian women. *BMC Pregnancy Childbirth* 2006, 6:21.
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fam
Fertility and Alternative Medicine

ROAM in 2009

Rhonda Small

The annual meeting of ROAM (Reproductive Outcomes And Migration), an international research collaboration of researchers interested in perinatal health and migration, was held in August in Warsaw as a satellite meeting of the European Congress of Epidemiology.[1] Rhonda Small and Mridula Bandyopadhyay both participated in the meeting and in the Congress, presenting work on maternal country of birth variations in caesarean section in Victoria (RS), on immigrant women's experiences of early motherhood in Australia and on South Asian women's experiences of diagnosis with gestational diabetes (MB). For those interested, several papers have been published from the work of ROAM since late 2008.[2-5]

1. IEA-EEF European Congress of Epidemiology 2009:Epidemiology for Clinical Medicine and Public Health, Warsaw Poland, 26-29 August 2009. *Eur J Epidemiol* 2009;24(suppl 1).
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3. Urquia ML, Glazier RH, Blondel B, *et al*. International migration and adverse birth outcomes: role of ethnicity, region of origin and destination. *J Epidemiol Community Health* 2009 Aug 19. [Epub ahead of print]
4. Gissler M, Alexander S, Macfarlane A, *et al*. Stillbirths and infant deaths among migrants in industrialised countries. *Acta Obstet Gynecol Scand* 2009;88:134-48.
5. Small R, Gagnon A, Gissler M, *et al*. Somali women and their pregnancy outcomes postmigration: data from six receiving countries. *BJOG* 2008;115:1630-40.

Participants in the ROAM Warsaw meeting.

The MILC (Mothers and Infants Lactation Cohort) study

Della Forster

There is anecdotal evidence that the number of women leaving hospital not fully attaching the baby and feeding directly from the breast has increased. More women appear to be going home doing a combination of expressing and feeding breast milk in addition to feeding from the breast.[1] This is supported by a study in Perth that found that the rate of mothers expressing at least once had doubled in a decade,[2] and a recent US study which reported that 73% of breastfeeding mothers of term singleton infants expressed at least once in the first six months.[3]

The reasons for this anecdotal increase are not well understood, and the potential impact on breastfeeding duration and maternal health are unknown. Expressing may mean that others can help feed the baby and may reduce the burden on new mothers, but on the other hand the time required to express and feed the baby may be burdensome for women and lead to fatigue, stress, anxiety and depression.

We conducted an audit of the records of 300 consecutive singleton, well, term infants to determine the proportion of women leaving hospital fully attaching and feeding.[4] The audit included 100 records each from Frances Perry House (FPH), the Royal Women's Hospital (RWH) and Mercy Hospital for Women (MHW). Overall 51% of women were fully breastfeeding at discharge - 36% of primiparae and 59% of multiparae. Results did not vary by hospital, although public and private hospitals have very different lengths of stay.

We are now conducting a prospective cohort study exploring whether infants fed solely at the breast in the 24 hours before postnatal discharge are more likely to be breastfeeding at three and six months than are other infants. Women are being recruited from the above three hospitals prior to discharge. As well as looking at breastfeeding at six months we will explore frequency, duration, amount, and method of expressing; maternal mental health; and women's confidence and satisfaction with breastfeeding. We plan to enrol 1003 women in the study and to contact them at three and six months.

***Status**: Recruitment commenced in June 2009, with 115 women recruited to date.*

***Funding**: Faculty of Health Sciences, La Trobe University*

***Research team**: MCHR - Della Forster, Lisa Amir, Helen McLachlan, Helene Johns (PhD candidate), Rachael Ford; RWH - Anita Moorhead; MHW - Kerri McEgan; FPH – Chris Scott*

1. Personal communication: a variation of midwifery managers, lactation consultants and maternal and child health nurses, Melbourne, December 2007.
2. Binns CW, Win NN, Zhao Y *et al*. Trends in the expression of breast milk 1993-2003. *Breastfeed Rev* 2006;14:5-9.
3. Geraghty SR, Khoury JC, Kalkwarf HJ. Human milk pumping rates of mothers of singletons and mothers of multiples. *J Hum Lact* 2005;21:413-20.
4. Pemo K. An exploration of current expressing practices in the early postpartum period using an audit and focus groups in three Melbourne hospitals [Master's thesis]. Melbourne (VIC): La Trobe University, 2009.110p.

What can a health economist contribute?

Arthur Hsueh

I work one day a week as a health economist at Mother and Child Health Research (MCHR) on several projects. One major role has been to assist in the development of economic evaluations of interventions in perinatal and maternal health for existing and proposed projects. Health care is becoming an increasingly scarce resource and it is no longer adequate to look at the clinical effectiveness of a health care intervention alone. Health policy makers are also eager to ascertain the comparative cost-effectiveness of interventions. Currently I am working on the Women's And staff Views: an Evaluation of maternity care (WAVE) project, a collaboration between MCHR and Barwon Health at Geelong, which is investigating the cost effectiveness of a new model of postnatal care compared to standard postnatal care; and whether one-to-one case-load maternity care is more effective than team-based maternity care.

I am also working with Jo Rayner and Karen Willis on developing a program of research on women's use of complementary and alternative medicine (CAM) in Australia to enhance fertility (see page 2). Calls for cost-analysis research have come from within the CAM community to provide recognition and an evidence-base for use. Understanding the costs to society associated with CAM use to enhance fertility and patients perceptions of value for money is also useful for government in the formulation of health policy. The economic evaluation of women's use of CAM to enhance fertility will focus on two areas: the direct costs to the health care system and to the individual consumer, through evaluation of health care service utilisation over a 12 month period; and consumer willingness to pay (WTP) for CAM. The WTP approach to cost-benefit analysis measures the potential market value of health care or interventions based on individual preference. The WTP for CAM for fertility enhancement can be defined as the maximum sum that an individual is prepared to pay to achieve the desired outcome, in this case, parenthood. I enjoy adding the economic dimension to research at MCHR through economic evaluations, consider it an important aspect to research and look forward to further collaborations with my colleagues at MCHR.

Arthur Hsueh

New staff

Catina Adams has joined the MOVE project for 12 months as co-ordinator, having taken leave from her role as maternal child nurse with the City of Hume.

Wendy Thornton joined MCHR in October to take up the position of research assistant for the CASTLE study. Wendy has a nursing background and has broad experience in paediatric, midwifery and maternal and child health fields. Prior to joining MCHR, she worked as a maternal and child health nurse in both rural and urban settings.

Eve Urban also joined MCHR in October as a research assistant for the CASTLE study. Eve has worked at Murdoch Childrens Research Institute as a research assistant and currently also works with the University of Melbourne and Burnet Institute on various research projects.

Matthew Payne joined MCHR in November to carry out the microbiological and molecular investigations for the CASTLE study. Matthew has a background in molecular microbiology and received a PhD from the University of Queensland in 2007. Before joining MCHR, he held a post-doctoral position at King's College, London.

Farewell and Welcome

Ruby Walter recently went on 12 months leave from her position as project co-ordinator for the MOVE project. She gave birth to Toby Milo on 6 November. We wish Ruby and her family well.

Awards and Honours

Lisa Amir has been accepted as a Fellow of the Academy of Breastfeeding Medicine (FABM): "Your career and accomplishments indicate that you are worthy of receiving the highest honour ABM can bestow on an individual." She was introduced as an Incoming Fellow at the ABM Annual Meeting in Virginia, USA in November.

Jo-Anne Rayner graduated on Wednesday 21 October. Her PhD thesis was entitled 'Cosmetic Endocrinology: (Re) constructing femininity in tall girls'. This study was undertaken to develop an understanding of the higher than expected prevalence of major depression found among a cohort of tall women assessed and treated for tall stature with high dose synthetic oestrogens as adolescents. Jo's PhD was supervised by Professors Judith Lumley and Jill Astbury; and Associate Professors Priscilla Pyett and Alison Venn. The study was funded by an NHMRC Public Health Scholarship.

Fiona Bruinsma has just been invited to join the Colposcopy Quality Improvement Program Reference Committee of the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG). RANZCOG is co-ordinating this process for the federal government.

Visits

In May this year, **Professor Jill Astbury** visited MCHR, as part of her sabbatical leave from Victoria University where she is the Professor of Research in the School of Psychology. Jill is a long-standing collaborator with MCHR and during her visit she presented new work on women's mental health: 'Social causes of depression: a question of rights violated?' from a chapter she has authored for a new book.[1]

1. Astbury J. Social causes of women's depression: a question of rights violated? In DC Jack & A Ali (Eds) *Cultural Perspectives on Women's Depression: Self Silencing, Psychological Distress and Recovery*. Oxford, Oxford University Press. 2009.

Leah Albers, Professor at the College of Nursing, University of New Mexico, USA, visited the centre in November. Leah is an associate investigator with the COSMOS trial. She has a broad program of clinical midwifery research and her work is widely published in midwifery and medical journals. Leah gave a presentation 'Minimizing genital tract trauma and related pain following childbirth'. This was Leah's third visit to the Centre.

Melissa Hobbs

EC Jamboree

In September **Melissa Hobbs** attended and presented at the combined annual meetings of the International Consortium for Emergency Contraception and the American Society for Emergency Contraception, held at the Planned Parenthood Federation of America Headquarters in New York City. The meeting was attended by nearly 100 people and brought together researchers, advocates and others working to increase access to emergency contraception (EC) in the US and in the global context. The agenda highlighted the similarities and differences between the different contexts.

Melissa was on a panel looking at what has been learned about pharmacy access to EC and she presented some of the findings from the national computerised automated telephone interview (CATI) survey of women's experiences in obtaining EC over-the-counter in pharmacies. Other panels focussed on ulipristal acetate, a new compound that has been developed for EC use, opposition to EC, the effectiveness of EC, and repeat use of EC. Melissa felt she was quite a novelty as only one other Australian has ever attended the annual meeting and no Australian has ever presented there before!

Acknowledgement

The May 2009 graduation photograph on the back page of the July edition of the newsletter was provided with kind permission of Ian Watson (photographer). We apologise for inadvertently omitting this acknowledgement.

Priscilla Pyett, Jo Raynor, Jill Astbury, Judith Lumley. (Alison Venn, not in photo)

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