MCHR NEWS

mother & child HEALTH RESEARCH

LA TROBE UNIVERSITY

Medicines for breastfeeding women

Lisa Amir

Breastfeeding women often need to take medicines like analgesics and antibiotics. However, drug companies usually advise caution during lactation. Sometimes women are advised to stop breastfeeding if they need to take medication or are told they are unable to receive treatment while they are breastfeeding.

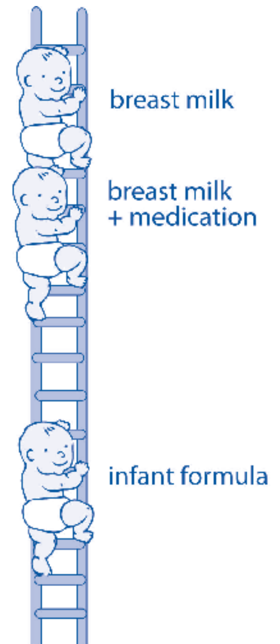
When I talk to medical students they are often concerned at the thought of prescribing medicines for women who are breastfeeding. They have learnt to be cautious about medicines during pregnancy as certain drugs, if taken during early pregnancy when organs are developing, can lead to fetal anomalies. However, they have not stopped to consider the difference between pregnancy when drugs can potentially cross the placenta from the maternal blood stream to the fetal blood stream at similar levels, and breastfeeding when drugs may cross into breast milk, but then need to be ingested and absorbed by the baby before reaching the blood stream. As the level of drug transferred to the breastfed infant is much lower than during pregnancy, there are only a few which need to be avoided by breastfeeding women.

With my colleague, Dr Marie Pirotta, from the Primary Care Research Unit at the University of Melbourne, I explored general practitioners' (GPs') views about using medicines for breastfeeding women, via a postal survey. In late 2007 we sent the anonymous questionnaire to GPs who do shared maternity care with the Royal Women's Hospital; 335 (52%) were completed and returned.

Some of the results were published in a Letter to the Editor of the Medical Journal of Australia in the GP Issue in July 2009.[1] We found that the GPs were generally positive about breastfeeding and confident about use of medicines in breastfeeding women, but had concerns about medico-legal issues. GPs were confused about the recommendations for use of certain medicines by breastfeeding women; ibuprofen and metronidazole are commonly used in the postpartum period, yet fewer than a third of GPs knew these are considered safe when breastfeeding. Some GPs gave advice to withhold medication or breast milk unnecessarily. GPs would prefer to access information about drugs and breastfeeding from their prescribing software or a reliable internet site.

Hiranya Jayawickrama, a visiting public health doctor from Sri Lanka, worked with us to analyse the free-text comments in the survey.[2] We asked GPs to report on their most recent experience of recommending a medicine to a breastfeeding woman. We found that decision-making is now more complicated, with the spectrum spanning a straight forward action, such as treatment of mastitis, to a complicated one requiring consultation of multiple sources. GPs use more information seeking and collaboration in decision-making when they perceive the problem to be more complex, for example, in treating postnatal depression.

We have presented the results at several conferences and published two papers.[1, 2] The full report is available on the MCHR website. I have also discussed the issue of medicines for breastfeeding women in a recently published book (the chapter is open access).[3] Further work will explore this topic by conducting studies with pharmacists and with women.



Breast milk is at the top of the ladder for infant health; infant formula ranks much lower than breast milk containing medication.

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Lisa Amir and Hiranya Jayawickrama.

A new research methodologist

Paul Agius

I began working at MCHR in January this year. Previously I held a research fellow position at the Australian Research Centre in Sex Health and Society (ARCSHS) where I researched the sexual health of young people in Australia. More specifically, my research focused on the sexual behaviour and related health of students aged 15 and 17 years between 1992 and 2008; and the extent to which young people engaged in risky sexual practice and on understanding these behaviours over time.[1-3] More recently I have published on young people's knowledge of Human Papillomavirus (HPV) and cervical cancer following a national school based HPV vaccination program for young women.[4] The research found that while knowledge levels of these diseases was generally poor, there was an apparent educative element to vaccination, with those reporting HPV vaccination demonstrating better knowledge.

I am experienced in both applied health and social research methodologies, and with a background in sociology have developed an interest in the social dimensions underpinning public health issues. As a biostatistician at MCHR my work involves both collaboration on several projects across different areas of maternal health and also the provision of statistical and data management expertise to other researchers at the centre. In addition to this, I am a team investigator on COMPASS - an NHMRC funded capacity building grant.

Currently, I am working on a project with Rhonda Small and Mary-Ann Davey exploring the obstetric outcomes for women born overseas, in Victoria. The project involves analysis of routinely collected Victorian perinatal data collected between 1983 and 2007 comparing birth outcomes with these women and women born in Australia. Along with Angela Taft and Melissa Hobbs I am collaborating with researchers from the Centre for Adolescent Health, Murdoch Childrens Research Institute and the Social Development Research Group, University of Washington, on research which aims to examine the association between adverse sexual health outcomes and alcohol use for Australian adolescents. Also, I am involved in Fiona Bruinsma's planned study focusing on the effects on fertility and pregnancy outcomes for women who have been treated for pre-cancerous changes to the cervix.

I look forward to undertaking further research and collaborations and making a contribution to the high level of research expertise at the centre.

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2. Agius P, Pitts M, Dyson S, Mitchell A, Smith A. Pregnancy and contraceptive use in a national sample of Australian secondary school students. *Aust N Z J Public Health* 2006; 30:555-57.
3. Agius P, Pitts M, Smith A, Mitchell A. Sexual behaviour and related knowledge amongst a representative sample of secondary school students between 1997 and 2008. *Aust N Z J Public Health* 2010, (in press).
4. Agius P, Pitts M, Smith A, Mitchell A. Human Papillomavirus and Cervical Cancer: Gardasil ®Vaccination status and knowledge amongst a nationally representative sample of Australian secondary school students. *Vaccine* 2010; 28:4416-22.

Paul Agius

Immigrant women's life with a new baby

Mridula Bandyopadhyay

Little is known about immigrant mothers' experiences of life with a new baby, the exception being studies on maternal depression.[1, 2]

We analysed data collected in PRISM (Program of Resources, Information and Support for Mothers), a large community-randomised trial in Victoria that aimed to reduce depression and improve mothers' physical health six months after birth.[3]

We compared aspects of life with a new baby for women born overseas in non-English speaking countries who reported speaking English very well (n = 460) and those born overseas in non-English speaking countries who reported speaking English less than very well (n = 184), with Australian-born women (n = 9796).[4]

We found that both immigrant groups were more likely to be married, older, tertiary educated, and were more likely to have a lower household income compared with Australian-born women. They were also more likely to have given birth by caesarean section. Immigrant women were equally confident in caring for their baby in the first week at home, and in breastfeeding initiation; but higher proportions of immigrant women were continuing to breastfeed at six months. There were no differences in anxiety or relationship problems with partners; or in preparedness to discuss postnatal health issues with GPs or maternal and child health nurses. However, immigrant mothers less proficient in English had a higher prevalence of depression (29% vs 15%) and were more likely to report wanting more practical (65% vs 55%) and emotional (65% vs 44%) support. They were also more likely to have no 'time out' from baby care (47% vs 28%) and to report feeling lonely and isolated (39% vs 17%).

In many ways, the findings for immigrant and Australian-born women were very similar, but immigrant women did face particular challenges after childbirth, with more depression, less 'time out', more feelings of loneliness and isolation, and more need of practical and emotional support. There are no simple solutions. Migration itself means that women often have fewer supports and may be dealing with language and a range of other settlement issues. However, greater awareness of the challenges immigrant women face may help improve the responsiveness of health and support services after birth.

1. Small R, Lumley J, Yelland J. Cross-cultural experiences of maternal depression: associations and contributing factors for Vietnamese, Turkish and Filipino immigrant women in Victoria, Australia. *Ethn Health* 2003; 8:189-206.
2. Nahas VL, Hillege S, Amasheh N. Postpartum depression. The lived experiences of Middle Eastern migrant women in Australia. *J Nurse Midwifery* 1999; 44:65-74.
3. Lumley J, Small R, Brown S, Watson L, Gunn J, Mitchell C, et al. PRISM (Program of Resources, Information and Support for Mothers) protocol for a community-randomised trial. *BMC Public Health*. 2003; 3:36.
4. Bandyopadhyay M, Small R, Watson L, and Brown S. Life with a new baby: How do immigrant and Australian-born women's experiences compare? *Aust N Z J Public Health* 2010, (in press).

Mridula Bandyopadhyay

Early Births – results of the singleton arm at last!

Lyn Watson

The Early Births case-control study of very preterm birth has been written about before in these pages. In 2002-2004, we interviewed 603 women who had a singleton birth of gestation between 20 and less than 32 weeks (very preterm births) – the cases; and 796 women who had a singleton birth at 37 or more weeks gestation (the controls). Aspects of the study are available in three published papers[1-3] and my PhD.[4] Recently, the primary results have been published.[5-6]

The findings relate to the risks associated with prior reproductive history. Thirty-three percent of cases and 27% of controls had had no prior pregnancies, and a further 19% of cases and 13% of controls had had no prior births. Gravidity ranged between one and 14 for cases and one and 16 for controls. Overall, 21% of cases and 5% of controls had had a prior preterm birth (between 20 and 36 completed weeks gestation); 31% of cases and 26% of controls reported at least one spontaneous abortion; and 18% of cases and 15% of controls reported at least one induced abortion. As well, 28 cases (4.6%) and 18 controls (2.3%) had had an ectopic or molar pregnancy or an abortion of unspecified type.

Detailed modelling of women's reproductive history using a composite measure to describe mutually exclusive history categories showed that a history of prior childbirth (at term) with no preterm births gave the lowest risk of very preterm birth and all other prior reproductive histories were significantly more likely to have a very preterm birth.[5] Importantly, there was no evidence of difference in risk between types of abortion, although the risk increased if a prior preterm birth had also occurred. There was an increasing risk of very preterm birth associated with increasing numbers of abortions. The sequence of abortion and term births in a woman's reproductive history did not affect the subsequent risk of very preterm birth.[6]

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2. Watson LF, Lumley J, Rayner JA, Potter A. Recruitment to research studies in maternity hospitals: An example from the Early Births Study. *Midwifery* 2008;24:509-20.
3. Watson LF, Lumley J, Rayner J-A, Potter A. Research interviewers' experience in the Early Births study of very preterm birth: qualitative assessment of data collection processes in a case-control study. *Paediatr Perinat Epidemiol* 2007;21:87-94.
4. Watson LF. Early Births: a case-control study of singleton very preterm birth. PhD thesis, La Trobe University, 2008.
5. Watson LF, Rayner J-A, King J, Jolley D, Forster D, Lumley J. Modelling prior reproductive history to improve prediction of risk for very preterm birth. *Paediatr Perinat Epidemiol* 2010, (in press).
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Lyn, daughter Heather and preterm grand-twins, Maggie and Ned.

Visiting Scholar from Brazil

Marcos Signorelli

In March 2010, I commenced a five month sabbatical at MCHR. I am a PhD scholar in Public Health at the Federal University of Sao Paulo and a lecturer in Public Health at the Federal University of Parana in Brazil. My thesis aims to study the relationship between health professionals and women who experience domestic violence, focusing on the key role which health professionals can play including influencing public policy in this area.

My special interest in visiting MCHR is twofold. First, the high quality of projects developed by this centre, such as the MOSAIC and MOVE trials, that are pioneering in developing and evaluating new models of care for women who experience domestic violence attending primary health care services. The second reason is due to the expertise of research staff related to my study topic.

My visit is supported by the Brazilian government agency Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES – Co-ordinating Authority for Professional Development of Academics) and I have been developing a program of activities under the supervision of Angela Taft. I am studying the main public policies and strategies adopted in Australia to deal with domestic/intimate partner violence (IPV). Angela and I have been writing about IPV, to be published in a public health journal in Brazil. The objective is to describe the Australian experience in order to stimulate new possibilities for Brazilian research.

I am exploring different theoretical frameworks, new methodologies and approaches, to consolidate research and intervention partnerships between Brazil and Australia in the future. I presented one of the first results of this new partnership Darwin, at the 2010 Primary Health Care Conference, at the end of June.

Marcos Signorelli

Awards and Honours

Fiona Bruinsma was awarded a Professional Doctorate in Public Health in May 2010. The title of her thesis was 'Risk of preterm birth following treatment for pre-cancerous changes in the cervix'. Fiona's thesis was supervised by Judith Lumley and Rhonda Small with associate supervisors Alison Venn, Menzies Research Institute, University of Tasmania and Michael Quinn, Royal Women's Hospital. The aim of the study was to examine whether women referred for assessment of pre-cancerous changes in the cervix had higher rates of preterm birth compared with women in the general population and to compare preterm birth rates for treated and untreated women adjusting for possible confounding factors.

Touran Shafiei was awarded a PhD in March 2010. Her thesis was entitled 'Maternity care and health after birth: the experiences of Afghan and Iranian women in Melbourne, Australia'. This study was undertaken to explore immigrant Afghan and Iranian women's experiences of maternity care, their physical and emotional well-being and experiences of depression after having a baby; and their use of health services particularly in relation to emotional health issues in the first few months following childbirth in Melbourne. Touran's thesis was supervised by Rhonda Small and Helen McLachlan and her study was funded by the La Trobe University Postgraduate Research Scholarship and Diamond Consortium Seed and Capacity Building Grant.

Melissa Hobbs was awarded a La Trobe University Postgraduate Writing-Up Award for 2 months from April 2010.

Michelle Newton, Division of Nursing and Midwifery, and **Lester Jones**, Physiotherapy, have been awarded Faculty of Health Sciences, La Trobe University, Research residencies to be undertaken at MCHR in 2011.

Congratulations to **Helen McLachlan**, Senior Research Fellow at MCHR and Senior Lecturer, Division of Nursing & Midwifery, who recently was nominated in third place as Lecturer of the Year at La Trobe University for 2009.

Mary-Ann Davey attended a luncheon at Government House on May 5th to commemorate the life and work of Dr Vera Scantlebury Brown, the first Director of Maternal, Infant and Pre-school Welfare in Victoria. Mary-Ann was the 2002 recipient of an award from the memorial trust established in honour of Dr Scantlebury Brown. Along with other recipients and trustees, she was invited to the luncheon to launch a book about the legacy of the memorial trust - *'Changing Minds, Changing Lives'* written by Joan Waters.

Welcome

The CASTLE study welcomed two new team members - **Jennifer Halliday** and **Rhys Staley**. Jennifer has a background as a breastfeeding counsellor with the Australian Breastfeeding Association and will work as a research assistant for the study. Rhys is currently completing a BSc degree at Deakin University. He is helping with the microbiological investigations associated with CASTLE.

Farewell

The CASTLE study recently farewelled **Eve Urban**. Happily, Eve will still do some casual work for the study.

The COSMOS trial regretfully farewelled recruiting midwives **Carmel Jeffers**, **Di Fahy**, **Lorraine Thomason**, **Kate Dawson** and **Kelly Langford**, with the successful completion of recruitment in June. We wish them well.

Visits

In March this year, Professor of Midwifery, **Ingegerd Hildinggson** and colleagues **Annika Karlstrom** and **Astrid Nystedt** from Mid Sweden University visited MCHR and presented findings on their research on caesarean section and women's birth experiences.

STOP PRESS

We are pleased to announce completion in June of recruitment to the COSMOS trial: 2314 women recruited since the trial began in September, 2007. Births will continue to the end of the year.

Recent Publications

Farrell G, **Shafiei T**, Salmon P. Facing up to 'challenging behaviour': a model for training in staff-client interaction. *J Adv Nurs* 2010; 66:1644-55.

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Hobbs MK, **Taft AJ**, **Amir LH**, Stewart K, Shelley JM, Smith AM, Chapman CB, Hussainy SY. Pharmacy access to the emergency contraceptive pill (ECP): a national survey of a random sample of Australian women. *Contraception* 2010, (in press).

Hussainy SY, Stewart K, Chapman CB, **Taft AJ**, **Amir LH**, **Hobbs MK**, Shelley JM, Smith AM. Provision of the emergency contraceptive pill (ECP) without prescription: attitudes and practices of pharmacists in Australia. *Contraception* 2010, (in press).

Rayner J, **Forster D**, **McLachlan H**, Kealy M, Pirotta M. Women's use of Complementary and Alternative Medicine (CM) to enhance fertility: the views of fertility specialists in Victoria, Australia. *Aust N Z J Obstet Gynaecol* 2010; 50:305.

Rayner J, **McLachlan H**, **Forster D**, Peters L, Yelland J. A statewide review of postnatal care in private hospitals in Victoria, Australia. *BMC Pregnancy Childbirth* 2010; 10:26.

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Taft AJ, Hegarty KL. Intimate partner violence against women: what outcomes are meaningful? (Editorial) *JAMA* 2010, (in press).

Lyn Watson, Rhonda Small, Fiona Bruinsma, Jo Rayner, Karalyn McDonald and Paul Agius

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