

The MOVE project

Ruby Walter

MOVE is a new MCHR project funded through an ARC Linkage grant (2009-2011). MOVE aims to develop and evaluate an innovative model of care by maternal and child health (MCH) nurses to identify intimate partner violence (IPV) early, and promote the safety both of women experiencing IPV, and their children. The project arose from the earlier MOSAIC study which uncovered a range of barriers to good practice.

The MOVE model is being developed over a six month period through a combination of participatory action research undertaken within their own teams by a group of nurse consultants, supported by a systematic review of current evidenced-based literature on IPV guidelines and protocols within

health care settings. MOVE draws on May's Normalisation theory¹ for embedding new practices and the Most Significant Change technique² to explore what nurses found most significant to their practice.

Evaluation of the MOVE model's implementation is designed as a multi-method cluster randomised trial. Eight MCH nurse teams were randomised for MOSAIC, with four teams taking part in the MOSAIC intervention, and four teams in the comparison arm. The two arms have now been reversed for MOVE. Once the new model of care is embedded in the four intervention teams, outcomes will be assessed across both arms of the trial.

The evaluation will include a survey of 10,000 women who have given birth in the previous year, interviews with key stakeholders and the nurse consultants involved, and a survey of all the nurses within the eight MCH teams. MOVE seeks to determine if women attending the four MCH intervention teams have been asked

more about whether they are experiencing IPV, have disclosed more IPV and are more satisfied with their care than women attending the four MCH teams in the comparison arm.

Dr Ruby Walter is the new project co-ordinator for MOVE. The Chief Investigators are Dr Angela Taft, A/Prof Rhonda Small at MCHR and Prof Cathy Humphreys and A/Prof Kelsey Hegarty, at the University of Melbourne.

1. May C, Finch T. Implementing, embedding and integrating practices: An outline of normalization process theory. *Social* 2009; 43:535-554.
2. Dart J, Davies R. A dialogical, story-based evaluation tool: the Most Significant Change Technique. *Am J Eval* 2003; 24:137-155.



Improving maternal & child health care for vulnerable mothers

South Asian women and gestational diabetes

Mridula Bandyopadhyay

Diabetes in pregnancy has been recognised as a risk factor for a number of adverse pregnancy outcomes, and Gestational Diabetes Mellitus (GDM) is a strong risk factor for diabetes.¹ Up to 70% of women with GDM manifest type II diabetes within 5-10 years of the index pregnancy.² Despite higher rates of GDM among South Asian women, to date there are no studies of their experience of GDM in Australia or elsewhere.

We have recently begun a study which aims to address this gap by exploring South Asian women's experiences of living with GDM and its management during pregnancy. The study has been funded

by a Research Grant from the Faculty of Health Sciences at La Trobe University. The study team at MCHR includes myself, Rhonda Small, Mary-Ann Davey and Della Forster. We are collaborating with the Diabetes Clinic at the Royal Women's Hospital, and in particular, working closely with study co-investigators Jeremy Oats and Amanda Aylward.

The study aims to document measures undertaken by women themselves to improve maternal and pregnancy outcomes; to explore how management strategies are communicated to women and how well they are understood; and to explore women's understanding of diabetes and strategies to prevent GDM from progressing to diabetes type II in the long-term.

I am currently recruiting women from the Indian sub-continent diagnosed with GDM at approximately 28-30 weeks gestation from the diabetes clinic of the Royal Women's Hospital. I am conducting face to face in-depth interviews with women from India, Pakistan, Bangladesh, and Sri Lanka in their preferred language. So far 14 interviews have been completed

with women from various South Asian backgrounds, and it is envisaged that all intended interviews during pregnancy will be completed by the end of July 2009. Translation, transcription and analysis of the completed interviews is in progress. We intend following up the women six weeks postpartum to collect information on their understanding of diabetes after birth and to explore their management of lifestyle in preventing manifestation of type II diabetes in the long-term.

1. O'Sullivan J. The Boston gestational diabetes studies: review and perspectives. In *Carbohydrate Metabolism in Pregnancy and the Newborn*. Vol. IV. Sutherland H, Stowers J, Eds. Berlin: Springer-Verlag, 1989; 287-294.
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Mridula Bandyopadhyay



The CASTLE study: microbiology meets motherhood

Lisa Amir

The main aims of the CASTLE study are to explore the roles of *Staphylococcus aureus* (*S. aureus*) and *Candida albicans* (*C. albicans*) in nipple and breast pain in breastfeeding women, and to describe the transmission dynamics of these organisms between mother and baby. We will be recruiting 400 women in late pregnancy and following them up via home visits and telephone for the first eight weeks postpartum. Our project co-ordinator, Méabh Cullinane, began working at MCHR in May, and research officers will begin work soon.

It is generally believed that *S. aureus* is the bacterium most commonly involved when breastfeeding women experience a red, hot, painful breast associated with fever ("mastitis"); the condition is treated with antibiotics such as flucloxacillin. Some breastfeeding women experience a condition in which they have persistent, burning nipple pain associated with radiating breast pain, without breast

inflammation or fever. Clinically this second condition is usually diagnosed as "nipple/breast thrush" and treated as a fungal infection.

However, it has been difficult to prove that *C. albicans* is associated with nipple/breast thrush,¹ and some researchers dispute the association.² In the CASTLE study, we will be collecting samples from the infant's nose and mouth, as well as the mother's nose, nipple, milk and vagina, which may show that *C. albicans* is present in the baby's mouth or mother's vagina prior to the onset of nipple/breast pain. In addition, we are planning to explore the role of women's genetic susceptibility to *Candida* (using a mouth swab)³ and the presence of nipple/breast pain.

Although *Staphylococcus epidermidis* (or coagulase-negative staphylococcus) has been regarded as normal skin flora, researchers have recently suggested that *S. epidermidis* is another cause of breast infection.⁴ The CASTLE study will give us the opportunity to determine if *S. epidermidis* plays a role in nipple/breast pain or infection.

We are also interested in the relationship between maternal mood and breastfeeding problems. We hope to use repeated psychological measures to determine if breastfeeding problems lead to maternal anxiety, depression and/or stress. We are currently seeking modification to the original ethics applications to add the mood questionnaires and the genetic susceptibility test.

CASTLE team: Dr Lisa Amir (Chief Investigator); Associate Investigators: Prof Emerita Judith Lumley, MCHR; Prof Suzanne Garland, Department of Microbiology and Infectious Diseases, Royal Women's Hospital; A/Prof Sepehr Tabrizi, Molecular Microbiology Laboratory, Royal Women's Hospital; Prof Catherine Bennett, MEGA Epidemiology, University of Melbourne, A/Prof Susan Donath, Murdoch Childrens Research Institute. Project Co-ordinator: Méabh Cullinane. Funding: NHMRC Project grant 2009-2010.

1. Panjaitan M, Amir LH, Costa A-M, *et al.* Polymerase chain reaction in detection of *Candida albicans* for confirmation of clinical diagnosis of nipple thrush (Letter). *Breastfeed Med* 2008;3(3):185-87.
2. Hale TW, Bateman TL, Finkelman MA, *et al.* The absence of *Candida albicans* in milk samples of women with clinical symptoms of ductal candidiasis. *Breastfeed Med* 2009;4(2):57-61.
3. Donders GG, Babula O, Bellen G, *et al.* Mannose-binding lectin gene polymorphism and resistance to therapy in women with recurrent vulvovaginal candidiasis. *BJOG* 2008;115(10):1225-31.
4. Delgado S, Arroyo R, Jiménez E, *et al.* *Staphylococcus epidermidis* strains isolated from breast milk of women suffering infectious mastitis: potential virulence traits and resistance to antibiotics. *BMC Microbiol* 2009;8:82.



Joining an existing research team to do a PhD

Jane Morrow

I am a senior lecturer in midwifery at the Australian Catholic University. I wanted to do a PhD on a topic that was meaningful to me, had the potential to make a difference, and in a place where I could also learn as much as I could about research. I have been a midwife for 23 years and have worked in a variety of settings and positions during that time, and am interested in all aspects of maternity care. When the opportunity arose to join a team of people at MCHR who were undertaking an evaluation of the maternity service at Barwon Health, it seemed like an ideal PhD opportunity.

The project is called WAVE, which stands for 'Women's and staff views: an evaluation of maternity care at Barwon Health'. In January 2008 Barwon Health implemented a change to the way in which they provided postnatal care for women having a vaginal birth, and in July 2008 they introduced a caseload midwifery model, known as Midwifery Group Practice (MGP). A team from MCHR is evaluating these changes. The evaluation is multi-faceted, evaluating both the postnatal changes and the introduction of the MGP. It includes three cross-sectional surveys of women (550 women who gave birth before any changes, and 550 women giving birth after the implementation of each of the changes); two surveys of midwives; and key informant interviews with 10-15 women, 7-10 midwives and other key stakeholders. Focus groups are being undertaken with midwives involved in postnatal care provision. The health outcomes of women (and their babies) are being explored via the postal survey at each of the three time points. The first cross-sectional survey is complete

and the data analysed, the second surveys returned, and distribution of the third survey will begin in September 2009.

For my PhD I am chiefly involved in the evaluation of the postnatal changes, but will also analyse women's survey responses regarding their views about the MGP changes.

The study team at MCHR comprises: Dr Helen McLachlan, Dr Della Forster, Dr Mary-Ann Davey and Dr Arthur Hsueh, as well as myself and Michelle Newton who are PhD candidates. Our collaborators at Barwon Health are Therese Cotter and Kim Layton.

Jane Morrow



COMPASS writing retreat: “locate, focus, argue”

Karalyn McDonald

Writing for publication has been one focus of capacity building activities in our NHMRC Capacity Building Grant in Population Health Research (COMPASS). A three day writing retreat was held at La Trobe University's Beechworth campus in early June facilitated by Emeritus Professor Barbara Kamler from Deakin University.

Arriving late Sunday afternoon, we settled in to our cottages and gathered for dinner. We started each morning with a session led by Barbara where we discussed what we were working on and what the challenges were. In our first session Barbara talked about scholarly identity formation¹ and taking what she called a “hands on hips” stance. We talked about the importance of articles answering the “so what?” question and having an authoritative voice.

On Monday our first exercise involved writing the abstract for the papers we were working on. Barbara and her colleague, Pat Thomson, argue that abstracts should generally do three things: “Locate, Focus and Argue”. We spent the rest of the morning and the afternoon working on abstracts or articles, depending on where we were up to with our individual work. During the day Barbara provided us with helpful feedback on our abstracts and worked with us individually if required. We came together again at the end of the day to discuss our progress with Barbara and the group.

We commenced the second day with a discussion about the structuring of an article and worked with sentence skeletons that enabled us to enhance, locate or situate our work with authority. We considered different writing genres in research journals (the case study, issue-based argument and commentary/opinion) and discussed moving from abstract to article while maintaining the “Locate, Focus and Argue” qualities of our abstract. Once again, the remainder of the morning and afternoon sessions was devoted to writing our articles with individual guidance from Barbara whenever needed.

Most of us chose to work in the room designated for our seminars. There was a lovely energy in the room that proved very productive. Some of us also managed to fit in a massage, while others went for walks around the lake or the grounds of the campus. A yoga class was squeezed in on Tuesday evening before pre-dinner drinks, and we had some preliminary and productive discussions about a book proposal or special journal issue for COMPASS.

Everybody in attendance agreed the retreat was a very valuable exercise and a highly productive way to devote time to article writing. It is hoped that another COMPASS writing retreat will be held later in the year.

Dr Karalyn McDonald is a Team Investigator with COMPASS.

1. Kamler B, Thompson P. *Helping doctoral students write*. Pedagogies for supervision. Routledge: Oxon, (UK), 2006.



COMPASS

Building public health capacity for complex questions, complex settings, complex populations, complex interventions

COSMOS trial: Recruitment over half way

Helen McLachlan

COSMOS, which stands for ‘COMparing Standard Maternity care with One to one midwifery Support’, is a trial of caseload midwifery, a model of maternity care recommended in Victoria and throughout Australia. Many hospitals have responded by introducing caseload, however this model of care has yet to be subjected to rigorous evaluation. MCHR in collaboration with the Division of Nursing and Midwifery and the Royal Women's Hospital is conducting a randomised controlled trial comparing one to one (caseload) midwifery care with standard options of care for women at low risk of medical complications.

In one to one care women are cared for by a primary midwife throughout pregnancy, birth and the early postnatal period. Midwives are not rostered to set shifts, but work according to when they are required including being on call. Each midwife works with two or three other midwives who provide back up for each other as needed.

COSMOS is exploring whether this type of midwifery care decreases interventions during childbirth compared with standard maternity care. We are also comparing other outcomes such as perineal trauma; postnatal depression; maternal satisfaction with care; initiation and duration of breastfeeding; costs, and health outcomes for mothers and babies.

Recruitment to COSMOS commenced in September 2007 and to date 1290 women have agreed to participate (half allocated to one to one midwifery care and half to standard care), and of these, 900 have had their baby.

Feedback from the one to one midwives suggests that they have “settled into” this new way of working and are developing strategies to enhance their model. One midwife commented:

“The relationship with the woman and her family is what makes the work satisfying... Working within a small team of midwives, and being supported by the fabulous core staff at all times... No alarm clock, having control over your roster.... The opportunity to work with women and their partners through antenatal care, birthing, postnatal care and then to travel to their home and support them in their own environment, gives us a picture of the family as a whole.”

Maggie Flood is the COSMOS trial co-ordinator, and the research midwives are Cath Fitzsimon, Carmel Jeffers, Lorraine Thomason and Dianne Fahy. We would like to thank Mary Anne Biro (previous trial co-ordinator) and Michelle Kealy (previous research midwife) for all their hard work in getting the trial to this point.

Chief Investigators of COSMOS are Dr Helen McLachlan,^{1,2} Dr Della Forster,^{1,5} Dr Mary-Ann Davey,^{1,3} Lisa Gold,^{1,4} Prof Emerita Judith Lumley,¹ Tanya Farrell,⁵ Prof Jeremy Oats⁵ and Prof Ulla Waldenström.⁶ Prof Leah Albers⁷ and Dr Mary Anne Biro are Associate Investigators⁸.

1. MCHR
2. Division of Nursing and Midwifery, La Trobe University
3. Perinatal Data Collection Unit, Victorian Department of Human Services
4. Health Economics Unit, Deakin University
5. Royal Women's Hospital
6. Karolinska Institutet, Sweden
7. University of New Mexico, USA
8. Monash University



COSMOS

New staff and students

Méabh Cullinane joined MCHR in May 2009 to take up the position of project co-ordinator for the CASTLE study. She has a background in Microbiology and received a PhD from University College Cork in 2005. Before joining MCHR, she held a post-doctoral position at Monash University working with the pathogen *Burkholderia pseudomallei*.

Ruby Walter joined MCHR in February 2009 as the project co-ordinator of the MOVE project. Ruby has a nursing background and has worked as a qualitative researcher for the past six years, most recently at the Centre for Adolescent Health, and prior to that with the Nurses Board of Western Australia.

Maggie Flood rejoined MCHR in March 2009 as the project co-ordinator of the COSMOS trial. Maggie has a nursing and midwifery background with a particular interest in maternal health and wellbeing. She has worked previously at MCHR from 2000-07 on SRM 2000, PRISM, the Health And Recovery after birth Project (HARP) and the Maternal Health Study.

Asma Bhatti is a new doctoral student located at MCHR. Asma's principal supervisor is Dr Linda Bennett at the Australian Research Centre in Sex, Health and Society and Rhonda Small is her co-supervisor at MCHR. Her doctoral work will explore the relationship between acculturation and mental health in Muslim women in Melbourne.

Farewells

Michelle Kealy, who successfully undertook her PhD at MCHR and worked most recently on the COSMOS trial, has left MCHR after six years and moved to the Northern Territory. Michelle continues to be an honorary associate with MCHR.

Mary Anne Biro also has left the COSMOS trial, to take up a post as senior lecturer in the newly established midwifery program at Monash University. **Bree Rankin**, after working on a range of projects over many years, has accepted a graduate position in the Commonwealth Public Service. And farewell too, to **Cath Kerr** and **Kim Hoang** who worked on the MOSAIC project. We wish everyone well in their new endeavours.

Awards

Two MCHR staff had PhD graduations in May: **Lyn Watson** for her thesis entitled Early Births: A case-control study of singleton very preterm births; and **Karalyn McDonald** for her thesis: "What about motherhood?" Women's journeys through HIV and AIDS. At the same graduation ceremony, **Judith Lumley** also received the award Professor Emerita from La Trobe University in recognition of her significant contributions to perinatal epidemiology and maternity services research over very many years. Congratulations to all three!



Graduation May 2009 - Lyn Watson, Judith Lumley and Karalyn McDonald with MCHR colleagues

Congratulations also to **Mary-Ann Davey**, recently announced recipient of the Stephen Duckett Graduate Research Prize for Higher Degree by Research. This is awarded annually to the Doctor of Philosophy or Professional Doctorate by Research candidate who completes the most outstanding Higher Degree by Research thesis in the Faculty of Health Sciences. Presentation of a certificate and \$1000 will occur at a ceremony to be held in late July.

New Grant

Della Forster is a chief investigator on a VicHealth research project grant – Exploring alcohol use in pregnancy: what questions should we be asking? CIs: Halliday J, Forster D, Elliot E, Nagle C, O'Leary C, Wake M, Carlin J. (VicHealth 2009 – \$105,032).

Recent Publications

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Bandyopadhyay M. Impact of ritual pollution on lactation and breastfeeding practices in rural West Bengal, India. *Int Breastfeed J* 2009; 4:2.

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Hobbs M, **Taft AJ**, **Amir LH**. The emergency contraceptive pill rescheduled: a focus group study of women's knowledge, attitudes and experiences. *J Fam Plann Reprod Health Care* 2009, 35:87-91.

Jayawickrama H, **Amir L**, Moorhead A. Bacteria in powdered infant formula: New guidelines for preparation and use to reduce risk of infection. Hot Topic 30, Lactation Resource Centre; 2009.

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Saw S, Manderson L, **Bandyopadhyay M**, Sein TT, Mon MM, Maung W. Public and/or private health care: Tuberculosis patients' perspectives in Myanmar. *Health Res Policy Sys* 2009, (in press).

Taft AJ, **Small R**, Hegarty KL, **Lumley J**, **Watson LF**, Gold L. MOSAIC (MOtherS' Advocates In the Community): protocol and sample description of a cluster randomised trial of mentor mother support to reduce intimate partner violence among pregnant or recent mothers. *BMC Public Health* 2009;9:159.

Watson LF, **Davey MA**, **Biro MA**, King JF: Adverse outcomes of labour in public and private hospitals in Australia. (letter) *Med J Aust* 2009;190:519.

Willis K, Green J, Daly J, Williamson L, **Bandyopadhyay M**: Perils and possibilities: Achieving best evidence from focus groups in public health research *Aust N Z J Public Health*. 2009;33:131-136.

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