The impacts of fertility and infertility

Dr Karin Hammarberg and her colleagues make up an innovative partnership that addresses gaps in knowledge about women’s health in relation to fertility, infertility and childbearing issues. Here, they discuss some of the most interesting aspects of their work.

Could you begin by introducing the partnership and outlining some of its benefits?

Professor Jane Fisher: The Jean Hailes Research Unit is an innovative formal partnership between the School of Public Health and Preventive Medicine at Monash University and a community-based not-for-profit organisation – Jean Hailes for Women’s Health – which provides knowledge translation and multidisciplinary clinical care. Staff and students are drawn from diverse disciplinary backgrounds including biological sciences, education, epidemiology, gender studies, implementation science, nursing, clinical and health psychology, psychiatry, pharmacy, public health, sociology and statistics.

Janet Michelmore: The partnership enables research to factor in community perspectives, which are translated to inform national policy and practice, and made accessible in multiple formats to women, their families and their healthcare providers.

What have you found in your work to elucidate and respond to mental health problems among women who have recently given birth and their partners?

JF: Mental health problems, including depressive, anxiety and adjustment disorders, are experienced by about one in five women who have recently given birth in high-income countries, and are predominantly socially determined. We have found that unsettled infant behaviours including prolonged crying, difficulties in settling to sleep and frequent wakening contribute to diminished confidence, severe fatigue and lowered mood among mothers. This predicament is made worse if the intimate partner is regarded as critical, lacking in empathy and holding rigid gender stereotypes.

Dr Karen Wynter: Our research has identified that almost one in five new fathers report adjustment difficulties in the first six months after birth. New fathers who perceive their partner as critical and controlling are more likely to experience psychological difficulties and feel less emotionally attached to their baby.

Can such mental health problems be prevented?

JF: We have developed a gender-informed psycho-educational programme called What Were We Thinking! to prevent mental health problems among first-time mothers and fathers by addressing modifiable risk factors directly.

Dr Heather Rowe: The programme has two components: About Babies teaches parents how to understand infant crying and sleeping and to use sustainable settling strategies; About Parents teaches parents how to understand each other’s changed needs and to renegotiate roles and responsibilities without conflict.

Parents evaluate the programme as highly relevant, useful and understandable. Importantly, there are fewer mental health problems in the first six postpartum months among those who have completed it compared to those who receive the usual care.

You have conducted research on the impact of maternal mental health in resource-constrained settings. What have you found?

Dr Thach Tran: We have a research programme in Vietnam to provide local evidence and inform interventions. Our research found that common mental disorders are far more prevalent among women who are pregnant or have recently given birth in low-income countries. Risks include poverty and family violence. Women with these problems are significantly less likely to use the recommended supplements to combat micronutrient deficiencies. Our 15-year programme has brought this burden to the attention of policy makers and is informing local strategies to integrate mental health into pregnancy and primary healthcare programmes.

KH: The consequences of childlessness are very severe in low-income countries, especially for women. We are contributing to a collaborative effort to establish the first reproductive health centre in a public hospital in Addis Ababa, Ethiopia. The centre will provide comprehensive reproductive healthcare which will include infertility care and low-cost assisted reproductive technologies treatment.

Part of your team has undertaken a project called ‘Understanding fertility management in contemporary Australia’. Could you introduce this work?

Dr Sara Holton: To inform health promotion, policy and clinical practice we partnered with Victoria’s Department of Health, Family Planning Victoria, Melbourne IVF and the Royal Women’s Hospital to investigate how people manage their fertility over a lifetime and to use that knowledge to develop relevant health promotion strategies.

We collected comprehensive quantitative and qualitative data about reproductive experiences and outcomes and identified inequalities in effective fertility management that are amenable to change. For example, the experience of unintended pregnancy was associated with rural residence and lower socioeconomic position.

Dr Maggie Kirkman: In interviews, we have heard people’s accounts of a range of fertility-related experiences including infertility, unintended pregnancy, abortion, miscarriages and childbearing. Women have told us about sexual abuse that has made it hard for them to have a relationship in which they can trust enough to have enjoyable sex and to contemplate conception.
Reproductive and mental health research: a fertile endeavour

IN 1978, LOUISE BROWN became the world’s first ‘test-tube baby’. That is, the first human to be born through in vitro fertilisation (IVF). Since then, there have been over 5 million babies born as a result of IVF treatment and other assisted reproductive technologies (ART). While ART treatment increases many couples’ chances of conceiving a child, it cannot overcome age-related infertility which is an increasingly common cause of involuntary childlessness. The European Society of Human Reproduction and Embryology estimates that around one in six couples worldwide experience infertility, defined as not being able to conceive within 12 months of trying, at some point in their life. Infertility and its associated treatments are physically, emotionally, socially and financially demanding experiences for women and their loved ones, and can contribute to mental health difficulties. Even when ART is successful, women can be unprepared for the challenges of caring for a newborn and lack confidence in their ability to do so.

For those fortunate enough to be unaffected by fertility problems, it might be assumed that the conception and subsequent birth of a child would herald a period of celebration. However, while the birth of a baby is a special event in a parent’s life, both mothers and fathers commonly experience symptoms of depression and anxiety during pregnancy and in the first year after the birth.

The Jean Hailes Research Unit at the School of Public Health and Preventive Medicine, Monash University, is a multidisciplinary team of researchers who have been conducting extensive investigations into the psychosocial aspects of fertility, infertility and parenthood. All research at the Unit is informed by a social model of health, focusing on understanding and addressing gender-based risks and the social, economic, cultural and political contexts of women’s lives.

PSYCHOSOCIAL ASPECTS OF ART
One study, led by Dr Karin Hammarberg, Senior Research Fellow at the Unit, investigated the psychosocial aspects of ART and determined that certain times during treatment are particularly stressful, such as when waiting to find out if it has worked. The research also identified ways to reduce this stress: “Women’s experience of IVF is ameliorated by having a supportive partner and social network, empathetic care and continuity of care,” details Hammarberg.

A subsequent study into women’s experience of mothering after ART found that it was associated with an increased rate of early parenting difficulties and diminished maternal confidence. As Hammarberg explains, the findings from this study have clear applications for clinical practice: “Clinicians who care for pregnant women and mothers after childbirth should be aware that a previous history of fertility difficulties, advanced maternal age, assisted conception, operative delivery and multiple births can heighten the risk for early parenting difficulties”.

ART AND BREASTFEEDING
There are numerous and well-documented health benefits to breastfeeding, both for mother and baby. But less is known about the role ART plays in whether breastfeeding is successful or not.

Hammarberg and her team investigated the relationship between ART conception and breastfeeding. They found that there are poorer breastfeeding outcomes in women after ART conception than among women who conceive spontaneously. “Even those who expressed a desire to breastfeeding in pregnancy introduced milk formula earlier and ceased breastfeeding earlier than other

Assisted conception is associated with an increased rate of early parenting difficulties and diminished maternal confidence

A unique partnership between Monash University and Jean Hailes for Women’s Health has led to some fascinating insights into the intersection between women’s reproductive and mental health. The result is a range of public awareness campaigns and projects designed to support women and their families.

INNOVATION
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women,” reveals Hammarberg. “This was related to more anxiety in late pregnancy, suboptimal breastfeeding advice and having a Caesarean section without labour.”

**YOUR FERTILITY**

Although there are some types of infertility that are not preventable, there is a range of factors that can affect both male and female fertility, including age, weight, timing of intercourse and whether or not the individual is a smoker. Hammarberg and her colleagues are intent on increasing the public’s awareness of factors that can be modified to improve the chances of conceiving.

Some of this effort is focused on a health promotion programme called Your Fertility. The programme aims to increase knowledge in the community and among health professionals about fertility and the factors that influence fertility and pregnancy health, thus allowing people to make informed and timely decisions about childbearing. It offers evidence-based, accessible information through a website that includes features such as an ovulation calculator and a pre-conception checklist for women and men.

Through their multi-method research to understand the complexities of reproductive and mental health problems for women, and their multidisciplinary collaborative approach to addressing these issues, Hammarberg and her colleagues are making real-world and lasting impact. For example, the contemporary trend to delay childbearing and the resulting increased risks of infertility and poorer pregnancy outcomes is stereotypically attributed to women being selfish and overambitious. However, the researchers’ work shows that a big problem for women today is finding a man who is willing to commit to a partnership and fatherhood. “The information we gather is used to inform national reproductive and sexual health promotion strategies to increase the likelihood that pregnancies are intended, children are welcome and reproductive hopes are realised,” Hammarberg concludes.

It is hoped that the breakthroughs made and innovative projects led by the team will go some way to incorporating gender equality and equity into public health, and thus improve the lives of women who experience reproductive and mental health problems.