MENTAL HEALTH OF WOMEN WHO ARE PREGNANT OR CARING FOR INFANTS

Jane Fisher AO
Finkel Professor of Global Health
Director of Global and Women’s Health Unit
Public Health and Preventive Medicine
Monash University
**EARLY OBSERVATIONS**

*Traité de la folie des femmes enceintes, des nouvelles accouchées et des nourrices*

Treatise on insanity in pregnant, newly delivered and lactating women

*Louis-Victor Marcé, 1858*

*Puerperal insanity*

Robert Gooch, 1859
• Epidemiology of ‘parapartum mental illness’ (Paffenberger, 1964)

• ‘Atypical depression’ following childbirth (Pitt, 1968);

• Subsequent major focus of research: >200,000 academic papers, lay accounts and resources from high–income countries;

• Major disparity in the availability of evidence from resource-constrained nations;
Women who live in low- and lower-middle income countries experience traditional ritualized care after birth including:

- Mandated periods of rest;
- Honoured status;
- Increased practical support and freedom from household and income-generating work;
- Social seclusion;
- Gift giving and prescribed foods

- These protect mental health and therefore;
- They do not experience perinatal mental disorders.

Stern and Kruckman, 1983; Howard, 1993
General agreement, that three conditions are relevant:

- Postpartum psychosis, consistent prevalence worldwide of 1 – 2 per 1000 births;
- Maternity, third-day or postpartum ‘blues’ follow up to 80% of births;
- Perinatal common mental disorders:
  … depressive, anxiety, adjustment and somatoform disorders, which compromise day-to-day functioning…..
- In high-income countries:
  - ± 10% of pregnant women
  - ± 13% of mothers of infants

### Prevalence of Perinatal Common Mental Disorders Among Women in LMICs

<table>
<thead>
<tr>
<th></th>
<th>Total N (number of studies)</th>
<th>Range of prevalence</th>
<th>Weighted mean prevalence</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pregnancy CMD (all studies)</strong></td>
<td>5774 (13)</td>
<td>5.2-32.9</td>
<td>15.9</td>
<td>15.0-16.8</td>
</tr>
<tr>
<td>Tertiary hospitals</td>
<td>2190 (5)</td>
<td>5.2-14.4</td>
<td>10.3</td>
<td>10.1-10.4</td>
</tr>
<tr>
<td>Provincial or district health services</td>
<td>1526 (5)</td>
<td>8.3-32.9</td>
<td>17.8</td>
<td>17.4-18.3</td>
</tr>
<tr>
<td>Community</td>
<td>2058 (3)</td>
<td>12.0-33.0</td>
<td>19.7</td>
<td>19.2-20.1</td>
</tr>
<tr>
<td><strong>Postnatal CMD (all studies)</strong></td>
<td>11,581 (34)</td>
<td>4.9-59.4</td>
<td>19.8</td>
<td>19.2-20.6</td>
</tr>
<tr>
<td>Tertiary hospitals</td>
<td>3600 (11)</td>
<td>9.1-27.2</td>
<td>13.6</td>
<td>13.5-13.8</td>
</tr>
<tr>
<td>Tertiary hospital and community clinic(s)</td>
<td>2876 (7)</td>
<td>4.9-32.9</td>
<td>18.9</td>
<td>18.7-19.3</td>
</tr>
<tr>
<td>Provincial or district health services</td>
<td>3999 (12)</td>
<td>6.1-35.5</td>
<td>20.4</td>
<td>20.1-20.8</td>
</tr>
<tr>
<td>Community</td>
<td>1106 (4)</td>
<td>28.0-59.4</td>
<td>39.4</td>
<td>38.6-40.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Setting</th>
<th>WBG classification</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private maternity hospital in Ballarat a rural area in Australia,</td>
<td>High-income</td>
<td>4%</td>
</tr>
<tr>
<td>Kalra, Reilly and Austin, 2018</td>
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<tr>
<td>Ha Nam Province in rural Vietnam,</td>
<td>Lower-middle income</td>
<td>29.9%; 95% CI: 25.20 - 34.70</td>
</tr>
<tr>
<td>Fisher, Tran TDT, thi La, Kriitmaa, Rosenthal, Tran T, 2010</td>
<td></td>
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<tr>
<td>Swat Valley in Pakistan a conflict affected rural area</td>
<td>Low-income</td>
<td>38.1%; 95% CI: 33.1 - 43.3</td>
</tr>
<tr>
<td>Khan, Chiumento, Dherani, Bristow, Sikander, Rahman, 2015</td>
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</tbody>
</table>
RISK FACTORS FOR PERINATAL CMD AMONG WOMEN IN LMICs

• **Socio economic disadvantage** (OR range: 2.1–13.2): adolescent; religious or ethnic minority group; rural rather than an urban area; hunger in previous month, unable to pay for essential health care; low-income; holding a ‘poor card’;

• **Quality of relationship with the intimate partner** (OR range: 2.0–9.4): unsupportive, rejecting the pregnancy; polygamy; alcoholism;

• **Family violence** (OR range 2.11–6.75): criticism, coercion, intimate partner violence, worse if the baby is a girl than a boy;

• **Quality of family relationships** (OR range 2.1–4.4): critical mother-in-law, geographic separation from own mother;

• **Reproductive health** (OR range: 1.6–8.8): unwanted or unintended pregnancy; previous stillbirth; coincidental illness; premature birth; caesarean birth

• **Past history of mental health problems** (OR range 5.1–5.6)

• **Education** (RR 0.5; p=0.03);

• **Employment** (OR: 0.64; 95% CI: 0.4–1.0) including income security while away from the workforce to care for an infant;

• Provision of **structured direct care** by a trusted person, preferably a woman’s own mother (OR: 0.4; 95% CI: 0.3–0.6);

• **Confiding affectionate relationship** with the intimate partner (OR: 0.52; 95% CI: 0.3–0.9).
MENTAL HEALTH AND MATERNAL MORTALITY

- Suicide rates are underestimated because maternal mortality data are restricted to the first 42 days after childbirth
- British Centre for Maternal and Child Enquiries (2006 – 2008) 0.57 deaths by suicide per 100,000 maternities; but
- Increased to 1.27 per 100,000 if increased to first six postpartum months (Cantwell et al, 2011)
MENTAL HEALTH AND MATERNAL MORTALITY

Limited data from resource-constrained countries;

- **Haryana, India**, 20% of 219 deaths among 9894 women postpartum, in 1992, were due to suicide or accidental burns. (Lal et al, 1995)

- Maputo Central Hospital, **Mozambique**, 9 of 27 (33%) postpartum deaths (1991–1995) not attributable to pregnancy or coincidental illness were by suicide, 7 of these in women aged less than 25 years. (Granja et al, 2002)

- **Viet Nam**, verbal autopsies of all maternal deaths in seven provinces (2000 – 2001) found that overall 8%, but in some provinces 16.5% were by suicide, with problematic ‘community behaviours towards women’ a contributing factor. (WHO WPRO 2005)

- **Nepal**, the Department of Health Services examined maternal deaths 1998 – 2008 in 8 districts and found that while there was an overall reduction in deaths from 539 to 229 per 100,000 live births, suicide was the leading cause, accounting for 16%. (Karki, 2011)
Iodine status in late pregnancy and psychosocial determinants of iodized salt use in rural northern Viet Nam

Jane Fisher, Thach Tran, Beverley Biggs, Tuan Tran, Terry Dwyer, Gerard Casey, Dang Hai Tho & Basil Hetzel

**Objective** To establish iodine status among pregnant women in rural northern Viet Nam and explore psychosocial predictors of the use of iodized salt in their households.

**Methods** This prospective study included pregnant women registered in health stations in randomly-selected communes in Ha Nam province. At recruitment (< 20 weeks of gestation), sociodemographic factors, reproductive health, intimate partner relationship, family violence, symptoms of common mental disorders and use of micronutrient supplements were assessed. During a second assessment (> 28 weeks of gestation) a urine specimen was collected to measure urinary iodine concentration (UIC) and iodized salt use was assessed. Predictors were explored through univariable analyses and multivariable linear and logistic regression.

**Findings** The 413 pregnant women who provided data for this study had a median UIC of 70 µg/l; nearly 83% had a UIC lower than the 150 µg/l recommended by the World Health Organization; only 73.6% reported using iodized salt in any form in their households. Iodized salt use was lower among nulliparous women (odds ratio, OR: 0.56; 95% confidence interval, CI: 0.32–0.96); less educated women (OR: 0.34; 95% CI: 0.16–0.71); factory workers or small-scale traders (OR: 0.52; 95% CI: 0.31–0.86), government workers (OR: 0.35; 95% CI: 0.13–0.89) and women with common mental disorders at recruitment (OR: 0.61; 95% CI: 0.38–0.98).

**Conclusion** The decline in the use of iodized salt in Viet Nam since the National Iodine Deficiency Disorders Control Programme was suspended in 2005 has placed pregnant women and their infants in rural areas at risk of iodine deficiency disorders.
Quality and timing of early environments shape a child’s future potential
Children in low- and middle-income countries are often exposed to multiple risks.

Addressing maternal physical and mental health is important.
MECHANISMS OF THE EFFECT OF PERINATAL MENTAL HEALTH PROBLEMS ON EARLY CHILDHOOD DEVELOPMENT

Antenatal Depression, anxiety, stress
- Constantly high levels of stress hormones
- Easily fatigued
- Loss of interest
- Sleeping and eating problems

Behavioral mechanisms

Fetal programming (Cortisol, Noradrenaline, CRH, Testosterone)

Maternal programming (disrupt neurocognitive changes)

Postpartum mental health problems

Low birth-weight

Preterm birth

Lack of responsive and sensitive care

Early childhood development
- Physical growth & motor development
- Cognitive development
- Social-emotional development

Moderators:
- Individual
- Family
- Community
- Country
- Global

NURTURING CARE: WHAT THE CHILD’S BRAIN NEEDS AND EXPECTS FOR OPTIMAL DEVELOPMENT
WORLD HEALTH ORGANIZATION GUIDELINE FOR EARLY CHILDHOOD DEVELOPMENT

IMPROVING EARLY CHILDHOOD DEVELOPMENT: WHO Guideline

RECOMMENDATIONS
In order to improve early childhood development, WHO recommends:

1. RESPONSIVE CAREGIVING
   - All infants and children should receive responsive care during the first 3 years of life; parents and other caregivers should be supported to provide responsive care.
   - Strength of recommendation: Strong
   - Quality of evidence: Moderate (for responsive care)

2. PROMOTE EARLY LEARNING
   - All infants and children should have early learning activities with their parents and other caregivers during the first 3 years of life; parents and other caregivers should be supported to engage in early learning with their infants and children.
   - Strength of recommendation: Strong
   - Quality of evidence: Moderate (for early learning)

3. INTEGRATE CAREGIVING AND NUTRITION INTERVENTIONS
   - Support for responsive care and early learning should be included as part of interventions for optimal nutrition of infants and young children.
   - Strength of recommendation: Strong
   - Quality of evidence: Moderate

4. SUPPORT MATERNAL MENTAL HEALTH
   - Psychosocial interventions to support maternal mental health should be integrated into early childhood health and development services.
   - Strength of recommendation: Strong
   - Quality of evidence: Moderate

MONASH University
School of Public Health and Preventive Medicine
WHO recommends integrating psychosocial interventions to support maternal mental health into early childhood health and development services in its *Guideline on improving early childhood development*.

WHO recommendations on postnatal care for the mother and the newborn – maternal mental health inclusion.

Thinking Healthy for child development - A low-intensity psychosocial intervention for maternal mental health.

MH-Gap intervention guide for non-specialists.

Maternal mental health implementation guide (being developed).

- For programme managers to support integration of maternal mental health interventions into existing maternal and child health services and other programmes and services, including primary care and early child development services.
- It will provide detailed step-by-step information with practical tools to address integration across different dimensions, i.e. policies; planning; training and supervision; monitoring and evaluation; and, financial management.
- Implementation workshops will be held with stakeholders in-country to get inputs from the field.