



Maternal mental health and child survival, health and development in resource-constrained settings: essential for achieving the Millennium Development Goals

Mental health¹ is fundamental to attaining the Millennium Development Goals of improving maternal health, reducing child mortality, promoting gender equality and empowering women, achieving universal primary education and eradicating extreme poverty and hunger.

Mental health problems are one of the most prevalent and severe, but neglected, complications of pregnancy and childbirth (1). They make a substantial but currently unrecognised contribution to maternal mortality and morbidity. Suicide is a leading cause of pregnancy-related death in developed countries and of death in young women of reproductive age in some resource-constrained countries (2–4). One in three to one in five pregnant women and mothers of newborns in developing countries, and about one in ten in developed countries, have significant mental health problems of which depression² and anxiety³ are the most common (5–8). Moreover, if maternal caretaking capacity is compromised, child survival, health and development are jeopardized (9). The presumption that culturally-prescribed postpartum care is available and provides mothers of newborns with an honoured status, mandated rest and increased practical assistance, thus protecting mental health (10), does not reflect reality for many women (7).

Risk factors for maternal mental health problems

Mental health problems in pregnant women and mothers are predominantly socially determined. The risk factors in developing and developed countries are similar but the prevalence of such factors is higher in the former. Risk factors include:

- poverty and chronic social adversity, including limited education and opportunities for income generation, and crowded living conditions; (5–7, 11–15)
- gender-based violence, including emotional, physical and sexual abuse during childhood, family violence, including by intimate partners, and rape; (5, 16, 17, 18, 19)
- lack of autonomy to make sexual and reproductive decisions; (20)
- unintended pregnancy, especially among adolescent women; (7, 14, 21)
- lack of empathy from partners and gendered stereotypes about the division of household work and infant care; (7, 12, 14, 20, 22, 23)



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- excessive workloads and severe occupational fatigue; (24)
- lack of emotional and practical support or criticism from her own mother or mother in law, or peer group; (6, 7, 12, 19, 24)
- gender discrimination and devaluing of women; (20, 25, 26) and
- stillbirth, miscarriage and complications of unsafe abortion, pregnancy and childbirth, and persistent poor physical health. (27)

Some risk factors appear to be more common in contexts in which there are strong gendered role restrictions on women, including lack of reproductive rights, and giving birth to a daughter in cultures with a preference for sons. (5, 12, 24, 28)

Maternal mental health is significantly worse in humanitarian situations or emergencies, especially among refugees and internally displaced people. Sexual and reproductive health is at risk or compromised as a result of deterioration in security and in the functioning of social and health care systems as well as due to a lack of access to appropriate services. Unintended pregnancies increase where access to sexual and reproductive health services is limited. Gender-based violence, including rape, is a common consequence of social unrest and is used as a weapon of war. In addition, people who are trafficked and undocumented migrants are at increased risk of mental health problems and often lack access to health and social services. (29)

Impact on mothers and children

Mental health problems constitute a severe burden for both mothers and children. In 2004, perinatal conditions were ranked first, depression fourth and maternal conditions fifth as contributors to the global burden of disease (GBD) experienced by women globally. (30) When these co-occur, the human suffering can be extreme. A mother whose mental health is compromised has substantially reduced capacity to care for herself and her infant.

Pregnant women or mothers who have mental health problems often have poor physical health and may have persistent high-risk behaviours including substance abuse. Mothers who are depressed and anxious are less likely to attend for antenatal care or adhere to prescribed health regimens. Although vital registration systems and other systematic data are not available for most developing countries, suicide has been found to make a significant, but under-recognised contribution to pregnancy-related deaths in some of these settings. (4, 31–34)

The impact of poor maternal mental health on the developing infant can be severe. Infants are entirely dependent on their caregivers for provision of nutrition, physical care, comfort, social interaction and protection. Infants' neurological, cognitive, emotional and social development are adversely affected if they lack day-to-day interactions with a caregiver who can observe infant cues, interpret these accurately and respond contingently and effectively. (35–37) Lifelong capacity to build and maintain satisfactory relationships is established through bonding and attachment in the early years. Without intervention, problematic patterns in relationships can be transmitted and continue across generations. (38) Maternal depression in resource-constrained settings is linked directly to lower infant birth weight, higher rates of malnutrition and stunting in six-month-old infants, higher rates of diarrhoeal disease, infectious illness and hospital admission, reduced completion of recommended schedules of immunisation and worse physical, cognitive, social, behavioural and emotional development in children. (39–45). In combination these factors contribute to an increase in child mortality.

Mental health and economic development are reciprocally related. Women's mental health is worse if they are not permitted to generate an income, and women with mental health problems can find it difficult to participate economically and socially. This leads to the huge loss of their contributions to society and the economy. There are also clear economic costs to the reduced participation of children who have not been able to reach their full potential. (46)

What can be done

Detection, early intervention and treatment strategies are available, but to date have rarely been applied in resource-constrained settings. Even in the least-resourced countries, there is some provision for antenatal, perinatal, postpartum and infant health care and other primary health care services. It is within these existing services that interventions to improve maternal mental health and child survival, health and development can be integrated.

Interventions to improve maternal mental health and promote child health and development include:

- early detection of maternal mental health problems through the use of direct questions about emotional well-being and social circumstances and the use of locally validated screening instruments; (47)
- psycho-educational interventions at antenatal and post-natal health care services that combine information provision with psychological support; (48–50)

- improvement of the mother-child relationship through enhancement of a mother's sensitivity to infant developmental needs for stimulation, interaction and comfort; (9, 38, 51, 52)
- promotion of child health and development through improvements in maternal responsiveness; (52, 53)
- improving partner relationships through programmes promoting gender equality and challenging gender-based stereotypes about fathering and household work;
- reducing intimate partner and family violence; (18)
- culturally sensitive, solution-focused brief psychological therapies; (54, 55)
- improving social support for women through building social networks;
- improving access to education and vocational training for girls and women;
- appropriate treatment of detected depression and anxiety through clearly-defined, stepped protocols that can be managed by primary health care providers; (56, 57)
- identification and early referral to specialist services of women at risk of perinatal mental health problems because of a personal or family history of severe mental illness; (57) and
- provision of low-cost psychotropic medication to mothers who are extremely depressed and unresponsive to psychosocial interventions, taking into account the risks of these medications to the foetus and to the breastfed infant. (57)

Implementation strategies:

- all resource-constrained countries require, as a matter of urgency, local evidence, generated through systematic research and utilizing appropriate methods about the nature, prevalence, social determinants and consequences of maternal mental health problems;
- development and evaluation of improved intervention models which specify the roles and responsibilities of health and non-health sectors;
- health service strengthening, starting with demonstration projects based on the existing evidence;
- capacity development and networking of stakeholders including in the non-health sectors;
- development of a legal and policy framework for the protection of women's mental health;
- stigma reduction and awareness raising among the general population;

- estimation of the financial and human resources to provide these enhanced services on the necessary scale;
- development of indicators to track the progress that countries make in achieving goals to improve maternal mental health;
- support for organizations wanting to implement these recommendations; and
- establishment of adequate funding to support research, implementation and evaluation of community based interventions, mental health education and training for health professionals.

Way forward

Mental health problems are a key determinant of maternal and child mortality and morbidity, but are not currently recognised in existing initiatives to promote maternal health and improve sexual and reproductive health and child health. We believe that the achievement of the Millennium Development Goals to improve maternal health, reduce child mortality, promote gender equality and empower women, achieve universal primary education and eradicate extreme poverty and hunger cannot be achieved unless there is a specific focus on maternal mental health. In doing this it is essential to pay attention to the social determinants of mental health and its key role in maternal health and child survival, health and development, and in increasing the coverage of evidence-based low-cost interventions for maternal mental health problems. Thus, enhancement of maternal mental health requires the involvement of multiple sectors including those dealing with development, poverty reduction, human rights, social protection, education, gender, and security, in addition to health. The *Lancet* has published a recent series of papers about the major global burden of mental health problems in resource-constrained settings. It constitutes an international call to action that there is "No Health without Mental Health". (26) Further, mental health is integral to implementing international treaties such as the International Covenant on Economic, Social and Cultural Rights (ICESCR), the Convention on the Rights of Children, the Convention on the Elimination of All Forms of Discrimination Against Women and the Convention on the Rights of Persons with Disabilities, as well as consensus documents such as the Programme of Action of the International Conference on Population and Development (ICPD) and the Beijing Platform for Action of the Fourth World Conference on Women. (58)

We call on governments, international organizations and civil societies, informed by WHO's definition of health⁴, ICPD's definition of reproductive health⁵ and ICESCR's definition of the right to health to take immediate action to address mental health in their endeavours to improve maternal and child health⁶, survival and development. Political will, concerted action by global stakeholders and resources are needed now to integrate maternal mental health in strategies to achieve the Millennium Development Goals.

This Statement was developed by the participants in the UNFPA-WHO International Expert Meeting on the Interface between Reproductive Health and Mental Health: Maternal Mental Health and Child Health and Development in Resource-Constrained Settings, held in Hanoi, Viet Nam, 21 to 23 June 2007. The International Expert Meeting was a joint initiative of UNFPA, WHO, the Key Centre for Women's Health in Society, which is a WHO Collaborating Centre for Women's Health in the School of Population Health at the University of Melbourne, Melbourne, Australia and the Research and Training Centre for Community Development in Hanoi, Viet Nam. The International Expert Meeting was convened and the Consensus Statement drafted by Jane Fisher, Key Centre for Women's Health in Society, University of Melbourne, Melbourne, Australia; Meena Cabral de Mello, WHO Department of Child and Adolescent Health and Development, Geneva, Switzerland; Takashi Izutsu, UNFPA, New York, NY, USA and Tran Tuan. Research and Training Centre for Community Development, Hanoi, Viet Nam. The international experts at the meeting and co-signatories to the Consensus Statement were: Abiodun Adewuya, Department of Mental Health, Wesley Guild Hospital, Ilesha, Nigeria; Nazan Aydin, Department of Psychiatry, Ataturk University, Erzurum, Turkey; Bryanne Barnett, Department of Psychiatry, University of New South Wales, Sydney, New South Wales, Australia; José Bertolote, WHO Department of Mental Health and Substance Abuse, Geneva, Switzerland; Peter Cooper, Winnicott Research Unit, University of Reading, Reading, UK; Sudipto Chatterjee, Sangath Centre, Goa, India; Zaeem ul Haq, Johns Hopkins University Center for Communication Programs, Islamabad, Pakistan; Yoshiharu Kim, National Center of Neurology and Psychiatry, Tokyo, Japan; Nguyen thi Nhu Ngoc, Center for Research and Consultancy in Reproductive Health, Ho Chi Minh City, Viet Nam; Doreen Rosenthal, Key Centre for Women's Health in Society, University of Melbourne, Melbourne, Victoria, Australia; Mark Tomlinson, Medical Research Council, Capetown, South Africa; Atsuro Tsutsumi, International Institute of Research and Health, Tokyo, Japan and Jaqueline Wendland, Department of Psychology, University of Paris V, Paris, France. The following international experts reviewed the Consensus Statement and are co-signatories: Patrice Engle, Vikram Patel, Atif Rahman and Tomris Türmen.

Notes:

¹ Mental health is hereby understood as the capacity of individuals to interact with one another, the group and the environment and in ways that promote subjective well-being, the optimal development and use of mental abilities (cognitive, affective and relational) and the achievement of individual and collective goals consistent with justice and the attainment and preservation of conditions of fundamental equality.

² The WHO International Classification of Diseases (ICD-10) describes depression as the persistent presence for at least two weeks of a sad lowered mood, loss of interest in activities usually experienced as pleasurable, reduced energy, and at least two of the other common symptoms which include: reduced concentration; reduced self-confidence; ideas of guilt; a bleak and pessimistic view of the future; ideas or acts of self-harm or suicide; disturbed sleep and diminished appetite.

³ In the WHO International Classification of Diseases (ICD-10) generalized anxiety disorder is characterized by the persistent presence for at least several weeks and usually for several months of apprehension (worries about future misfortune, feeling on edge and having difficulty concentrating); motor tension (restlessness, trembling and inability to relax) and autonomic over activity (lightheadedness, sweating, rapid heart beat, dizziness and a dry mouth).

⁴ Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

⁵ Reproductive health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes.

⁶ The right to health is the right of everyone to the enjoyment of the highest attainable standard of physical and mental health.

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