Steps towards a comprehensive approach to maternal and child mental health

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The epidemiology of mental illness is well characterised, and the burden of associated premature death and patient disability is increasingly understood.[1] Family history is an important risk factor for development of psychiatric illness, with heritability particularly high for attention deficit hyperactivity disorder (heritability 0·75), autism spectrum disorder (0·80), and schizophrenia (0·81),[2] and parental mental illness of any type increases the risk of psychiatric diagnosis in offspring. Depending on timing and severity of parental mental illness, caregiving might be impaired. Evidence[3] has shown that adverse childhood experiences can have considerable and persisting negative effects on children. Considering the genetic, epigenetic, and environmental loading that parental mental illness can pose to offspring, the paucity of data about the prevalence or demographics of these children is surprising.

The study by Kathyrn Abel and colleagues[4] in *The Lancet Public Health* is the first to our knowledge to use a novel method to estimate the prevalence and demographic characteristics of children exposed to maternal mental illness. Previous studies with similar aims have used surveys of sample populations and mental health service utilisation data, which can result in the underestimation of prevalence. Abel and colleagues use data from the British Clinical Practice Research Datalink (CPRD) database, and selected four data fields from the dataset to classify mental illness: diagnosis of a mental illness, referral to psychiatric care services, recorded symptoms of a mental illness, and prescribed psychotropic medication. The authors carefully considered how best to use these four data fields to minimise underestimation and avoid overestimation. Mother-child pairs were determined using the mother-baby link of the CPRD database.

The authors found that 23·2% (95% CI 23·1–23·4) of children were exposed to maternal mental illness in any 2 year period, and also found that risk of exposure was highest in the first 3 months of life, and varied by geographical region, age of the mother, and ethnicity. The types of maternal mental illness and the prevalence of these disorders before and after birth were also quantified. The results of this study will not be surprising to clinicians: child exposure to maternal mental illness, particularly depression and anxiety, has been described, and geographical areas with the highest levels of deprivation also have high rates of maternal mental illness. The authors found that childhood exposure to maternal mental illness increased between 2005 and 2017, but further research is needed to determine whether this is an effect of improved recognition of maternal mental illness, greater use of health-care services by individuals with mental illness, or other factors. The authors also point out that replication of this analysis with fathers will be an important next step in characterising childhood exposure to parental mental illness.

Maternal mental health problems have been associated with a variety of negative outcomes for children, including problems with cognitive development,[5] physical conditions such as asthma,[6] and behavioural conditions such as attention deficit hyperactivity disorder and anxiety.[7] However, treatment of maternal depression has been associated with improvement in child outcomes.[8,9] Abel and colleagues indicate that their findings have the potential to guide rational distribution of health-care funding, suggesting that more resources should be allocated within areas of higher deprivation where the prevalence of maternal mental illness is high; however, in these same geographical locations there is also a high prevalence of many other health problems. Why should maternal mental health be given priority? It could be argued that supporting maternal mental health and subsequently, maternal-child health is cost effective because the return on investment has the potential to reach across generations, improving the health of at least two individuals.[10] Evidence[11] suggests that intervention can be cost effective.

If interventions to improve maternal mental health are considered an important public health priority, the most effective strategies will need to be identified. The most obvious intervention is identification and treatment of maternal mental health problems. This strategy has already been gaining attention in many settings, including among general practitioners, as shown in this study. The movement towards providing mental health care within primary care is important because

this results in increased access to treatment. From a public health perspective, however, more needs to be done. Intervention during pregnancy might mitigate fetal programming associated with maternal stress and improving financial support and length of family leave during the first year of a child's life might decrease risk for maternal depression.[12] Providing parenting support for mothers with mental illness could also benefit attachment and behaviour.[13,14]

We hope that studies such as this one can help to emphasize the importance of maternal mental health and encourage further investigation into cost-effective optimal interventions.

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