Defining and measuring maternal morbidity

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Introduction

The WHO Maternal Morbidity Working Group recently defined maternal morbidity as ‘any condition that is attributed to or aggravated by pregnancy and childbirth that has a negative impact on the woman’s wellbeing’. This definition provides a framework for identifying and measuring maternal morbidity in a more systematic way, using scientifically sound principles and methods. Defining, identifying and measuring maternal morbidity is important as it provides a useful additional measure of effectiveness of interventions designed to improve maternal and newborn health. Our objective was to arrive at a definition and identification criteria for non-severe maternal morbidity, develop tools for measuring non-severe maternal morbidity and estimate the burden of disease.

Methodology

A cross-sectional survey of non severe maternal morbidity was carried out in Pakistan (n= 1727) and Malawi (n= 1732) during early pregnancy (34%), late pregnancy (35%) and the postnatal period (31%). Systematic reviews were conducted to identify a) definitions and concepts of non severe maternal morbidity and, b) tools used to assess non severe maternal morbidity in the peer reviewed literature published between January 2002 and January 2013. The results of the pilot survey and systematic reviews were used to develop a new maternal morbidity assessment tool.

Results

In the index pregnancy 50.1% of women in Malawi and 53% in Pakistan were assessed to have at least one morbidity (infective or non infective). Both infective (Pakistan) and non infective morbidity (Pakistan and Malawi) was lower in the postnatal period than during pregnancy. Multiple morbidities were uncommon (<10%). There were marked differences in psychological morbidity; 26.9% of women in Pakistan and Malawi 2.6% in Malawi had an EPDS > 9. Complications during a previous pregnancy, infective morbidity (p<0.001), intra-or postpartum haemorrhage (p<0.02) were associated with psychological morbidity in both settings. 131 papers met the inclusion criteria for the systematic review and were summarised. A variety of definitions of maternal morbidity have been used to date in the peer reviewed literature and disease conditions assessed as part of maternal morbidity vary across different health care settings. Most tools used to assess morbidity have relied on retrospective case note analysis or patient interview.

Conclusions

Hitherto, maternal morbidity had no internationally accepted definition and standardized tool for data collection. The burden of disease from maternal morbidity is high and needs to be investigated using scientifically sound methods. The new MMWG definition provides an opportunity to develop standard survey tools, specify maternal morbidity identification criteria and provide realistic estimates of non-severe maternal morbidity.