HEART
HEALTH & EDUCATION ADVICE & RESOURCE TEAM

Helpdesk Report: Mental health of women and girls in developing countries

Date: 23 October 2014

Query: To provide a desk based literature review focused on the mental health of women and girls in developing countries.

Contentf

1. Overview

Mental disorders contribute to 13 per cent of the global burden of disease worldwide. The majority - almost three quarters - of this burden occurs in low- and middle-income countries (LMIC). The WHO finds that in LMICs 15.6 per cent of women experience mental disorders during pregnancy and 19.8 percent of women after child birth. Maternal mental disorders (including depression, anxiety, and post-traumatic stress disorder) are a risk factor for their child's health including poor mother-infant interaction, low birth weight and developmental and behavioural problems in their children's development.

In severe cases some women also commit suicide. Suicide is the fourth leading cause of death for women aged 15–49 years worldwide and is one of the major killers of young women in low-income and middle-income countries. Suicide as such contributes to pregnancy-related mortality in LMIC.

Mental illness not only has an impact on mortality but also on the quality of life. Major depressive disorder ranks amongst the top ten causes of disability-adjusted life-years (DALYs). Statistics are likely to underestimate the scale of the problem because of the lack of recognition, detection and stigma associated with mental health disorders. The anticipated economic loss of mental illness worldwide will amount to USD 16.3 million between 2011 and 2030 (USD 7.3 million in LMIC) with dramatic impact on productivity and quality of life. Mental health issues tend to be strongly related to other factors impacting on the quality of life, including poverty, socio-economic status, education, domestic violence, but also wars, violent conflict and sexual violence.

Gender is a critical determinant of mental health and mental illness. Gender dictates the differential power and control men and women have over the socioeconomic determinants of

their mental health and lives. These determinants include their social position, their access to resources, their status and treatment in society and their susceptibility and exposure to gender-specific mental health risks, such as pregnancy. There are also wide ranging gender differences in the rates, risk factors and treatment of common mental disorders, such as depression, anxiety and somatic complaints. Evidence suggests a prevailing gender bias particularly in the treatment of mental health. Health services for women tend to focus on their reproductive functions, and thus neglect the needs of women outside reproductive ages. Gender stereotyping of women as prone to emotional problems and men as more likely of having alcohol problems hinders accurate treatment. A lack of female personnel further prevents women from utilising medical services.

Previous efforts to tackle mental health issues have found that evidence-based programming can be successful given the existence of a number of pre-conditions, including good national policies, partnerships between relevant stakeholders, capacity building and training. These conditions however, continue to be weak in most LMIC. The body of research and knowledge around the current and future implementation of effective and gender-sensitive interventions in LMI countries is growing. Researchers, advocates, programme implementers and clinicians have identified, through the Grand Challenges in Global Mental Health initiative, priorities for research in the next 10 years to improve the lives of people with mental illness, including mothers, around the world and have called for urgent action and investment. The WHO Mental Health Action Plan 2013-2020 acknowledges the essential contribution of mental health in achieving health for all people and aims to achieve equity through universal health coverage and a life-course approach. This plan stresses the importance of prevention through a wide and cross-cutting promotion of mental health.

Detecting and treating mental illness in women and girls requires a multisectoral approach and mainstreaming of mental health issues within women's health and child and adolescent health policies, health programmes and research agenda. The WHO maintains that effective strategies cannot be gender neutral as the risk factors themselves are gender specific. Improvements in women's status are likely to bring about improvements in women's mental health. Multi-level dialogue and local-global partnership is essential to facilitate an inclusive and locally-sensitive approach to tackling mental health issues.

Barriers to increasing mental health services availability include the absence of mental health from the public health agenda and the implications for funding; the current organisation of mental health services; lack of integration within primary care; inadequate human resources for mental health; and lack of public mental health leadership. The consequences are that individuals living with mental disorders have limited access to evidence based treatments and face widespread socio-economic stigmatisation. Global movements, such as #FundaMentalSDG call upon the United Nations to include 'the provision of mental and physical health and social care services for people with mental illness, in parity with resources for services addressing physical health' in the post-2015 development agenda.

2. Scale of the problem

Prevalence and determinants of common perinatal mental disorders in women in low- and lower-middle-income countries: a systematic review
Fisher J, Cabral de Mello M, Patel V, Rahman A, Tran T, Holtona S & Holmes W. Bull World Health Organ 2012;90:139–149G. DOI:10.2471/BLT.11.091850
http://www.who.int/bulletin/volumes/90/2/11-091850.pdf

This paper systematically reviews the evidence about the prevalence and determinants of non-psychotic common perinatal mental disorders (CPMDs) in World Bank categorized low- and lower-middle-income countries. Data on disorders in the antenatal period were available for 9 (8%) of these countries, and on disorders in the postnatal period, for 17 (15%) of these countries. Weighted mean prevalence was 15.6% (95% confidence interval, CI: 15.4–15.9)

antenatally and 19.8% (19.5–20.0) postnatally. Both antenatal and postnatal prevalence rates were higher than in HICs. The authors highlight the lack of available local evidence on CPMDs (in more than 80% of the world's 112 low and lower-middle-income countries and in 90% of the least-developed countries) on which to base practice and policy. Furthermore, there was a degree of exclusion of women on the basis of, for example, illiteracy or history of psychiatric problems probably underestimating prevalence.

Post-partum depression and the mother-infant relationship in a South African peri-urban settlement.
Cooper PJ, Tomlinson M, Swartz L, Woolgar M, Murray L and Molteno C. *BJP* 1999, 175:554-558.
http://bjp.rcpsych.org/content/175/6/554.full.pdf+html

This study determined the prevalence of post-partum depression in Khayelitsha, a South African peri-urban settlement. The mental state of 147 women who had delivered two months previously was assessed, and the quality of their engagement with their infants was determined. The point prevalence of DSM- IV major depression was found to be 34.7%; around three times that found in British post-partum samples.

Child and adolescent mental health worldwide: evidence for action
Kieling C, Baker-Henningham H, Belfer M, Conti G, Ertem I, Omigbodun O, Rohde L A, Srinath S, Ulkuer N, Rahman A. 2011. Lancet; 378: 1515–25
http://download.thelancet.com/pdfs/journals/lancet/PIIS0140673611608271.pdf?id=baaMM_PLPlk4mdFAYu_Hu

Supplement to: Kieling C, Baker-Henningham H, Belfer M, et al. Child and adolescent mental health worldwide: evidence for action.
Lancet 2011; published online Oct 17. DOI:10.1016/S0140-6736(11)60827-1.
http://download.thelancet.com/mmcs/journals/lancet/PIIS0140673611608271/mmc1.pdf?id=eaanh9rZNcS9_-e-ubVJu

This systematic review of original studies in non-referred samples from LMIC showed a prevalence of childhood and adolescence mental health problems of 10–20%. This is consistent with findings from HIC. The range of the reported prevalence, however, is very wide (from 1·81% to 39·4%), and heterogeneity in the methodological approaches used might have contributed to these differences. A table lists the prevalence of child and adolescent mental disorders in LMIC by study. Other possible sources of discrepancy between results are different exposures to risk factors and protective factors, and the cultural context in which the mental health problems occur.

Suicides in young people in rural southern India
Aaron R, Joseph A, Abraham S, Muliyil J, George K, Prasad J, Minz S, Abraham VJ, Bose A. Lancet 2004; 363: 1117–18
http://download.thelancet.com/pdfs/journals/lancet/PIIS0140673604158960.pdf?id=jaaIvTT5m7cBF5XETAWJu

Mortality rates were analysed for 10 years, from 1992 to 2001, for the age group 10 to 19 years in a population of 108 000 in Vellore, southern India. Suicides accounted for about a quarter of all deaths in young men and between 50% and 75% of all deaths in young women. The average suicide rate for young women was 148 per 100 000, and for young men 58 per 100 000.

Prevalence and social correlates of postnatal depression in a low income country
Husain N, Bev I, Husain M, Chaudhryn IB, Atif N, and Rahman A. Archives of Womens Mental Health April 24, 2006.
http://hdrfoundation.org/docs/articles/postnatal_depression_in_a_low_income_country.pdf

Postnatal depression is an important public health problem worldwide. Recent evidence suggests that rates may be relatively higher in developing countries. We aimed to explore the prevalence of postnatal depression and its association with social support and other risk factors in a sample of Pakistani women.

Population-based survey of 149 women at 12 weeks postnatal using the Edinburgh Postnatal Depression Scale (EPDS), Multidimensional Scale of Perceived Social Support (MSPSS) and Personal Information Questionnaire (PIQ).

Thirty six percent women scored > or =12 on EPDS. High depression score was associated with lower social support, increased stressful life events in the preceding year and higher levels of psychological distress in the antenatal period.

There is a high prevalence of postnatal depression in Pakistani women. Early interventions should be developed that target the antenatal period and strengthen social support networks in women at risk.

Prevalence of postnatal depression among Arab women: a narrative review
Ramasubramaniam S, Madhavanprabhakaran GK, Renganathan L and Raman S. Journal of Research in Nursing and Midwifery (JRNM) (ISSN: 2315-568x) Vol. 3(1) pp. 1-13, January, 2014
http://www.interesjournals.org/full-articles/prevalence-of-postnatal-depression-among-arab-women-a-narrative-review.pdf?view=inline

Objective: To describe the prevalence of postnatal depression and its risk factors among Arab women. Even though postnatal depression remains a worldwide phenomenon, there are continental variations in the prevalence rates and predictors.

Methods: The prevalence of postnatal depression and its predictors remains influenced by the culture, tradition, values and beliefs among the Arab women. Since postnatal depression has effect on the mother and the baby, early diagnosis will help in implementing the preventive strategies to prevent worsening of the problem. Hence a narrative review of studies on prevalence postnatal depression and risk factors among Arab women will help in informing the current situation to public and health care providers. This review was conducted to describe the prevalence of postnatal depression and its risk factors among the Arab women during the past 7 years from 2005-2012. We searched the electronic databases SCIENCE DIRECT, PUBMED, CINHAL, EBSCO, SCOPUS, and UPTODATE to identify relevant studies. Initially 38 studies were identified potentially relevant and out of which 17 studies which met the selection criteria were included in the review.

Results: Seventeen studies with a total of 9,132 Arab women were included in the narrative review. The maximum and minimum reported prevalence of postnatal depression were 10-80 % respectively. History of late prenatal depression, and anxiety, being first time mother with poor body self image, poor relationship with partner and in-laws, unplanned pregnancy ,lack of social support, perceived low parental knowledge and preterm birth were the significant risk factors identified among the studies reviewed.

Conclusion: This narrative review informs the current status regarding prevalence and risk factors for postnatal depression among Arab women and has implications for clinical practice. The review identified that postnatal depression among Arab women is highly significant than other cultures. Midwives and health care providers should therefore be trained and given opportunities to learn to identify the risk factors of postnatal depression to aid the mental wellbeing among postnatal mothers.

A controlled study of postpartum depression among Nepalese women: validation of the Edinburgh Postpartum Depression Scale in Kathmandu

Regmi S, Sligl W, Carter D, Grut W and Seea M. Tropical Medicine and International Health volume 7 no 4 pp 378–382 april 2002.
http://onlinelibrary.wiley.com/doi/10.1046/j.1365-3156.2002.00866.x/pdf

Objectives: To measure the prevalence of depression amongst postpartum and non-postpartum Nepalese women in Kathmandu using the Edinburgh Postpartum Depression Scale (EPDS) and to assess the ease of use and validity of the scale compared with Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) criteria for major depression.

Methods: We screened 100 women 2–3 months post-delivery and 40 control women using the EPDS. All those who screened positive for depression and 20% of the negatives also underwent a structured interview to assess depression by DSM-IV criteria.

Results: Predictive errors were minimized by using an EPDS score ‡13 to define depression. Using this threshold, there was no difference in depression prevalence between postpartum women (12%) and the control group (12.5%) (Fisher's exact test, P > 0.05). Compared with DSM-IV, the sensitivity, specificity and positive predictive values were 100, 92.6 and 41.6%, respectively.

Conclusions: The prevalence of postpartum depression (PPD) in Nepalese women and the validity and ease of use of the EPDS in the setting of a postnatal clinic in Kathmandu are all surprisingly similar to the results of numerous studies in developed countries. Despite poor living conditions, PPD is no more common than the background depression rate amongst Nepalese women. It can be reliably detected by trained clinical nurses using the EPDS screening test. These results may have implications for the planning of mental health resources for women in other developing countries.

Antenatal depression and its risk factors: An urban prevalence study in KwaZulu-Natal
Manikkam L, Burns JK. S Afr Med J 2012;102 (12):940-944. DOI:10.7196/SAMJ.6009.
http://www.samj.org.za/index.php/samj/article/view/6009/4741

Objective: There has been a recent increase in interest in antenatal depression, which is associated with adverse obstetric, neonatal and maternal outcomes and has been overlooked and underdiagnosed. Local data on prevalence and risk factors are lacking.

Aim: To determine the prevalence and risk factors associated with antenatal depressive symptoms in a KwaZulu-Natal population.

Methods. The Edinburgh Postnatal Depression Scale and a socio-demographic questionnaire in English and isiZulu were administered to 387 antenatal outpatients at King Edward VIII Hospital in Durban.

Results: Of the participants, 149 (38.5%) suffered from depression and 38.3% had thought of harming themselves in the preceding 7 days. Risk factors for depression included HIV seropositivity (p=0.02), a prior history of depression (p=0.02), recent thoughts of self-harm (p<0.000), single marital status (p=0.04) and unplanned pregnancy (p=0.01).

Conclusion: The high prevalence of antenatal depressive symptoms and thoughts of deliberate self-harm supports a policy of routine screening for antenatal depression in South Africa, especially in HIV-seropositive women.

Postnatal depression and its effects on child development: a review of evidence from low- and middle-income countries
Parsons CE, Young KS, Rochat TJ, Kringelbach ML and Stein A. British Medical Bulletin 2012; 101: 57–79
http://bmb.oxfordjournals.org/content/early/2011/12/02/bmb.ldr047

Background: It is well established that postnatal depression (PND) is prevalent in high-income countries and is associated with negative personal, family and child developmental outcomes.

Sources of data: Here, studies on the prevalence of maternal PND in low- and middle-income countries are reviewed and a geographical prevalence map is presented. The impact of PND upon child outcomes is also reviewed.

Areas of agreement: The available evidence suggests that rates of PND are substantial, and in many regions, are higher than those reported for high-income countries. An association between PND and adverse child developmental outcomes was identified in many of the countries examined.

Areas of controversy: Significant heterogeneity in prevalence rates and impact on child outcomes across studies means that the true extent of the disease burden is still unclear.

Areas timely for developing research: Nonetheless, there is a compelling case for the implementation of interventions to reduce the impact of PND on the quality of the mother–infant relationship and improve child outcomes.

Antenatal Depression in Anuradhapura, Sri Lanka and the Factor Structure of the Sinhalese Version of Edinburgh Post Partum Depression Scale among Pregnant Women
Agampodi SB, Agampodi TC. PLOS ONE 1 July 2013 | Volume 8 | Issue 7 | e69708
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0069708

Background: Mental health problems among women of reproductive age group contribute to 7% of Global Burden of Diseases of women of all ages. Purpose of this study was to determine the prevalence and correlates of antenatal depression among pregnant women in Anuradhapura, Sri Lanka, and to explore the factor structure of EPDS.

Methods: Pregnant women with gestational age of 24–36 weeks and residing in Anuradhapura district, Sri Lanka were recruited to the study using a two stage cluster sampling procedure. Sinhalese version of Edinburgh Post Partum Depression Scale (EPDS) and an interviewer administered questionnaire was use to collect data. A cut off value of 9 was used for the Sinhalese version of EPDS.

Results: A total of 376 pregnant women were studied. Median EPDS score among pregnant women was 5 (IQR 2–8). Prevalence of antenatal depression in this study sample was 16.2% (n = 61). Thought of self harming (item number 10) was reported by 26 pregnant women (6.9%). None of the socio-demographic factors were associated with depression in this study sample. Having heart burn was significantly associated with depressive symptoms (p = 0.041). Sri Lankan version of EPDS showed a two factor solution. Anxiety was not emerged as a separate factor in this analysis.

Conclusions: Prevalence of antenatal depression in Anuradhapura, Sri Lanka was relatively low. Anxiety was not emerged as a separate factor in the Sinhalese version of the EPDS.

Antenatal depression and its predictors in Lahore, Pakistan
Humayun A, Haider II, Imran N, Iqbal H and Humayun N. Eastern Mediterranean Health Journal, 2013 Volume 19 (4)
http://www.emro.who.int/emhj-vol-19-2013/4/antenatal-depression-pakistan.html

Mental health is an important but neglected component of reproductive health. This study aimed to determine the prevalence and risk factors for antenatal depression among women attending for antenatal care at an urban tertiary care hospital in Lahore, Pakistan. In a cross-sectional study, structured questionnaires were filled and screening for depression was done

using the Edinburgh postnatal depression scale (EPDS). Out of 506 antenatal attendees 126 (24.9%) had no depression (EPDS scores < 10), 53 (10.5%) scored 10–12 and 327 (64.6%) had EPDS scores > 12. Depression scores (≥ 10) were more common in mothers aged < 20 years (93.7%) than those aged > 35 years (55.0%). Fear of childbirth and separation from husband were identified as significant risk factors for development of antenatal depression, while family history of psychiatric illness was significant protective factor. Domestic violence, drug abuse, lack of support, previous miscarriage and personal history of previous psychiatric illness were not found to be significant risk factors.

Prevalence and associated factors of perceived stress among adolescent girls in Nawabshahi City, Pakistan
Parpio Y. Journal of Ayub Medical College 2013;25(1-2)
http://www.ayubmed.edu.pk/JAMC/25-1/Yasmin.pdf

Background: The aim of this study was to determine the prevalence and associated factors of perceived stress among female adolescent in Nawabshah City, Pakistan.

Methods:This study was a sub-analysis of a parent research. Analytical cross-sectional design was used to achieve the study objectives. The study population comprised of school-going female adolescents aged 10-16 years resident of Nawabshah City. Perceived Stress Scale (PSS) and structured questionnaire were employed to measure the prevalence and associated factors of stress respectively. Multiple linear regressions were done to determine the predictors contributing to stress among female adolescents by using SPSS-17.

Results: The mean (+/- SD) of perceived stress score of the respondents was 27.84 +/- 2.84 with median 28 and the values were ranging from 19-37 scores for female participants. The final model indicated that among adolescents whose fathers are unemployed, the estimated mean score of stress was 0.734 +/- 0.493 higher than adolescents whose fathers are employed. As the number of rooms in the house increased by one, the estimated mean stress score decreases by 0.213 +/- 0.082. Among adolescents whose parents quarrelled, the estimated mean score of stress was 0.158 +/- 0.051 higher than adolescents whom parents did not quarrel.

Conclusion: Almost every second female adolescent (58%) reported stress symptoms. The father's unemployment, number of rooms and parental quarrel is associated with risk of stress among female adolescents.

Years lived with disability (YLDs) for 1160 sequelae of 289 diseases and injuries 1990–2010: a systematic analysis for the Global Burden of Disease Study 2010
Vos T et al Lancet 2012; 380: 2163-96
http://download.thelancet.com/pdfs/journals/lancet/PIIS0140673612617292.pdf?id=caamZzj2f9kgMgo96_EHu

This systematic analysis for the Global Burden of Disease Study 2010 found that two mental and behavioural disorders, anxiety and major depressive disorder, were in the top 30 most common causes. The global prevalence of major depressive disorder was 4.33% and was higher in women (5.48%) than in men (3.21%). The global prevalence of anxiety was 3.96% and again was higher in women (5.18%) than in men (2.76%). Mental and behavioural disorders accounted for 22·7% of all years lived with disability (YLDs) increasing by 37% from 1990 to 2010 from 129 million to 177 million. Six disorders or clusters of disorders accounted for more than 10 million YLDs each. The largest category was depressive disorders: major depressive disorder caused 63 million YLDs and dysthymia caused 11 million YLDs—together accounting for 9·6% of all YLDs. Schizophrenia, alcohol use disorders, drug use disorders, and bipolar disorders accounted for 12·9–16·4 million YLDs. Anxiety disorders were also a major global cause, contributing 3·5% of all YLDs.

The Global Economic Burden of Non-communicable Diseases.
Bloom DE, Cafiero ET, Jané-Llopis E, Abrahams-Gessel S, Bloom LR, Fathima S, Feigl AB, Gaziano T, Mowafi M, Pandya A, Prettner K, Rosenberg L, Seligman B, Stein A, & Weinstein, C. (2011). Geneva: World Economic Forum.
http://apps.who.int/medicinedocs/documents/s18806en/s18806en.pdf

This report estimates the global economic burden of NCDs in 2010 and projects the size of the burden by 2030. Mental health conditions, along with cardiovascular diseases, are the dominant contributors to the global economic burden of NCDs. The anticipated economic loss of mental illness worldwide will amount to USD 16.3 million between 2011 and 2030 (USD 7.3 million in LMIC) with dramatic impact on productivity and quality of life.

Why adolescent depression is a global health priority and what we should do about it
Patel, V. Journal of Adolescent Health. 2013; 52: 511e512
http://www.jahonline.org/article/S1054-139X(13)00122-5/pdf

This editorial identifies key themes from three studies published in this month's issue of the *Journal of Adolescent Health* on the detection and outcome of depression in adolescence and contextualises the findings from a global perspective. These articles describe the public health burden of depression in adolescence and the effectiveness of methods for the detection of depression in primary care and school settings.

Patel cites additional evidence that shows that the mean prevalence of any mental disorder in adolescence is 10.5%. Mental disorders are among the leading causes of the burden of disease in this age group with suicide being one of the leading causes of death in all regions of the world. Naicker et al. (see section 7 of this report), one of the three JAH articles, also observe that those who develop the syndrome for the first time in adolescence have a higher risk of developing new episodes in adulthood and depression in adulthood in this cohort could be considered to have begun in adolescence. Because of this Patel recommends that effective management of depression in adolescence should be considered a major global health priority because it addresses a leading cause of sickness and death in this age group and potentially also affects the burden of disease in adulthood. Four major challenges will be encountered though; (i) low demand for healthcare (lack of acknowledgement that depression is a health condition and can be treated); (ii) low levels of detection of depression both by self-recognition and by healthcare providers; (iii) lack of access to evidence based interventions and (iv) prevention.

Please see Ganguly S et al. in section 4 of this Helpdesk report for one of the three studies. The remaining two articles are based in a Canadian and British setting and are included in section 7 of this Helpdesk report.

The state of health in the Arab world, 1990—2010: an analysis of the burden of diseases, injuries, and risk factors
Mokdad AH et al. Lancet 2014; 383: 309–20
http://download.thelancet.com/pdfs/journals/lancet/PIIS0140673613621893.pdf?id=iaaYOV2KwciFYgP7JldIu

This study assessed the burden of disease and injuries in the 22 Arab countries in 1990, 2005, and 2010 using data and methods from the Global Burden of Diseases, Injuries, and Risk Factors Study 2010. Depression and anxiety were major causes of burden of disease and affected female individuals more than they affected male individuals. Amongst female individuals major depressive disorder ranked amongst the top ten causes of disability-adjusted life-years (DALYs) in low-income Arab countries and was ranked highest in 2010 among middle and high-income Arab countries.

Global and regional mortality from 235 causes of death for 20 age groups in 1990 and 2010: a systematic analysis for the Global Burden of Disease Study 2010
Lozano R, Naghavi M, Foreman K, et al. Lancet 2012; 380: 2095–128.
http://download.thelancet.com/pdfs/journals/lancet/PIIS0140673612617280.pdf?id=eaadAq-KmgqH6gIdY8eIu

This Global Burden of Disease study aimed to estimate annual deaths for the world and 21 regions between 1980 and 2010 for 235 causes. Suicide was identified as the fourth leading cause of death for women aged 15–49 years worldwide.

Suicide has also been identified as one of the major killers of young women in low-income and middle-income countries.

Contribution of suicide and injuries to pregnancy-related mortality in low-income and middle-income countries: a systematic review and meta-analysis
Fuhr DC, Calvert C, Ronsmans C, Chandra PS, Sikander S, De Silva MJ, & Patel V. Lancet Psychiatry 2014; 1: 213–25
http://download.thelancet.com/pdfs/journals/lanpsy/PIIS2215036614702822.pdf?id=eaadAq-KmgqH6gIdY8eIu

This systematic review estimates the prevalence of pregnancy-related deaths attributable to suicide or injuries, or both, in low-income and middle-income countries. Data pooled from 36 studies from 21 countries suggest a modest contribution of injuries and suicide to pregnancy-related mortality in low-income and middle-income countries with wide regional variations. The authors caution though that these estimates may have underestimated suicide deaths because of the absence of recognition and inclusion of these causes in eligible studies and recommend that WHO include injury-related and other co-incidental causes of death in their definition of maternal mortality.

3. Nature of the problem

Gender and mental health

WHO Gender disparities in mental health
WHO Department of mental health and substance dependence. 2000.
http://www.who.int/mental_health/media/en/242.pdf?ua=1

This paper provides an in depth account of the evidence around gender and mental health. It particularly looks at gender disparities in rates and risk factors, as well as gender bias and stereotyping. The paper focuses particularly on depression, as it accounts for the largest proportion of the burden associated with all the mental and neurological disorders.

The WHO defines gender as 'a structural determinant of mental health and mental illness that runs like a fault line, interconnecting with and deepening the disparities associated with other important socioeconomic determinants such as income, employment and social position'. Gender disparities significantly affect the control men and women have over these socioeconomic determinants, as well as their access to resources, their social status, roles, and recognition. While highlighting the existing evidence, the WHO calls for a better understanding and investigation of the gender dimensions to mental health. Evidence highlighted in this paper includes:

- Gender differences in patterns of help-seeking and gender stereotypical diagnosis hinder the identification of patients and treatment of mental illness.
- Women have higher prevalence rates than men of both lifetime and 12 month comorbidity involving three or more disorders.
- Low socio-economic rank is a strong predictor of depression. Social roles are replicated in the economic workplace, where women are more likely than men to occupy insecure, low status jobs with no decision-making authority. Traditional gender roles further increase susceptibility to mental illnesses due to burdens of unpaid care work, and patterns of passivity, submission and dependence.
- The severity and the duration of exposure to violence are highly predictive of the severity of mental health outcomes. The WHO finds that rates of depression in adult life are 3 to 4 fold higher in women exposed to childhood sexual abuse or physical partner violence in adult life.

The WHO calls for a multi-level and intersectoral approach to a 'gendered mental health policy with a public health focus and gender-specific risk factor reduction strategies, as well as gender sensitive services and equitable access to them'. The WHO maintains that effective strategies cannot be gender neutral as the risk factors themselves are gender specific. According to the WHO, improvements in women's status are likely to bring about improvements in women's mental health. Women's status would be improved by a balance in gender roles and obligations, pay equity, safe affordable housing, poverty reduction and renewed attention to the maintenance of social capital.

Gender differences in mental health
Afifi, M. 2010. Singapore Med J; 48 (5): 385
http://www.genderbias.net/docs/resources/guideline/Gender%20differences%20in%20mental%20health.pdf

This paper highlights the importance of considering gender as a category of analysis for mental disorders. It finds that effective strategies for prevention and reduction of risk factors have to be gender sensitive, since the risks themselves are gender-specific, and women's status and life opportunities remain low worldwide.
This paper discusses the following questions:

1. Why gender matters in mental health?
2. What is the relationship between gender and health-seeking behaviour?
3. What are the gender differences in common mental health disorders, such as depressive and anxiety disorders, eating disorders, schizophrenia, and domestic violence?

The paper highlights the relationship between gender and health-seeking behaviour as a powerful determinant of gender differences, and concludes with policy recommendations: Data should be disaggregated by gender and age for all diseases and health conditions to allow a long-term gender analysis of data and gender-specific burden of disease. In addition, prevailing differences in mental disorders need to be thoroughly documented. As such, it is important to examine the differences between women and men which influence their vulnerability to mental disorder, including their roles and responsibilities, their knowledge base, their position in society, their access and use of health resources.

Maternal mental health

Maternal Depression: A Global Threat to Children's Health, Development, and Behavior and to Human Rights
Wachs TD, Black MM and Engle PL. 2009. Child Development Perspectives 3:51-59
http://onlinelibrary.wiley.com/doi/10.1111/j.1750-8606.2008.00077.x/abstract

Research in high-income countries has found that maternal depression constitutes a risk factor for children's health and can cause developmental and behavioural problems in children's development. Recent evidence suggests that rates of maternal depression may be even higher in low and middle-income countries. This review contributes to this existing knowledge on maternal depression and children's health. It examines the link between maternal depression and children's health, development and behaviour in low and middle-income countries, where the majority of the world's children live. The review offers recommendations for future mental health policies and programmes and examines how international children's rights policies are related to maternal depression.

Depressed mood in pregnancy: Prevalence and correlates in two Cape Town peri-urban settlements
Hartley M, Tomlinson M, Greco E, Comulada WS, Stewart J, le Roux I, Mbewu N and Rotheram-Borus MJ. Reproductive Health 2011, 8:9
http://www.reproductive-health-journal.com/content/pdf/1742-4755-8-9.pdf

This study is from the Philani Mentor Mothers Project (PMMP), a community-based, cluster-randomised controlled trial to evaluate the effectiveness of a home-based intervention for preventing and managing illnesses related to HIV, TB, alcohol use and malnutrition in pregnant mothers and their infants Here the authors report the baseline prevalence of antenatal depression in 1062 pregnant women from Khayelitsha and Mfuleni, Cape Town. Depressed mood in pregnancy was reported by 39% of mothers. The strongest predictors of depressed mood were lack of partner support, intimate partner violence, having a household income below R2000 per month, and younger age. The authors conclude that the high prevalence of antenatal depression necessitates early screening and intervention in primary health care and antenatal settings for depression.

Low birth weight in offspring of women with depressive and anxiety symptoms during pregnancy: results from a population based study in Bangladesh.
Nasreen HE, Kabir ZN, Forsell Y, Edhborg M. BMC Public Health. 2010; 10:515
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2939645/

Antepartum depression and low birth weight (LBW) are both increasing in Bangladesh, however, there has been little research measuring the impact of maternal mental disorder on infant LBW in Bangladesh.

This study followed a sample of 720 pregnant rural Bangladeshi women for 6-8 months, to examine the link between maternal depressive and anxiety symptoms during pregnancy and the LBW of newborns. This study replicates results found in other South Asian countries, which found that depressive and anxiety symptoms are strongly associated with LBW. The study notes that socio-economic poverty, maternal malnutrition and lacking support during pregnancy also linked to LBW.

The authors conclude, that policies aimed at the detection and effective management of depressive and anxiety symptoms during pregnancy are not only crucial to reduce the burdens on mothers but also act as a vital measure to prevent LBW among offspring in Bangladesh and other South Asian countries.

Interventions for common perinatal mental disorders in women in low- and middle-income countries: a systematic review and meta-analysis
Rahman A, Fisher J, Bower P, Luchters S, Tran T, Yasamy MT, Saxena S & Waheed W. *Bull World Health Organ* 2013;91:593–601I
http://www.who.int/bulletin/volumes/91/8/12-109819/en/

Treatment of common perinatal mental disorders (CPMDs) among women from low- and lower-middle-income (LAMI) countries is not prioritized, where many other health problems compete for attention. Psycho-educational interventions that promote problem solving and a sense of personal agency and help to reframe unhelpful thinking patterns, including cognitive behaviour therapy and interpersonal therapy, have consistently proven effective in the management of CPMDs. This review systematically investigates the evidence of the impact of such interventions on women and their infants and on the mother–infant relationship, and to understand the feasibility of applying them in LAMI countries. Thirteen trials were considered eligible representing 20, 092 participants from Asia, Africa, the Caribbean and South America. This review finds that such interventions can be effectively implemented in LAMI countries by trained and supervised health workers in primary care and community settings.

Domestic Violence and Perinatal Mental Disorders: A Systematic Review and Meta-Analysis
Howard LM, Oram S, Galley H, Trevillion K, Feder G. PLoS Medicine. 2013; 10:e1001452
http://www.plosmedicine.org/article/fetchObject.action?uri=info%3Adoi%2F10.1371%2Fjournal.pmed.1001452&representation=PDF

This systematic review and meta-analysis estimates the prevalence and odds of having experienced domestic violence among women (aged 16 years or older) with antenatal and postnatal mental disorders (depression and anxiety including post-traumatic stress disorder (PTSD)). No studies were identified on eating disorders or puerperal psychosis. The review found high levels of symptoms of perinatal depression, anxiety, and PTSD are significantly associated with having experienced domestic violence. The authors suggest that high-quality evidence is now required on how maternity and mental health services should address domestic violence to improve health outcomes for women and their infants.

Post-partum depression and the mother-infant relationship in a South African peri-urban settlement

Cooper PJ, Tomlinson M, Swartz L, Woolgar M, Murray L and Molteno C. The British Journal of Psychiatry, 1999 175: 554-558
http://bjp.rcpsych.org/content/175/6/554

This study aimed to determine the prevalence in 147 women who had delivered two months previously of post-partum depression and associated disturbances in the mother-infant relationship in Khayelitsha, a South African peri-urban settlement. The prevalence of major depression was high (34.7%) and was associated with insensitive engagement with infants.

Poverty and postnatal depression: a systematic mapping of the evidence from low and lower middle income countries
Coast E, Leone T, Hirose A & Jones E. 2012. LSE
http://eprints.lse.ac.uk/44533/1/Poverty%20and%20postnatal%20depression%28lsero%29.pdf

This study contributes to the growing body of evidence on the relationship between postnatal depression (PND) and poverty in low and lower-middle income countries. The study is based on a systematic review of research related to the link between PNP and poverty. It assesses and maps evidence of 47 articles from 17 countries. The majority of research studies analysed suggest that poverty is a risk factor for PNP, and that income, socio-economic status and education are all inconsistent risk factors for PND. The study notes that the majority of evidence found is based on an individual-level analysis, rather than on a holistic approach considering neighbourhoods and communities to understand the complete scale and implications of PND. The study further finds that there are no intervention studies that focus on poverty reduction with PND as an outcome. Consequently, there is a pressing need to incorporate mental disorders, in particular PND for women, into broad based development agendas and interventions.

Impact of postnatal maternal depressive symptoms and infant's sex on mother-infant interaction among Bangladeshi women
Edhborg M, Hogg B, Nasreen H-E, Kabir ZN. Health 2013 5:237-244.
http://www.scirp.org/journal/PaperInformation.aspx?PaperID=28426#.VA9fOBYbI00

This study aims to examine the impact of postnatal depressive symptoms and infant sex on perceived and observed mother-infant interaction. The study compared 50 rural Bangladeshi women with depressive symptoms and their infants at 2-3 months, with 50 women without depressive symptoms and their infants at 2-3 months. Treatment and control group were matched according to geographic areas, parity and infant sex. The main results included:

- Mothers with depressive symptoms were poorer, less educated and rated their infant bonding lower
- Objective observation indicated no difference between the two groups regarding maternal interactive behaviour
- Infants, particularly, boys, of mothers with depressive symptoms fretted more in mother-infant interaction than infants of mothers without depressive symptoms.

The authors conclude that there was no difference in interactive mother-infant behaviour of mothers with depressive symptoms and without depressive symptoms. Mothers with depressive symptoms were less educated and rated the emotional bonding to their infant lower, but showed no difference in sensitivity and responsiveness to their children. However the study stresses the potential of negative influences on infants, particularly on boys, caused through their interaction with mothers who have depressive symptoms

Mental Health in the context of HIV/AIDS

Depression Among Pregnant Rural South African Women Undergoing HIV Testing

Rochat TJ. Richter LM. Doll HA; et al. *JAMA*. 2006; 295(12):1376-1378
(doi:10.1001/jama.295.12.1376)
http://jama.jamanetwork.com/article.aspx?articleid=202579

This prevalence study was conducted in rural northern KwaZulu-Natal, South Africa, a region with a very high HIV prevalence, to establish rates of depression among women undergoing HIV testing in prevention of mother-to-child transmission programs (PMTCT) and to assess perceptions among these women about adverse consequences of an HIV diagnosis, and whether these perceptions were related to depression status. Depression was assessed using the Edinburgh Postnatal Depression Scale (EPDS). The prevalence of depression was high (41%) and depression was associated with perceptions that a diagnosis of HIV would diminish the woman's access to health services because of discrimination. The authors cite evidence that depression can be effectively treated in comparable African populations and so their results support the importance of screening for depression during pregnancy in areas with high HIV prevalence to ensure that HIV-positive women access health care services and adhere to antenatal interventions critical to the prevention of mother-to-child-transmission.

Contextualising women's mental distress and coping strategies in the time of AIDS: A rural South African case study
Campbell C, Burgess R. 2014. Transcult Psychiatry. 2014 Mar 26.
http://www.ncbi.nlm.nih.gov/pubmed/24670517

This article contributes to the growing qualitative evidence concerning the impacts of HIV/AIDS on women's mental health. The authors build upon this existing evidence by exploring HIV/AIDS-affected women's own accounts of their mental distress. A particular focus is given to (a) the impacts of the social context of women, and (b) women's efforts to cope outside of medical support services. The study is based on primary research which covers the interviews with 19 women experiencing depression or anxiety in KwaZulu-Natal, South Africa. In terms of social context impacts, four drivers of mental distress were emphasised: family conflicts (particularly abandonment by men), community-level violence, poverty and HIV/AIDS. Four coping mechanisms were identified:

1. Drawing on indigenous local resources to re-frame negative situations
2. Mobilising emotional and financial support from inter-personal networks, churches and HIV support groups
3. Seeking expert advice from traditional healers, medical services or social workers. This approach was less common among informants and access to these resources was limited.
4. Supplementing government grants with income generating efforts. While this approach was followed by all informants, only a few found it successful to meet their needs.

The authors therefore stress the need for increased efforts 'to bolster strained mental health services with support groups, which often offer valuable emotional and practical support'. They likewise note that poverty continues to be a driver of mental distress reduction, and thus poverty alleviation strategies have to occur simultaneously.

Supporting mental health in South African HIV-affected communities: primary health care professionals' understandings and responses
Burgess RA. Health Policy Planning. 2014 Aug 26
http://www.ncbi.nlm.nih.gov/pubmed/25161270

This study demonstrates a divergence from existing evidence, by uncovering the complex and diverse social realities that frame the mental distress of HIV-affected women. The authors call for increased attention to promoting the development of polices that provide frontline medical practitioners with better opportunities to address these realities.

The study is based on primary research focusing on the primary mental health services in a rural HIV-affected community in Northern KwaZulu-Natal, South Africa. In interviews the responses of practitioners to mental distress of HIV-affected women was examined. Practitioners applied a socially anchored framework to understand patients' needs, whereby poverty, gender and social relationships were viewed as intersecting factors triggering mental distress of HIV-affected patients. Practitioners understanding of their patients needs lead them to prioritised social responses over biomedical ones. Consequently, they modified services to the socio-structural realties of HIV-affected women suffering from mental illnesses.

Mental Health in Conflict Areas

They came with two guns: the consequences of sexual violence for the mental health of women in armed conflicts
Josse E. International Review of the Red Cross. 2010; 92 (877)
https://www.icrc.org/eng/assets/files/other/irrc-877-josse.pdf

This article examines the consequences of sexual violence on the mental health of women. The article looks specifically at the consequences of armed conflicts on both, an individual psychological level and a societal-community level. The article reports on the diverse consequences faced by women who survive sexual violence in armed conflict, including societal exclusion, rejection by her family, impaired parenting skills, exclusion from jobs and school, being regarded as unfit for marriage, forced marriage, isolation, stigmatisation, repeated violence, anxiety, memory disorder and eating disorders. The article also draws attention to children resulting from a rape, which are frequently abandoned or ill-treated.

4. Efforts and results in tackling the problem

Prevention of mental disorders: effective interventions and policy options. Summary Report
World Health Organisation 2004
http://www.who.int/mental_health/evidence/en/prevention_of_mental_disorders_sr.pdf

This report aims to demonstrate that it is possible to prevent mental disorders and to reduce the risk of mental ill-health through evidence-based programmes and policies. WHO defines mental illness prevention as aiming 'to reduce the incidence, prevalence, recurrence of mental disorders, time spent with symptoms, or risk factors for a mental illness, preventing or delaying recurrences and decreasing the impact of illness in the affected person, their families and society'. WHO outlines the following steps, which need to be taken to develop effective prevention strategies of mental disorders worldwide:

- Conduction needs assessment and programme development
- Dissemination and adoption of best practices
- Adaption and tailoring of evidence found in developed countries to developing countries
- High quality implementation
- Evaluation and monitoring

- Ensuring sustainability

The WHO recognises the need of existing pre-conditions for the successful prevention and reduction of mental illness. These include national policies, partnerships between relevant stakeholders, capacity building and training to develop expertise, resources and infrastructures that facilitate policy-making, and provision of preventive services among others.

Non-specialist health worker interventions for the care of mental, neurological and substance-abuse disorders in low- and middle-income countries
van Ginneken N, Tharyan P, Lewin S, Rao GN, Meera SM, Pian J, Chandrashekar S, Patel V. *Cochrane Database of Systematic Reviews* 2013, Issue 11. Art. No.: CD009149. DOI: 10.1002/14651858.CD009149.pub2.
http://researchonline.lshtm.ac.uk/1366906/1/CD009149.pdf

Non-specialist health workers (NSHWs) and other professionals with health roles (OPHRs) are a key strategy for delivering healthcare to people with mental, neurological and substance-use disorders (MNS). This Cochrane review assessed the effect of NSHWs and OPHRs delivering MNS interventions in primary and community health care in low- and middle- income countries. Thirty-eight studies were included from seven low- and 15 middle-income countries. Twenty-two studies used lay health workers, and most addressed depression or post-traumatic stress disorder (PTSD). Overall, NSHWs and teachers have some promising benefits in improving people's outcomes for general and perinatal depression, PTSD and alcohol-use disorders, and patient- and carer-outcomes for dementia. However, this evidence is mostly low or very low quality, and for some issues no evidence is available. The review therefore does not make any conclusions about which specific NSHW-led interventions are more effective.

Evidence for gender responsive actions to promote mental health
WHO 2011
http://www.sante.public.lu/publications/sante-fil-vie/enfance-adolescence/evidence-gender-responsive-actions-promote-mental-health/evidence-gender-responsive-actions-promote-mental-health.pdf

The WHO recommendations address gender as a key determinant of adolescent mental health. This publication intends to support the improvement of adolescent health through recommending a comprehensive, gendered, multi-sectoral and evidence-based approach to mental health. In this publication the WHO summarises the current evidence on what works in reducing and preventing mental health problems. The WHO notes a prevailing gender bias, due to which health services for women tend to focus on their reproductive functions, and likewise neglect the needs of women outside reproductive ages. Gender stereotyping of women as prone to emotional problems and men as more likely of having alcohol problems hinders accurate treatment. A lack of female personnel further prevents women from utilising medical services. Interdisciplinary gender-sensitive policies are indispensable as the different socio-economic statuses of women and men are determinates of their likelihood to be affected by mental illness. The lack of autonomy, adequate income, independence, sexual and physical safety of many women are potent mental health risks. There is a need for comprehensive gender analyses to improve the understanding of the epidemiology of mental health problems, decisions and treatment in underreported groups. The WHO posits that this will likewise increase the potential for greater public participation in health. The WHO concludes that ministries of health should develop and integrate gender-relevant indicators in the existing national health information systems, as well as taking steps to design mechanisms to monitor gender sensitivity in the health system in the long run.

PRIME: A programme to reduce the treatment gap for mental disorders in five low- and middle-income countries
Lund C. et al. 2012. PLOS Medicine. 9 (12): e1001359
http://www.plosmedicine.org/article/fetchObject.action?uri=info%3Adoi%2F10.1371%2Fjourn

al.pmed.1001359&representation=PDF

The aim of the Programme for Improving Mental Health Care (PRIME) is to provide evidence on 'the implementation and scaling up of integrated packages of care for priority mental disorders in primary and maternal health care settings in Ethiopia, India, Nepal, South Africa, and Uganda'. PRME stresses that the majority of people living with mental disorders in low- and middle-income countries are currently not receiving adequate treatment. There is growing evidence for cost-effective interventions, yet little information on how interventions can be delivered in routine primary and maternal health care settings. PRIME initiates its work in one district or sub-district of each country, and then integrates mental health into primary care at three levels of the health system: the health care organisation, the health facility, and the community. Prime applies the complex intervention framework and theory of change approach of the UK Medical Research Council. This approach brings together a variety of qualitative and quantitative methods to evaluate the acceptability, feasibility, and impact of mental health policies. PRIME particularly draws attention to the importance of capacity building and the translation of research findings into policy and practice, in order to reduce inequities, especially among vulnerable populations, such as women and people living in poverty.

Cognitive behaviour therapy-based intervention by community health workers for mothers with depression and their infants in rural Pakistan: a cluster-randomised controlled trial
Rahman A, Malik A, Sikander S, Roberts C, & Creed F. 2008. Lancet, 372: 902–09
http://download.thelancet.com/pdfs/journals/lancet/PIIS0140673608614002.pdf

This trial evaluated the effect of integrating a cognitive behaviour therapy-based intervention into the routine work of community-based primary health workers on maternal depression and infant outcomes. 40 Union Council clusters in rural Rawalpindi, Pakistan were randomly assigned to control and intervention groups. 903 married women (aged 16–45 years) in their third trimester of pregnancy with perinatal depression participated. Maternal depression was more than halved in the intervention group compared to the control group at 6 and 12 months. The intervention had no significant effect on infant weight and height but did result in less episodes of diarrhea in the control group and infants were more likely to be immunized. This paper provides evidence of an intervention that can be scaled up in resource-poor settings.

Integrating mental health and psychosocial interventions into World Bank Lending for Conflict Affected Populations: A Toolkit.
Florence B. and Ian, B. 2004. The World Bank, Conflict Prevention and Reconstruction (CPR).
http://siteresources.worldbank.org/INTMH/Resources/Toolkit-Final.pdf

The World Bank stresses that ignoring mental health disorders, specifically in populations that have experienced conflict and trauma, will hinder programmes to enhance social capital, promote human development and reduce poverty. This toolkit was produced in response to this recognition. It discusses approaches and offers directions for integrating mental health into lending and non-lending World Bank support for populations affected by conflict, with the aim (1) of providing direction for the development of national mental health and psychosocial intervention strategies and programmes for populations affected by conflict; (2) providing guidance for implementation, monitoring, evaluation, and indicators; and (3) suggesting types of interventions targeting special populations, such as orphans and vulnerable children, child soldiers/ex-combatants, physically disabled groups, survivors of sexual violence, and youth.

Patient health questionnaire-9 as an effective tool for screening of depression among Indian adolescents.
Ganguly S, Samanta M, Roy P, Chatterjee S, Kaplan DW, Basu B. 2013. J Adolesc Health, 52(5):546-51
http://www.jahonline.org/article/S1054-139X(12)00407-7/pdf

This study assessed the effectiveness (diagnostic accuracy, reliability, and validity) of a tool, the Patient Health Questionnaire–9 (PHQ-9), for screening depression among Indian adolescents. The cohort comprised 233 adolescent students aged 14–18 years. The authors concluded that this tool is a psychometrically sound screening tool for use by pediatricians in a primary care setting in India. Because it is a short, simple, easy to administer questionnaire, the PHQ-9 has tremendous potential in helping to tackle the growing problem of depression among adolescents in developing countries.

Evidence Report No 67 Empowerment of Women and Girls: Maternal Mental Health in the Context of Community-based Home Visiting in a Re-engineered Primary Health Care System: A Case Study of the Philani Mentor Mothers Programme
Tomlinson M. 2014. IDS.
http://opendocs.ids.ac.uk/opendocs/bitstream/handle/123456789/3777/ER67%20Maternal%20Mental%20Health%20in%20the%20Context%20of%20Community%20Based%20Home%20Visiting%20in%20a%20Re-engineered%20Primary%20Health%20Care%20System%20A%20Case%20Study%20of%20the%20Philani%20Mentor%20Mothers%20Programme.pdf

This document constitutes a briefing summary of the case study of a maternal mental health intervention in South Africa, the Philani Mentor Mothers Programme. The case study has been compiled by Professor Mark Tomlinson at Stellenbosch University as a contribution to the Empowerment of Women and Girls theme of the Accountable Grant at the Institute of Development Studies. In particular, it relates to the sub-theme that focuses on the health of women and girls in rapidly urbanising settings in South Africa and Kenya. The case study in this sub-theme discusses the particular health conditions that have been identified to affect women and girls in low-income urban settings, with a focus on identifying key 'good practice' and cutting edge interventions.

5. Recommended actions to tackle the problem

WHO Mental Health Action Plan 2013-2020
http://apps.who.int/iris/bitstream/10665/89966/1/9789241506021_eng.pdf

The goal of this action plan is to promote mental well-being, prevent mental disorders, provide care, enhance recovery, promote human rights and reduce the mortality, morbidity and disability for persons with mental disorders. The action plan states four major objectives: more effective leadership and governance for mental health; the provision of comprehensive, integrated mental health and social care services in community-based settings; implementation of strategies for promotion and prevention; and strengthened information systems, evidence and research. This action plan is based on a number of approaches, including UHC, human rights, life-course approach and empowerment of persons with mental disorders. The report proposes actions for member states and international and national partners and actions for Secretariat including mainstreaming of mental health issues within women's health and child and adolescent health policies, health programmes and research agenda.

Preventing suicide: a global imperative
World Health Organization 2014.
http://apps.who.int/iris/bitstream/10665/131056/1/9789241564779_eng.pdf?ua=1

The WHO Mental Health Action Plan (see above) sets the goal of reducing the rate of suicide in countries by 10% by 2020. There is no single explanation of why people die by suicide, however, many suicides happen impulsively and, in such circumstances, easy access to a means of suicide can make the difference as to whether a person lives or dies. The impact on families, friends and communities is devastating and far-reaching, even long after persons dear to them have taken their own lives. Suicides are preventable with timely and effective evidence-based interventions, treatment and support. The objective of this report is to prioritise suicide

prevention on the global public health and public policy agendas; to raise awareness of suicide as a public health issue and to engage a multisectoral approach.

Grand Challenges in global mental health
Collins PY, Patel V, Joestl SS, March D, Insel TR, Daar AS et al. Nature 2011 475(7354):27-30.
http://grandchallengesgmh.nimh.nih.gov/Grand%20Challenges%20in%20Global%20Mental%20Health.pdf

In 2011, the Grand Challenges in Global Mental Health initiative, composed of a Consortium of researchers, advocates, programme implementers and clinicians, identified priorities for research in the next 10 years to improve the lives of people with mental illness around the world and called for urgent action and investment. A 'grand challenge' was defined as "a specific barrier that, if removed, would help to solve an important health problem. If successfully implemented, the intervention(s) it could lead to would have a high likelihood of feasibility for scaling up and impact." A final list of 25 grand challenges was selected. Several broad themes were captured including the need for research to use a life-course approach; the recognition that the suffering caused by MNS disorders extends beyond the patient to family member and communities; all care and treatment interventions should be evidence-based; and the importance of the relationship between environmental exposures and MNS disorders.

Grand Challenges: Integrating maternal mental health into maternal and child health programmes
Rahman, A., Surkan, P.J., Cayetano, C.E., Rwagatare, P., Dickson, K.E. 2013. PLoS Medicine; 10:e1001442
http://www.plosmedicine.org/article/fetchObject.action?uri=info%3Adoi%2F10.1371%2Fjournal.pmed.1001442&representation=PDF

This article is one of the five-part series providing a global perspective on integrating mental health. Please see section 7 of this Helpdesk report for the other papers.

The authors of this article believe that integrating maternal mental health care will improve maternal and child health (MCH). A number of misconceptions about maternal mental health are common and the authors highlight four myths which include that maternal depression is rare, not relevant to MCH programmes, can only be treated by specialists, and its incorporation into MCH programmes is difficult.
The Grand Challenges especially relevant to maternal depression in the global MCH context are listed in the article as follows.

- Enhance collaboration between MCH and mental health programmes, researchers, and practitioners
- Develop ways to integrate screening and core packages of mental health services into routine primary health care (e.g., antenatal visits) and establish effective referral mechanisms
- Further develop effective treatments for use by non-specialists, including lay health workers with minimal training
- Address stigma related to mental illness that could impede the integration of mental health into MCH programmes
- Increase capacity in low- and middle income countries by creating regional centers for mental health research, education, training, and practice that incorporate the views and needs of local people
- Develop sustainable models to train and increase the number of culturally and ethnically diverse lay and specialist providers to deliver evidence-based services
- Strengthen the mental health component in the training of all health care personnel
- Redesign health systems to integrate maternal depression with other chronic disease care, and create parity between mental and physical illness in terms of investment into

research, training, treatment, and prevention
- Incorporate a mental health component into international MCH aid and development programmes

Mental health of young people: a global public-health challenge
Patel, V., Flisher, A.J., Hetrick, S., McGorry, P. 2007. Lancet; 369: 1302–13
http://download.thelancet.com/pdfs/journals/lancet/PIIS0140673607603687.pdf?id=aaaGAdZ4MwEuTgCVBbdIu

The authors describe the burden, risk factors and public-health significance of mental disorders in young people. Most mental disorders, often detected for the first time in later life, begin during adolescence/during youth (definitions range but can cover 12 to 24 years). A strong relationship exists between poor mental health and other health and development concerns including educational achievements, substance use and abuse, violence, and reproductive and sexual health. Risk factors for mental disorders well-known and effective interventions are available yet most mental health service needs are unmet and there is dearth of interventions to prevent mental disorders and promote mental health. This article, the third in a series on Adolescent Health, proposes a population-based, youth focused model integrating mental health with other youth health and welfare expertise.

Child and adolescent mental health worldwide: evidence for action
Kieling C, Baker-Henningham H, Belfer M, Conti G, Ertem I, Omigbodun O, Rohde L A, Srinath S, Ulkuer N, Rahman A. 2011. Lancet; 378: 1515–25
http://download.thelancet.com/pdfs/journals/lancet/PIIS0140673611608271.pdf?id=baaMM_PLPlk4mdFAYu_Hu

This report reviews published work on mental health to identify and assess gaps in terms of prevalence, risk and protective factors, and interventions to prevent and treat childhood and adolescent mental health problems. The authors also discuss approaches to successful implementation strategies in low-resource settings and potential barriers. The report posits that mental health problems among children and adolescents worldwide are increasing, yet their relevance as leading cause for ill-health continues to be neglected. The authors call for immediate action to enable the full development of vulnerable youth worldwide.

Promoting child and adolescent mental health in low and middle income countries
Patel V, Flisher AJ, Nikapota A, and Malhotra S. 2008. Journal of Child Psychology and Psychiatry 49:3 2008, pp 313–334
http://onlinelibrary.wiley.com/store/10.1111/j.1469-7610.2007.01824.x/asset/j.1469-7610.2007.01824.x.pdf?v=1&t=i057hex0&s=d3a0955ac59f25ebdf64937d09ef9d7fa8a39706

This is a review of the importance of child and adolescent mental health (CAMH) disorders in low and middle income countries. It looks specifically at the risks and protective factors for these disorders. The report finds that the gap between CAMH needs and CAMH resources is wide, and that there is little evidence base for affordable and effective intervention strategies. The report explores a series of strategies for CAMH promotion focusing on capacity building on four levels: in children and adolescents, in parents and families, in the school and health systems, and in the wider community. The authors illustrate that capacity building efforts need to focus on low-cost, universally available and accessible resources, and on empowerment of families and children.

Why does mental health not get the attention it deserves? An application of the Shiffman and Smith Framework
Tomlinson M, Lund C. 2012. PLoS Medicine; 9: e1001178
http://www.plosmedicine.org/article/fetchObject.action?uri=info%3Adoi%2F10.1371%2Fjournal.pmed.1001178&representation=PDF

Shiffman and Smith (Shiffman J, Smith S Lancet 2007; 370: 1370–1379) have developed a framework of analysis that attempts to understand why some global health initiatives are more successful in generating funding and political priority than others. This essay uses this framework to demonstrate that while some significant strides have been made, mental health still faces major challenges in establishing itself as a global initiative with meaningful political priority. The authors make five recommendations to increase the visibility and policy priority of mental health as a global issue.

6. Global movements

Movement for Global Mental Health
http://www.globalmentalhealth.org

The Movement for Global Mental Health is a network of individuals and organisations that aim to improve services for people living with mental health problems and psychosocial disabilities worldwide, especially in low- and middle-income countries

#FUNDAMENTALSDG
http://www.fundamentalsdg.org

#FundaMentalSDG is an initiative, which aims to include a specific mental health target in the post-2015 SDG agenda. No targets for improving the treatment of mental illnesses were included in the MDGs, leading to what psychiatrists have called the "systematic neglect" of millions of people.

The role of communities in advancing the goals of the Movement for Global Mental Health
Campbell C, Burgess R. Transcult Psychiatry. 2012 Jul;49(3-4):379-95.
http://www.ncbi.nlm.nih.gov/pubmed/23008350

This article explores the role of the community in advancing the goals of the Movement for Global Mental Health, arguing that there is a need for increased engagement with local communities. Traditionally the movement focused on the scaling up of mental health services and campaigning for the rights of affected people, within a 'universalised western' framework and understanding of health, healing and personhood. This article calls for greater attention to the following:

- Impacts of context, culture and local survival strategies on peoples' responses to adversity and illness
- Greater acknowledgement of the agency and resilience of vulnerable communities
- Increased attention to the way in which power inequalities and social injustices frame peoples' opportunities for mental health

The article highlights ways in which these challenges can be tackled through greater community involvement. The authors elaborate on their conceptualisation of 'community mental health competence' defined as the ability of community members to work collectively to facilitate more effective prevention, care, treatment and advocacy. The article also draws attention to the importance of multi-level dialogue and local-global partnership to facilitate an inclusive and locally-sensitive approach to tackling mental health issues.

7. Other useful resources

Other references

Grand Challenges: Integrating mental health care into the Non-Communicable Disease Agenda

Ngo VK, et al. 2013. PLoS Medicine; 10: e1001443
http://www.plosmedicine.org/article/fetchObject.action?uri=info%3Adoi%2F10.1371%2Fjournal.pmed.1001443&representation=PDF

Grand Challenges in Global Mental Health: Integration in research, policy, and practice
Collins PY, et al. 2013. PLoS Medicine; 10: e1001434
http://www.plosmedicine.org/article/fetchObject.action?uri=info%3Adoi%2F10.1371%2Fjournal.pmed.1001434&representation=PDF

Grand Challenges: Improving HIV treatment outcomes by integrating interventions for co-morbid mental illness
Kaaya S et al. 2013. PLoS Medicine; 10: e1001447
http://www.plosmedicine.org/article/fetchObject.action?uri=info%3Adoi%2F10.1371%2Fjournal.pmed.1001447&representation=PDF

Grand Challenges: Integrating mental health services into priority health care platforms
Patel V. 2013. PLoS Medicine; 10: e1001448 *(see section 5 of this Helpdesk report)*
http://www.plosmedicine.org/article/fetchObject.action?uri=info%3Adoi%2F10.1371%2Fjournal.pmed.1001448&representation=PDF

The Lancet 2011 Series *comprises six papers addressing interventions to break the vicious cycles of mental health problems and poverty, global child and adolescent mental health, mental health in humanitarian settings, the scale-up of mental health services in low-income and middle-income countries, human resources for mental health care, and human rights violations of people with mental and psychosocial disabilities.*
http://www.thelancet.com/series/global-mental-health-2011

Poverty and mental disorders: breaking the cycle in low-income and middle-income countries
Lund C. et al. 2011. Lancet; 378, 9801.
Summary | Full Text | PDF

Child and adolescent mental health worldwide: evidence for action *(see section 5 of this helpdesk report)*
Kieling C et al. 2011. Lancet; 378, 9801.
Summary | Full Text | PDF

Mental health and psychosocial support in humanitarian settings: linking practice and research
Tol WA et al. 2011. Lancet; 378, 9802.
Summary | Full Text | PDF

Scale up of services for mental health in low-income and middle-income countries
Eaton J et al. 2011. Lancet; 378, 9802.
Summary | Full Text | PDF

Human resources for mental health care: current situation and strategies for action
Kakuma R et al. 2011. Lancet; 378, 9803.
Summary | Full Text | PDF

Human rights violations of people with mental and psychosocial disabilities: an unresolved global crisis
Drew N et al. 2011. Lancet; 378, 9803.
Summary | Full Text | PDF

Lancet 2007 Series on Global Mental Health *draws together leading experts from the Institute of Psychiatry, Kings College London, UK, The London School of Hygiene and Tropical Medicine, UK, and, WHO to highlight the gaps in mental-health services worldwide, and to formulate a clear call to action*.
http://www.thelancet.com/series/global-mental-health

No health without mental health
Prince M et al. 2007. Lancet; 370, 9590.
Summary | Full Text | PDF

Resources for mental health: scarcity, inequity, and inefficiency
Markandya A & Wilkinson P. 2007. Lancet; 370, 9590.
Summary | Full Text | PDF

Treatment and prevention of mental disorders in low-income and middle-income countries
Patel V et al. 2007. Lancet; 370, 9591.
Summary | Full Text | PDF

Mental health systems in countries: where are we now?
Jacob KS et al. 2007. Lancet; 370, 9592.
Summary | Full Text | PDF

Barriers to improvement of mental health services in low-income and middle-income countries
Saraceno B et al. 2007. Lancet; 370, 9593.
Summary | Full Text | PDF

Scale up services for mental disorders: a call for action
Lancet *Global Mental Health Group.* Lancet; 370, 9594.
Summary | Full Text | PDF

The following two articles were published in the Journal of Adolescent Health (JAH) in May 2013 and are referred to in Vikram Patel's editorial in JAH, mentioned in section 2 of this Helpdesk report.

Social, demographic, and health outcomes in the 10 years following adolescent depression.
Naicker K, Galambos NL, Zeng Y, Senthilselvan A, Colman I. J Adolesc Health. 2013 May;52(5):533-8
http://www.jahonline.org/article/S1054-139X(13)00045-1/pdf
Please note that this study is on a cohort of Canadian adolescents.

Testing the feasibility of therapeutic identification of depression in young people in British general practice
Kramer T, Iliffe S, Bye A, Miller L, Gledhill J, Garralda ME; TIDY Study Team. J Adolesc Health. 2013 May;52(5):539-45
http://www.jahonline.org/article/S1054-139X(13)00046-3/pdf
Please note that this study was conducted in British general practice.

Papers to be published

PRIME maternal mental health situation analysis paper

Ongoing relevant projects

Programme for improving mental health care (PRIME)
PRIME is a consortium of research institutions and Ministries of Health in five countries in Asia and Africa (Ethiopia, India, Nepal, South Africa & Uganda), with partners in the UK and the World Health Organization (WHO). Funded by DFID and is a six year programme which was launched in May 2011. www.prime.uct.ac.za

A Community-Based Intervention for Maternal Mental Health in Rwanda
The aim of this project is to establish if basic social support is provided, could the onset and impact of maternal depression on women, their children, and the community be reduced. The project will be conducted by the College of Medicine and Health Sciences, University of Rwanda, York Institute for Health Research, the LaMarsh Centre for Child and Youth Research, the Centre for Refugee Studies at York University, University of Manitoba and Western University. Funded by Grand Challenges Canada seed grant.

The Canadian government has given nearly $20m to support up to 15 new projects designed to improve mental health diagnosis and care in developing countries

8. Additional information

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About Helpdesk reports: The HEART Helpdesk is funded by the DFID Human Development Group. Helpdesk reports are based on 3 days of desk-based research per query and are designed to provide a brief overview of the key issues, and a summary of some of the best literature available. Experts may be contacted during the course of the research, and those able to provide input within the short time-frame are acknowledged.

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