WHY IS IT AN EMERGING ISSUE?

Mental disorders are prevalent in all countries and cultures. Nevertheless, they are one of the forgotten global health problems. In recent years there has been a growing interest in mental health in low-income countries, especially focusing on the enormous treatment gap and the emerging will to improve the rights and opportunities for persons affected by mental disorders.

THE TREATMENT GAP FOR MENTAL DISORDERS IN LOW-INCOME COUNTRIES

By Ole Bæk and Carina Winkler Sørensen

PREVALENCE OF MENTAL DISORDERS

The global prevalence of mental illness is difficult to establish. The disorders are defined either by the *WHO classification of diseases* (ICD10) or by the '*Diagnostic and Statistical Manual of Mental Disorders'* (DSM-V), furthermore there are many different diagnostic tools, which limits the comparability of results.

Few prevalence studies have been made outside Europe and North America and even for a common mental disorder such as major depression, a systematic review only found 42 reliable prevalence studies from outside these regions [1]. A more used tool to describe the burden of mental disorders is *Disability Adjusted Life Year's* (DALY's), that summarizes the healthy years lost due to disability, ill-health and early death. Most mental disorders do not directly cause an early death, but they carry a heavy burden due to disability.

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SYSTEMS OF CLASSIFICATION

In diagnosing mental disorders there are 2 major systems of classification:

1. International Classification of Diseases, 10th edition (ICD10)
   - Published by the WHO after approval from the general assembly in 1990.
   - Contains diagnostic criteria for both physical and mental disorders.
2. Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-V)
   - Published by the American Psychiatric Association in 2013
   - Contains diagnostic criteria only for mental disorders.

The '*Global Burden of Diseases Study'* from 2010 estimates that 7.4% of the world's DALY's are accounted for by mental disorders [2]. Moreover, mental disorders tend to co-occur with other chronic communicable and non-communicable diseases and can negatively affect people's health behavior and adherence to treatment. It is shown that for many mental disorders there is an association with physical disease progression and death [3].

A study from Tanzania has shown that depression is associated with an increased risk of disease progression among HIV-positive women and a twofold increase in mortality [4]. In the Nordic countries, men with mental disorders live 20 years less, and women 15 years less than the general population [5].

Over the last 20 years, the global burden of most physical disorders has fallen, but since 1990 the burden of mental disorders has increased by 5.9%. If disease burdens are extrapolated, it is estimated that unipolar depression will be the third greatest health challenge in low-income countries by 2030, only surpassed by HIV/AIDS and neonatal complications [6]. Mental disorders are, and will stay, a major health challenge globally and especially in low-income countries.

PRIORITIZATION, LACK OF PERSONNEL AND ABSENCE OF MEDICINES

From an economic standpoint, on average, high-income countries spend 5.1% of their annual health budgets on the mental health sector, whereas low-income countries spend only 0.53% [7]. The countries with the smallest health budgets allocate fewest funds for mental disorders. WHO estimates that as many as 76-85% of people with mental disorders in low-income countries are not receiving any treatment. In middle- and high-income countries the treatment gap is around 36-50% [8].

Globally there is a profound lack of health workers specialized in mental disorders. It is estimated that there are

172 times as many psychiatrists in high-income countries than in low-income countries [9].

Compared to their colleges in high-income countries psychiatrists in low-income countries typically spend more time educating other personnel groups, being administrative leaders and supervising hospitals and health centers. There is little time for patients and almost none for research and quality control. In many countries specialized mental health nurses handle much of the patient care, including diagnosing and administering pharmaceutical treatment.

Many low-income countries have problems with continuous access to essential medicines and with poor infrastructure that make it difficult to supply all regions. This means that many patients are not receiving treatment and the ones that do receive medicine might experience problems with continuous treatment. In countries with low quality control mechanisms and lack of medicine there is also a market for counterfeit medicine, which is a huge problem especially in Asia and Africa [10].

These barriers are more or less present in all low-income countries, but in fragile states they are brought to the extreme. One definition of fragile states is that '*States are fragile when state structures lack political will and/or capacity to provide the basic functions needed for poverty reduction, development and to safeguard the security and human rights of their populations'* [11]. In these countries the health care systems, including the care for mentally ill, has often ceased to function. Furthermore post-traumatic stress disorder becomes more prevalent in conflict zones adding to the existing burden of mental disorders [12].

BARRIERS FOR THE INDIVIDUAL

Mental Health services in low-income countries are most commonly organized around large psychiatric hospitals, with very few community-based out-patient services [13]. Because of this, many patients will have to travel far to receive treatment and stay admitted for long periods of time.

The very limited access to psychiatric services make it costly, time consuming and hard for patients and their relatives to keep a job or attend school while in psychiatric treatment. Besides indirect expenses for transport etc., out-of-pocket payment for health services is the norm in many low-income countries.

Some countries have introduced health-insurances to guard patients against immense expenses, but these are often only available for people who work and unemployment among mentally ill is high.

Village life in Tanzania.
Photo credit: Ole Bæk

Stigma against people with a mental disorder is a worldwide problem; it keeps patients away from treatment facilities and alienates them in their own communities. According to surveys by the WHO, stigma is twice as prevalent in low-income countries compared to high-income countries and people with mental disorders experience significantly more stigma than people with physical disorders [14]. Furthermore, groups that experience stigma have higher rates of suicide and attempted suicide - an act that is associated with even more stigma and is illegal in many countries [15].

ACTIONS TAKEN BY WHO SINCE 2001

A worldwide approach to mental health was first discussed by the WHO in 1975, but it was not until 2001 that it became part of the broader agenda, when it was the focus of that year's World Health Report.

This was the first time that mental health was examined on a global scale. The main point that became obvious was a substantial 'treatment gap' where only very few people with mental disorders had access to evidence-based treatment.

To combat this problem the WHO in 2008 launched the Mental Health Gap Action Program (mhGAP) which gives guidelines for scaling up care for mental and neurological disorders, including substance abuse. The program includes information dissemination activities, evidence gathering and

clinical tools developed for use in non-specialist settings in low- and middle-income countries [16].

WHO has also begun compiling data on mental health in a series of reports called Mental Health Atlas. So far, two issues of this report have been published (2005 and 2011). The hope is that the accumulation of data will persuade governments to take action and invest in mental health. The report Investing in Mental Health: Evidence for action presents evidence that investments in mental health are cost-effective and beneficial in a public health and a human rights perspective.

WHO has an ongoing focus on how to commit its member states and international partners to reduce the mental health treatment gap. The Mental Health Action Plan 2013-2020 that was adopted at the WHO general assembly in May 2013 renews this commitment. One of the main focuses is on integrating comprehensive mental health and social care services in community-based settings. Moreover, there is a focus on the great need for further evidence and research.

MENTAL HEALTH CARE SERVICES IN COMMUNITY-BASED SETTINGS

Incorporation of mental health care and treatment into general hospitals and primary health care is recommended by several experts and the WHO. The motive for this recommendation is to allow patients to receive treatment closer to home, to avoid long-term hospitalization and to ensure better recovery.

Treatment in psychiatric hospitals has been criticized for isolating patients from their families and communities and for being associated with unacceptable living conditions, human rights violations and stigma. From a cost-effectiveness perspective it is reasonable to downscale treatment in psychiatric hospitals and instead invest in community-based treatment.

It has been documented that the most cost-effective treatment of schizophrenia and bipolar affective disorder is

community-based outpatient treatment with older psychotropic drugs and additional psychosocial treatment. Likewise, it has been established that treatment of depression integrated into primary health care is very cost-effective [17].

Only a few low-income countries have implemented the transition of treatment of mental disorders into community-based settings because there are several barriers to decentralization. The care and support system in the community has to be made available before patients can leave the hospital and the transition to a primary care setting is possible. This requires additional funding during the transitional period.

A well-functioning primary health care sector is essential to expand and thereby include mental health treatment. This is often not the case, as primary health care systems in low-income countries tend to be overburdened with multiple tasks and patient overloads. Another barrier is resistance from the mental health professionals who might fear being relocated to rural areas and job insecurity [13].

In order to make a successful transition to primary health care treatment, several initiatives are required. Most importantly health care workers need sufficient training, combined with qualified and ongoing supervision. Additionally it is necessary to build a mutually sustained referral system for the most complicated patients. Basic health care packages and clear treatment algorithms are recommended, so that mental health services can be delivered by non-specialist health workers [18].

Health education at a Rwandan health center.

Photo credit: Carina Winkler Sørensen

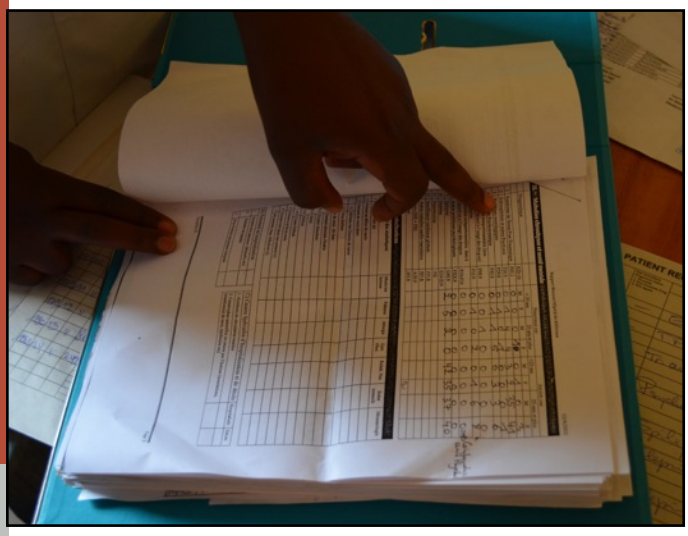
It is important that these initiatives do not stand isolated but rather they should be integrated in existing health care services. Another cornerstone is the continuous supply of essential psychotropic drugs in primary health care, which is

often not the case today. Furthermore, changes in the role of psychiatrists are needed in order to support this transition. Besides basic clinical skills the psychiatrist need pedagogic skills in delivering continuous training and supervision. Moreover, there is a need for skills to secure the quality of health care packages and algorithms. These changes should be initiated already in the education of psychiatrists.

NEED FOR FURTHER RESEARCH

Additional studies are profoundly needed in order to determine the kind of initiatives that would prove effective in a low-income setting. These would have to be focused not just on clinical effectiveness, but also on how to combat stigma and other barriers in the community.

A review of randomized clinically controlled trials on treatment and/or prevention of depression, alcohol dependency, mental retardation and schizophrenia found that out of over 11.000 trials, only 1% had been done in low-income countries [19].



Monthly statistics for psychiatric patients in a Rwandan health center.

Photo credit: Ole Bæk

Research and experience from high-income settings cannot necessarily be used universally; therefore more randomized trials conducted in other settings are necessary. To ensure that the results benefit local health systems, it is vital that local stakeholders are involved and that the intended projects are in line with local health policies.

KEY POINTS TO CONSIDER:

- 7.4% of the world's DALY's are made up of mental disorders. Some mental disorders are also risk factors for physical disease progression, by negatively affecting people's health behavior and adherence to treatment.
- The global burden of mental disorders has increased by 5.9% since 1990. It is estimated that unipolar depression

will be the third greatest health challenge in low-income countries by 2030.

- 76-85% of people with mental disorders in low-income countries are not receiving any treatment. Low-income countries only allocate 0.53% of their health budgets to treat mental disorders.
- Several barriers are hindering patients from receiving treatment. Some of these include the lack of treatment facilities, fear of stigmatization and lack of knowledge on mental disorders.
- In order to secure better treatment coverage, the WHO is advocating for an integration of mental health and social care services into community-based settings.
- There is a need for a sustainable supply of affordable and effective drugs. Furthermore, quality control mechanisms need to be developed to protect patients against counterfeit medicine.
- The profound lack of psychiatrists demands solutions like task-shifting and evidence-based treatment packages, designed to be used by non-specialist health workers.

KEY REFERENCES

1. Ferrari, A.J., et al. (2013). Global variation in the prevalence and incidence of major depressive disorder: a systematic review of the epidemiological literature. Psychol Med. **43**(3): p. 471-81.

2. Murray, C.J., et al. (2012). Disability-adjusted life years (DALYs) for 291 diseases and injuries in 21 regions, 1990-2010: a systematic analysis for the Global Burden of Disease Study 2010. Lancet. **380**(9859): p. 2197-223.

3. WHO. (2014). Integrating the response to mental health disorders and other chronic diseases in health care systems.

4. Antelman, G., et al. (2007). Depressive symptoms increase risk of HIV disease progression and mortality among women in Tanzania. J Acquir Immune Defic Syndr. **44**(4): p. 470-7.

5. Wahlbeck, K., et al. (2011). Outcomes of Nordic mental health systems: life expectancy of patients with mental disorders. Br J Psychiatry. **199**(6): p. 453-8.

6. Mathers, C.D. and D. Loncar. (2006). Projections of global mortality and burden of disease from 2002 to 2030. PLoS Med, 2006. **3**(11): p. e442.

7. World Health Organization. (2011). *Mental health atlas : 2011*. Geneva: World Health Organization. 81 p.

8. Demyttenaere, K., et al. (2004). Prevalence, severity, and unmet need for treatment of mental disorders in the World Health Organization World Mental Health Surveys. JAMA. **291**(21): p. 2581-90.

9. Kakuma, R., et al. (2011). Human resources for mental health care: current situation and strategies for action. Lancet. **378**(9803): p. 1654-63.

10. Almuzaini, T., I. Choonara, and H. Sammons. (2013). Substandard and counterfeit medicines: a systematic review of the literature. BMJ Open, 2013. **3**(8): p. e002923.

11. Lars Engberg-Pedersen, L.A., Finn Stepputat. (2008). Fragile Situations; Current debates and central dilemmas, DIIS Report.

12. Munyandamutsa, N., et al. (2012). Mental and physical health in Rwanda 14 years after the genocide. Soc Psychiatry Psychiatr Epidemiol. **47**(11): p. 1753-61.

13. Saraceno, B., et al. (2007). Barriers to improvement of mental health services in low-income and middle-income countries. Lancet. **370**(9593): p. 1164-74.

14. Alonso, J., et al. (2008)- Association of perceived stigma and mood and anxiety disorders: results from the World Mental Health Surveys. Acta Psychiatr Scand. **118**(4): p. 305-14.

15. World Health Organization. (2014). *Preventing suicide : a global imperative*. Geneva: World Health Organization. 89 p.

16. World Health Organization. (2010). mhGAP intervention guide for mental, neurological and substance use disorders in non-specialized health settings: mental health Gap Action Programme (mhGAP). Geneva: World Health Organization. vii, 83 p.

17. Chisholm, D. and S. Saxena. (2012). Cost effectiveness of strategies to combat neuropsychiatric conditions in sub-Saharan Africa and South East Asia: mathematical modelling study. BMJ, 2012. **344**: p. e609.

18. World Health Organization., (2008). mhGAP: Mental Health Gap Action Programme: scaling up care for mental, neurological and substance use disorders. Geneva: World Health Organization. 36 p.

19. Patel, V., et al. (2007). Treatment and prevention of mental disorders in low-income and middle-income countries. Lancet, **370**(9591): p. 991-1005.