Revista Brasileira de Psiquiatria. 2013;35:111–112

doi:10.1590/1516-4446-2012-3502

EDITORIAL

The Global Burden of Disease 2010 Study: what does it tell us about mental disorders in Latin America?

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The Global Burden of Disease Study 2010 (GBD 2010) found that mental and substance use disorders were an important cause of global health loss,[1] confirming similar findings from previous burden of disease studies.[2] They were found to be the leading cause of disability among all groups of disorders. In fact, they ranked higher, as measured by years lived with disability (YLDs), than all communicable disease (including HIV/AIDs), maternal and neonatal disorders, cancers, and cardiovascular disease, highlighting their significant role in population health. When premature mortality and disability were considered together (disability-adjusted life years, DALYs), they directly accounted for 7.4% of all disease burden, more than HIV/tuberculosis, diabetes, or transport injuries.

While the findings of a high burden, similar to earlier GBD studies, are not unexpected, major changes to the way GBD 2010 was carried out make the findings more surprising than most in the psychiatric community realize. The neuropsychiatric grouping used in GBD 1990 was disaggregated, with neurological disorders now considered a separate category. The number of mental and substance use disorders was increased. Anxiety disorders were considered together, compared with three (panic disorder, obsessive compulsive disorder and post-traumatic stress disorder), each modeled separately, in GBD 1990. Bipolar disorder in GBD 2010 was expanded to include cyclothymic disorder, and depressive disorders included major depressive disorder (MDD) and dysthymia. Substance use disorders were expanded to estimate drug-specific burden for alcohol dependence, opioid dependence, cannabis dependence, cocaine dependence, and amphetamine dependence. Eating disorders (anorexia nervosa and bulimia nervosa), childhood behavioral disorders (attention-deficit hyperactivity disorder and conduct disorder), pervasive developmental disorders (autism and Asperger's disorder) were included this time. The inclusion of childhood disorders is particularly important in regions such as Africa, where children constitute up to 40% of the total population. Idiopathic intellectual disability was included as a mental disorder, but dementia was recategorized as a neurological disorder.

In GBD 1990 and in its 1999-2004 updates, the ranking of disorders in terms of disability relied heavily on expert opinion. This approach has been criticized.[3] Moreover, work by Andrews et al.[4] suggested that estimates for MDD were too high due to the use of disability weights that reflected cases from the most severe end of the spectrum. New disability weights derived for GBD 2010 were based on community surveys and, in many conditions, e.g., MDD and anxiety disorders, incorporated graduated severity levels (i.e. mild, moderate, and severe cases). Further, comorbidity adjustments were made to all disorders,[5] with an impact on mental and substance use disorders that have high comorbidity.

Previously, burden estimates used a 3% discount rate and age weights that placed a greater emphasis on health loss in adults compared with children and older adults, and on non-fatal health outcomes in contrast to fatal outcomes.[2] Burden estimates in GBD 2010 excluded these adjustments. Without age-weighting and discounting, the GBD 1990 DALY estimates would have been one-third lower,[2] which highlights the non-trivial impact of their removal in GBD 2010.

Two of the three leading causes of disability in Tropical Latin America were mental disorders, namely MDD and anxiety disorders. In adolescents and young adults, MDD was the single greatest cause of disability, and self-harm was one of the five leading causes of death. Moreover, mental disorders are becoming increasingly important in Latin America as burden due to communicable diseases declines. In 1990, MDD was the 10th leading cause of all DALYs, but by 2010 it had risen to the 6th position. Anxiety disorders rose in rank from 18th to 13th over the same period. In comparing these findings to the global average in 2010, MDD ranked only 11th, and anxiety disorders 26th, indicating that mental disorders explain more health loss in Latin America than in other world regions.

The burden of disease approach provides an opportunity to compare all major diseases and injuries using a common metric, and to quantify the most important causes of health loss in a given place and time.[6] However, GBD does have limitations. Health loss, for the purposes of GBD, is defined purely in terms of functional domains such as mobility, pain, affect, and cognition. Estimates do not capture more

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circumstantial considerations, such as handicap and suffering, as Murray et al.[2] argue that these are influenced by the social environment and thus less comparable across populations. Additional costs associated with mental disorders, including caregiver burden, productivity loss, burden on health, housing and welfare systems, and reduced quality of life, must be acknowledged and are not captured in GBD 2010. Cross-national studies have demonstrated that, despite the much lower treatment rates for mental disorders, they are associated with higher levels of disability, particularly in terms of social and personal role functioning, when compared with physical disorders.[7] These factors are essential considerations in setting population health priorities.

So, in reality, the burden of mental and substance use disorders is higher than that suggested by GBD 2010 estimates. The knowledge to respond to the high burden of these disorders is available. Cost-effective interventions exist. What is needed now is to implement proven solutions and to foster research so that we can develop even more effective treatments to further reduce the burden arising from mental and substance use disorders.

Disclosure

The authors report no conflicts of interest.

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