Opinion article

Why should Brazil give priority to depression treatment in health resource allocation?

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Denise Razzouk[1]

[1]Universidade Federal de São Paulo, Centro de Economia em Saúde Mental, São Paulo-SP, Brasil

In April 2016, during the event "Out of the Shadows: Making Mental Health a Global Development Priority", the World Bank and the World Health Organization (WHO) highlighted the need to prioritize investments in mental health in the global agendas of public health, especially regarding depression, a mental disorder that strikes 350 million people worldwide.

Regardless of the great challenge in allocating the scarce resources of Health for various and urgent needs of treatment and prevention, such as infectious and cardiovascular diseases and cancers, among others, what would be the pleas to prioritize depressive disorders in the Brazilian public health agenda?

Since the United Nations presented the 17 Sustainable Development Goals (SDG) in 2015[1], the new alignment of global policies are concentrated into three main areas: (i) environmental care (climate, sanitation, sustainable energy, use of oceans, land, water and cities), (ii) life quality (poverty, hunger, health, education, access to sanitation, decent living conditions) and (iii) the development of individuals and nations (human rights, citizenship, peace, productive work in a sustainable environment, sustainable consumption, production of knowledge and innovation).

Therefore, the development of nations is supported by investments that promote well-being and quality of life for our citzens.[2] Mental disorders lead to a lower quality of life, impairment of cognitive and physical development, loss of income and productive capacity, difficulty of social participation, among other consequences.[3] When an individual's mental health is damaged, all their potential of personal development and contribution to society is jeopardized due to the loss of mental capital.[2] Thus, there is an "intrinsic value" to mental health, which is closely linked to personal, social and economic benefits.

The Lancet Commission on Investing in Health has warned on the fact that investments in health are an important factor for economic growth, besides producing social benefits. Under this perspective, the investments in mental health are consistent with the Sustainable Development Goals, providing economic return and a more inclusive society. A person with a good mental health is capable of producing, consuming and contributing to the society, and of achieving better personal development and quality of life.[5]

Depression stands out due to its high prevalence and morbidity, and is one of the main causes of the global burden of diseases.[3,6] Moreover, depression is one of the main causes of absenteeism and presenteeism at work, and is the third cause of absenteeism in Brazil.[2,7] This country leads the ranking of depression prevalence among the countries in development, with a rate from 10 to 18% in a twelve-month period, which corresponds to 20 to 36 million people affected – i.e., 10% of people with depression worldwide.

Correspondence:
Denise Razzouk – Rua Borges Lagoa, No. 570, 1º andar, Vila Clementino, São Paulo-SP, Brasil. CEP: 04038-000
E-mail: drazzouk@gmail.com

Depression and anxiety are estimated to be responsible for an annual loss of productivity of more than one trillion dollars. With regard to the needs presented by the society, the gap of investments on mental disorders treatment is still unreasonable, especially in low and middle income countries:[8] investments in mental health is lower than 1% of the Health budget and only 20 to 40% of people receive treatment.

The costs of depression disorders come from its high prevalence, excess of mortality, loss of productivity, to which are added all the externalities caused in various sectors of society. Improvements in the individuals' clinical condition and functions, in their quality of life and productivity at work, and in the reduction of externalities are among the benefits that the treatment can bring.[9] The treatment of mental disorders also benefits other affected people: for instance, mental health care of women with perinatal depression has a positive impact on child motor, cognitive and affective development. Although a definitive cure for mental disorders is not available so far, depression treatment is efficient, low-cost and cost-effective.

In line with the Sustainable Development Goals, Chisholm et al.[8] published the first economic modelling study on the economic return of investments in depression treatments, showing that in 36 countries, including Brazil, for every dollar invested on the scaled-up treatment for these disorders in the period from 2016 to 2030, there would be an economic return of 4 dollars.

There are at least five methodological aspects to be observed in this study: the method of economic analysis, the perspective of the study, the comprehensiveness of the outcome, the estimate of costs and the intervention.

Economic modelling studies present various methodological limitations, mainly because the values attributed in the model not always represent the real cost and the size of the effect in the outcomes. However, these studies have the advantage of using population data and conducting forecasts of cost-effective investments in multiple contexts.[10]

The cost-benefit analyses adopt a perspective of the society, by estimating the benefits and costs for its different sectors. In their study, the perspective adopted by Chisholm et al. focused on the countries' public policies, highlighting the economic growth and the productivity, not considering, for instance, the costs for the individuals and their families (out-of-pocket expenditures).[11] The economic return was considered only for individuals aged between 18 and 65 years old. Nonetheless, "not economically productive" citizens (elderly and children) that have mental disorders also contribute to the society, directly or indirectly, and deserve the same health care as other "productive" groups.[9]

The coverage of the outcomes or benefits is another polemic topic in the area of Mental Health.[12] The authors consider as outcome the economic return generated by the scaled-up treatment for depression and anxiety, calculated in relation to the economic values generated by the gains in health and by the increase in the productive capacity of the patient. Each year of healthy life gained due to the remission of depression was estimated in 0.3 to 0.5 of *per capita* GDP value. A fact that calls attention is the reduction of the prevalence of depression considered as outcome in that study. Depression is a recurrent chronic disease and, up to the conclusion of this paper, has no definitive cure; therefore, considering the reduction of the prevalence of depressive disorders does not match the reality. The treatment of this condition provides a greater number of healthy days, without depressive episodes, which may be the case of considering indicators of health gain, such as QALY or of reduction of the number of disability through DALY.[3]

The costs with lost output (absenteeism and presenteeism) were based on the World Mental Health Survey and the gain in productivity was attributed with an increment of 5% of worked days and a reduction of 5% of presenteeism in relation to the baseline. In terms of productivity, the return may possibly have been underestimated, because the authors may have been conservative in this aspect, or maybe because there are few data in the literature concerning this topic.

The scaled-up treatment was based on the intervention recommended by the Mental Health Gap Action Programme - mhGAP, which belongs to WHO:[13] continual antidepressant drugs for six months and psychosocial treatment, with 14 to 18 annual session of psychossocial intervention for moderate to severe cases, and four session of psychossocial intervention per year in the case of psychosocial intervention for mild cases. Fluoxetine was considered the reference antidepressant drug in this kind of treatment; however, the cost and effectiveness of this drug varies a lot depending on the country. There are few or

no cost-effectiveness studies that determine which would be the best reference drug to be included in the treatment routine in the majority of countries.[14] Six months are not enough for treating more severe depressions and, considering the high prevalence of clinical comorbidities, these patients may present additional costs during the treatment. Thus, the costs were possibly underestimated. Besides, it is necessary to know about the costs related to the use of health services, which was not included in these cases, though.

The coverage of treatment of depression and anxiety from 2016 to 2030 was attributed from 7 to 33% in low income countries and from 28 to 50% in middle income countries. In Brazil, hypothetically, this means to increase the coverage of treatment of depression from 5.6 to 10 million people. However, it would be necessary to know if the current coverage offers an effective treatment and what is the remission rate in the country.

Chisholm et al. concluded that 73 million cases of depression and 43 million cases of anxiety could be averted throughout this period of scaled-up treatment, if the annual investment per person was of USD 0.08, USD 0.34, USD 1.12 and USD 3.89 for lower, lower-middle, upper-middle and high income countries, respectively. The authors also conclude that an investment of 147 billion dollars in fifteen years, in the 36 countries, would result in an economic return of 169 and 250 billion dollars, respectively, for cases of anxiety and depression.

In Brazil, the unit costs per antidepressant pill, according to the Bank of Drug Price of the Ministry of Health (*BPS/MS*), varied, in 2011, from BRL 0.018 (amitriptyline 25mg) to BRL 0.025 (imipramine 25mg) and BRL 0.029 (fluoxetine 20mg). Considering the package proposed by WHO, the cost of the use of 20mg fluoxetine/day for 180 days would be approximately BRL 5.29 per person, 12 annual medical appointments (real cost of BRL 36.00 per 20-minute appointment), BRL 432.00 per person, and four visits (40 minutes) of psychosocial treatment with a psychologist in primary health care, BRL 65.00 per person (values obtained with municipal managers in the municipality of São Paulo, in 2011). As a result, the annual cost of the proposed package – without considering medical exams, higher dosage or more visits – would be of BRL 65.00 for mild cases and approximately BRL 502.00 for moderate and severe cases, per person. Considering that the prevalence and the burden caused by depression are equal or higher than diabetes's, the minimum cost of the treatment almost does not differ from the package proposed for diabetes treatment: the cost of metformin 850mg pill for diabetes in the *BPS/MS* was of BRL 0.20. Obviously, the costs that refer to other clinical needs and complications that the patients may present were not included in the comparison of treatment among these two diseases.

Summing up, the costs with treatment of depression are lower than the social and economic expenditures generated by it. Brazil already suffers the impact of productivity loss and increase in absenteeism due to depression. Although there is a possibility of receiving antidepressants through the Brazilian National Health System (*SUS*), it is important to massively train the health professionals to identify early depression and to use the adequate treatment for the disease, to implement clinical protocols and to monitor outcomes and quality standards of the assistance to be provided to patients.

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