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Tuberculosis: an opportunity to integrate mental health services in primary care in low-resource settings

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Depression is the leading cause of disability worldwide.[1] Tuberculosis is the leading cause of death by a single infectious agent.[2] The prevalence of depression could be as high as 50% among individuals with tuberculosis because of biological, social, and behavioural factors.[3] Depression is associated with delays in tuberculosis diagnosis and treatment, poor treatment outcomes, disability, poor quality of life, treatment failure, and death.[3,4] Depression therefore poses a substantial risk for attaining the WHO End TB Strategy goals,[3] and mental health generally is not being adequately addressed in national tuberculosis programmes.[5] Furthermore, tuberculosis and other infectious diseases, including HIV, might be key drivers of premature death in people with severe mental illnesses (ie, schizophrenia, bipolar disorder, and severe depression), with a four-times to eight-times increased risk of death compared with the general population.[6] Tackling mental disorders in people with tuberculosis, and vice versa, could strengthen the impact of tuberculosis and mental health programmes. Tuberculosis services are increasingly being embedded within primary care; integrating tuberculosis and mental health treatment could reduce costs, increase the quality of care and life of patients, and ultimately save lives.

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Substantial gains in reducing the burden of tuberculosis were achieved during the 2000–15 Millennium Development Goals period. The global incidence of tuberculosis declined by 18% from 2000 to 2015, and mortality nearly halved,[7] although progress was slower in low-income countries than in high-income countries. The reduction of the burden of tuberculosis is expected to accelerate with implementation of the End Tuberculosis Strategy and its Global Plan to End Tuberculosis within the context of the health-related Sustainable Development Goals (SDGs) of 2015–30.[8] Building on the WHO's Comprehensive Mental Health Action Plan 2013–20,[9] the inclusion of mental health in the health-related SDGs has also led to political momentum for mental health. In April, 2016, WHO and the World Bank jointly recognised mental health as a global development priority,[10] and World Health Day 2017 focused on depression. Given the comorbidity of tuberculosis and mental disorders,[3] a compelling economic argument is also evident. Modelling suggests that for every US$1 invested in depression and anxiety treatment, $4 are saved,[11] and reducing tuberculosis deaths by 95% and incidence by 90% has an estimated benefit of $43 per $1 spent.[12] Thus, integrating tuberculosis and mental health care has the potential to facilitate achievement of, or even increase, those gains.

There are additional advantages to integrating tuberculosis and mental health services in primary care in low-income and middle-income countries (LMICs). As a deadly communicable disease, infrastructure to diagnose and treat tuberculosis is often present, even in the poorest of settings. Tuberculosis disproportionately affects individuals living in poverty, few of whom have access to mental health treatment. Notably, community-based tuberculosis care in most LMICs is heavily reliant on task-shifting models, which is consistent with the WHO's Mental Health Gap Action Programme (mhGAP).[13] Moreover, ensuring treatment adherence in tuberculosis programmes requires patient education and hence frequent contact with patients. Such platforms can be leveraged to integrate mental health services. Tuberculosis programmes often screen household contacts of individuals with active tuberculosis, providing broad entry into vulnerable tuberculosis-affected communities. Tuberculosis case reporting often has strict guidelines, which, if strengthened, could enhance mental health reporting systems. Identifying and treating mental disorders in the context of tuberculosis provides an opportunity to explore integrated care models for other communicable and non-communicable diseases in LMICs. Finally, a survey of tuberculosis programme managers in countries with high tuberculosis burdens suggests receptivity to such integration.[3]

The WHO End TB Strategy 2015–35 explicitly calls for tuberculosis and mental health treatment integration.[14] The mhGAP developed a suite of resource materials for both trainers and health workers,[15] ready to be integrated into the frequent standard tuberculosis training curriculums necessary for effective tuberculosis control. The forthcoming second edition of the companion handbook to the WHO guidelines for the programmatic management of TB[16] will include a chapter on mental health based on the mhGAP framework.

To deliver on the SDG agenda, and especially provision of universal health coverage, a flexible, horizontal disease-network approach for integrated care is required. Successful infectious diseases programmes, like those seen for HIV, require community mobilisation

and engagement, behavioural change, long-term adherence to treatment, and monitoring, and have laid the foundation for mental health comanagement in resource-poor settings.[17] Increased involvement of community-based care providers and new technology at primary health centres, coupled with the widespread availability of digital health tools can be further harnessed for disease screening, training, supervision, and patient support. Barriers to integration, including time and resource constraints, require substantial investment to support scale-up of services across primary care platforms and to address social determinants, including stigma.

In summary, the timeliness to build a global policy framework for integration of tuberculosis and mental health services has never been greater. Strategically aligning WHO's End TB Strategy with efforts to reduce the global mental health gap[12] can build synergies to mutually reinforce the impact of strategies to address each illness. In September, 2018, the UN General Assembly high-level meeting on ending tuberculosis will be a key opportunity to mobilise sufficient political commitment to fund integrated tuberculosis and mental health within the context of universal health coverage, as well as to substantially reduce global mental health treatment gaps in low-resource settings.

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