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Tuberculosis and mental health in the Asia-Pacific

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Abstract

Objective—This opinion piece encourages mental health researchers and clinicians to engage with mental health issues among tuberculosis patients in the Asia-Pacific region in a culturally appropriate and ethical manner. The diversity of cultural contexts and the high burden of tuberculosis throughout the Asia-Pacific presents significant challenges. Research into tuberculosis and mental illness in this region is an opportunity to develop more nuanced models of mental illness and treatment, while simultaneously contributing meaningfully to regional tuberculosis care and prevention.

Conclusions—We overview key issues in tuberculosis and mental illness co-morbidity, highlight ethical concerns and advocate for a regional approach to tuberculosis and mental health

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that is consistent with the transnational challenges presented by this airborne infectious disease. Integrating tuberculosis and mental health services will go a long way to addressing the needs of vulnerable populations and stopping the transmission of one of the world's biggest infectious killers.

Keywords

tuberculosis; mental illness; mental health; depression; psychosis; Asia-Pacific

Despite being preventable, treatable and curable, tuberculosis (TB) remains a leading cause of mortality worldwide, with 95% of deaths occurring in low-income countries.[1] TB is an airborne infection, which makes disease control a fundamentally transnational challenge. Global TB elimination will require intense collaboration between low-, middle- and upper-income countries. This article explores how a better understanding of the nexus between mental illness and TB may help to mitigate their impacts upon vulnerable populations.

Australia is positioned to serve a leadership role in the Asia-Pacific region, given its strong programs of TB research as well as its strategic geographic location. Currently, the region hosts 58% of the global TB burden, including 54% of all estimated multidrug resistant (MDR) cases.[2] Nine of Australia's closest neighbours have a high TB burden.[3] The majority of TB cases in Australia occur among immigrants and other recent arrivals from high-incidence countries, who probably acquired the infection before arrival.[4] The most frequently reported countries of birth for Australian TB cases in 2012 and 2013 were India, followed by Vietnam, the Philippines, China, Nepal, Indonesia, Papua New Guinea, Afghanistan, Myanmar and Cambodia.[5] Given the diverse origins of TB patients in Australia, research in collaboration with these patient cohorts can provide preliminary insights into TB care and prevention in other countries. Expanding TB research on prevention and care in the Asia-Pacific region will not only benefit neighbouring high-burden countries, but may also be a cost-effective method of lowering TB incidence at home.[6] This opportunity to develop a cross-national, collaborative approach to TB care and prevention may prove useful to other regions.

Co-morbid mental illness is a significant unrecognised challenge to TB care and prevention in Australia and its bordering high-burden countries. People living with TB and mental illness are at greater risk of poor health-seeking behaviour, and medication adherence with consequent adverse treatment outcomes including morbidity, mortality, drug-resistance and ongoing disease transmission.[7] The prevalence of mental illness among TB patients may be as high as 70%.[8] Psychiatric co-morbidity in TB patients has been found to relate to higher levels of physical and social disability.[9] High rates of depression and anxiety among TB patients relate to physiological disturbances, social stigma and inadequate social support.[10] Additionally, several anti-TB medications, such as cycloserine, may precipitate more severe forms of mental illness—including major depression, anxiety, or psychosis.[8,11] TB and mental illness share common risk factors including poverty, substance abuse and homelessness.[8] Both syndromes have a disproportionate impact upon socially marginalised populations. Improved understanding of, and responses to, co-morbid mental illness in patients with TB will serve to strengthen efforts to reduce global disease transmission.

The negative interplay between mental illness and TB is substantial. Recognition of the association provides opportunities for action. Individual psychotherapy for TB patients in India can improve treatment adherence and completion,[12] TB support groups in rural Ethiopia have increased community awareness, case detection, clinic attendance and treatment adherence,[13] and group psychotherapy for MDR-TB patients in Peru, with adjunctive psychotropic medications when indicated, improved treatment adherence, completion and social rehabilitation after treatment.[14,15] The very origins of group psychotherapy—and indeed, cognitive behavioural therapy—are credited to a Boston Internist, Dr Joseph Pratt, who in 1905 developed a “class method” for the home-based treatment of TB involving home visits and regular support group meetings, which he hailed to be a critical element of the program’s success.[16,17] Evidently, addressing the mental health needs of TB patients can improve both patient well-being and treatment outcomes. By tackling mental and physical aspects of TB simultaneously, ongoing transmission of the infection can be reduced, offering benefits for the global community.

Attending to the issue of co-morbid mental illness among people with TB in cross-national settings such as the Asia-Pacific region presents significant programmatic challenges. The treatment settings are diverse, infrastructure is frequently lacking, and local idioms and manifestations of mental distress are often poorly understood. Most psychiatric screening tools and evidence-based treatment interventions in mental health were developed in high-income countries, and it can be difficult to “translate” them across diverse sociocultural, economic, political and linguistic settings, where there are few, if any, mental health specialists. Furthermore, as both mental illness and TB are already highly stigmatised, the issue of co-morbidity should be approached delicately. Any association between TB and mental illness needs to be presented, framed and disseminated in ways that do not exacerbate existing social stigmas. Addressing mental illness and TB is a moral imperative, but one that should take into consideration significant ethical dimensions such as the translation of mental health initiatives across cultures.

With a culturally sensitive approach, Australian experience in TB and mental health can provide effective support and guidance to resource-limited countries within the region, and serve as a model for transnational collaboration for TB control. Existing diagnostic tools for mental illness should not be taken to be universally applicable without proper testing among diverse populations,[18] and any psychotherapeutic tool should be considered as one of many different options. Locally appropriate approaches should be prioritised, and mental health diagnostics, treatments and stigma-reduction interventions need to be carefully designed and tested before being implemented alongside TB treatment programs.

Developing strategies to bolster infectious disease control by addressing mental health issues among TB patients throughout the Asia-Pacific will allow Australia to contribute to, and benefit from, regional TB prevention and care. An integrated approach to TB is fundamental to achieving the best individual and public health outcomes. Mental health research among TB patients provides an opportunity to develop more robust and dynamic models of care for people with mental illness while simultaneously addressing the needs of vulnerable populations.

TB thrives under conditions of poverty and neglecting mental illness in these populations is both unethical and unwise, given the potential negative synergy and impact on treatment outcomes. Concurrently, using global TB infrastructure to spread and promote models of psychiatric treatment that are untested in diverse cultural contexts is also unethical. Globalising culture-specific models of therapy risks steamrolling local variations in mental illness and possibly overriding local buffers against psychopathology.[19] Since local factors are likely important in understanding the interplay between TB and mental illness, it is clinically and ethically imperative that evidence-based tools and interventions are locally adapted to balance fidelity and fit in new settings.[20,21] It is incumbent upon those offering care for patients with TB to ensure that mental health interventions do not cause more harm, burden TB patients with the double stigma of mental and infectious disease or turn immediately to pharmaceutical solutions to address problems that may be more interpersonal, economic or social in aetiology.

Global health and international development programs have a history of treating social issues as biomedical problems, leading to little more than the pharmaceuticalisation of poverty.[22] There is reason to be cautious about approaches that too narrowly focus on pharmacotherapy,[23] use TB patients as an excuse to expand pharmaceutical markets[24] or apply diagnostic standards without attending to cultural and contextual factors.[25] With a view to testing interventions that are sustainable within resource-limited healthcare systems, psychotherapeutic treatment may offer one testable treatment model that can be cost-effective,[26,27] achieve equivalent efficacious outcomes to pharmaceutically treated mental illness[28] and provide benefits that are maintained post-treatment.[29,30] Even in low-resource settings, non-specialists can be trained to deliver basic psychotherapeutic interventions with expert supervision.[31] That said, adjunctive pharmaceutical interventions may be indicated for individuals not well-suited for psychotherapy, or whose symptoms can be attributed to psychiatric side effects associated with anti-TB medications.[8,32] With an ethical motivation to foster effective, locally appropriate mental health services, programs need to be developed that are self-reliant, sustainable and not conditional on foreign aid, infrastructure and imports.

Australia is in a unique position to provide leadership on TB and mental health research in the Asia-Pacific. Such research has an important role in uncovering the complex nexus between psychosocial, cultural and physical manifestations of TB within and across diverse communities. Developing methods to address mental health issues associated with TB will lead to innovative approaches to TB care and prevention. Innovations might improve disease control but may also challenge or disrupt established control methods. Addressing mental health and TB should not begin with answers, but with questions, and the process of enquiry will be ongoing. Research should be aimed at understanding the experience of people living with TB, their health-seeking behaviour and their strategies for coping with diagnosis, treatment initiation and medication adherence within the context of their living and social situation. Randomised controlled trials of potential mental health interventions would be best accompanied by operational research into service delivery integration as well as ethnographic research into the wider, unintended effects of implementing mental health services in diverse cultural settings. The research paradigms should focus on building

reciprocity and establishing long-lasting cross-national partnerships, with the understanding that the lessons learnt are bi-directional.

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