

## OPERATIONAL RESEARCH DEMONSTRATES POSITIVE IMPACT OF INTEGRATING MENTAL HEALTH SERVICES WITHIN TUBERCULOSIS TREATMENT FACILITIES

**Pakistan (population of approximately 207.8 million<sup>21</sup>) is currently ranked as the fifth highest TB burden country with an estimated incidence of 265 cases per 100,000 population.<sup>1</sup> The World Health Organization (WHO) estimates for Pakistan suggest a 4.2% prevalence of depression (resulting in 7.1% of years lived with disability) and a 3.5% prevalence of anxiety (3.1% of years lived with disability).<sup>2</sup>**

The primary objective of this study was to evaluate whether integration of a mental health intervention in TB treatment sites improved symptoms of depression and anxiety and treatment completion rates among drug-susceptible tuberculosis (DS-TB) patients across six public and private hospital settings in Karachi, Pakistan.<sup>3</sup>

Operational research has an important role in guiding program implementation to achieve more effective results. In this study, integrated practice units (IPUs) offering mental health services were set up within existing TB treatment facilities. The IPUs were designed to embed mental health screening and counselling services into the

existing treatment flow at each facility. The IPU used a task-shifting approach to service delivery, utilising lay health counsellors for the provision of mental health services. Counsellors completed a 6 to 8-day in-person training on basic counselling skills delivered by a clinical psychologist. The training was divided between lectures and practical components such as role-playing exercises. Training content covered the basics of TB and mental health disorders, basic cognitive behavioural therapeutic techniques, core communication skills, and ethical considerations required for counselling.

Consecutive patients initiating DS-TB treatment at the study sites were given a baseline TB treatment adherence and supportive counselling session, consisting of information about TB, TB treatment side effects, the importance of treatment adherence, addressing the stigma associated with TB, and the link between TB and mental health. Mental health screening was offered using the Aga Khan University Anxiety and Depression Scale (AKUADS);



Patients scoring 21 were considered symptomatic for depression/anxiety and offered a mental health intervention consisting of four to six mental health counselling sessions, or more based on necessity. Sessions were aligned with TB treatment appointments, which typically occurred monthly for the duration of TB treatment (approximately 6–8 months). Counselling sessions aimed to identify problems causing patients mental distress (i.e., the stigma they were facing from family or friends) and to work with the patient to formulate solutions and coping strategies to help alleviate or better manage distress. This included, for example, equipping them with the knowledge required to combat stigma and teaching them how to have a positive dialogue regarding their problems and feelings with their friends and family.

Controlling TB is a public health priority and the effectiveness of TB programs is contingent on treatment adherence. This study suggests that integrating mental health screening and counselling services into existing TB facilities improves symptoms of depression and anxiety, and increases treatment completion rates. Symptomatic patients who completed at least four counselling sessions had higher rates of TB treatment completion than those who did not (92.9% vs 75.1%;  $p < 0.0001$ ).<sup>4</sup>

The findings of this study contribute to the growing body of evidence on the effectiveness of using lay health counsellors for mental health service provision in TB programs as a strategy to help bridge the mental health treatment gap.

1 World Health Organization. Global tuberculosis report (WHO/CDS/TB/2019.15). Geneva: World Health Organization, 2019

2 World Health Organization. Depression and other common mental health disorders: global health estimates (WHO/MSD/MER/2017.2). Geneva: World Health Organization, 2017.

3 Pasha A, Siddiqui H, Ali S, Brooks MB, Maqbool NR, Khan AJ. Impact of integrating mental health services within existing tuberculosis treatment facilities. *Medicine Access @ Point of Care*. 2021;5. doi:10.1177/23992026211011314

4 Pasha A, Siddiqui H, Ali S, Brooks MB, Maqbool NR, Khan AJ. Impact of integrating mental health services within existing tuberculosis treatment facilities. *Medicine Access @ Point of Care*. 2021;5. doi:10.1177/23992026211011314



# ACTION ON TUBERCULOSIS AND MENTAL HEALTH AT THE COMMUNITY LEVEL, PERU



Peru is classified by WHO as a country with a high burden of MDR-TB. In Lima North, Peru, the loss-to-follow up rates among people with drug-susceptible and drug-resistant tuberculosis (TB) were 10% and 42%, respectively, in 2015. People with TB frequently experience mental health conditions such as anxiety or depression (66,68). Though mental disorders are associated with poorer TB treatment outcomes, including loss-to-follow up and treatment failure (67), healthcare workers in the TB programme often lack the capacity to manage these comorbidities. To address the burden of mental disorder comorbidity, the national TB programme has introduced an intervention to build capacity among healthcare workers and improve the comprehensive management of mental health among people with TB in Lima North.

## INTERVENTION

In 2015, the regional emergency programme for TB prevention and control in Lima North, Peru committed to addressing mental disorders among people with TB. This initiative received strong support from the local mayors, the nongovernmental organization Socios en Salud (Partners in Health), and from several universities. To advance collaborative

action on TB and mental health, the capacity of multidisciplinary teams (MDTs) for TB has been strengthened by involving psychologists. Further, healthcare workers in the TB programme receive training on mental health interventions according to the WHO Mental Health Gap Action Programme (mhGAP) guidelines, including supervised practical sessions. Thus, the MDTs can collaboratively assess the needs of people with TB and comorbidities and provide specialist care for both TB and mental health conditions as a one-stop-shop service. Broader psychosocial care is also provided for the family and community, in the form of group psychotherapy and activities such as yoga or musical therapy, with the aim to improve mental health and address stigma.

## LESSONS LEARNT

The integration of services addressing TB and mental health was facilitated by strong political commitment and buy-in, as well as the engagement of external partners. Routine data from Lima North report a reduction of loss to follow-up to 2% and 4% for people taking treatment for drug-susceptible and drug-resistant TB, respectively, between 2015 and 2021.

