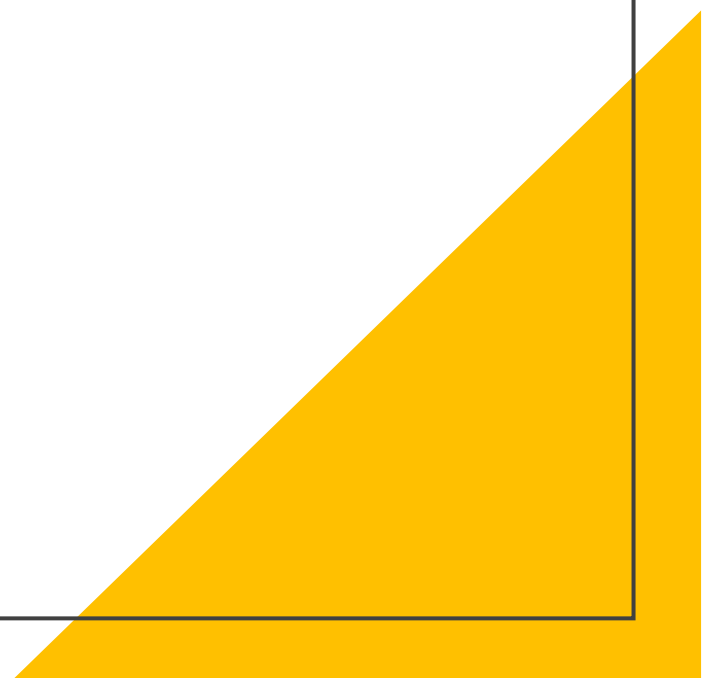


TB & Mental Health TB Regional Conference 2024

12/11/2024

Dr. Holden Nena, MBBS/PGDMH

Clinical Director of Behavioral Health



Sanatorium or **Asylum**?



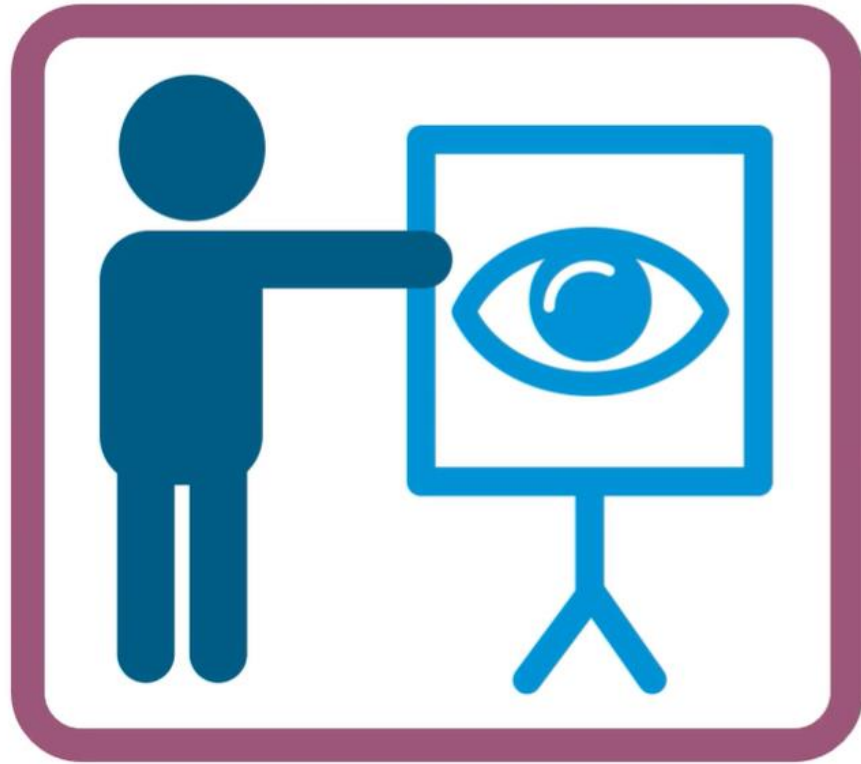
Women's corridor
of St. Louis City
Insane Asylum,
March 1904

Sanatorium or Asylum?



Historical Parallels of TB and Mental Health

	Tuberculosis	Mental Illness
Discovery	Approx 4000-7000 BCE	Approx 5000 BCE
Ancient Treatment	Herbs and Spices Royal Touch	Trepanning→Dance, concerts, painting
1800s and early 1900s	Sanatoriums	Asylums (dated back to 1500s)
Effective Treatment	1940s – Streptomycin	1950s – MAOIs and Neuroleptics
1950s onward	Sanatoriums close	Deinstitutionalization



- TB and mental health
- What is mental health?
- Difference between distress and mental health conditions

Receiving a TB diagnosis



Receiving a TB diagnosis is a distressing experience

TB affects socially vulnerable populations



Poverty



Homelessness



Prison settings



HIV, Diabetes



Substance use



Mental disorders

Implementing the End TB Strategy: THE ESSENTIALS



IMPLEMENTING
THE END TB
STRATEGY:
THE ESSENTIALS



[See link here](#)

PILLAR 1

**INTEGRATED,
PEOPLE-
CENTERED TB
CARE AND
PREVENTION**

PILLAR 2

**BOLD
POLICES AND
SUPPORTIVE
SYSTEMS**

PILLAR 3

**INTENSIFIED
RESEARCH
AND
INNOVATION**

Integrated people-centered care includes “management of comorbidities...including **mental health problems**. These conditions constitute risk factors for TB and can complicate clinical management”.

What does mental health mean?

Definitions

Mental health

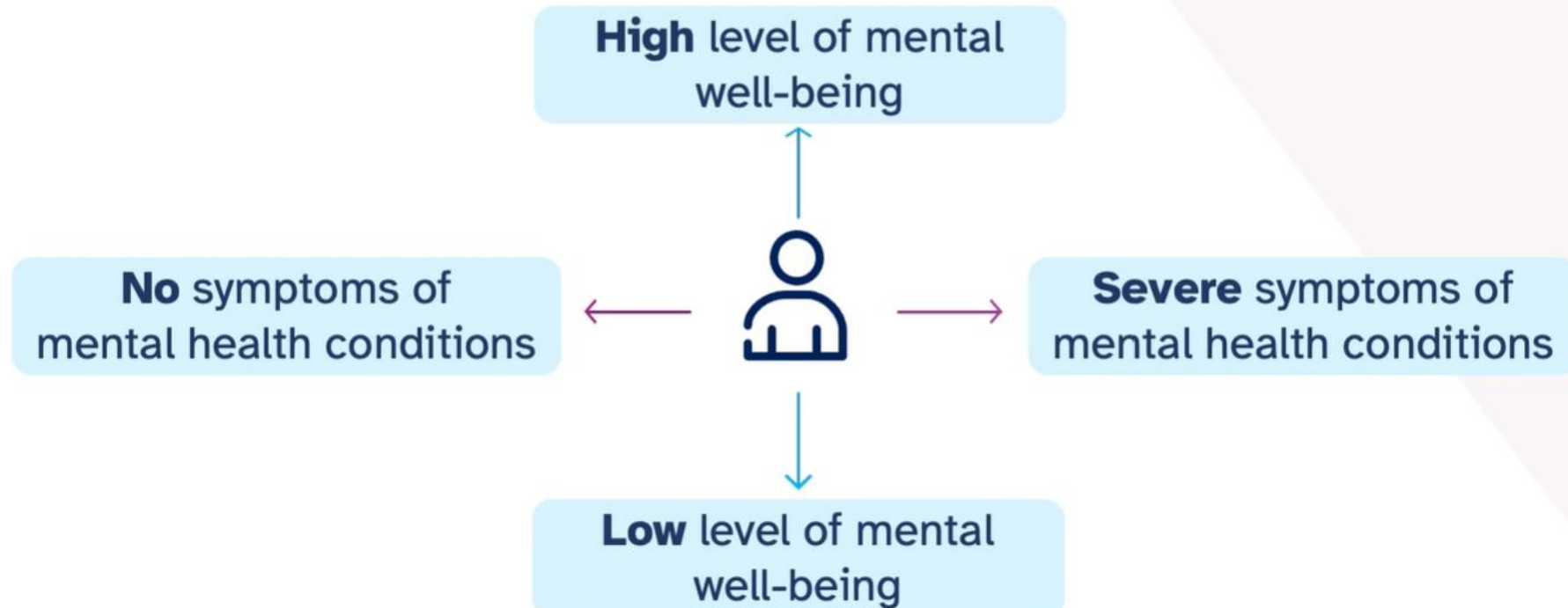
Mental health
condition

Mental disorder

Psychosocial
disability

Mental health exists on a continuum

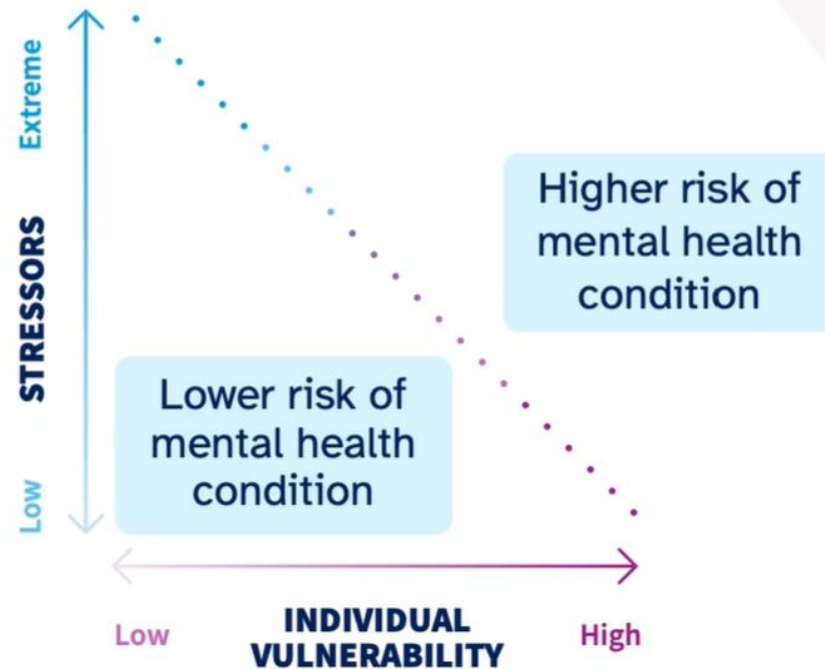
The relationship between mental well-being and symptoms of mental health conditions



[World Mental Health Report 2022](#)

The impact of stressors on mental health

When individual vulnerabilities interact with stressors they can lead to mental health conditions



[World Mental Health Report 2022](#)

Difference between distress and mental health conditions



Symptom
severity

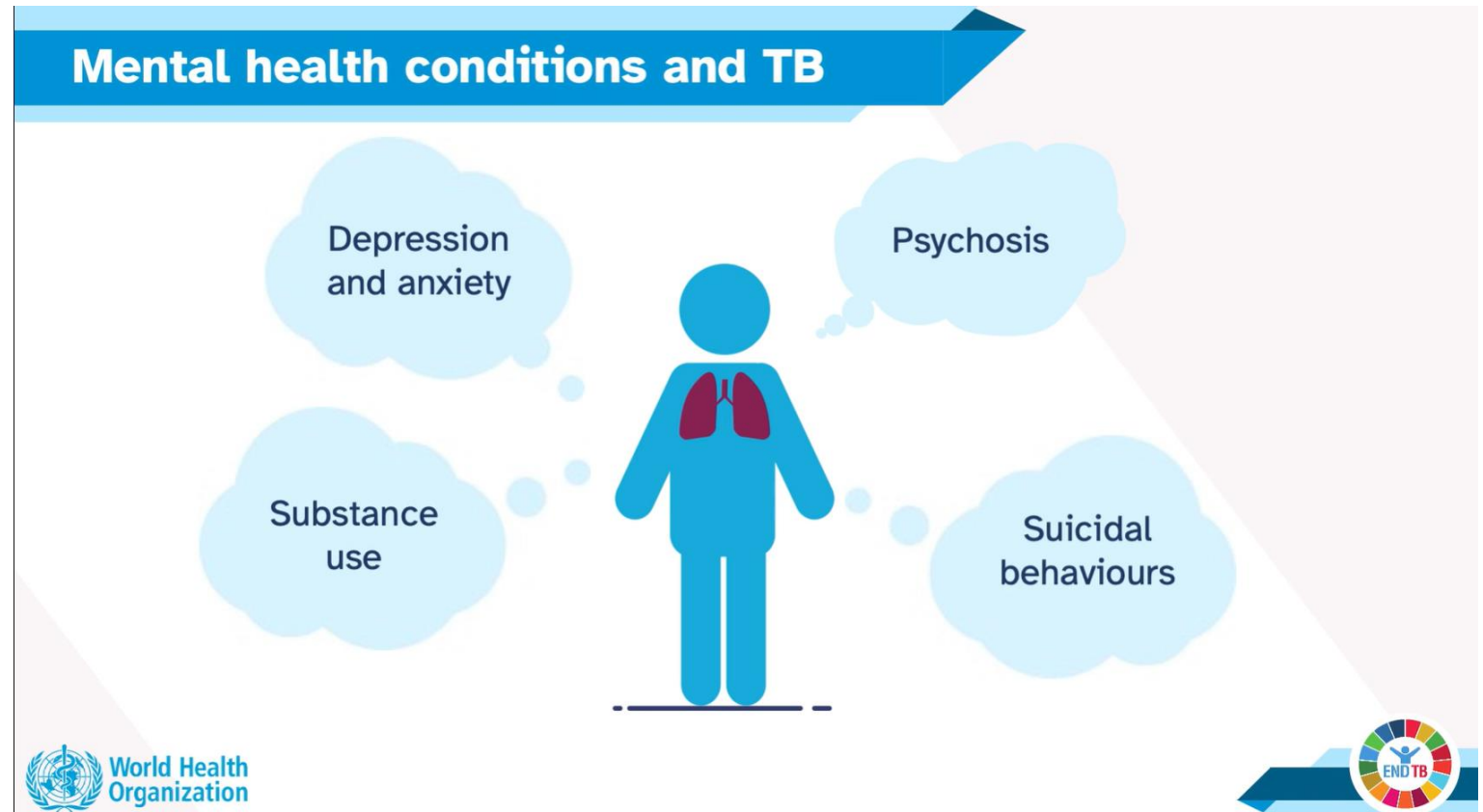


Duration



Functional
impairment

Bidirectional Relationship



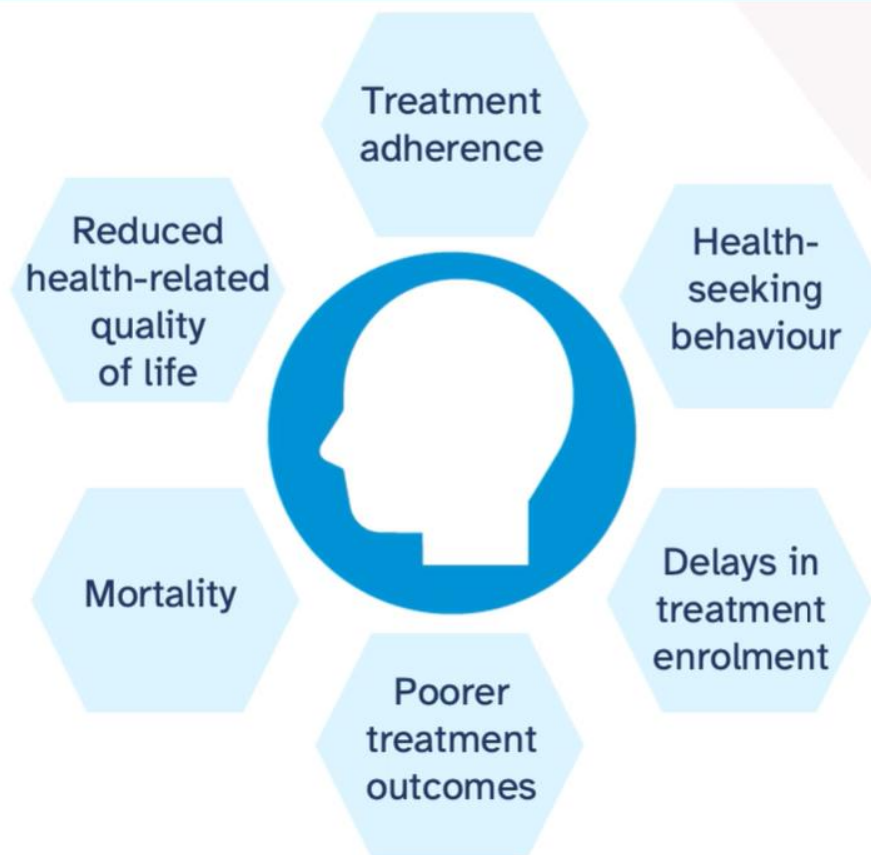
Mental health conditions and TB



The two-way relationship

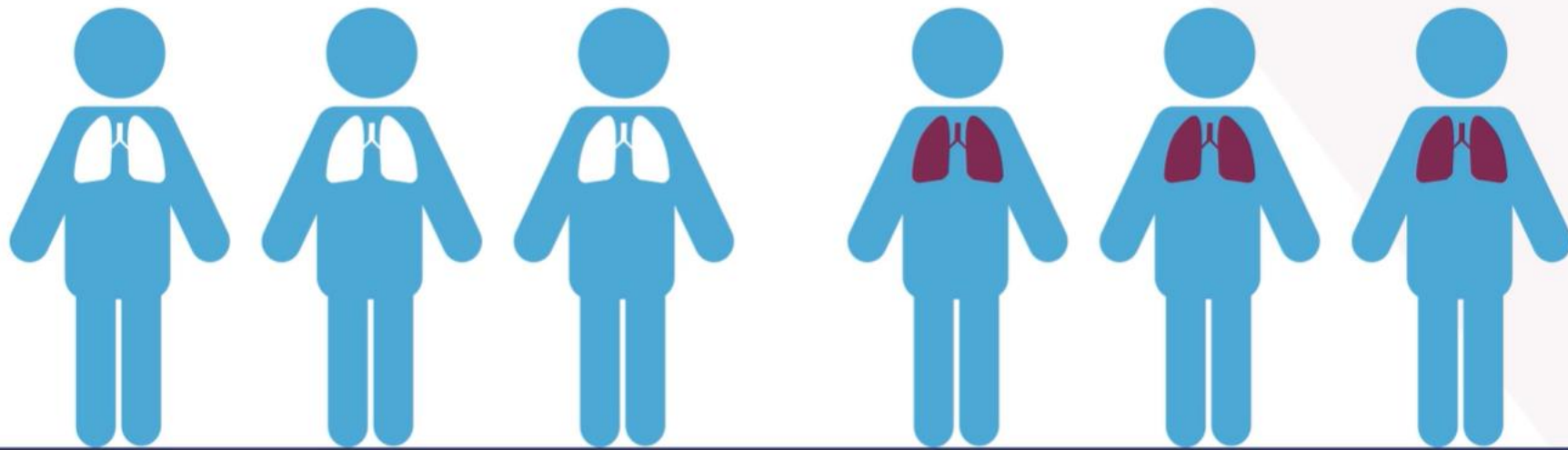


The impact of mental health conditions on TB



Depression, anxiety and TB

People with TB have a greater risk of depression compared to those without TB



Many individuals experience symptoms of anxiety as a common reaction to TB diagnosis and the required treatment

The Relationship

- Results: 1546 records published over 50 years were screened, resulting in 10 studies included reporting data from 607 184 individuals. Studies span across Asia, South America and Africa, and include mood and psychotic disorders. There is robust evidence from cohort studies in Asia demonstrating that depression and schizophrenia can increase risk of active TB, with effect estimates ranging from HR=1.15 (95% CI 1.03 to 1.28) to 2.63 (95% CI 1.74 to 3.96) for depression and HR=1.52 (95% CI 1.29 to 1.79) to RR=3.04 for schizophrenia. These data align with evidence from cross-sectional studies, for example, a large survey across low-income and middle-income countries (n=242 952) reports OR=3.68 (95% CI 3.01 to 4.50) for a depressive episode in those with TB symptoms versus those without.
- Conclusions: Individuals with mental illnesses including depression and schizophrenia experience increased TB incidence and represent a high-risk population to target for screening and treatment. Integrated care for mental health and TB is needed, and interventions tackling mental illnesses and underlying drivers may help reduce TB incidence globally

Substance use and substance use disorders



Psychosis



People with mental health conditions can experience a worsening of symptoms

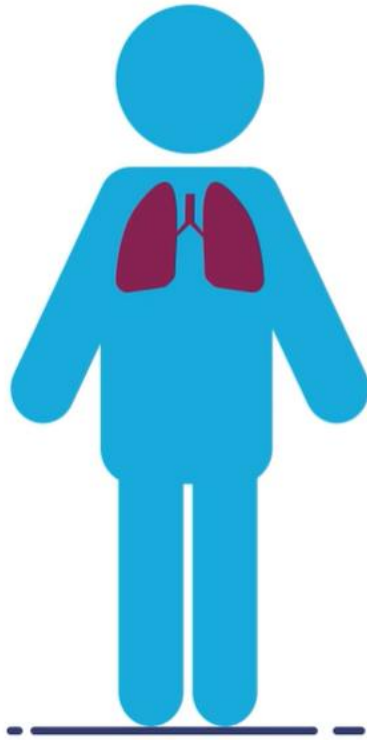


Some side-effects of anti-TB medication may include severe mental health symptoms often associated with psychosis

[Link: Active tuberculosis drug-safety monitoring and management \(aDSM\)](#)



Suicidal behaviours



Individual assessment is needed in case of

- extreme emotional distress
- extreme hopelessness
- a history of suicidal behaviours
- comorbid mental, neurological or substance use disorders
- chronic pain
- treatment with cycloserine

Quiz

Question 1

Which factors distinguish between distress and mental disorders that require a mental health intervention to be included? Select all that apply:

- ☐ Symptoms due to TB medications
- ☐ Symptom severity
- ☐ Symptom duration
- ☐ Symptoms contributing to functional impairment

Question 2

Which key mental health conditions can affect people being treated for TB? Select all that apply:

- ☐ Depression
- ☐ Adjustment disorder
- ☐ Anxiety
- ☐ Agoraphobia
- ☐ Psychoses
- ☐ Substance use disorder
- ☐ Suicidal behaviours

Case Study

When 37-year-old Mr X was diagnosed with TB, he became visibly upset and held his head with his hands. “I’ll lose my job if anyone finds out,” he says. He tells you that his son was in a recent accident and now he (Mr X) is the only person in his household who is able to work and bring money home. He says this could have a devastating impact on his family. In a follow-up appointment several weeks later when Mr X comes to pick up his TB medications, he seems a little withdrawn. He speaks in a low tone with his head down. “Is everything okay?” you ask. He responds, “I haven’t been sleeping. My wife and I are constantly arguing. I worry all the time for the future of my family if I’m not able to get better.”

What is your impression of Mr X’s mental health? Select the statement that you think applies best to Mr X’s mental health status:

- ☐ Mr X is depressed and should be referred to a mental health specialist
- ☐ Mr X is having a normal reaction to TB diagnosis that will likely pass
- ☐ It is not clear if Mr X is suffering from depression or anxiety or not; more information is needed to make a determination

Question 2

1.0 Pts

In order to help Mr X, what additional information would you want to know? Select all that apply:

- ☐ Is he the first person in his family to have TB?
- ☐ When did Mr X’s distress symptoms begin?
- ☐ Is Mr X’s current distress affecting his ability to work, take his TB medications, or carry out his normal daily activities?
- ☐ Why has he had trouble sleeping?

Assessment of Mental Health Conditions

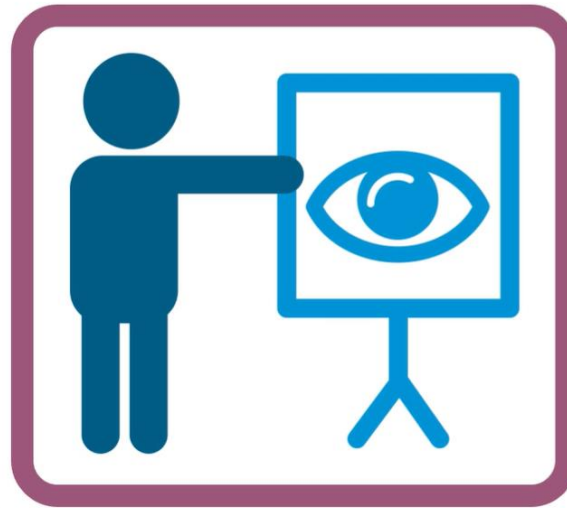
PHQ-9

GAD-7

DSM V SUD Screening

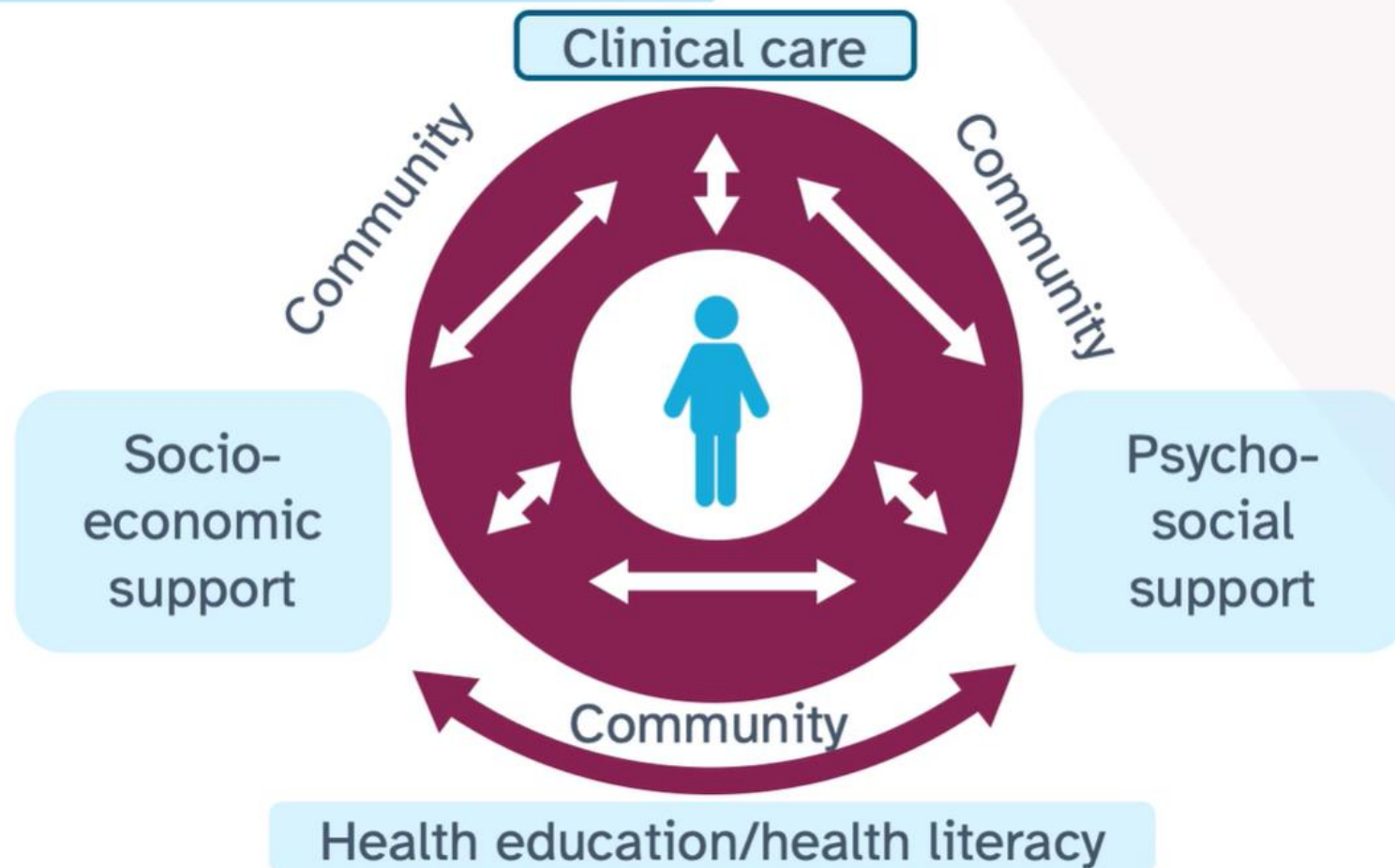
Columbia Protocol

Interventions



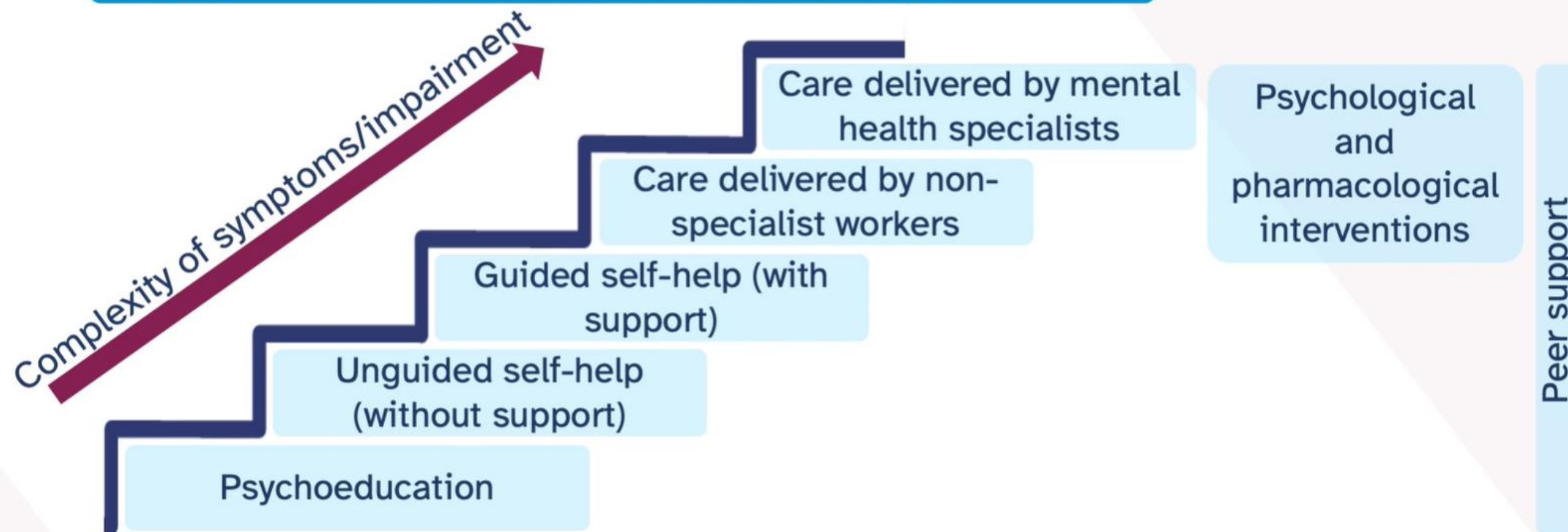
- People-centered care
- The Mental Health Gap Action Programme (mhGAP)
- Low-intensity psychological interventions
- Pharmacological interventions
- Specialized care

People-centred care



Mental health care

A series of care options dependent on the complexity of symptoms and impairment in functioning



Psychoeducation

All people can benefit from **psychoeducation** on the common signs and symptoms of distress



What is psychoeducation?

Psychoeducation

- Meaning
- Definition
- Explanation...

Psychoeducation basics:

- Understand common signs and symptoms of distress
- Learn how to self-manage or cope with distress initially and learn when to seek further help
- Combat mental health myths, misconceptions and stigma

Psychoeducation: self-care

Learning how to care for oneself and knowing when to seek help if symptoms do not improve



Physical activities



Relaxation



Support

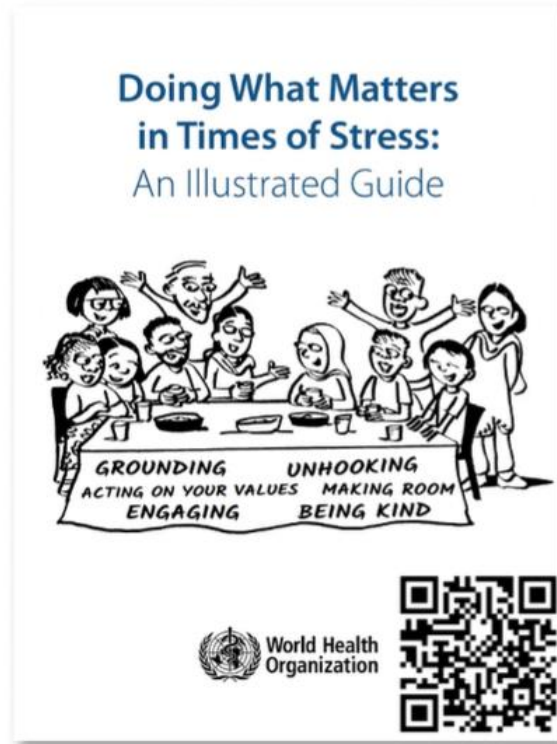
Peer support

Peer support can be an important resource to combat social isolation/rejection resulting from stigma/discrimination



Self-help

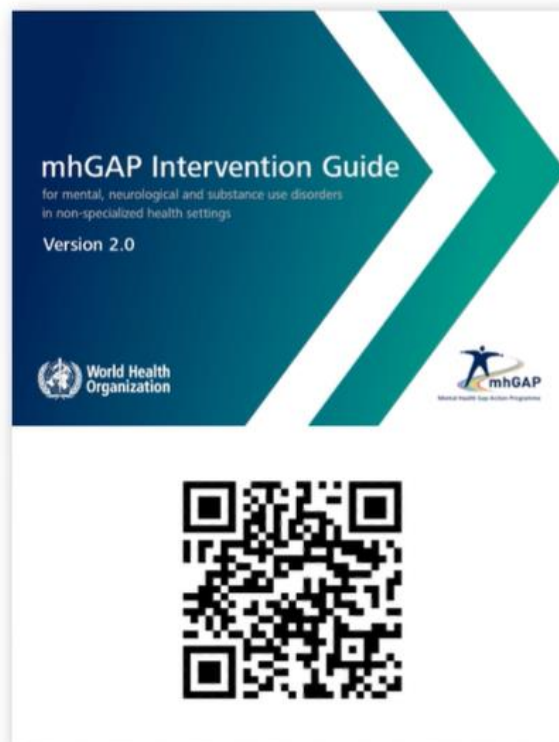
[Link: Doing what matters in times of stress: an illustrated guide](#)



Self-help can include learning stress management techniques

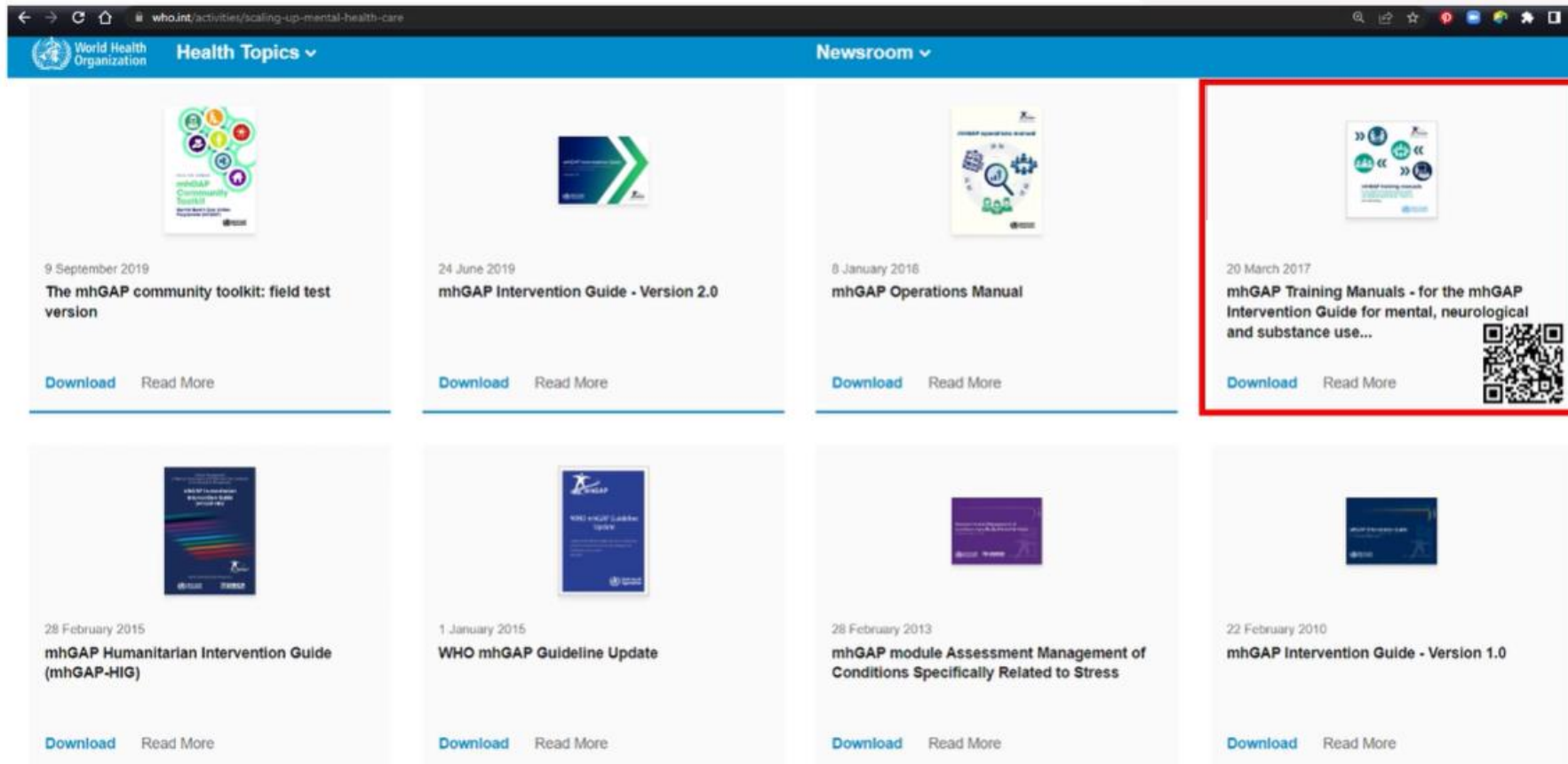
Care delivered by non-specialized health workers

[Link: mhGAP intervention guide
version 2.0](#)



- » ECP Essential Care & Practice
- » MC Master Chart
- » DEP Depression
- » PSY Psychoses
- » EPI Epilepsy
- » CMH Child & Adolescent Mental & Behavioural Disorders
- » DEM Dementia
- » SUB Disorders due to Substance Use
- » SUI Self-harm/ Suicide
- » OTH Other Significant Mental Health Complaints

Mental Health Gap Action Programme (mhGAP)



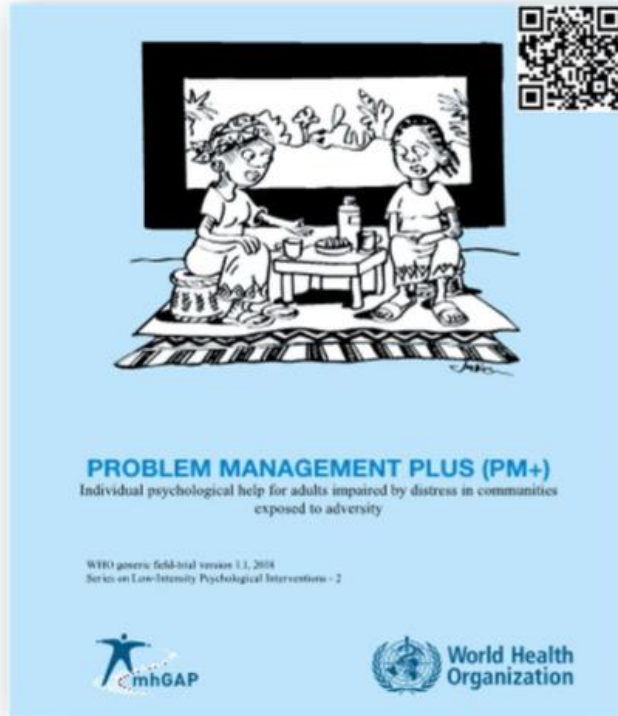
The screenshot displays the WHO mhGAP website with a grid of resource cards. The top navigation bar includes the WHO logo, 'Health Topics', and 'Newsroom'. The grid contains eight cards, each with a cover image, title, date, and download/read more links. The card for 'mhGAP Training Manuals' is highlighted with a red border and includes a QR code.

Resource Title	Date	Download Link	Read More Link
The mhGAP community toolkit: field test version	9 September 2019	Download	Read More
mhGAP Intervention Guide - Version 2.0	24 June 2019	Download	Read More
mhGAP Operations Manual	8 January 2016	Download	Read More
mhGAP Training Manuals - for the mhGAP Intervention Guide for mental, neurological and substance use...	20 March 2017	Download	Read More
mhGAP Humanitarian Intervention Guide (mhGAP-HIG)	28 February 2015	Download	Read More
WHO mhGAP Guideline Update	1 January 2015	Download	Read More
mhGAP module Assessment Management of Conditions Specifically Related to Stress	28 February 2013	Download	Read More
mhGAP Intervention Guide - Version 1.0	22 February 2010	Download	Read More

[Link: Mental Health Gap Action Programme website](https://www.who.int/activities/scaling-up-mental-health-care)

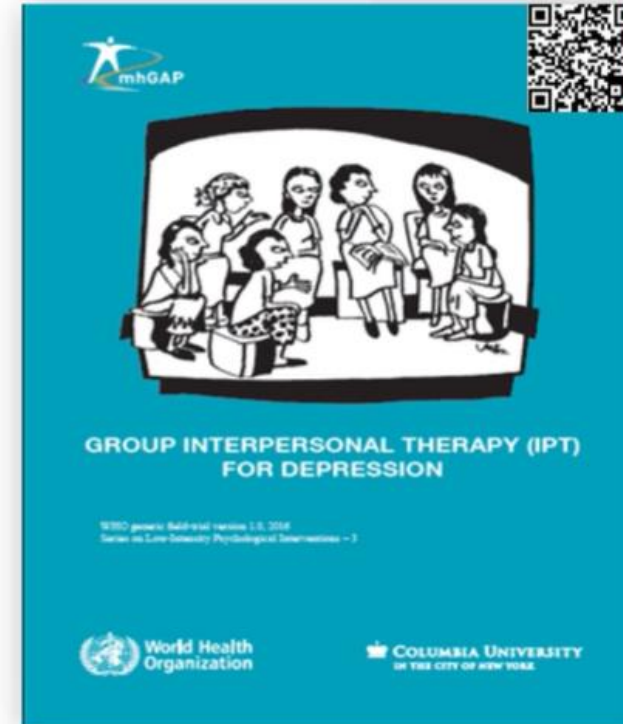
Brief psychological interventions

Problem management plus



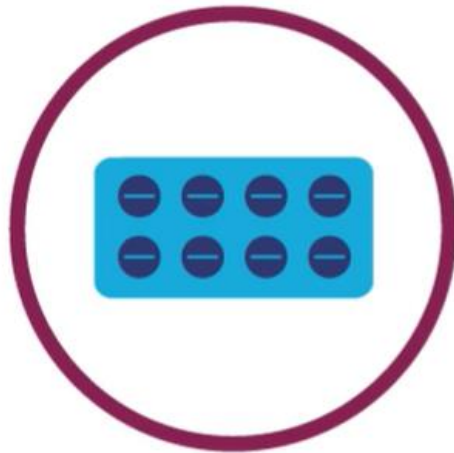
[Link: Problem Management-Plus](#)

Group interpersonal therapy

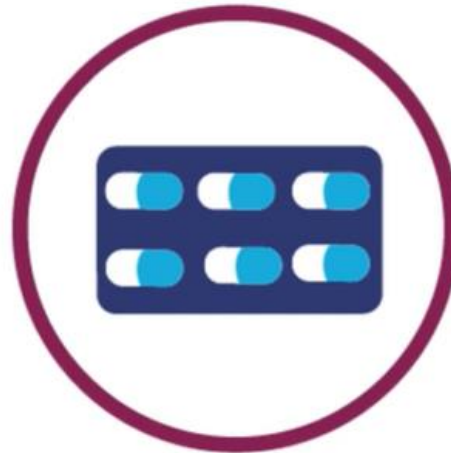


[Link: Group Interpersonal Therapy](#)

Pharmacological interventions: depression



Fluoxetine



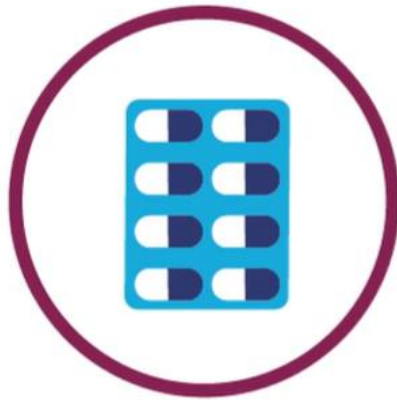
Amitriptyline

- No interaction known or minor interaction
- Moderate interaction
- Major interaction

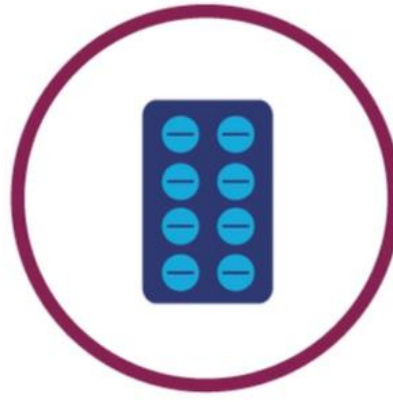
	Amitriptyline	Fluoxetine
Isoniazid	●	●
Rifampin/ Rifampicin	●	●
Pyrazinamide	●	●
Ethambutol	●	●
Levofloxacin	●	●
Cycloserine	●	●
Bedaquiline	●	●
Delamanid	●	●
Linezolid	●	●

Pharmacological interventions: psychosis

Some side-effects of anti-TB medication may include severe mental health symptoms often associated with psychosis



Haloperidol

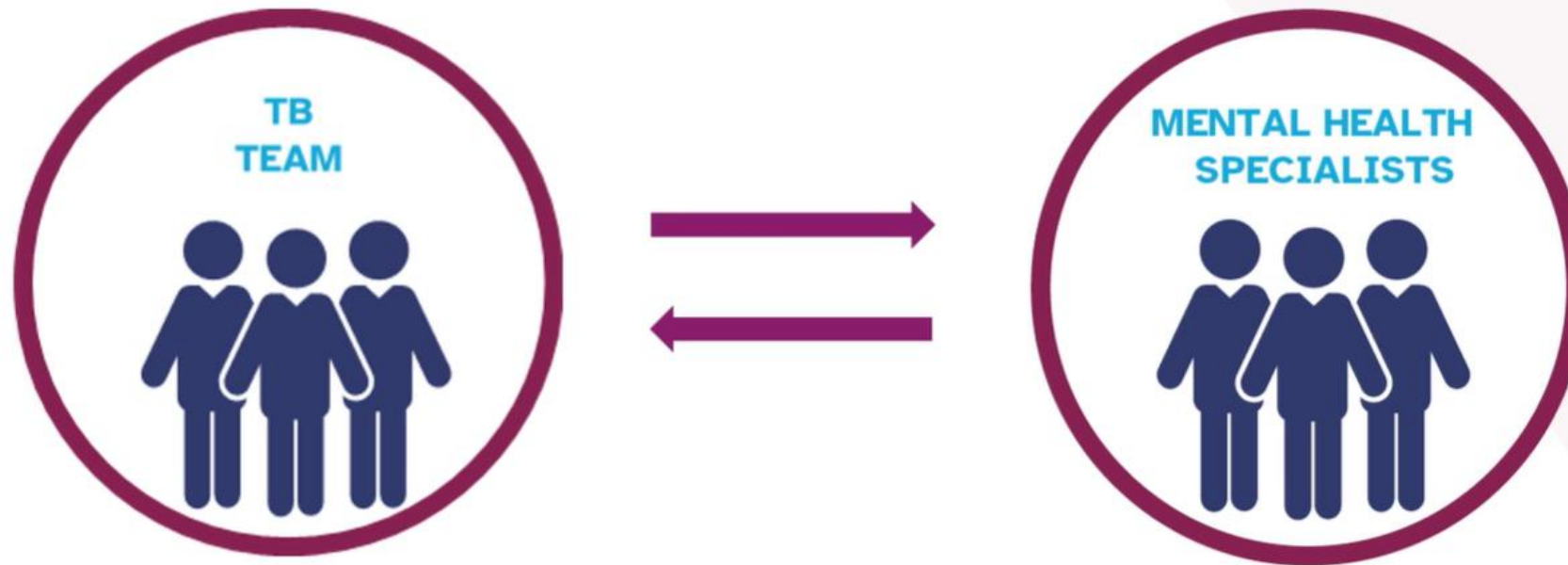


Risperidone

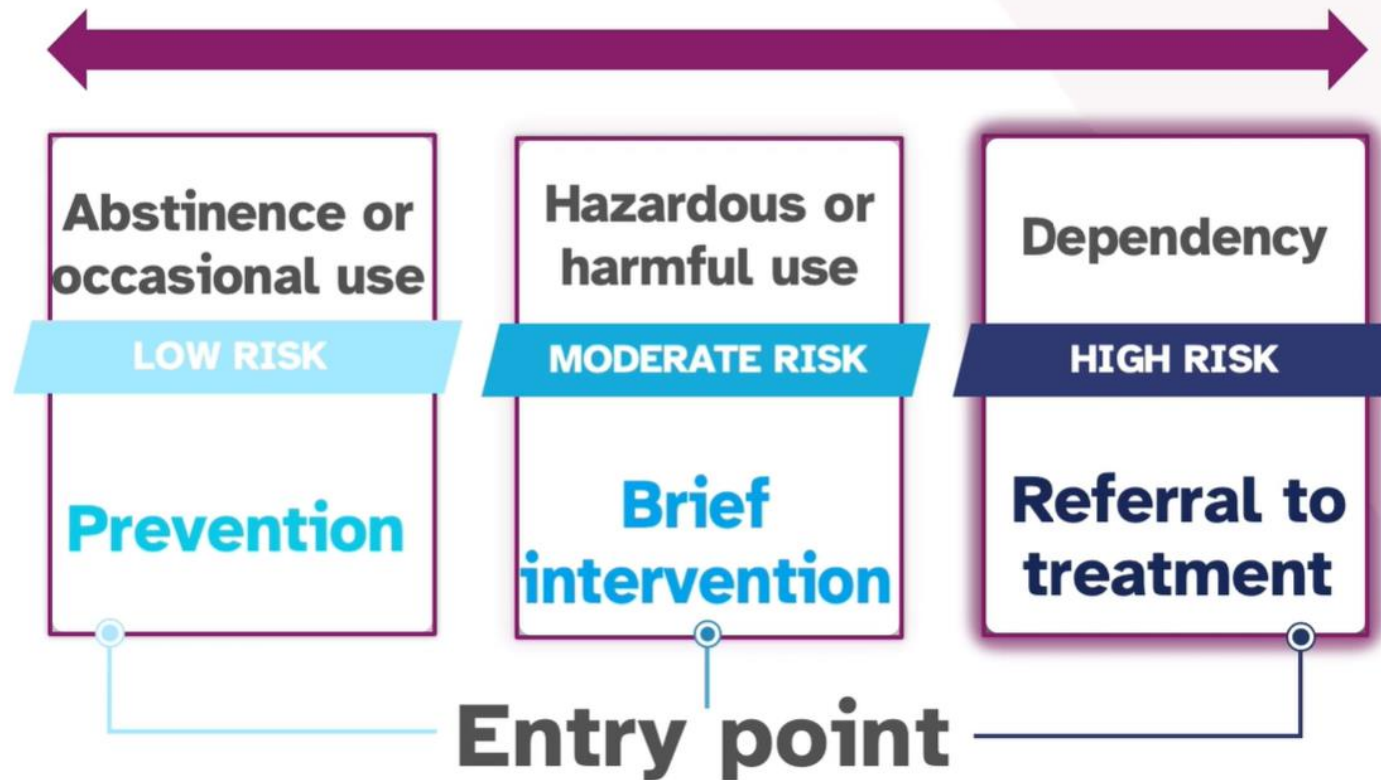
- No interaction known or minor interaction
- Moderate interaction
- Major interaction

	Haloperidol	Risperidone
Isoniazid	●	●
Rifampin/ Rifampicin	●	●
Pyrazinamide	●	●
Ethambutol	●	●
Levofloxacin	●	●
Cycloserine	●	●
Bedaquiline	●	●
Delamanid	●	●
Linezolid	●	●

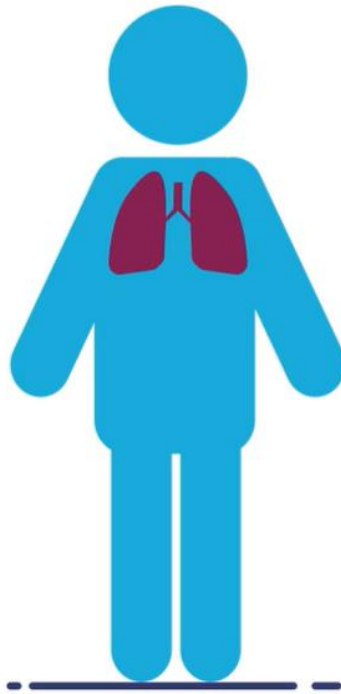
Care delivered by mental health specialists



Considerations for substance use



Suicidal behaviours



Individual assessment is needed in case of

- extreme emotional distress
- extreme hopelessness
- a history of suicidal behaviours
- comorbid mental, neurological or substance use disorders
- chronic pain
- treatment with cycloserine

Considerations for suicidal behaviours

PROTOCOL

1

Medically Serious Act of Self-Harm

- » **For all cases:** Place the person in a secure and supportive environment at a health facility.
- » ⚠ DO NOT leave the person alone.
- » Medically treat injury or poisoning. 🏥
If there is acute pesticide intoxication, follow "Management of pesticide intoxication". (2.1)
- » If hospitalization is needed, continue to monitor the person closely to prevent suicide.
- » Care for the person with self-harm. (2.2)
- » Offer and activate psychosocial support. (2.3) 🧑🏻‍🦽
- » Offer carers support. (2.4)
- » Consult a mental health specialist, if available. 🧑🏻‍🦽
- » Maintain regular contact and **Follow-Up**. 🔄

PROTOCOL

2

Imminent Risk of Self-Harm/Suicide

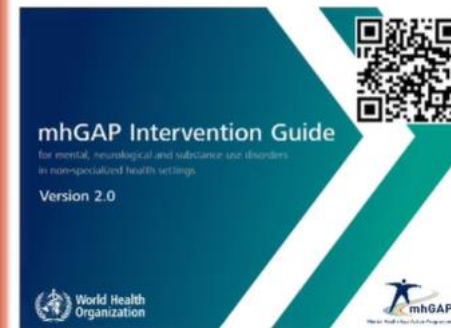
- » Remove means of self-harm/suicide.
- » Create a secure and supportive environment; if possible, offer a separate, quiet room while waiting for treatment.
- » ⚠ DO NOT leave the person alone.
- » Supervise and assign a named staff or family member to ensure person's safety at all times.
- » Attend to mental state and emotional distress.
- » Provide psychoeducation to the person and their carers. (2.5) 🧑🏻‍🦽
- » Offer and activate psychosocial support. (2.3) 🧑🏻‍🦽
- » Offer carers support. (2.4)
- » Consult a mental health specialist, if available. 🧑🏻‍🦽
- » Maintain regular contact and **Follow-Up**. 🔄

PROTOCOL

3

Risk of Self-Harm/Suicide



- » Offer and activate psychosocial support. (2.3) 🧑🏻‍🦽
- » Consult a mental health specialist, if available. 🧑🏻‍🦽
- » Maintain regular contact and **Follow-Up**. 🔄



[Link: mhGAP Intervention guide](#)

Future Directions

- Better integration of mental health care into National Tuberculosis Programs
 - Integration specifically called for in WHO strategy

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

Annika C Sweetland, Ernesto Jaramillo, Milton L Wainberg, Neerja Chowdhary, Maria A Oquendo, Andrew Medina-Marino and Tarun Dua

Lancet Psychiatry, The, 2018-12-01, Volume 5, Issue 12, Pages 952-954, Copyright © 2018 Elsevier Ltd

IMPLEMENTING
THE END TB
STRATEGY:
THE ESSENTIALS

THE
END TB
STRATEGY



World Health
Organization

Reference

- WHO operational handbook on tuberculosis. Module 6: tuberculosis and comorbidities – mental health conditions. Geneva: World Health Organization; 2023. License: CC BY-NC-SA 3.0 IGO.
- BMJ Open. 2022 Jan 6;12(1):e048945. doi: 10.1136/bmjopen-2021-048945
- Morgan, Rob. “Tuberculosis and Mental Health; Understanding the Intersection.” June 2024, Institution, Mayo Clinic Center for Tuberculosis.