**Conflict of Interest** 

The author has declared no conflict of interest.

# Understanding the challenges faced by children, adolescents and their care-givers during the treatment journey for drug-resistant tuberculosis: Qualitative study, Mumbai, India

#### <u>Mrinalini Das</u><sup>1,2</sup>, Taanya Mathur<sup>1</sup>, Shilpa Ravi<sup>1</sup>, Augusto C Meneguim<sup>1</sup>, Santosh Jha<sup>1</sup>, Pramila Singh<sup>1</sup>, Aparna Iyer<sup>1</sup>, Homa Mansoor<sup>1</sup>, Stobdan Kalon<sup>1</sup>, Farah Naz Hossain<sup>1</sup>, Shrikala Acharya<sup>3</sup>, Gabriella Ferlazzo<sup>4</sup>, Petros Isaakidis<sup>4</sup>, Harshad P Thakur<sup>2,5</sup>

<sup>1</sup> Médecins Sans Frontières/Doctors Without Borders (MSF), Mumbai, India; <sup>2</sup> Tata Institute of Social Sciences, Mumbai; <sup>3</sup>Mumbai Districts AIDS Control Society, India; <sup>4</sup>Southern Africa Medical Unit, MSF, South Africa; <sup>5</sup>National Institute of Health and Family Welfare, New Delhi, India







Background

Children with drug-resistant TB (DR-TB): Global estimates (annual) ~25,000-32,000, of whom **21% probably die.** 

**Mumbai, India** = High proportion DR-TB; >50% population live in urban slums

**MSF in Mumbai** provides free of charge treatment and care to patients with DR-TB in MSF clinic and government hospital (in collaboration with National TB Programme).









# Treatment outcomes of children and adolescents are known, but gap in knowledge persists for children and adolescents' needs and experiences during DR-TB treatment.



on the DR-TB treatment journey of patients and caregivers.



To better understand patient, guardian and healthcare provider perspectives



# **Methods**

# Study design

A qualitative study involving **in-depth-interviews of purposively** selected participants

### Study setting: MSF Clinic, Mumbai

- Outpatient, free treatment and care by multidisciplinary team
- **'Care buddy':** One family member (mother or father) provides support and monitors adherence
- Directly-observed-treatment at home initially for three months by outreach nurses, later by care buddy Training for dose modification (or drug compounding)
- Tailor-made counselling tools
- A self-administered checklist (daily doses) for monitoring adherence









# Methods

## **Study population and participants:**

- Adolescents (n=6; >1yr DR-TB treatment or cured)
- Guardians of children and adolescents; n=5
- Healthcare providers including programme managers; n=8

### Data management

Open-ended interview guides, in English or Hindi (local language); September-November 2019

Thematic network analysis

We obtained ethics approval from the MSF ERB and IRB of Tata Institute of Social Sciences, Mumbai, India









## Results

#### **Overarching theme and sub-themes:**



EDECINS SANS FRONTIERES DOCTORS WITHOUT BORDERS





# **Affect on LIFE due to illness:**



#### School/college absence

#### Plans for future?









#### Missed meeting with peers

Sports/physical activity are difficult





# **Affect on LIFE due to illness:**



#### School/college absence

#### Plans for future?









#### Missed meeting with peers



# Sports/physical activity are difficult





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# **Affect on LIFE due to illness:**



#### School/college absence

#### Plans for future?



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#### Missed meeting with peers

Sports/physical activity are difficult





# Patient and Family: One unit

- Family and peer support: Cornerstone of treatment continuation.
- Decision regarding treatment (regimen or provider) depends • heavily on the family/caregiver of the patient.
- Adherence issues/treatment interruptions common in adolescents.





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# **Treatment fatigue and Burnout**



#### Treatment fatigue and burnout in patients and care-givers

"I thought I will not survive the treatment" (Patients 1, 15 years female)

"I am tired of seeing TB in my house since so many years now." (Guardian of 8 year old male)

"Few see treatment as a punishment, they often use words: caged, stuck, everything has stopped... what is left in my life." (Healthcare provider 1)

i) Stigma and discrimination faced in community



# Direct factors

ii) Disruption of routine social life and anxiety about future.

# Indirect factors



# **Recommendations by participants**



Patients and guardians

### **Recommendations for developing child/adolescent-friendly care** Injectable-free regimen; palatable medications

- Interaction with providers
- peer-support platforms (separate for children and adolescents)
- Patient-friendly counselling and adherence tools
- Improved TB awareness in families, schools and communities







### Limitations

Sampling was not wide enough to explore in-depth differences between groups that could impact the overall TB experience (single parent vs joint family households; single or married; HIV co-infection; access to newer vs older drug regimens)



**DR-TB Treatment is challenging for patients and caregivers.** Therefore,

- Consider 'Patient and family as one unit' for packages of care
- Tailored socio-psychological approach along with medical care
- Develop patient friendly services diagnosis, treatment & care









# **Current initiatives in our project**

### Paediatric DR-TB package

- Dedicated paediatric day
- Age-appropriate counselling tools
- Child-friendly space
- Cartoon-based treatment calendars





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#### For adolescents

- Adolescent peer-support group meetings
- One-to-one interactions for motivation/adherence



# **Beyond our capacity...**

- 1. Injectable free, paediatric formulations for DR-TB drugs (in guidelines but lacks implementation on ground)
- 2. Child-friendly packaging of paediatric TB drugs (cartoon blister pack)
- nutritional programmes
- 4. Refresher trainings (clinical and soft-skills) for healthcare workers





### 3. Inter-department collaborations of National TB programmes with maternal and child health, adolescent, and



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