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Original Research Article

Challenges and perceptions of depression amongst multi drug resistant TB cases: qualitative study among medical officers of tuberculosis units across the Ahmedabad city, India

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ABSTRACT

Background: Drug resistant tuberculosis (DR-TB), is usually associated with adverse socioeconomic and psychological outcomes. Such patients with co-morbid depression have lower treatment adherence and poor outcomes. Programmatic management of drug resistant tuberculosis (PMDT) guidelines recommend screening of DR-TB patients for mental illnesses at baseline and Follow-up (FU). The objectives were to explore perceptions and experiences of service providers about depression amongst MDR TB cases, review current strategies for screening for depression at Tuberculosis units (TUs) and recommend measures to address depression among MDR TB cases.
Methods: This qualitative study was conducted across all TUs of Ahmedabad Municipal Corporation wherein 26 Key informant interviews (KIIs) were conducted using thematic guidelines and subsequently categorized in to subtheme for thematic analysis.
Results: MOs had mixed experiences about encountering depression among MDR-TB cases, ranging from 1%-50%. Long duration and side effects of treatment, financial burden due to unemployment and societal stigma were contributory factors. Ensuring compliance was a major challenge. Counselling is an effective intervention for this but lack of counsellors in the program was another challenge. MOs stated that pre-treatment screening for depression is done at DR TB centre, but there is no structured, process. However, most of them don't do subsequent follow up for depression.
Conclusions: More counsellors need to be included in the program and a structured method needs to be devised for screening of depression among MDR TB patients. Both MO TUs and Counsellors need to be sensitized and trained for screening and monitoring depression amongst MDR TB in a systematic way.

Keywords: Perceptions and challenges, Mental illness, Depression, Drug resistant tuberculosis, MDR TB, Tuberculosis unit

INTRODUCTION

Globally (2019), 0.5 million developed Drug resistant tuberculosis (DR-TB) [including 78% as Multi drug resistant tuberculosis (MDR)-TB)]. Though the rate of MDR-TB is low in India (1-3% in new cases and around 12% in re-treatment cases), this translates into a large number of cases, highest in the world (27%)-

approximately 1,30,000.[1,2] Treatment for MDR-TB is longer, requires multiple drugs which are more toxic and expensive (≥US$ 1000 per person). Treatment success rate in MDR TB is also less (57%) when compared with 85% in uncomplicated TB.

A patient centric approach is needed to improve success rate, where the patients in is seen by a MO trained in RNTCP-PMDT guidelines for clinical, microbiological, radiological evaluation, response to treatment, adverse reactions monitoring and management, counselling for compliance.[3] A high baseline incidence of depression and anxiety is reported in patients with MDR-TB, often connected with the chronicity and socioeconomic stress related to the disease.[2]

Such patients with co-morbid depression have lower treatment adherence and poor outcomes. All MDR-TB patients with a concurrent psychiatric illness should have a pre-treatment evaluation which shall document pre-existing psychiatric condition and establish a baseline for comparison if new psychiatric symptoms develop while on treatment. Depression among MDR TB cases needs to be identified and managed to prevent the compliance from further declining and achieving better outcomes.

The objectives of this study were- (1) to explore the perceptions and experiences of service providers about mental illnesses, mainly depression, amongst MDR TB cases; (2) to review current strategies for screening of depression among MDR TB cases at Tuberculosis units (TUs); and (3) recommend some remedial measures.

METHODS

Study setting

Ahmedabad is the largest city of Gujarat with a population of 5.7 Million. It also has the highest burden of drug sensitive and resistant TB cases in the state.[5]

There are 23 TU under the corporation (AMC) MO TUs are posted at UHC and besides their routine work, they look after NTEP as well. MO TU supervisors are NTEP staff and supervise 4-5 TUs. Current study included MO TUs (23) of all TUs and 3 MO TU Supervisors.

Study type

It was a qualitative study using Key informant interviews (KII) as a method for data collection. A thematic guide was developed by the investigators from departments of community medicine, psychiatry and TB and chest diseases.

Study period

The study was conducted, between January-December 2020.

Study method

KII were conducted by a team of two investigators, one asking questions based on thematic guide and other recording the responses.

Data analysis

The responses were categorized into subthemes to extract the information as per key words which emerged out through interviews and analysis was done as per objective to generate hypothesis.

Ethical consideration

Study was approved by the Institutional Ethical Committee. Prior written consent was taken from the participants and full confidentiality for the information provided was ensured.

RESULTS

23 MO TUs and 3 MO TU supervisors were interviewed. Work eexperience among respondents ranged from 3 months to 20 years. General RNTCP training was received by all of them while that related to PMDT guidelines and mental health were received by 93% and 70% respectively. Findings are tabulated in Table 1.

Table 1: Perceptions and experience about depression amongst MDR TB cases in MO TU and counsellor (n=26).

Themes	Perceptions about depression	N	%
Prevalence of depression	Depression is prevalent amongst MDR TB cases	19	73
Factors contributing to depression	Long duration of treatment itself is a cause of depression	14	54
	Consumption of too many pills/day	14	54
	Depression as adverse events due to drug cycloserine	8	31
	Social stigma associated with MDR TB	10	38
	Financial stress	7	27
Action to be taken	Would refer to nearby DR TB centre	26	100
	Referred depression cases to nearby DOTS plus centre	14	54
	MDR TB treatment requires modification if depression is present	21	81

Continued.

Themes	Experiences in dealing with depression and MDR TB cases	N	%
Patients with depression observed	Seen cases of depression amongst MDR TB	22	85
Screening for depression	Pre-treatment screening for depression is done at DR TB centre	25	96
	Provision of follow up visit	3	12
	Follow up visit for mental health	5	19
Challenges in management	Treatment adherence is compromised	11	42
	Social stigma associated with both MDR TB and depression	10	38

Perceptions about depression among MDR TB patients

Prevalence of depression

Half of the MOs suggested that proportion of cases developing depression ranged between 1-10%.

One third did could not put a value to it while the rest speculated that this would be between 20 and 50%. One of the respondents considered this to be almost universal (99%).

Factors contributing to depression

Long duration of treatment and consumptions of too many pills in a day were the worrisome part and probably the reason for depression as mentioned by almost half the MOs.

Other contributory factors included social stigma associated with the illness, financial burden (due to unemployment), side effects of drugs (Cycloserine) and alcoholism.

When to suspect depression

Common symptoms of depression as mentioned by them were depressed look, low mood, sadness, anxiety, irrelevant talking/ rowdiness, insomnia, suicidal thoughts, withdrawal etc.

Action to be taken

Almost all stated that they would refer patients to the nearest DR-TB Center, usually located in the nearby medical colleges, if they suspected depression. Very few mentioned that they would first refer to the counsellor prior to higher center. Almost a quarter were unaware of any treatment modifications due to depression. Rest suggested that treatment modification might be required in 1-15 cases per year.

MOs felt that counselling was needed for MDR-TB cases both at initiation of treatment and during the FU visits. Therefore, more counsellors should be inducted for providing counselling services related side effects, adherence, mental health.

One of the MOs commented: "*At times patients do not visit health centers for critical investigations like chest X-ray (usually free of cost) due to incurred travel cost, loss of daily wages. It is hard to believe that they will visit an overcrowded big public hospital for a symptom of depressed mood*."

Experiences related to depression among MDR TB patients

Patients with depression observed

5 MOs said that they have not come across any case of depression in MDR TB patients. Half of MOs had not referred a single case of depression in last one year. One third said that they referred 1-5 cases last year including 1 MO who referred 10 cases last year. Alarmingly, 2 MOs said that they had not interacted with patients as patients directly come and collect monthly drugs from TB Health visitor (TBHV). Another disturbing finding was that few MOs did not see/meet MDR-TB cases, probably out of fear of getting the infection.

Screening for depression

Most (93%) MOs do not screen for mental illness while starting the treatment as it is to be done at DR TB site on initiation of treatment. Regarding screening of mental illness in FU visits, most of them (82%) do not actively screen and when done, it is unstructured, subjective and based on patient behavior. There was no checklist or SOP for screening mental illness. A few MOs were willing to do active screening, if they were provided with a tool for the same. When asked further about the reasons for not doing screening, most of them mentioned that it is done at DR TB center. Other reasons were lack of time/space for screening or it is being done by counselor only.

Challenges in management

Many MOs mentioned adherence/retaining patients on treatment as the biggest challenge because of long treatment and multiple drugs. Social stigma associated with both TB and Depression compounds the challenge. Few also mentioned side effects of drugs and dealing with an alcoholism as challenges encountered.

DISCUSSION

Need to identify and treat MDR-TB cases is a global priority, and yet, the limited evidence of the relationship between mental health and MDR-TB undermines the development, testing and implementation of interventions to realize this goal.[6] Mental and physical ill health are

inextricably linked, mutually reinforcing with the synergistic interaction of these two conditions leading to an excess burden of disease as the relationship is bidirectional.[6,7] Comorbid depression is associated with a range of adverse outcomes, including functional impairment, increased medical costs, poor adherence to medication more so in self-care regimens, increased medical symptom burden and increased mortality.[8,9] Extent to which different pathways contribute to the burden of comorbidities is unclear.

Some have suggested that TB patients develop depression as a result of chronic infection or related psycho-socio-economic stressors[10] or due to the effects of treatment such as isoniazid.[11] An alternative pathway may be that TB is contracted as a result of compromised immunity and neglected self-care associated with depression.[12] There is an evidence to suggest that TB and depression may share risk factors.[9,11] Experiences shared in KII were highly variable and some of them who had worked for twenty years, shared rich experiences including symptoms of depression and how timely diagnosis and early treatment can help cases to recover. They also shared extreme cases of depression including suicide. More horizontal integration for continuum of care and FU is required. Senior tuberculosis supervisor (STS) and TB health visitor (TB-HV) are intricately involved with TB treatment and MOs know little about each and every case including their mental health status.

A mixed-methods study found that health professionals underestimate the proportion of depressed patients with their estimates of those needing treatment being way below the one third of patients identified as depressed.[13] In our study it was noticed that few MOs were not seeing patients due to reasons like fear of catching infections, other work, treatment looked after by NTEP staff.

This not only dilutes the quality and continuum of care but also amounts to discrimination which could be psychologically traumatic for the patients. Also, patients are unable to share their problems and experience about their treatment or have them addressed which often leads to default or Loss to follow up (LTFU). This is a key challenge in MDR-TB management posing a serious public health threat because individuals with incomplete treatment will remain infectious and develop further resistance to existing drugs.[14]

Few MOs were enthusiastic and ready to do the FU for depression if a structured tool is provided. Senior doctor (MO TU supervisor) firmly believed that this though very much required, has remain unaddressed so far, as focus has always been there to provide the drugs only. Provision of counselling is critical to the success of the program as it not only reduce patients' vulnerability, but also increase cure rates.[15]

Need for including counsellors in the program was also echoed by MOs. They are unable to devote time for counselling the patients and this can be done more effectively by a trained field worker. Counsellors can periodically follow up patients and counsel them on disease, treatment, side effects and mental health. Most of the MOs and STS acknowledged that this research study was helpful in sensitizing them to mental health in MDR TB cases.

Limitations

Few of the MOs had experience of only few months as MO TU and due to COVID pandemic, they did not have much contact with MDR TB patients. Again, few did not see TB patients. These both factors might have led to little less accuracy of responses.

Recommendations

A provision for mental health assessment under the program guidelines, usually ignored needs to be relooked.

CONCLUSION

Perceived depression among MDR TB cases underscore the need for inclusion of a structured and systematic process of counselling for screening/evaluation of depression along with a strong referral mechanism with the nearest Psychiatry department. Counsellors supervised by MOs can be helpful in this regard. Adequate posts of counsellors (@ 1per TU) need to be sanctioned to FU the patients. All MOs and counsellors should receive special training focusing on programmatic needs for screening/addressing mental health issues. TU is the point of care for MDR TB patients and it becomes imperative that they are regularly seen by MOs and assessed for mental health as well.

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