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Original Research Paper

Medicine

HEALTH-CARE SEEKING BEHAVIOR AND SATISFACTION TO NTEP SERVICES AMONG MDR-TB PATIENTS OF AHMEDABAD.

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ABSTRACT

INTRODUCTION: Tuberculosis is the most important public health issue of India.Improving patient's TB knowledge is a salient component of TB control strategies. Patient knowledge of TB and practice of sputum disposal may encourage infection prevention behavior and improve treatment adherence.

OBJECTIVES: To study Health-care seeking behaviorforconsultation, diagnosis and Treatment among the patients.Toassess the knowledge & practice of sputumdisposal and medicationamongthe patients.To evaluate Satisfaction to NTEP Serviceamong the patients.

METHODOLOGY: All MDR-TB patients registered under NTEPin Jodhpur TB Unit of Ahmedabad Municipal Corporation who were on-treatment andthose who completed their treatment in last 3 months of October 2019were selected. The patientswerehome visited and interviewed abouttheir health-care seeking behavior,knowledge&practice regarding sputum disposal and medicationby using semi-structured questionnaire and Satisfaction to NTEPservice by using Satisfaction to services Scale.

RESULT: Out of 24,20 patients were of pulmonary TB and 4 of extra-pulmonary TB.Out of 20 patients of pulmonary TB, 12 patients (60%) chose to consult government facility where rest 8 (40%) chose private facility. However, later on all patients chose government facility for the Treatment.79% patients stated benefit of taking medication is that it reduces signs/symptoms of Disease and 21% of the patients stated that Disease become non-infectious after taking medications.25% patients used container and 75% patients used Bathroom/Wash basin for Sputum Disposal out of 20 MDR-TB(Pulmonary) patients.Most of the patients had very well Satisfaction to NTEP services.

CONCLUSION: All of the patients preferred government facility for treatment. Most of MDR-TB patients had satisfactory knowledge and practice of sputum disposal and medication.Most of MDR-TB patients had very well Satisfaction to NTEP services and that resulted in good Treatment adherence and compliance.

KEYWORDS : Tuberculosis, TB Units, MDR-TB

INTRODUCTION:

The WHO South-East Asia (SEA) Region is home to 26% of the world's population with 44% burden of TB incidence. In 2017, an estimated 4.4 million people fell ill with TB and estimated 638 000 died because of the disease which is more than half of global TB deaths. Treatment success for new and relapse TB cases was 75% (for those initiated on treatment in 2016), amongst the lowest in the Regions of the world. There were an estimated 192 000 incident multi-drug resistant (MDR) TB cases in the Region. This constitutes 34.4% of the global MDR-TB burden. Several challenges exist in programmatic management of DR-TB in the Region. The detection of DR-TB among notified pulmonary TB cases is low and treatment outcomes for DR-TB cases also remain a major concern.

Revised National TB Control Program (Now, National Tuberculosis Elimination Program) isa centrally sponsored scheme being implemented under the aegis of National Health Mission with resource sharing between the State government and Central government.

Improving patient's TB knowledge is a salient component of TB control strategies. Patient knowledge of TB and practice of sputum disposal may encourage infection prevention behavior and improve treatment adherence.

OBJECTIVES:

1) To study Health-care seeking behavior for preferred health care facilities for consultation, diagnosis and Treatment among MDR-TB patients.
2) To assess the knowledge & practice of sputum disposal and regarding medication among MDR-TB patients.
3) To evaluate Satisfaction to NTEP Service in MDR-TB patients.

MATERIALS & METHODS:

- **Study Design:** Cross-sectionalstudy.
- **Study Area:** Jodhpur TB Unit (T.U) of Ahmedabad Municipal Corporation (AMC)
- **Study Tools:** 1.Semi-structured Questionnaire. 2.Satisfaction to service scale.
- **Study Period:** 1st October 2019 to 31th October 2019.
- **Sampling & Study Subject:** All MDR-TB patients registered under NTEP in Jodhpur TB Unit of AhmedabadMunicipal Corporation (AMC) were selected by lottery method.

- **Inclusion Criteria:**

The patients who were on-treatment and those who completed their treatment in last 3 months of October 2019.

- **EXCLUSION CRITERIA:**

i. The patients who didn't gave consent.
ii. The patients who were defaulter
iii. The patients who were untraceable.
iv. The patients who were TB with HIV positive.

- **Analysis:** Statistical analysis done by using Excel.

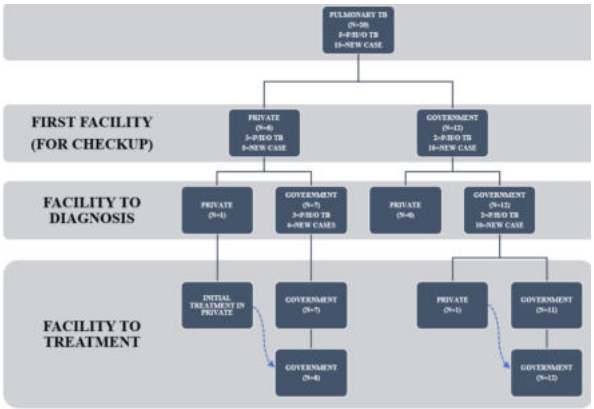
RESULTS:

- Demographic Profile: Mean age of MDR-TB patients was

32.58 ± 12.16 years. Out of 24 patients, 13 (54.2%) were males & 11 (45.8%) were females.

- Site of involvement: Out of 24 MDR-TB Patients, 20 (83.33%) were pulmonary TB and 4 (16.66%) were extra-pulmonary TB.
- Category of Regimen: Out of 24 MDR-TB Patients, 9 (37.5%) patients had shorter MDR regimen, 4(16.7%) had All oral longer MDR regimen and 4 (16.7%) had Modified MDR regimen + Resistant to FQ/SLI.

Graph 1: Algorithm Of Preferred Health Care Facilities For Consultation-diagnosis-treatment Among Mdr-tb Patients.



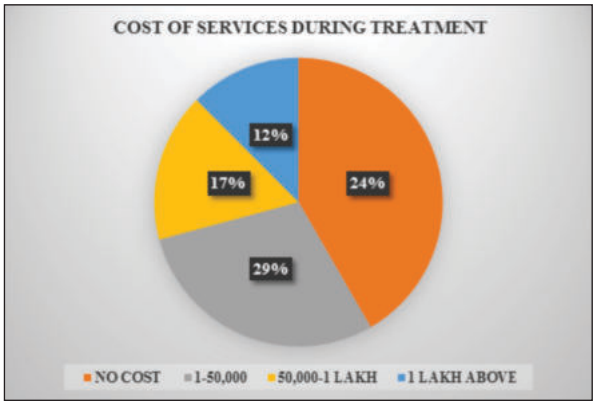
- Out of 20 patients of pulmonary TB, 12 patients (60%) chose to consult government facility where rest 8 (40%) chose private facility.
- All of the 12 patients consulted government facility for symptoms got diagnosed at government facility.
- 1 out 12 initially started treatment at private facility but later shifted to government facility along with others.
- 7 out of 8 patients who went to private facility got diagnosed in government facility and started treatment in government facility. However, only 1 patient got diagnosed in private facility and started treatment in private but later on shifted in Government facility.

Table 1: Profile Of Patients And Duration Of Getting Diagnosed And Treatment

Variables		No. of Patients	Symptoms to Diagnosis (Weeks) [Mean+/-SD]	Diagnosis to Treatment (Weeks) [Mean+/-SD]
SITE OF INVOLVEMENT	EXTRAPULMONARY TB	4	3.25(± 3.20)	1.77(±2.15)
	PULMONARY TB	20	2.11(±0.88)	1.26(±1.07)
HISTORY OF INFECTION	P/H/O TB	7	1.50(±0.64)	1.41(±1.59)
	NEW CASES	17	2.63(±1.6)	1.31(±1.15)
HEALTH FACILITY	GOVERNMENT	12	1.97(±0.65)	1.41(±1.13)
	PRIVATE	12	2.63(±1.96)	1.27(±1.42)

- Out of 24 patients, 20 patients were diagnosed with pulmonary TB within 2.11 mean weeks after getting symptoms and started treatment within 1.26 mean weeks after getting diagnosed.
- 7 Patients who had previous history of TB were diagnosed within 1.5 mean weeks and started treatment within 1.41 mean weeks compared to 17 newly diagnosed cases who were diagnosed within 2.63 mean weeks and started treatment within 1.31 mean weeks.
- 12 Patients who consulted in government facility took lesser time getting diagnosed than 12 patients who consulted private facility; 1.97 and 2.63 mean week respectively.

Graph 2: Cost Of Services During Treatment



- Out of 24 MDR-TB patients, 10 (42%) patients had free of cost treatment ,7 (29%) patients had paid 1-50,000 Rs for their treatment,4 (17%) patients had paid 50,000 -1 lakh Rs for their treatment, 3 (12%) patients had paid more than 1 lakh Rs for their treatment,
- Out of 24 MDR-TB patients, 22 (87.5%) patients got free of cost medicine from Government health centre and 3 (12.5%) patients hadbought their addition medicine from outside.

Table 2: Knowledge And Practise Based Questions And Responses

SR. NO.		QUESTIONS	N(%)
K1.	QUESTIONS REGARDING KNOWLEDGE	When/How To Take Medicines	24(100)
K2.		Benefits Of Taking Medicine	24(100)
K3.		Disadvantage Of Not Taking Medicine	23(95.8)
K4.		How To Prevent Spread Of Infection To Others	24(100)
K5.		Know Safe Method Of Sputum Disposal	24(100)
K6.		Know What Will Happen By Doing Unsafe Method Of Sputum Disposal	24(100)
K7.		Know Benefit Of Regularly Taking Medication	24(100)
P1.	QUESTIONS REGARDING PRACTICE	Correct Site OfSputum Disposal	24(100)
P2.		Take Medication Regularly	24(100)

- Out of 24 MDR-TB patients,75% of patients statedthat knowledge of *when/how to take medication*is given by Health Visitorof DOTS centre and 25% of patients statedthat knowledge is given by doctor of DOTS centre/DR-TB site.
- Out of 24 MDR-TB patients,79%patientsstated*benefit of taking medication* is that it reduces signs/symptoms of Disease and rest 21% of the patients stated that Disease become non-infectiousafter taking medications.
- Most of the MDR-TB patients stated that they are satisfied with knowledge and awareness provided by Health care staff.
- Out of 20 MDR-TBpatients (Pulmonary TB), 25% patientsused container and 75% patientsused Bathroom/Wash basin for Sputum Disposal.
- All MDR-TB patients take their medication regularly during their Treatment course.
- Most of theMDR-TB patients were following good practice of sputum disposal and medication.

Table 4: Satisfaction To Ntepservicebaseed Questions And Responses

SR. NO.	QUESTIONS	N(%)
1.	Informed About TB& Treatment Course	24(100)
2.	Gave Information OfCough hygiene	24(100)

3.	Is Doctor Answering Patient's Questions	21(91.6.)
4.	Is Doctor Listening ToPatient	23(95.8)
5.	Is Doctor Response Properly	23(95.8)
6.	Confidentiality OfPatient's Information	23(95.8)
7.	Convenience Of DOTS Services	24(100)

- Most of theMDR-TB patients had good satisfaction of NTEP services and that results in good improvement in treatment adherence and compliance.

DISCUSSION:

The emergence of Drug Resistant strains of Mycobacterium tuberculosis has become a major threat to public health globally. India's goal to meet the Sustainable Development Goals of ending TB by 2030, and WHO target of achieving a 100% decline in incidence and TB related deaths by 2035 are also threatened by the outbreak of Drug Resistant Tuberculosis. To meet this target, community members must possess appropriate knowledge with regard to the causes of MDR-TB, its sign and symptoms, transmission, prevention and treatment modes and methods so that they can take appropriate actions to control and prevent the spread of this disease. This especially applies to those already infected with MDR-TB as poor knowledge, attitude and practices regarding tuberculosis in them will further increase the burden of disease in their community.(Fana et al., 2019) This study shows that the patients have good knowledge and practice regarding the hygienic sputum disposal technique as well as importance of taking medications regularly.

In our study, all participants were practising proper hygienic sputum disposal. However, these results are inconsistent with another previous similar study conducted in northern India where 46.4% of the participants were practising safe sputum disposal.(Singh et al., 2016)

Health seeking behaviour and related delays are of utmost importance in TB care from two important perspectives; firstly, TB requires timely treatment and secondly it requires protracted treatment. Required level of knowledge and positive health behaviour helps the patients in taking timely help from appropriate health facility. RNTCP being a centrally sponsored programme health seeking from a public health facility is highly desirable.(Samal, 2016) This is fulfilled in our study as 12 out of 20 MDR-TB (pulmonary) patients consulted Government facility as their first choice as well as took treatment from the same. 8 patients initially went to private facility for diagnosis but eventually shifted for treatment from the government facility.

It is essential to know whether the RNTCP services are being utilized by the people to the desired extent. The performance of any programme is judged by certain indicators, related to targets and patient satisfaction. Although satisfaction is a subjective feeling which differs from individual to individual but a collective response regarding the satisfaction reflects programme performance and community participation. In this study, we focused mostly on patient's view regarding their doctor/health visitor's behaviour with them and also the kind of knowledge regarding symptoms of MDR-TB, importance of taking medications properly and safe sputum disposal techniques which was very satisfactory.

CONCLUSION:

All of the patients preferred government facility for treatment. Most of MDR-TB patients had satisfactory knowledge and practice of sputum disposal and medication. Most of MDR-TB patients had very well Satisfaction to NTEP services and that resulted in good Treatment adherence and compliance.

Recommendation:

- Spreadmore Awareness regarding knowledge about Tuberculosis&availability of NTEP services in the community.
- Nutritional counselling component should be more counselled during home visit/DOTS centre visit of the patient.

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