

Original Research Article

A cross sectional study on evaluation of satisfaction level of TB patients enrolled for directly observed treatment, short course chemotherapy in a district of Central India

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ABSTRACT

Background: DOTS therapy has been recognized as the best cost effective approach to tuberculosis control. It is also a key strategy of India's Revised National Tuberculosis Control Programme. Evaluating patient's satisfaction is an important method of measuring the quality of health services. Satisfied patients are more likely to utilize health services and comply with medical treatment thus patient's satisfaction is a key determinant in treatment success. Whereas there is a paucity of data regarding patient's satisfaction with tuberculosis treatment services provided at different DMC cum DOTS centers in district Rewa. Thus present study is a small attempt to assess patient's satisfaction level with DOTS services.

Methods: A cross sectional study was carried out at 15 DMC cum DOTS Centers of Rewa district, Madhya Pradesh from 1st July 2007 to 30th June 2008. These centers were selected by simple random sampling. All patients who were registered from July to September 2007 and also receiving DOTS therapy at these DMC cum DOTS Centers were included in this study.

Results: In the study, of all 337 patients, 241 (71.5%) were fully satisfied and remaining 96 (28.5%) were satisfied somewhat with the health services. majority of the patients expressed satisfaction with timing of DOTS Centres (93.17%) including waiting time for medical care (86.05%) as well as behavior of staff (90.20%). While most of the patients were dissatisfied due to frequent visits to DOTS centers (37.1%) and total duration of DOTS therapy (29.1%).

Conclusions: In the study overall satisfaction with TB services is good. However there is some dissatisfaction particularly with frequent visits to DOTS centers and total duration of DOTS therapy. So there is an urgent need to address these issues by the concerned authorities.

Keywords: DOTS, Patient's satisfaction, RNTCP, Tuberculosis

INTRODUCTION

India is the highest TB burden country in the world and accounts for nearly one fifth (20%) of global burden of tuberculosis, 2/3rd of cases in SEAR. In India every year

approximately 1.8 million persons develop tuberculosis, of which 0.8 million are new smear positive highly infectious cases. Every day about 5,000 people develop the disease and almost 0.37 million people die every year.¹

WHO recommends the directly observed treatment short-course (DOTS) strategy for control of TB and it has been recognized as the best cost effective approach to tuberculosis control. It is also a key strategy of India's revised national tuberculosis control programme (RNTCP).¹

In the year 2006, annual performance of RNTCP in India, in terms of cure rate of new smear positive patients was 84%, default rate was 6.4% while in state of Madhya Pradesh it was 82% and 7.6% respectively. Rewa district of Madhya Pradesh has low cure rate and high default rate as compared to national as well as state.² Evaluating patient's satisfaction is an important method of measuring the quality of health services. Satisfied patients are more likely to utilize health services and comply with medical treatment thus patient's satisfaction is a key determinant in treatment success.³

However there is a paucity of data on patient's satisfaction with tuberculosis treatment services provided at different government health facilities / DMC cum DOTS centers in district Rewa, Madhya Pradesh India. Thus the study of TB patient's satisfaction with health care services is highly desirable and essential. The present study is a small attempt to assess patient's satisfaction level with DOTS services.

METHODS

This is a cross sectional study has been conducted among TB patients enrolled at 15 DMC cum DOTS Centers of Rewa district, Madhya Pradesh, India from 1st July 2007 to 30th June 2008.

Sample size and sampling method

The present study was carried out in Rewa district of Baghel khand region Madhya Pradesh, India. Rewa District has an area of 6,314 km² and total population of district was 1973306 and out of which 1672784 was rural and 300522 urban as per 2001 census. As per the administrative set up of RNTCP, Rewa district has been divided into 4 Tuberculosis Units (TU) covering of a population of approximately 5 lakhs each. There are a total 21 Designated Microscopy centres under these four TUs. Out of 21 DMCs, 15 DMCs were selected by Simple random method. These were DTC Rewa, District Hospital Rewa, Govindgarh, Raipur Karchulian, Gurh, Sirmaur, Baikunthpur, Mangawan, Gangeo, Mauganj, Hanumana, Naigarhi, Teonthar Chakghat and Jawa.

No sample size determination was done because all the patients who were registered during the 3rd Quarter of 2007 (from 1st July 2007 to 30th September 2007) and also receiving treatment at these 15 DMC cum DOTS Centers were included in this study.

Patients who were not taking treatment at these centers but receiving treatment from volunteers and other health

centers (PHC, Sub health centers) where sputum microscopy facility was not available were excluded from the study. Patients who cannot be contacted at the recorded residential address even after two visits, MDR TB cases, Hospitalized patients and who visited first time and those who were not consented to participate in the study were also excluded.

The survey was carried out from October 2007 to March 2008. Informed verbal consent of the patients was taken before interview. Patients were interviewed preferably at the DOTS Centers and those who were missed at DOTS Centers were interviewed at their home. Out of total 381 registered patients only 337 patients could be interviewed despite of two consecutive visits of their home. The data was collected on pre-designed and pre-tested questionnaire. The collected data was analyzed and results were recorded in term of frequency and percentage using Microsoft Office Excel software.

RESULTS

Socio-demographic characteristics of study subjects

Out of all 337 interviewed patients, 62.31% were males and 37.68% females. Most of them (37.98%) were in the age group of 21-30 years. Majority of patients (92.28%) were Hindus and belonged to OBC category (32.94%). Overall 35.60% of study population was illiterate and about 40% educated up to middle level of schooling. 40.65% of them were labourer followed by 29.08% housewife and only 2.67% engaged in Government service. More than 2/3rd of the patients come from lower socioeconomic class of the society (Table 1).

Patient's satisfaction & perception regarding health services

In the present study, Satisfaction level of patients with medical care was assessed using different questions. Those patients who answered satisfied for each of the satisfaction related questions were taken as fully satisfied while those who were satisfied with at least one parameter were categorized as somewhat satisfied while totally unsatisfied patients were those who were not satisfied with all parameters of assessment. In our study, out of all 337 patients, 241 (71.5%) were fully satisfied and remaining 96 (28.5%) were satisfied somewhat with the health services provided at the DMC cum DOTS centers.

In the study, majority of patients (94.06%) were satisfied with location of DOTS centers but 5.93% patient's complaint that DOTS centers is not easily accessible for them and they also spend money to reach DOTS Center. Most of the patients expressed satisfaction with timing of DOTS Centre (93.17%), including waiting time to get medical care (86.05%). Whereas 86.9% patients were satisfied with the pretreatment counseling done by health staff and 90.2% showed satisfaction regarding behavior

of the staff. Majorities were also satisfied with total duration of treatment in DOTS (70.91%).

A very high percentage (94.36%) reported improvement in health condition after taking drugs and 85.76% believed that they would be cured by DOTS.

The study also revealed that dissatisfaction was mainly due to frequent visits to DOTS center (37.1%) followed by total duration of DOTS (29.1%). Frequent visits to DOTS center found an important factor which lead to loss of daily wages and/or interfering daily activity of the study subjects (Table 2).

Table 1: Socio-demographic profile of study subjects.

Socio-demographic characteristics	No. (%)
Age in years	
≤10	05 (1.48%)
11-20	36 (10.68%)
21-30	128 (37.98%)
31-40	87 (25.81%)
41-50	42 (12.46%)
>50	39 (11.57%)
Sex	
Male	210 (62.32%)
Female	127 (37.68%)
Religion	
Hindu	311 (92.28%)
Muslim	26 (7.72%)
Category	
Schedule Tribe (ST)	56 (16.61%)
Schedule Caste (SC)	78 (23.15%)
Other Backward Caste (OBC)	111 (32.94%)
General	92 (27.30%)
Education	
Illiterate	120 (35.60%)
Primary School	87 (25.81%)
Middle School	49 (14.54%)
High School	37 (10.98%)
Higher- Secondary	32 (9.50%)
Graduate & above	12 (3.56%)
Occupation	
Unemployed	46 (13.64%)
Labourer / Daily wager	137 (40.65%)
Skilled Labourer	07 (2.07%)
Housewife	98 (29.08%)
Govt. Service	09 (2.67%)
Businessman	17 (5.04%)
Farmer	21 (6.23%)
Other	02 (0.59%)
Socioeconomic status	
Class-I	14 (4.15%)
Class-II	31 (9.19%)
Class-III	47 (13.94%)
Class-IV	89 (26.40%)
Class-V	156 (46.29%)

Table 2: Patient's satisfaction and perception regarding different parameters (N=337).

Parameters	Satisfied		Not satisfied	
	No.	%	No.	%
Location of DOT centre	317	94.07	20	5.93
Timing of DOTS centre	314	93.17	23	6.82
Waiting time for medical care	290	86.05	47	13.94
Behavior of staff at DOTS Centre	304	90.20	33	9.79
Pretreatment counseling by health staff	293	86.9	44	13.1
Satisfy with total duration of treatment	239	70.91	98	29.08
Improvement in condition after initiation of DOTS	318	94.36	19	5.64
Do you think that DOTS will cure you	289	85.76	48	14.24
Frequent visits to DOT centre	212	62.9	125	37.1

DISCUSSION

In the present study, of all 337 patients, 241 (71.5%) were fully satisfied and remaining 96 (28.5%) were satisfied somewhat with the health services provided at the DMC cum DOTS centers. Similarly Gupta et al. observed that 67.8% were highly satisfied, 16.7% were just satisfied and 15.5% were not satisfied with the services.⁴ But contrast to our findings, Nezenega et al, reported higher satisfaction rate (90%) in their study in South Ethiopia.³ While another study by Birhanu Z et al in Ethiopia revealed low satisfaction rate (62.6%).⁵ It might be due to difference in study population and setting as well as parameters of evaluation of patient's satisfaction.

It is evident from the study that 94.06% patients satisfied with location of DOT centers but 5.93% Patient's complaint that DOT centers is not easily accessible for them and they also spend money to reach DOT Center. While P.G. et al observed that 9% patients had difficulties in accessing health facilities in Tiruvallur district of South India.⁶

In the study, most of the patients expressed satisfaction with timing of DOTS Centers (93.17%), including waiting time to get medical care (86.05%). In concordance with our findings, unsuitability of DOT timing was observed as a major reason for default by Sophia V et al in their study.⁷ Whereas Nezenega et al. and Mohamed E et al also reported greater satisfaction among patients who spent a short time to receive the services, (90%) and (63.6%) respectively.^{3,8}

86.9% patients were satisfied with the pretreatment counseling done by health staff whereas 90.2% showed satisfaction regarding behavior of the staff. Haque MA et

al. in Varanasi, Uttar Pradesh, India, observed almost similar level of satisfaction (90%) with behavior of staff But Gupta S et al found low satisfaction regarding behavior of staff (81.8%) and 69.2% patients were explained about their disease.^{4,9}

Majorities were also satisfied with total duration of treatment in DOTS (70.91%). A very high percentage (94.36%) reported improvement in health condition after taking drugs and 85.76% believed that they would be cured by DOTS. While Harriet Davidson et al found that 83% respondent are satisfied with the behavior of staff, 74% patients were satisfied with long duration of treatment and 93% patients agreed with this fact that they will be cured early, if they were observed directly for treatment. Only 12% reported that they usually wait too long for TB DOTS appointments.¹⁰ Chadha et al in their study on treatment outcome in tuberculosis patients placed under DOTS; A cohort study in New Delhi found that 3/4th patients were felt significant improvement in their condition.¹¹ In contrast to our findings Sukumaran et al. reported that only 62% of patients felt marked improvement. It might be due to difference in phase of treatment and amount of drugs (no. of doses) taken by the patients.¹² In the study we found that dissatisfaction was mainly due to frequent visits to DOTS centers (37.1%) and total duration of DOTS therapy (29.1%) (Table 2).

CONCLUSION

Finally, we inferred that overall satisfaction with TB services is good. However there is some dissatisfaction particularly with regard to frequent visits to DOTS centers and total duration of DOTS therapy. So there is an urgent need to address these issues by the concerned authority to improve performance of the programme in the region.

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