A STUDY OF DEFAULTERS OF DOTS IN WARANGAL DISTRICT OF ANDHRA PRADESH

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ABSTRACT: OBJECTIVE: To determine the multiple factors responsible for non-compliance to DOTs. **MATERIALS AND METHODS:** The study was conducted for one year. It is study of defaulters DOTs in 3 T.B. units, out of seven in Warangal District. The area covered by the 3 T.B. units consisting of urban area, rural area and tribal area attached to District Tuberculosis centre, Warangal. **RESULTS:** Out of 150 study population 80 accounts from age group 30-49. Females were facing more shy than male to take during in front of DOTs providers. Females were afraid of T.B. stigma. Alcoholic defaulters were between 30-59 years age group. **CONCLUSIONS:** DOTs defaulters are very common in illiterates' peoples. So health education and awareness about control of T.B. should be done.

KEY WORDS: Defaulters, DOTs, Tuberculosis.

INTRODUCTION: Tuberculosis is one of the leading causes of mortality worldwide. India has the most number of Tuberculosis (30%) cases in the world. In India every year 1.5 million cases are put on tuberculosis treatment 450,000 deaths are reported.

The impact of tuberculosis is greater on the developing countries. The majority of people affected with T.B. are in the economically active age group. The available therapeutic regimens have inherent disadvantage of long treatment duration, results in patients non-compliance and yields the risk of having the drug resistance. Hence new modalities of treatment that are potent active resistant against strain are needed to combat these diseases.

The dictionary definition of default is failure to do something required by duty or Law. When default might causes harm to the individual or community corrective or Prevention action should be taken. It is the moral, if not the legal, duty of health services to take the necessary precaution.

MATERIALS AND METHODS: The study was conducted for one year, extending from January, 2005 to December, 2005.

The material for the study consisted of the defaulters of DOTs in 3 T.B. units out of seven in Warangal District. Only defaulters who at any time after registration have not taken anti-TB drugs for 2 months or more consecutively have been selected for the present study.

The study was conducted in 3 TB units, out of 7 TB units in Warangal District. Each TB unit represents 5 lakhs population and attached with five microscopy centre which each represents 1 lakh population. The area covered by the 3 T.B. units consist of urban area, rural area and tribal area, attached to district Tuberculosis centre, Warangal.

A pre structured and pretested questionnaire was used to collect the data.

Topography of the District: Warangal District headquarters is situated at distance of 146 Kms. from Hyderabad City (AP) consists of 3 cities – Warangal, Hanamkonda and Kazipet. DTC is 6 kms

ORIGINAL ARTICLE

away from Kazipet Railway Junction the DTC has 7 TB centres (TUs) and each is attached with 5 microscopy center. And these T.U.s are located at Urban, Rural and Tribal area at a distance of 100 km from DTC. The total numbers of village covered by the DTC are 1097.

A Random sampling method was adopted by selecting three T.B. units (40%) out of seven in Warangal District. The investigator has visited the houses of defaulters which were polling in 15 microscop centres in study area. The addresses of defaulters of DOTs were obtained from T.B. registers of concern TB units.

In this study during the year 2005 3 TUs were selected which had a total 15 microscopy centres. 2089 TB cases were registered in TUs with 160 defaulters were observed as per TB registers. 150 of these defaulters were interviewed.

The interview was carried out by visiting homes of the defaulters of DOTs and also taken interview of family members of defaulter who is either dead or migrated from the area. In order to avoid interviewer bias, the investigator carried out the interviews by themselves on the defaulters over a period of one year of the 160 defaulters who could not be contacted, 5 defaulters migrated, 3 absconded and 2 died.

The data was analysed manually necessary statistical computation and tests of significance were applied wherever necessary and conclusion drawn because of time constraints, the investigator failed to interview of control group (Those who completed anti TB treatment).

RESULTS: Out of 150 study population 80 accounts from age group 30-39 and 40-49. Females were feeling more shy than male to take drugs in front of DOTs provider. Females were having more fear of T.B. stigma among DOTs defaulters than males.

Smoking and Tobacco had no association with DOTs defaulters. Alcoholism had more significant association with age 30-59 among DOTs defaulters. Most of Alcoholic Defaulters were between 30-59 years age group.

Economic status was evaluated by the Ration Card. It was found 88 (53.3%) were white card holders, 27 (18.0%) were pink card holders and 35 (23.3%) were not having any card.

Education Status – Illiterates 80 (53.3%) dominates the study population followed by primary school 38 (25.3%) SSC 18 (12.0%) intermediate 7 (4.7%) and Degree 7 (4.7%).

Occupation – 98 (65.3%) are laborers, 24 (16.07%) are farmers, 12(8.0%) are Business people and 16 (10.7%) are employees

Age Group	Sex		Total
	Male	Female	
< 20	04 (80%)	01(20.0%)	05
20-29	13 (59.1%)	09(40.9%)	22
30-39	25 (61.0%)	16(39.0%)	41
40-49	25 (64.1%)	14(35.9%)	39
50-59	21(67.7%)	10(32.3%)	31
60+	10 (83.3%)	02(16.7%)	12
Total	98 (65.3%)	52(34.7%)	150
Table-1: Age and Sex distribution of Respondents			
Sex	Yes	No	Total
Male	21	77	98

ORIGINAL ARTICLE

Female	23	29	52
Total	44	106	150

Table-2: Sex Distribution according to feeling shy to take drugs in front of DOTs Provider among DOTs Defaulters

X^2 (chi-square) = 8.53 df = 1; $P < 0.005$ (significant)

Sex	Yes	No	Total
Male	21	77	98
Female	27	25	52
Total	48	102	150

Table-3: Sex Distribution according to fear of T.B. stigma among DOTs Defaulter

X^2 (chi-square) = 14.5 df = 1; $P < 0.001$ (significant)

Educational Status	Warangal		Thorrur		Govindaraopet	
	No.	%	No.	%	No.	%
Illiterate	5	18.8%	37	46.3%	38	47.5%
Primary	13	34.2%	15	39.5%	10	26.3%
SSC	8	20.1%	03	16.7%	07	38.9%
Inter	6	15.7%	00	0.00%	01	14.3%
Degree	7	18.0%	00	0.00%	00	0.00%

Table-4: Educational Status with TUs

X^2 (chi-square) = 55.940 df = 8; $P < 0.05$

Significant at 0.05 level most of them were illiterate and primary school educated.

Age Group	Smoking	
	Yes	No
< 5	0	0
5-19	1	4
20-29	4	18
30-39	13	28
40-59	29	41
60+	7	3

Table-5: Smoking Tobacco with Age Group among Defaulters

X^2 (chi-square) = 7.40 df = 4; $P > 0.10$ (not significant)

ORIGINAL ARTICLE

Age Group	Taking Alcohol	
	Yes	No
5-19	0	5
20-29	3	19
30-39	13	28
40-59	33	37
60+	8	4

Table-6: Alcoholism with Age Groups among the defaulters

χ^2 (chi-square) = 15.76 df = 4; $P < 0.005$ (Significant)

DISCUSSION: The study population constituted 150 defaulters of DOTS. In this study it was found that the age group 30-39 years (27.33%) which was more non compliant Mahesh Kumar et al found that age group between 35-44 years was more non-compliant which happened to be similar to this study finds, which is 25.4%.¹

Pranab Chatterjee et al found that defaulter significantly increased with age. The maximum being in 45-49 years.²

In other study Default rates were 6% and 31% in category-II.³

In other studies in India 20% defaulted out of them 91% treatment interruption occurred during continuation phase of treatment.⁴ In this study also 80% treatment interruption occurred during continuation phase of treatment.

The investigator found that among 150 DOTs providers 65.3% were males and 34.5 % were females. Mahesh Kumar et al study revealed that non compliance that was found to be 10.4% among male and 11% among females.

The current study showed that 53.3% of DOTs defaulters were below the poverty line and 18% were above the poverty line (the yard stick took into account was presence of house hold card as per A.P. Government criteria of annual income of Rs.24000/yearly Among the study population. 23.3% were not having house hold card.

Mahesh Kumar et al study in Luknow showed that among the study population. Non compliance was more prevalent in 16% of upper class. 1

Pranab Chaterjee et al in their study conducted observed in West Bengal percentage of defaulter were peak in middle income group .2.

The Warangal study revealed that domination of illiterates who were 53.3%. The Lucknow study by Mahesh Kumar et all revealed 13.9% job illiterates were non compliant in DOTs.

In investigator in this study found out of the defaulters 2/160 (1.3%) expired.

N. Pandit & S K Chaudhar in their study in Gujarat found that in two TB units in Anand District 15/274 expired.⁵

In this study majorities (65.3%) of the defaulters were labourers and 8.0% were farmers.

This Warangal study showed that 57 out of 150 defaulters were taking alcohol regularly. Sophia Vijay et al in their study conducted in Bangalore City showed that predictive factors associated with default were male sex and alcoholism.⁶ In other study alcohol consumption of 20%.⁷ 13% died after defaulting, 42% were having drug problems, 29% migrated.⁷ In this study 5/160 (3.3%) migrated. 1.3% expired.

ORIGINAL ARTICLE

In present study 20% defaulter in category-I, 40% in category-II, and 40% in category-III. In other study 19%, category-I, 38%, cat-II and remaining 41%, category-III.⁷

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QUESTIONNAIRE OF STUDY ON DEFAULTER OF DOTS IN WARANGAL DISTRICT

1. S.No.				
2. Age				
3. Sex	i. Male	ii. Female		
4. Caste	i. OC	ii. BC	iii. SC	iv. ST
5. Religion	i. Hindu	ii. Muslim	iii. Christian	iv. Others
6. Economic Status	i. White Card	ii. Pink card	iii. No card	
7. Educational Status	i. Illiterate	ii. Primary	iii. SSC	
	iv. Inter	v. Degree	vi. Degree & above	
8. Occupation	i. Labour	ii. Farmer	iii. Business	
	iv. Employee	v. Others		
9. Region	i. Rural	ii. Urban	iii. Semi urban	iv. Tribal
10. Type of family	i. Nuclear Family	ii. Joint Family	iii. Extended Family	
11. Type of housing	i. Kacha	ii. Semi Pucca	iii. Pucca	
12. Name of T.U.				
13. Name of Microscopy Centre				
14. Do you feel that there are too many tablets	i. Yes	ii. No		

ORIGINAL ARTICLE

15. What are all side effects you faced with the drugs (multiple responses)	i. Burning in the hands & Feet	ii. Jaundice	iii. Joint paints	iv. Vomiting and pain abdomen
	v. Rashes and pruritis	vi. Loss of appetite	vii. Giddiness	viii. No effects
16. Do you feel that the DOT centre is far away from your residence?	i. YES	ii. NO		
17. Do you receive the drugs regularly? i. YES ii. NO				
18. Since how long you know your DOTs provider?				
	i. Below one year		ii. 1 year and above	
	iii. Two years and above		iv. I don't know	
19. When did you stop the anti TB treatment?				
	i. Below one month		ii. Below two months	
	iii. Below three months		iv. Three months	
20. Did you face any inconvenience with you DOTs providers? i. Yes ii. No				
21. If you, what is the reason?				
22. Do you smoke? i. Yes ii. No				
23. If yes, since how many years?				
24. How many cigarettes you take per day?				
25. Do you take alcohol? i. Yes ii. No				
26. If yes, how frequently you take alcohol?				
27. Are you taking any other treatment? i. Yes ii. No				
28. If yes, for what disease?				
29. Do you feel, the drugs of T.B. are effective? i. Yes ii. No				
30. Do you feel shy to take T.B. drugs in front of your DOT provider? i. Yes ii. No				
31. Do you have feat or discrimination due to stigma associated with T.B ? i. Yes ii. No				
32. Have you been subjected to illegal charges by anybody during your treatment period i. Yes ii. No				
33. If yes, who demanded?				

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