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Perceptions on Tuberculosis and its cure among the Government welfare sector providers in Chennai city, South India

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Abstract

Objective - To study the perceptions on cure regarding tuberculosis (TB) among the employees working in *Adi dravidar* and Tribal Welfare department, Government of Tamil Nadu.

Design - An interview schedule was used to collect the socio-economic characteristics of the respondents and the data on their knowledge on symptoms, cause, mode of infection, diagnosis, treatment for TB and their perceptions on cure were collected.

Results - Among the 71 employees working in the Tamil Nadu government welfare origination, only ninety two percent of them have heard of the disease called TB. Forty three percent reported that cough as the main symptom, 37% reported TB was caused by germs. Out of 97% who were aware there was treatment available for TB, only 72% reported TB was curable. Disappearance of symptoms (12%) and feeling alright (25%) were perceived as the cure of TB. Only 26% reported completing the treatment for the prescribed period as cure of TB. Misconceptions reported on cure of TB were abstaining from smoking (95%), from alcohol (89%) from sex (17%) and tobacco (98%).

Conclusions - This study suggests for strengthening the need to educate the community in general and the other government sector in specific on symptoms and cure of TB.

KEY WORDS *- Tuberculosis; Perception, Cure; Misconceptions, Government welfare sector providers.*

Background

Tuberculosis (TB) persisting, as a global public health problem of a serious magnitude requires urgent attention as it is causing a threat to the individuals and communities physically, psychologically and economically. TB is the single largest infectious cause of death among adults in the world, accounting for nearly two million deaths per year. The economic impact of TB comes from the fact that in developing countries the majority of those affected are in the economically active segment of the population.[1] World Health Organization's (WHO) recommended effective TB control strategy called DOTS (Directly Observed Treatment Short course), which is used in Revised National Tuberculosis Control Programme (RNTCP), represents the best method for controlling the global TB epidemic is reaching only 27% of the world's TB patients.[2] According to RNTCP the 'cured' is defined as "initially smear positive patient who has completed treatment and had negative sputum smears, on at least two occasions, one of which was at completion

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of treatment".[3] The new approach to this TB control is not only providing physical relief but also providing the social and economic relief to the patients and their families, which warrants collaboration and coordination with other welfare departments of the government sector as stake holders, to give a holistic approach to the problem of TB control. The hurdle for the successful control of TB is lack of awareness and misconceptions about TB in the general population, including the socially under privileged population ie. the so called Schedule Caste (SC) and Scheduled tribes (ST). In a study done in Andhra Predesh among the tribal population it was found that only 44% of them have heard of TB.[4] In an other study done in Tuberculosis Research Centre, among the study population of TB patients 25% males and 29% females were belonging to the SC/ST community.[5] This particular section of the population have been marginalized for over years from the main stream of society due to the prevailing caste system in the society. They have been deprived of all the developmental measures including health, which ultimately has hampered their lives to a greater extent. They live in poverty and do not have access to quality health care, they are vulnerable to all sorts of infectious diseases including tuberculosis due to malnutrition, overcrowding, poor ventilation and sanitation which increase the risk of infection and the probability of developing clinical disease. The TB and poverty are closely linked.[6] The media report of deaths of tribal children due to malnutrition in Thane district causes a great concern. These deaths were due to low weight childbirths to teenaged mothers as in other tribal areas[7]. The National Family Health Survey-2 indicates that nutritional status of children is intimately related to the households' standard of living.[8]

At this juncture it was felt necessary to look into the perceptions of TB among the government providers who take care of the welfare measures including health to the above said SC/ST population. Hence it was decided to study the perceptions on TB and its cure among the employees working in the department of Adhi dravidar and tribal welfare, Chennai under the government of Tamil Nadu. The main objectives of this study were (1) to find out the respondents perceptions on TB with reference to its symptoms, diagnosis and treatment and (2) to assess their perceptions regarding the cure of TB.

Materials And Methods

Setting

The setting selected for the study was *Adhidravidar and* Tribal Welfare department in Chennai city under the government of Tamil Nadu. This is the welfare department founded by the government of Tamil Nadu with an aim of uplifting the socially disadvantaged community ie. SC and ST all over Tamil Nadu. It is functioning with its head quarters at Chennai city and branches in all the other 29 districts of Tamil Nadu. The objective of this department is enhancing the economic empowerment of SC and ST communities and it undertakes welfare measures in the areas such as health, family welfare, education, housing, women and child welfare, creating employment opportunities income generation programmes etc.

Study population

Using purposive sampling method all the 71 employees working in this department at the Chennai office alone were taken as study subjects. These included right from the lowest cadre of employees to the highest cadre of employees such as the director and secretary who belong to the Indian Administrative (IAS) cadre.

Data collection

A semi structured, pre coded interview schedule was developed to collect the data. The information to be collected through interview schedules, comprised of the respondents' knowledge on TB, mode of infection, type of treatment and understanding on cure of TB. The data was collected by trained interviewers who conducted the face-to-face interview with the respondents. Initially before the actual data was collected, each and every respondent was apprised of the purpose of the study, their informed consent was obtained and their cooperation was solicited. The data was collected for a period of three months from June to August 2001 at the Chennai office premises of the department of Adhi Dravidar and Tribal welfare.

Results

Characteristics of study Population

This sample comprised 71 respondents of whom 30 (42%) were females and 41 (58%) were males. Socio-demographic characteristics of this study population are given in Table 1. Among them 24% belonged to the age group of 25-34 years, 32% belonged to the age group of 35-44 years and 10% were aged 55 and above. Regarding the literacy status 54% studied upto higher secondary, 32% were graduates and the rest of the 14% were postgraduates, which included the two IAS cadre officers. While looking into the monthly income of these respondents 31% were getting less than Rs 5000 and 52% were in the salary bracket of Rs.5000-10000 and the rest 17% were getting Rs 10000 and above as their monthly emoluments.

Knowledge about tuberculosis

The knowledge about TB of the respondents has been shown in Table 2. The respondents answered in multiple choices. In all, 92% of them have heard of a disease called TB and the rest of them were not aware of tuberculosis. Hence only this 92% of the employees have been considered for further analysis. Forty five percent of them came to know about TB, through neighbours, 57% of them through the television and radio and 35% through the newspapers. As far as knowledge on symptoms were concerned, 43% mentioned that cough as the symptom, 15% blood spitting as symptom and 45% loss of weight as the symptom. 15% said fever as the symptoms. Thirty seven percent reported germs as the cause for tuberculosis, 8% said that smoking caused tuberculosis, 38% told that they did not know what was causing tuberculosis. Forty nine percent reported that TB was spread through saliva; only 26% said that it is spread through air and 29% did not know. When their knowledge on diagnosis was assessed it was found that, 54% of them felt that TB could be diagnosed by sputum examination, 43% of them told that it could be diagnosed by X-ray and 34% said that it was by blood test. Ninety seven percent of the respondents agreed that there was treatment available for TB, among them 86% reported that TB could be treated only by allopathic treatment, 8% reported that TB could be treated by ayurvedic method, and another 8% reported that TB could be treated only by siddha method.

Perception on Cure of TB

Table 3 denotes study respondents' perceptions on cure of TB. TB was perceived as a curable disease only by 72% of the respondents. Among these respondents, completing the prescribed course of treatment as per doctors' advice was perceived as a cure of TB by 17% of the males and 14% of females. Twenty percent of the 45 years or less aged and 11% of the above 45 years aged respondents and 14% of the respondents with more than higher secondary level of education and 15% of the respondents who have studied upto higher secondary level or less have also said that cure is completing the prescribed treatment. Disappearance of symptoms as cure of TB, was perceived by 8% of the below 45 years aged and 5% of the above 45 years of aged, 9% of males 3% of females and 9% of the respondents studied upto higher secondary level and 3% of respondents studied above higher secondary level. Just feeling 'all right' as the cure of TB was perceived by 15% of males, 29% of females, 18% of 45 or less years, 12% of the above 45 years, 14% of both educated upto higher secondary level and above higher secondary level.

Misconceptions on cure reaarding TB

There were some misconceptions perceived by the study population regarding the cure of TB as shown in figure 1. They believed that TB could be cured even without medicine when practising the following things like, abstaining from sex as perceived by (17%), abstaining from doing hard work (29%), abstaining from smoking (95%),abstaining from alcohol (89%) and abstaining from tobacco chewing (98%). Some more misconceptions were also perceived by these respondents as shown in figure 2. They felt the following measures should be taken in addition to the prescribed medicine to get cured from TB fully. They were, giving hospitalized care to the TB patients as perceived by 49% of respondents, giving special food as perceived by 89% and providing absolute rest as perceived by 46% of the respondents.

Table 1. Demographic and Socio-economic characteristics of respondents (n=71)

		No.	%
Age	25-34	17	24
	35-44	23	32
	45-54	24	34
	55+	7	10
Sex	Male	30	42
	Female	41	58
Education	≤Hr Sec	38	54
	>Hr Sec	33	46
Income/month in Rs	<5000	22	31
	5-10000	37	52
	>10001	12	17

Table 2. Perceptions on knowledge about tuberculosis (n=65)

		No.	%.
Sources	Neighbors	29	45
	TV/Radio	37	57
	Newspaper	23	35
	Patients	24	37
	Other	6	9
Symptoms	Cough	28	43
	Loss of weight	29	45
	Chest pain	3	5
	Breathlessness	3	5
	Blood Spitting	10	15
	Others	20	31
Causes	Germs	24	37
	Smoking	5	8
	Alcohol	6	9
	Mosquito	3	5
	Others	8	12
	Don't know	25	38
Mode of transmission	Saliva	32	49
	Air	17	26
	Flies	3	5
	Don't know	19	29
Diagnosis	Sputum test	35	54
	X-ray	28	43
	Blood test	22	34
	Don't know	19	29
Treatment	Allopathic	56	86
	Ayurvedic	5	8
	Sidha	5	8
	Homeopathy	5	8

Multiple answered

Table 3. Perceptions on cure of tuberculosis (n=65)

		Till symptoms Disappear		Felt alright		Complete Prescription		Others	
		No	%	No	%	No	%	No	%
Age	< 45 years	5	*8*	12	*18*	13	*20*	11	*17*
	>45years	4	*5*	8	*12*	7	*11*	13	*20*
Sex	Male	6	*9*	11	*29*	11	*17*	17	*26*
	Female	2	*3*	7	*15*	9	*14*	10	*15*
Education	< Hr Sec	6	*9*	9	*14*	10	*15*	16	*25*
	>Hr Sec	2	*3*	9	*14*	9	*14*	12	*18*

Multiple answered

Fig 1. Misconceptions on cure of tuberculosis

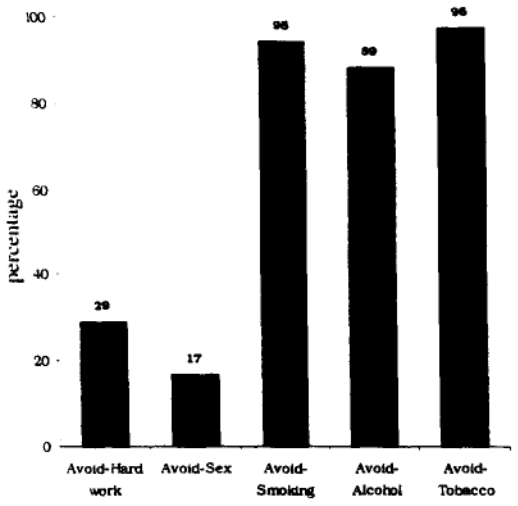
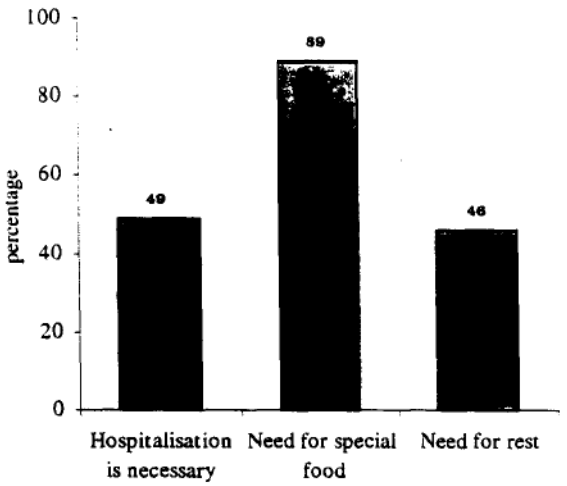


Fig 2. Misconceptions on additional measures for the cure of tuberculosis



Discussion

There have been studies to assess the level of awareness of tuberculosis among the various group of people, but only very few studies, on the peoples' perceptions, specially on the cure of tuberculosis. These studies have shown lack of awareness among patients and general population with respect to etiology, signs and symptoms and management of tuberculosis.[9] Success of any health programme will depend upon whether the target groups are aware of its existence and are willing to participate in it. National Tuberculosis Control Programme has been in place over the decades, information about the programme and its benefits are yet to reach the people adequately.[10] Studies have been done in India to find about TB awareness in the general community but the value of the present study emphasizes specially on a particular sector of the society, the government welfare providers' perceptions on cure of TB. In the present study 37% of the respondents were aware that TB is caused by a germ, 38% of them did not know the symptoms, 57% of them reported TV/Radio were the main sources of their information to get the knowledge on TB. In similar study done by Rajeswari et al to find out TB awareness among the educated public, it was found that 86% of the respondents said that TB germs caused the disease, and for them books

and magazines were the main source of information on TB:[11] In this present study more than 50% of them did not have any idea on the specific symptoms on TB, and 29% did not know how it is transmitted. TB treatment is lengthy, symptoms can subside before course completion and the drugs prescribed can give side effects. Seventy six percent of patients who defaulted this treatment by the end of intensive phase, a period during which the symptoms usually decline, patients identified by community survey who are less likely to be symptomatic were more likely to default.[12]

In this study 92% of the respondents were aware of TB and among them 97% were aware that treatment is available to cure this disease. Similarly in a community study conducted in Bomaby more urban (78%) households believed that TB is curable. In this study, disappearance of symptoms and feeling alright were perceived as cure of TB by 11% and 25% the study population. Only one forth of the respondents reported that cure form TB could be achieved only by completing the full prescribed treatment as per the doctors' advice. Even in the study by Rajeswari et al 28% of the respondents felt that treatment for TB is continued only till the symptoms disappeared.[11]

Some of the misconceptions perceived by the respondents in this study were, abstaining from smoking, alcohol, tobacco chewing and taking special diet, in addtion to the TB treatment, for getting the complete cure. Besides, abstaining from hard work (29%), sex (17%) and need for hospitalization (49%) were also the misconceptions the respondents had, in order to get the complete cure, in addition to the prescribed treatment for TB. In the study done by Rajeswari et al also the respondents had mentioned the need for nutritious diet and bed rest for getting cure in TB.[11]

Similarly a study done by Administrative Staff College India (ASCI) in Medak district, "It is understood by most that TB is curable and that to recover from TB it is thought necessary to take medicine, eat bland food and abstain from sex"[13] According to the study conducted in Delhi, "most of the patients believed that TB was curable, if medicine were taken regularly and 20% of the patients believed that treatment in hospital was necessary"[14] In the other report from Bombay, the finding on perception on the curability of TB was that people believe TB to be curable as long as specific "dietary, social and cultural norms are followed" where people believe that the illness is caused by these norms.[15]

Limitations of the study

This study has got its own limitations of having interviewed only the employees working in Chennai office of the department of Adi dravidar and tribal welfare. The present study outcomes are from the respondents belonging to a metro area i.e. Chennai and it is worthwhile to repeat the same exercise among the employees of the same department who are living in other rural and urban districts of Tamil Nadu.

Conclusion

This study suggests the needs to sensitize all the government welfare sector providers on tuberculosis, who can be tied up to the TB activities in order to achieve the desired target of TB control by 2005. Convergence of resources and services seemed the best way of tackling the problem within the restricted time frame. This strategy is already in practice in the district of Nilgris. In the recent removal of malnutrition programme among the children in the district the plan of action drawn for the district, harnessed all links of governance - Health and Revenue Departments, the hill area development programme, Integrated child development services scheme, local panchayats and local power groups like women self help groups and non government organizations.[16] Similar strategy can be adopted in the TB control programme by spelling out the role of each of the partners. A multisectoral approach incorporating private and government welfare sectors and community, through advocacy, social mobilization, can be the best way for the TB control.[17]

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