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SOCIODEMOGRAPHIC FACTORS ASSOCIATED WITH HEALTH SEEKING BEHAVIOR OF CHEST SYMPTOMATICS IN URBAN SLUMS OF AURANGABAD CITY, INDIA

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ABSTRACT

Revised national Tuberculosis control programme was launched in India in 1993 with the objectives of maximum case detection and complete treatment of Tuberculosis patients under directly observed treatment short course strategy (DOTS). The case detection rate can be increased only after knowing the health seeking behavior of Tuberculosis patients after onset of symptoms. Objective was to know the prevalence of chest symptomatics in urban slums of Aurangabad city along with various factors associated with their health seeking behavior. The present field based cross sectional study was carried out during July 2007 to September 2008 in urban slums of Aurangabad city in Maharashtra state of India. A house to house survey was carried out in all the selected slum areas to identify the chest symptomatics above the age 15 years. Detailed information was collected from all the identified chest symptomatics on first health care seeking action, type of facility visited, reasons for preference, time gap between onset of symptoms and care seeking action after taking informed consent. Statistical analysis included Chi square test of significance with statistical software SPSS version16.0. The prevalence of chest symptomatics in urban slums was found to be 1.17%.out of 105 chest symptomatic, 54 (51.4%) of them visited to private hospitals for relief of their symptoms while only 25 (23.8%) of them preferred government health centers for treatment. The factors like sex, religion, type of family, education and socioeconomic factors were significantly associated with visit to helath health facility and its choice among chest symptomatic.

Keywords: Chest Symptomatic, Urban Slum, Health Facility, Self Medication

INTRODUCTION

Tuberculosis accounts for 2.5% of the global burden of disease and is the commonest cause of death in young women, killing more women than all causes of maternal mortality combined. Tuberculosis holds currently seventh place in the global ranking of cause of death. Ninety five percent of all cases and 99% of deaths occur in developing countries with the greatest burden in sub- Saharan Africa and South- East Asia (WHO, 2002).

Tuberculosis (TB) remains a major public health problem in India. About 40% of the population in India is estimated to be infected with Tuberculosis bacillus. India accounts for one fifth of global incidence of TB and tops the list of 22 high TB burden countries. TB kills more adults in India than any other infectious disease. Revised National Tuberculosis Control Programme (RNTCP) launched in 1993 uses the dots (directly observed treatment, short-course chemotherapy) strategy, which is based on results of Tuberculosis research done in India (Central TB Division, 2005 & 2006)

Control of Tuberculosis is based on three strategies as case finding and treatment of active disease, treatment of latent Tuberculosis infection and vaccination with Bacilli Calmette-Guerine (BCG). The latter two approaches have minimal impact on Tuberculosis incidence as treatment of latent Tuberculosis is not widely practiced and BCG vaccine has little effect in the prevention of adult Tuberculosis cases.

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Hence case finding and treatment of Tuberculosis disease are currently the principal means of controlling transmission and reducing incidence (Golub, 2005)

However mere administration of good treatment to diagnosed cases may not control the disease unless accompanied by efficient case finding. While delays in diagnosis and initiation of anti Tuberculosis treatment are widely reported, information on health seeking behaviour of chest symptomatic in community is limited. It is important that those who attend on their own must be offered good quality sputum smear examination and those who don't must be studied to find the reason for neglect of their health. Studies on behaviour and action taken by symptomatics are therefore important (Nair, 2002)

Several studies have evaluated care-seeking behaviour of patients diagnosed with Tuberculosis at health clinics but little is known about the care-seeking behaviour of chest symptomatic in the community and of the factors influencing their initial response and subsequent behaviour patterns (Sudha, 2006).the present field based study carried out to assess health care seeking behaviour and the reasons for choice of health facility among the chest symptomatic in urban slums.

MATERIALS AND METHODS

The present field based cross sectional study was carried out during July 2007 to September 2008 in urban slums of Aurangabad city in Maharashtra state of India to study the health care seeking behaviour of chest symptomatics.

There are total 53 declared slums with population 1, 24,493 in municipal corporation area of Aurangabad city. Out of which 6 slums were selected by systematic random sampling method. The total population of these six slums as per Municipal Corporation is 15020. So 12% of total 53 slums population in the city covered by the selected six slums in this study.

Before the actual commencement of the study in any slum, a preparatory visit was made by the investigator to the slum area. A meeting with the Anganwadi Worker (AWW) was made after taking permission from the Child Development Project Officer (CDPO). The purpose of study was explained to the AWW and also to the local community leaders like members of Mahila Mandal, social workers. One of them was accompanying with the investigator during study in slums.

A house to house survey was carried out in all the selected slum areas to identify the chest symptomatics above the age 15 years. As per Municipal corporation and Anganwadi worker's records the population of six slums above 15 years was 9120. Among them 8970 subjects could be contacted during this study and rests were excluded due to migration and locked houses even after visiting twice. The first household selected randomly followed by visit to other houses in the same slum by keeping the same direction to cover the entire slum houses. The boundaries of a particular slum area were confirmed with the help of Anganwadi worker of that slum area. The locked houses found at first visit were revisited again. Maximum attempt were being made to cover the entire houses in the slums.

A chest symptomatic (CS) was defined (as under RNTCP) as person with productive cough for 3 weeks or more, with or without hemoptysis, fever, chest pain, weight loss and/or night sweat (Central TB division 2005).

'Care-seeking' was defined as any action taken by a chest symptomatic to get relief for his/her symptoms (Nair, 2002). All the chest symptomatics less than 15 years, previously diagnosed and treated or on anti-Tuberculosis treatment, houses that were found locked still after 3 revisits were excluded from the study.

A pilot study was conducted with predesigned proforma and all necessary modifications were done. Detailed information was collected with the help of predetermined, pretested questionnaire from all the identified chest symptomatics on first health care seeking action, type of facility visited, reasons for preference, time gap between onset of symptoms and care seeking action after taking informed consent. *Socioeconomic status scale:* Classification given by B.G. Prasad in 1961 adopted and updated as per All India Consumer Price Index.

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The study protocol was presented in front of Institutional Ethics Committee of Government Medical College, Aurangabad then the actual study started after getting approval for the same.

Data Entry and Analysis: The data was compiled, analyzed and tabulated. The chi square test was applied wherever necessary by SPSS (Statistical Package for Social Science) 16.0

RESULTS

Total 8970 subjects could be contacted; rest could not be contacted because of locked doors and temporary migration. Among them total 105 chest symptomatics were found in these slums. The prevalence of chest symptomatics in these urban slums was found to be 1.17%. The distribution of chest symptomatics in urban slums is as shown below in table1.Maximum numbers of chest symptomatics i.e. (26) 24.8% were in the 15-24 years age group. Among 105 chest symptomatics 37 (35%) were Hindu, 34 (32%) were Muslim, 33 (32%) were Buddhist and 1% were others (Parsi). It was observed that the chest symptomatics were distributed evenly in three major religions in slums. Total 79 (75.2%) of chest symptomatics were observed to be married, 19 (18.1%) were unmarried and 7 (6.7%) were widowed. Total 61% chest symptomatics were living in joint family, 32.4% in nuclear family and 6.7% in three generation family. Among total chest symptomatics observed 71 (67.6%) were literates and 34 (32.4%) were illiterates. Nine (8.6%) were educated up to higher secondary school certificate (HSC) and 0.9% were graduates. Maximum chest symptomatics 22 (21.0%) were of having labourer occupation. As per modified B.G. Prasad's classification, maximum number of chest symptomatics 57 (54.3%) were distributed in socio-economic (SE) status IV while only 2 (1.9%) of chest symptomatics were in SE Status I (Table 1).

Table 2 revealed that out of 105 chest symptomatic, 54 (51.4%) of them visited to private hospitals for relief of their symptoms while only 25 (23.8%) of them preferred government health centers for treatment. Total 26 chest symptomatics had not visited to any health facility and out of these 26 symptomatics, 13 (12.4%) had taken self medication before switching over to any health agency without any advice. As the age advances, more people contact a health agency, especially private centres to seek relief from symptoms. The self medication was taken in higher proportion 26.3% (4/38) by chest symptomatic with age group of 35-54 years. The observed difference was not significant statistically (p>0.05). The proportion of female chest symptomatic visiting to private centers was higher 53.3% as compared to male symptomatics. The self medication was high in female patients and the proportion of males not taking any treatment was higher (18.3%). The association was significant statistically (p<0.05). Among other socio demographic factors, the chest symptomatic having Hindu religion and from joint and three generation family had visited to private centres more often than government centres [75.7 % (29/38), 60.9% (39/64) and 71.4% (5/7) respectively]. This difference was statistically significant (p<0.05). Higher proportion (26.3%) of the unmarried chest symptomatic had not visited to any health facility for relief. This difference was not statistically significant (p>0.05).Out of 41 chest symptomatic in upper socioeconomic status, 29 (70.7%) of those visited to private health facility as compared to only 39.1 % (25/64) of those from lower socio economic status. The percentage of the chest symptomatic from low socioeconomic status not visiting to any health facility was 18.8 % as compared to only 2.4% from upper socioeconomic status. This difference was statistically significant (p<0.01) Illiterate peoples less likely visited to any health facility for relief. The chest symptomatic educated below high school visited to private practioners in higher proportion while those having education above high school preferred government hospital for seeking care. This difference was statistically significant (p<0.01).

Table 3 shows that 35 (62.5%) of the chest symptomatic did not seek care to any health facility felt that their symptoms were not severe. Domestic preoccupation or pressure of work preventing 16 (28.6%) of the chest symptomatics for seeking relief from the health facilities. Other reasons told by chest symptomatic were lack of money: 3 (5.4%), dissatisfaction with health facilities: 2 (3.8%) and lack of transport: 2 (3.8%).

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Variable	v x	Number	Percentage
Age group (yrs)	15-34	48	45.7
	35-54	38	36.2
	55 -74	15	14.3
	74 and above	4	3.8
Sex	Male	45	42.9
	Female	60	57.1
Religion	Hindu	38	35
	Muslim	34	32
	Budhhist	33	32
	Other	1	1
Marital status	Married	79	75.2
	Unmarried	19	18.1
	Single	7	6.7
Type of family	Nuclear	34	32.4
	Joint	64	61
	Three generation	7	6.7
Education	Illiterate	34	32.4
	Below high school	61	58.1
	Above high school	10	9.52
Occupation	Labour	22	21.0
	Housewife	20	19.0
	Employed	14	13.3
	Student	10	9.5
	Dependant	8	7.6
	Own business	8	7.6
	Unemployed	8	7.6
	Owner & Cultivator	6	5.7
	Agricultural worker	4	3.8
	Others	5	4.8
Socio-economic class	Ι	2	1.9
	П	7	6.7
	III	32	30.5
	IV	57	54.3
	V	7	6.7

Table 1: Socio-demographic factors associated with chest symptomatic in urban slum

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		Visited to health facility		Not visited		Total	p value
Variables		Private (n=54)	Government (n=25)	Self medication (n=13)	No treatment (n=13)		_
Age group	15-34	25 (37.5)	13 (22.9)	6 (8.3)	4 (8.3)	48	χ2=8.68
(yrs)	35-54	19 (60.5)	8 (21.0)	4 (26.3)	7 (13.2)	38	p=0.46
	55 -74	09 (73.3)	2 (20)	2 (13.3)	2	15	
	74 and above	1 (25)	2 (50)	1 (25)	Nil	4	
Sex	Female	24 (53.3)	10 (22.2)	9 (20.0)	2 (4.4)	45	χ2=7.83
	Male	30 (50.0)	15 (25)	4 (6.67)	11 (18.3)	60	p=0.04
Religion	Hindu	29 (75.7)	5 (13.5)	3 (8.1)	1 (2.7)	38	$\chi^2 = 33.23$
-	Muslim	16 (47.0)	14 (41.2)	2 (5.9)	2 (5.9)	34	p=0.0001
	Buddhist	9 (27.3)	6 (18.2)	8 (24.2)	10 (3.0)	33	-
	Other	1 (100)	0	0	0	1	
Marital status	Married	42 (53.2)	21 (26.6)	9 (11.4)	7 (8.9)	79	χ2=5.98
	Unmarried	9 (47.4)	2 (10.5)	3 (15.8)	5 (26.3)	19	p=0.424
	Single	3 (42.9)	2 (28.6)	1 (14.3)	1 (14.3)	7	-
Type of family	Nuclear	10 (29.4)	15 (44.1)	4 (11.8)	5 (14.7)	34	χ2=14.63
	Joint	39 (60.9)	9 (14.1)	8 (12.5)	8 (12.5)	64	p=0.023
	Three generation	5 (71.4)	1 (14.3)	1 (14.3)	Nil	7	-
Education	Illiterate	6 (17.6)	6 (17.6)	12 (35.3)	10 (29.4)	34	$\chi 2 = 64.23$
	Below high school	46 (75.4)	11 (18.0)	1 (1.6)	3 (4.9)	61	p=0.0001
	Above high school	2 (20)	8 (80)	Nil	Nil	10	-
Socio-economic class	I,II, III	29 (70.7)	5 (12.2)	6 (14.6)	1 (2.4)	41	χ2=14.33
	IV, V	25 (39.1)	20 (31.3)	7 (10.9)	12 (18.8)	64	p=0.0024

Table 2: Socio-demographic factors associated with visit to health facility

Table 3: Reasons for not seeking medical advice by chest symptomatics of slums

Reasons for not seeking medical advice	Total*
Symptoms not severe	35 (62.5)
Domestic preoccupation	16 (28.6)
Lack of money	3 (5.4)
Dissatisfaction	2 (3.8)
Lack of transport	2 (3.8)
Total	56 (100)

*Multiple response (Figures in parenthesis indicate percentage

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DISCUSSION

Recognizing the problem and impact of TB on urban slum population, the study was planned to do in urban slums. As the present RNTCP is based mainly on passive case finding i.e. detecting the Tuberculosis cases among those who attend themselves to the health facilities, an attempt is being made to study health seeking behaviour in urban slums. In the present study, prevalence (point prevalence) of chest symptomatics was found to be 1.17%. Similar results (prevalence of chest symptomatics in Raichur District - 1.1%) were observed by (Nair, 2002). Another study observed the prevalence of chest symptomatics of 3.0% in urban population (Sudha, 2003) and 9.5% prevalence in a study (Gopi, 1997). This variability's of prevalence rates in different studies could be due to lack of uniformity in definition of chest symptomatic (cough for 2 or 3 weeks), training and skills of interviewers, also might be due to differences in the population covered.

In the present study it was observed that 51.4% of chest symptomatics visited private practitioners for the first time as a health seeking behavior. 23.8% chest symptomatics visited Government health centers, 12.3% of chest symptomatics taken self medication while 12.8% chest symptomatics did not visited any health facility i.e. not shown any health seeking behavior. A study in Karnataka State observed the similar result (Nair, 2002). In the present study out of total 105 chest symptomatic, 24.8% chest symptomatic were in the age group 15-24 years, followed by 21.0% in 25-34 years age group. Similar results were observed in a study (Sudha, 2003). A study observed 29.7% chest symptomatics in 15-24 year age group followed by 24.6% chest symptomatics in 25-34 year age group (Nair, 2002) and a study in Karnataka observed that 18.4% of the chest symptomatics belonged to 15–24 year age group (Jagota, 1999).

In the present study, out of 105 chest symptomatics 57.2% chest symptomatics were males and 42.8% chest symptomatics were females It was observed in a study that 50.6% chest symptomatics were males as compared with 49.4% females (Sudha, 2003). Another study revealed 50.4% male chest symptomatics and 49.6% female chest symptomatic (Nair, 2002).Higher literacy was significantly associated with care seeking. More often people in 35-54 years age group compared to younger persons decide to seek help from health care providing source (Grover, 2006). In the present study the reasons given by chest symptomatics for not seeking medical advice were- symptoms not severe (63.8%), domestic pre occupation (16.2%), pressure of work (13.3%), dissatisfaction (2.8%) and lack of transport (2.8%). Similar results were observed in a study conducted at Tamil Nadu (Sudha, 2003)⁻

Conclusion

Recognizing the problem and impact of TB on urban slum population, the study was planned to do in urban slums. As the present RNTCP is based mainly on passive case finding i.e. detecting the Tuberculosis cases among those who attend themselves to the health facilities, an attempt is being made to study the awareness of Tuberculosis among chest symptomatic and their health seeking behavior in urban slums. Maximum number (51.4%) of chest symptomatic approached private practitioners for seeking health indicating their important role in ongoing Revised National Tuberculosis Control Programme (RNTCP). The issue of motivation of private practitioners regarding referral of the chest symptomatic to nearby diagnostic microscopic center plays a major role in control of Tuberculosis. In the present study various socioeconomic factors are associated with health seeking behavior of chest symtomatics. More emphasis should be given to chest symptomatic from nuclear family, lower socioeconomic status and productive age group who ignore the symptoms due to busy in various household responsibilities and liabilities. The health services should create awareness about importance of visit to health centers after onset of chest symptoms without any delay to avoid progress and spread of Tuberculosis. The proportion of illiterate people not visiting to health centers was high indicating poor knowledge about symptoms of the Tuberculosis and availability of free of cost in government setting. Hence effective use of Behavior Change Communication strategy to change their unhealthy behavior to healthy behavior of visiting health agency earlier after onset of chest symptoms could solve this issue.

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