



ASSESS THE KNOWLEDGE REGARDING TUBERCULOSIS AMONG ADULTS IN SELECTED COMMUNITY AREAS AT JHANSI, UTTARPRADESH.

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Abstract:

Background: Infectious disease is a significant public health concern in both industrialized and poor countries. Infectious diseases cause huge population losses in India each year. Among infectious diseases, TB is the leading cause of death in both children and adults worldwide. Despite the fact that the causal organism was discovered more than 100 years ago and very potent medications and vaccinations are available, tuberculosis (TB) remains a worldwide public health problem. Eleven of the 22 high-burden TB countries are in Asia, while nine are in Africa. These countries account for almost 80% of all cases worldwide. India has a large burden in Asia, accounting for roughly 20% of the world burden.

Objective: To assess the level of knowledge regarding tuberculosis among the adults in selected rural areas.

Methods: The study was conducted in selected community areas by two data collectors and selected high school. The questionnaire were checked for completeness, cleaned manually and entered in to Epi- Data version 4.2. Then the data was transferred in to SPSS version 21.0 for further analysis. Descriptive statistics were carried out. Finally checked association between dependent and independent variables.

Result: showed that majority of Adults 56.6% were average knowledge regarding tuberculosis, 26.6% were poor knowledge regarding tuberculosis and 16.7% were having good knowledge regarding tuberculosis. Adult education status significant with p value less than 0.05 level of significant.

Conclusion

Thus study concludes that the adults should get enough awareness regarding tuberculosis. As health professionals it's the responsibility of us to conduct some awareness programe to improve their level of knowledge in tackling the problem of tuberculosis in Jhansi, U.P.

Keywords: Knowledge, Tuberculosis, Adults, Prevention

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DOI: - 10.48047/ecb/2023.12.si10.00170

Introduction:

Every year, 9.7 million people become ill with tuberculosis (TB), and 1.7 million die as a result of it. TB remains a major public health issue around the world, including Ethiopia. Every year, it causes illness in millions of individuals and is the second greatest cause of mortality from an infectious disease [1]. TB claimed the lives of 1.7 million people in 2006: Despite the fact that the global prevalence of tuberculosis has reduced, an estimated 10.4 million persons contracted the disease in 2015, with the world accounting for one-quarter [2].

Every second, someone is infected with tuberculosis (TB), and every ten seconds, someone dies as a result of the disease. According to the 2018 Global TB report, Ethiopia is one of the 30 nations with a high TB burden, and the disease was detected in 62 (51-74% of cases) of Ethiopians [3]. Raising community awareness helps with early TB diagnosis, which is one of the End TB Strategy's pillars. Studies have found a link between TB knowledge, care seeking, and treatment adherence. To address such difficulties, the amount of knowledge must be determined in order to build appropriate interventional programmes. Several studies have found that patient delay can be impacted by several reasons, including a lack of knowledge, a lack of awareness of the severity of symptoms, negative societal attitudes, or a combination of these.

Though numerous researches on tuberculosis awareness and prevention have been completed in Ethiopia, no study has been conducted on tuberculosis knowledge among populations. Until far, the only and most effective technique of TB control has been early case detection and treatment of cases.[6]. In terms of treatment success rate, the current TB control strategy using Directly Observed Treatment; Short Course (DOTS) is reported to be successful. However, the DOTS passive case detection technique may not have reached a case detection rate of at least 70%. For TB case-finding in India, the Revised National Tuberculosis Control Programme (RNTCP) use a passive case detection strategy. This could be the reason for the delayed presentation of TB patients at healthcare centres with TB diagnostic facilities.

In India TB is more prevalent among the adults especially in the age group between 15-54 years. So the researcher interest has geared up towards assess the knowledge about TB and to identify the association between the knowledge about TB with their selected personal variable.

Methodology

Study area and period

Study was conducted selected community areas and study period one month.

Study design

A cross sectional study was conducted to attain the objectives of the study.

Population

Source and study population:: All tuberculosis affected people residing at selected community areas and whom can respond the required information without any difficulties.

Inclusion criteria and Exclusion criteria

Inclusion criteria:

- All tuberculosis patients at who are residing at selected areas.
- Tuberculosis patients are living in the study area at least for six months

Exclusion criteria:

- Tuberculosis patients who are absent during data collection period

Sample size: Convenient sampling technique selected 60 Tuberculosis patients.

Variables

Dependent variable: Knowledge about Tuberculosis

Independent variables:

Age, Religion, educational status, occupational status, family monthly income. Heard about prevention of tuberculosis.

Operational definition

Knowledge: It refers to theis understanding gained through learning or experience of tuberculosis.

Tuberculosis: It refers to the contagious infection that usually attacks your lungs. It can also spread to other parts of your body

Prevention: It refers to the act of stopping something from happening or of stopping someone from doing something

Data quality control

The data collection questionnaires were pretested on 5% of the sample size one week before the actual data collection date and will be reviewed in areas other than the study area. Following the pretest, the tools will be edited and changed to meet the study's objectives. The consistency of the

data was monitored during the collection process by closely monitoring the data collectors and the collection method, as well as reviewing the collected data on a regular basis. Any items missing from the questionnaire that the data collectors misunderstood were immediately checked by the supervisors and corrected for the next day of data collection with the principal investigators.

Data processing and analysis

The collected data was washed, coded, and entered into the SPSS program before the actual study began. The data will be entered and analyzed using the statistical kit for social sciences (SPSS) version 20; the findings will be presented in a detailed description using frequencies, proportions, and cross tabs. Association between dependent and independent variables with a P-value less than 0.05 were considered statistically significant.

Result

Table:1: Socio-Demographic Characteristics of respondents

Characteristics		Frequency	Percentage (%)
Age	20-30 Years	13	21.66
	31-40Years	20	33.33
	41-50 Years	12	20
	>51 Years	15	25
Religion	Hindu	37	61.7
	Muslim	16	26.7
	Christian	7	11.7
	Others	0	0
Education	No formal education	18	30.0
	Primary	17	28.3
	secondary	9	15.0
	Higher secondary	5	8.3
	Bachelor	6	10.0
	master and above	5	8.3
Family Monthly Income	5000-10000	24	40.0
	10000-20000	18	30.0
	More than 20000	18	30.0
	5000-10000	24	40.0
Marital status	Married	45	75
	Unmarried	15	25
Knowledge regarding tuberculosis	Yes	20	33.33
	No	40	66.66
Source of information	Health person	13	21.66
	Friends	12	20
	Parents	15	25
	News paper	20	33.33

As shown in the **Table (1)**, A total of 60 Adults took part in the study, resulting in a 96% response rate. According to the study, 20 respondents (33.33%) were age group 41-50 years and 15 (25%) of the respondents were ages of more than 51 years, 13(21.6%) were 20-30 Years and 12(20%) were 41-50 Years. Regarding religion 37(61.7%) were Hindu religion, 16(26.7%) were muslim and 7(11.7%) were Christians. Regarding educational backgrounds, 18 (30%) had no formal education, 17 (28.3%) had elementary education, 9 (15%) had secondary education, 5 (8.3%) had upper secondary education, a master's degree or higher, and 6 (10%) had a bachelor's degree or higher. 16 (26.7%) of the mothers had only had a primary education, 15 (25%) had completed a secondary education, 13 (21.7%) were illiterate, and 6 (10%) had completed both a higher

secondary and a bachelor's degree. 4 (6.7%) had a master's or above.

Regarding family monthly income 24(40%) were monthly income 5000-10000, 18(30%) were monthly income 10,000 to 20,000 and more. Regarding Marital status 45(75%) were married and 15(25%) were unmarried. knowledge regarding tuberculosis 40(66.66%) were not know about tuberculosis and 20(33.33%) were yes know about tuberculosis. Source of information regarding tuberculosis 20(33.33%) from newspaper, 15(25%) were know about tuberculosis through parents,13 (21.66%) about health person and 12(20%) about friends.

Table:2: Knowledge reading Tuberculosis

Characteristics	Mental wellbeing score	
	F	Percentage
Poor Knowledge	16	26.6%
Average knowledge	34	56.6%
Good Knowledge	10	16.7%

According to Table 2, 10 (16.7%) reproductive age women had good Knowledge, 16 (26.6%) had poor Knowledge, and 34 (56.6%) had average Knowledge regarding tuberculosis.

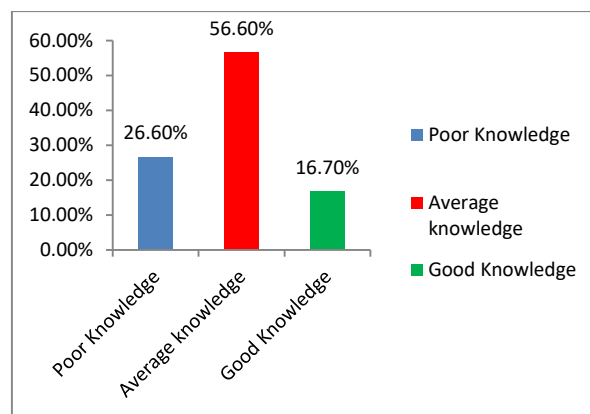


Fig: 1: Knowledge reading Tuberculosis

Section: VIII: Association between knowledge score of tuberculosis with selected socio-demographic variables.

N=60

Demographic Variables		Level of knowledge			χ^2 value	df	p value
		Poor	Average	Good			
Age (Years)	20-30 Years	7	18	1	0.622 ^a	2	0.593 ^{NS}
	31-40Years	6	2	2			
	41-50 Years	2	10	3			
	>51 Years	1	4	4			
Religion	Hindu	5	15	3	0.741 ^a	2	0.419 ^{NS}
	Christian	9	10	4			
	Muslim	2	9	3			
Education	No formal education	2	12	3	0.812 ^a	1	0.527 ^{NS}
	Primary	4	6	2			
	secondary	3	5	4			
	Higher secondary	5	5	1			
	Bachelor	2	3	0			
	master and above	0	2	0			
Family Monthly income	5000-10000	4	11	4	0.723 ^a	2	0.467 ^{NS}
	10000-20000	6	10	3			
	More than 20000	6	13	3			
Marital status	Married	10	10	3	0.827 ^a	2	0.382 ^{NS}
	Unmarried	13	5	8			
Knowledge regarding tuberculosis	Yes	9	24	6	0.164 ^a	4	0.648 ^{NS}
	No	7	10	4			
Knowledge regarding tuberculosis	Health person	3	14	2	0.164 ^a	4	0.038 ^{S*}
	Friends	2	10	3			
	Parents	2	6	4			
	News paper	3	4	1			

*p<0.05 level of significant association, S- significant NS-non significant

The table 3 showed that Knowledge regarding tuberculosis significant association with knowledge score of tuberculosis patients p<0.05 hence null hypothesis accepted.

Socio-demographic variables like Age, religion, family monthly income, type of family, education marital status, knowledge regarding tuberculosis were no significant association with knowledge regarding tuberculosis

Discussion:

This study revealed overall low levels of knowledge about TB, in line with previous studies in developing countries, including Increased awareness was observed in high school graduates,

as Table 3 TB attitudes and practices among all respondents and among those with good TB knowledge scores in two districts of Punjab, Attitudes and practices Total (N = 1080) n (%) Good knowledge (n = 460) n (%) P value what would you do if you had TB symptoms? Go to a health facility 1029 3 weeks was mentioned by less than half of the respondents, in contrast to studies in Kenya and Ecuador, which have higher literacy rates.²⁹ A good understanding of the methods of TB transmission and prevention was observed in nearly a third of those interviewed, consistent with an Ecuador study and better than in previous studies. Sharing utensils and food were also indicated as means of transmission. Knowledge

about BCG as a preventive measure, especially in the least educated and the poor, was limited despite 90% BCG coverage.

Study was conducted to assess the knowledge of doctors in the public and private sectors regarding TB control and management. Study used a self-reported questionnaire based on the RNTCP technical and operational guidelines. One hundred and forty-one doctors were recruited through census sampling; all were registered with the Chest Physicians Association and treating TB using allopathic medicine. The list of doctors was obtained from Lucknow District TB Office, which annually updates and manages the members list of the Chest Physicians Association. This study was conducted in Lucknow, India in February–March 2007. Result showed that Of 141 doctors, 71% had specialized medical education for treating TB, 60% had received RNTCP training and 69% reported that they follow DOTS methodology for TB treatment. Fifty-six percent of doctors worked in the public sector and 44% worked in the private sector. Forty-nine percent of doctors working in the public sector and 53% working in the private sector correctly reported all TB symptoms as per the RNTCP guidelines. Sixty-six percent of doctors in the public sector and 39% in the private sector reported the correct technique for sputum sampling. Public sector doctors demonstrated better knowledge of drug regimens for sputum smear-positive and sputum smear-negative TB than private sector doctors. Statistical analysis indicated that doctors in the public sector had 2.1 times better knowledge than private sector doctors (odds ratio 2.1; $P = 0.05$). Study concluded that Health policy managers and DOTS implementers should encourage all doctors, particularly private sector doctors, to receive RNTCP training and follow DOTS methodology. Improvement is needed in RNTCP training, and emphasis needs to be given to correct diagnosis, management and follow-up of TB patients[9].

A cross-sectional study was performed To explore knowledge, attitudes and practices regarding TB in the general population of two districts of Punjab province, and the effect of socio-economic determinants. In a cross-sectional survey, subjects aged ≥ 20 years were randomly selected using multistage cluster sampling and interviewed. A knowledge score was formulated based on nine questions. Bivariate analysis using the χ^2 test was employed to independently correlate socioeconomic factors with understanding of disease and information sources. Attitudes, practices and information sources were also compared with TB knowledge. Result showed that Forty-two per cent of the surveyed population had

good knowledge about TB, which was associated with better education, high income and good housing (all $P < 0.001$). Despite the fact that the majority (82.2%) knew about correct treatment, less than half (48.8%) were aware that diagnosis and treatment were free. Intended health-seeking behaviour was determined by better education ($P = 0.011$), good housing ($P = 0.004$) and good knowledge about TB ($P < 0.001$). Television (69.4%) and health workers (43.6%) were the main sources of information. Study concluded that Socio-economic factors should be considered when designing communication strategies and prioritising TB prevention and control interventions.[10]

Conclusion:

The study concludes that even IEC messages should use different ways to reach to most of the people and also health professionals should conduct regular mass health education programmes in their area to bring the changes in the society. Also the health professionals should gear up in spreading the message about the modes of transmission, clinical features and line of treatment of the disease.

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