



INTROSPECTION ON AWARENESS OF RURAL POPULATION OF WAYANAD ABOUT TUBERCULOSIS

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ABSTRACT

Background: Tuberculosis remains a major cause of death worldwide. WHO estimated that the prevalence of tuberculosis was 10 million in 2020. India accounted for 34% of global TB deaths. Wayanad, one of the districts in Kerala, have the highest TB suspect examination in the country. The treatment period, increased transmission, death, and financial need for the treatment could be the reason for the high prevalence rate. Therefore the knowledge, attitude and practice of the general population of Wayanad play an important role in TB elimination.

Objective: This KAP survey is proposed to assess the knowledge, attitude and practice of the general public towards tuberculosis. The main strategy is to generate awareness on TB among the rural population of Wayanad.

Methods: A pre structured questionnaire was prepared and a prospective cross sectional study was carried out.

KEYWORDS: Tuberculosis, Prevalence.

INTRODUCTION

Tuberculosis (TB) is one of the most ancient infectious diseases and has co-evolved with humans for many thousands to several million years.^[1] TB was the 13th leading cause of death worldwide. In 2020, it is expected that TB will rank as the second leading cause of death from a single infectious agent, after COVID-19.^[2] Globally, an estimated 9.9 million people fell ill with TB in 2020, equivalent to 127 per 100 000 population.^[3] India accounted for 34% of global TB deaths. However, Kerala's TB incidence is estimated to be 67 cases per 100,000 and it is aiming to be the first state in India to achieve TB elimination.^[4] Though the Government of India has taken several steps towards TB elimination, the disease continues to be a major public health problem in the country.^[5]

One of the major concerns in controlling the TB burden is the poor awareness and lack of knowledge of the population about TB.^[6] It can lead to increased transmission, delay in health seeking behavior, worse health outcomes, lack of adherence, resulting in multidrug resistance, treatment failure, disease complication and death.^[6] It was observed that financial support and transportation are the factors which hinder rural population to access health care for treatment compared to urban population.^[7] The financial burdens often include medical expenses, expenses associated with seeking care, unemployment from side effects of the

disease and longer period of treatment.^[5]

TB prevention and control could be significantly improved if more consideration was given to the population's knowledge, attitude and practice towards TB.^[6] By educating the patients and removing their misconceptions about TB, patient compliance with therapy and the spread of disease can be improved.^[8] So this study was conducted to assess the knowledge, attitude and practice towards TB among the general population of Wayanad. This district was chosen because of the low density of population among the districts of Kerala with high TB suspect examination in the country.

MATERIALS AND METHODS

A prospective cross sectional study was carried out in the district Wayanad, Kerala. It is the least populated district in Kerala, with a population of 8.47 lakhs in 2008. It has 3 Taluks with a total of 49 villages with about 18 private hospitals, 7 public hospitals and 12 primary health centers. The general population of Wayanad was included in the study. The sample size was calculated by checking the prevalence rate of tuberculosis in Kerala. The respondents were interviewed based on a pre structured questionnaire. All the respondents of age <12 years, who are willing to answer were included in the study from both genders. This manuscript is made with the results of a pilot study conducted among 100 patients within the duration of 2 months.

RESULTS AND DISCUSSION

Demographic characteristics

Demographic Characteristics		Frequency	Percentage
Age	< 30	18	18
	30 - 40	26	26
	40 - 50	24	24
	50 - 60	16	16
	60 - 70	10	10
	>=70	6	6
Sex	Female	55	55
	Male	45	45
Educational Qualification	Lower Primary	54	54
	Upper Primary	25	25
	SSLC	19	19
	Intermediate	2	2
Marital Status	Unmarried	14	14
	Married	86	86

Out of 100 participants, 55 (55%) were female, 45 (45%) were male. Most of the participants were from the age group 30-40 (26%), 24% were from age group between 40-50%, 18% from age group of <30, 16% from age of 50-60, 10% from age between 60-70 and only a few

participants (6%) were from age group of above 70. From the total participants, 86 (86%) were married and 14 (14%) were unmarried. Most of the participants (54%) were from lower primary and a few 2% from intermediate level.

		Knowledge Score						Total		Chi Square	P Value
		Inadequate		Moderate		Adequate		No.	%		
		No.	%	No.	%	No.	%				
Age	< 30	1	8.3	8	16	9	24.3	18	18	20.788	0.023
	30 - 40	1	8.3	14	27	11	29.7	26	26		
	40 - 50	2	16.7	12	24	10	27.0	24	24		
	50 - 60	4	33.3	6	12	6	16.2	16	16		
	60 - 70	4	33.3	5	10	1	2.7	10	10		
	>=70	0	0.0	6	12	0	0.0	6	6		
Sex	Female	6	50.0	27	53	22	59.5	55	55	0.506	0.777
	Male	6	50.0	24	47	15	40.5	45	45		
Educational Qualification	Lower Primary	11	91.7	30	59	13	35.1	54	54	13.142	0.041
	Upper Primary	0	0.0	11	22	14	37.8	25	25		
	SSLC	1	8.3	9	18	9	24.3	19	19		
	Intermediate	0	0.0	1	2	1	2.7	2	2		
Marital Status	Unmarried	2	16.7	5	10	7	18.9	14	14	1.560	0.458
	Married	10	83.3	46	90	30	81.1	86	86		

In our study population, 26% of the participants were from the age range 30-40. Out of these, 8.3% had inadequate knowledge, 27% with moderate knowledge and 29.7% with adequate knowledge about TB. 24% were from the age range 40-50 and from this, 16.7% were with inadequate knowledge, 24% with moderate knowledge and 27% with adequate knowledge. Out of 6 participants from an age range of >70, 12% of participants were with moderate knowledge and no respondents with adequate or inadequate knowledge.

Out of 55% of females, 50% were with inadequate knowledge, 53% were with moderate knowledge and 59.5% were with adequate knowledge. From 45% of male, 50% were with inadequate knowledge, 47% were with moderate knowledge and 40.5% were with adequate knowledge.

Knowledge related questions which were asked to respondents were regarding the knowledge about TB transmission, the body part which it affects, the causes, signs and symptoms of TB etc. More than half (54%) of the participants were from lower primary level, 25% from upper primary level and no respondents with inadequate knowledge, 11 (22%) had moderate knowledge and 13 (35%) were with adequate knowledge. 2 (2%) of the respondents were from the intermediate level and 1 (2%) respondents were with moderate knowledge and 1 (2.7%) were with adequate knowledge.

86% of the respondents were married, 10 (83.3%) were with inadequate knowledge, 46 (90%) were with moderate knowledge and 30 (81.1%) with adequate knowledge. 14% of the respondents were unmarried, 2 (16.7%) with adequate knowledge, 5 (10%) with

moderate knowledge and 7 (18.9%) with adequate knowledge.

		Attitude Score						Total		Chi Square	P Value
		Inadequate		Moderate		Adequate					
		No.	%	No.	%	No.	%	No.	%		
Age	< 30	9	19.6	6	13.6	3	30.0	18	18	12.520	0.252
	30 - 40	7	15.2	16	36.4	3	30.0	26	26		
	40 - 50	11	23.9	10	22.7	3	30.0	24	24		
	50 - 60	9	19.6	6	13.6	1	10.0	16	16		
	60 - 70	8	17.4	2	4.5	0	0.0	10	10		
	>=70	2	4.3	4	9.1	0	0.0	6	6		
Sex	Female	27	58.7	23	52.3	5	50.0	55	55	0.487	0.784
	Male	19	41.3	21	47.7	5	50.0	45	45		
Educational Qualification	Lower Primary	27	58.7	23	52.3	4	40.0	54	54	6.655	0.354
	Upper Primary	7	15.2	13	29.5	5	50.0	25	25		
	SSLC	11	23.9	7	15.9	1	10.0	19	19		
	Intermediate	1	2.2	1	2.3	0	0.0	2	2		
Marital Status	Unmarried	4	8.7	7	15.9	3	30.0	14	14	3.334	0.189
	Married	42	91.3	37	84.1	7	70.0	86	86		

The questions about attitude is mainly focused about treating TB patient, regarding the reaction of public when a person is diagnosed with the disease. The most vital question was why does people hide when they get this disease. Out of 26 respondents from the age range 30-40%, 7 (15.2%) were with a poor attitude towards TB, 16 (36.4%) were with moderate attitude and 16 (36.4%) were with a good attitude towards TB. From the age range 50-60%, 9 (19.6%) were with poor attitude, 6 (13.6%) with moderate attitude and only 1 were with a good attitude towards TB. There were no participants from the age range 60-70 and >70 with a good attitude towards TB.

50% of both male and female were having good attitude toward TB. Out of 55% female, 27 (58.7%) were with poor attitude, 23 (52.3%) were with moderate attitude. From 45% of males, 19 (41.3%) were with poor attitude and 21 (47.7%) were with moderate attitude.

Respondents from the upper primary level had good attitude (50%) towards TB and no respondents from the intermediate level had good attitude towards TB. Respondents from lower level had poor attitude (58.7%) towards TB. The attitude of married respondents were poor (91.3%) compared to unmarried.

		Practice Score						Total		Chisquare	P Value
		Inadequate		Moderate		Adequate					
		No.	%	No.	%	No.	%	No.	%		
Age	< 30	6	16.7	11	20	1	12.5	18	18	5.885	0.825
	30 - 40	9	25.0	15	27	2	25.0	26	26		
	40 - 50	10	27.8	12	21	2	25.0	24	24		
	50 - 60	4	11.1	10	18	2	25.0	16	16		
	60 - 70	6	16.7	4	7	0	0.0	10	10		
	>=70	1	2.8	4	7	1	12.5	6	6		
Sex	Female	22	61.1	29	52	4	50.0	55	55	0.858	0.651
	Male	14	38.9	27	48	4	50.0	45	45		
Educational Qualification	Lower Primary	19	52.8	33	59	2	25.0	54	54	10.356	0.110
	Upper Primary	10	27.8	11	20	4	50.0	25	25		
	SSLC	6	16.7	12	21	1	12.5	19	19		
	Intermediate	1	2.8	0	0	1	12.5	2	2		
Marital Status	Unmarried	4	11.1	9	16	1	12.5	14	14	0.464	0.793
	Married	32	88.9	47	84	7	87.5	86	86		

The questions about practice are what would you do when you see a sick person, what needs to be done if you find someone with a cough. Another significant question was related to regarding the medication usage and what will they do if the symptoms of the particular disease decreases. These questions were assessed to find

out the general practice of public towards the treatment of TB.

Participants from age range 40-50 had poor practice (27.8%) towards TB compared to other age groups. Age range from 30-40 had moderate practice towards TB.

There were good practice towards TB (25%) among the age range 30-40, 40-50 and 50-60.

There were good practice towards TB (50%) for males and females. Females had poor attitude (61.1%) towards TB compared to males (38.9%).

Poor practice (52.8%) towards TB was noticed from lower primary level participants compared to other education levels. Good practices (50%) towards TB was followed by the upper primary level participants.

7 (87.5%) participants who are married had good practice towards TB and from unmarried, 1 (12.5%) participant had good practice toward TB. 32 (88.9%) participants from married and 4 (11.1%) from unmarried had poor practice towards TB.

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