Knowledge and Attitude Regarding DOTS Therapy Among the Tuberculosis Patient at Selected DOTs Center

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Abstract

Introduction: Tuberculosis is major communicable diseases, scattered thought the world, affected by all age group. World health organization is considered is a major health problem so that it is integrated with other health agencies to provide holistic care. The treatment mainly included early diagnosis and treatment like provide essential drug to tuberculosis patient and also trained health worker or other designated individual provides the prescribed Tb drugs and watch the patient swallow every dose. Some studies shows that 85–90% of patients receiving DOT complete therapy compared to 61% for those who are self-administered therapy. DOTS help patient's completed TB therapy as soon as possible without unnecessary gaps. The aim of this study is to understand the knowledge and attitude of tuberculosis patient's regarding DOTS. *Method:* This study was conducted in DOTS center Sanjay Gandhi Post Graduate Institute of Medical Sciences, Lucknow. Convenient sampling technique was used to recruit 30 samples. *Result:* The study shows that knowledge score 50 of clients receiving DOTS therapy; that is 50% had inadequate knowledge, 40% had moderate knowledge and 10% had adequate knowledge, similarly shows the attitude scores of clients receiving DOTS therapy; that is 3% had poor attitude, 87% had moderate attitude and 10% had good attitude. *Conclusion:* The study concluded that tuberculosis patients should change their health attitude and practice towards DOTS.

Keywords: Knowledge; Attitude; DOTS; Therapy; Center

Introduction

Tuberculosis (TB) constitutes a significant and major public health emergency globally. The 2015 World Global TB Report revealed that "TB still maintains the status of the world's biggest threats, due to the fact that, in 2014, the disease caused the death of 1.5 million people worldwide. Apart from the mortality toll from TB, the morbidity effect as indicated by the same report showed that "9.6 million people fell ill to TB in 2014 across the world,

with an estimated 12% of the 9.6 million new TB cases in 2014 being HIV-positive" [1]. Worldwide every second a person is infected with tuberculosis (TB) and every 10 seconds someone dies as a consequence. One patient has the ability to infect 10 to 15 people, mainly by coughing [2].

People have a general idea of what TB is and know that it is treatable. Gaps in knowledge, however, surround transmission, prevention, and the relationship between HIV/AIDS and TB. Such poor understand and further augmented by erroneous beliefs [3,4]. Traditional healers act as family doctors and play a key role in TB treatment initiation and adherence. Traditional healers have substantial influence over primary diagnosis and treatment of TB. Education could positively affect initiation of diagnosis and treatment, resulting in better TB control [5].

An estimated 1.9 million were attributable to undernourishment, 0.88 million to HIV infection, 0.83 million to smoking, 0.79 million to diabetes and

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0.49 million to alcohol abuse. Applying the same method, country-specific estimates of the number of incident TB cases attributable to the five risk factors in the 30 high TB burden countries, although various factors (under nutrition, the prevalence of alcohol use disorder, diabetes, HIV and smoking) contribute to the TB epidemic in the 30 high TB burden countries, although various factors (under nutrition, the prevalence of alcohol use disorder, diabetes, HIV and smoking) contribute to the TB epidemic in the 30 high TB burden countries, there is considerable variation among countries in the relative contribution of these factors, and thus also variation in which factors need to be prioritized as part of national eforts to reduce the burden of TB disease [6].

Methodology

A descriptive study was used to assessed the knowledge and attitude of newly diagnosed with tuberculosis regarding treatment regime at selected DOTS center in Uttar Pradesh. A convenient sampling technique was used, total 30 samples were selected, based on inclusion and exclusion criteria, inclusion criteria like patient who are newly diagnosis with tuberculosis within one month, who can read Hindi or English and who are enrolled in single DOTS center. Exclusion criteria are patient who had other major illness; children were excluded from this study and patient who had history of DOTS therapy were excluded. Single center study setting was conducted in DOTS center, SGPGIMS, Lucknow, Uttar Pradesh. Before collect information the researcher had obtained permission from competitive authority, and also taken consent letter from subject, consent letter explained in their familiar language and Investigator had explained the data confidentiality and anonymity and also clarified their doubts.

Knowledge regarding DOTS therapy was assessed by structured knowledge questionnaires and attitude had measured by standardized fivepoints likert attitude scale, validity of the tool based on the adequate coverage of content area is determined by the experts in the subject matters. The data collection instrument made various sections demographic information included-age, gender, religion, marital status, educational level, employment, family type, monthly income, duration of illness. Similarly 26 knowledge questions related to DOTS therapy and its management. The maximum score on knowledge was 26 with score of 1 for each correct response. Likert Scale used for asses the attitude of patients regarding DOTS therapy, It contains 10 questions with maximum score was 5 and minimum score was zero, data were analyzed by interpreted by descriptive and inferential statisticused by SPSS version 16 software.

Results

Table 1 patient's knowledge regarding DOTS therapy categorized into inadequate knowledge, moderate knowledge, and adequate knowledge. Assessed the knowledge by structured knowledge questionnaire was found that inadequate knowledge was 15 (50%), moderate knowledge was 12 (40%) and adequate knowledge was 3 (10%), The mean for knowledge score is is 13.10 and the standard deviation is 5.31

Table 2 the attitude scores of clients receiving DOTS Therapy: that is 1 (3%) had poor attitude, 26 (87%) had moderate attitude and 3 (10%) had good attitude to words DOTS therapy The mean for attitude score is 34.5 and the standard deviation is 3.39.

Table 3 there is no association found between

Table 1: Knowledge regarding DOTS Therapy n-30

S. No	Knowledge Score	Frequency	Ppercentage (%)	Mean	Standard Deviation
1	Inadequate	15	50%		
2	Moderate	12	40%	13.10	5.31
3	Adequate	3	10%		

Table 2: Attitude of patient regarding DOTS Therapy n-30

S. No	Attitude	Frequency	Percentage (%)	Mean	Standard Deviation
1	Poor	1	3%		
2	Moderate	26	87%	34.5	3.39
3	Good	3	10%		

Table 3: Aassociation knowledge scores with their selected socio demographic variables of patient who are attending DOTS therapy n-30

S no.	Socio –demographic Variables	Category	Inadequate f	Inadequate %	Moderate f	Moderate %	Adequate f	Adequate %	Total	χ2 cal	df
1	Age in Year	15–40	12	40	7	23	3	10	22	2.81	2
		41–60	3	10	5	17	0	0	08		NS
2	Gender	Male	7	23	6	20	1	3	14	.26	2
		Female	8	27	6	20	2	7	16		NS
	Religion	Hindu	8	27	10	33	3	10	21		
		Muslim	6	20	2	7	0	0	8	4.53	4
		Christian	1	3	0	0	0	0	1		NS
	Marital status	Married	8	27	7	23	0	0	15		4
		Unmarried	6	20	5	17	3	10	14	4.73	NS
		Divorce	1	3	0	0	0	0	1		
3	Education	Primary	1	3	2	7	0	0	3		
		Secondary	5	17	2	7	0	0	7	4.23	8
		Intermediate	6	20	4	13	2	7	12		NS
		Graduation	2	7	3	10	1	3	6		
		PG and above	1	3	1	3	0	0	2		
4	Employment	Employed	7	23	2	7	2	7	11	5.45	4
		Self employed	3	10	6	20	0	0	9		NS
		House wife	5	17	4	13	1	3	10		
5	Type of family	Nuclear	8	27	6	20	3	10	17	2.57	2
		Joint family	7	23	6	20	0	0	13		NS
6	Family Income	5000-10000	5	17	7	23	1	3	13	5.12	6
		10001-15000	8	27	2	7	2	7	12		NS
		15001-20000	1	3	2	7	0	0	3		
		Above 20001	1	3	1	3	0	0	2		
7	Duration of illness	Newly Diagnosed	2	7	4	13	1	3	7	8.36	8
		Within 1 year	5	17	7	23	2	7	14		NS
		1-2 year	4	13	1	3	0	0	5		
		More than 2 year	4	13	0	0	0	0	4		

the knowledge scores with selected demographic variables like Age, gender, Religion, Marital Status, Educational Status, Employment, Types of Family, Monthly Income, Duration of diagnosis. Calculated value of Chi Square was less than the value of table value at 0.05 levels.

Discussion

The study was concluded that patient who has receiving DOTS therapy required health counseling regarding treatment regime and side effects, duration of the treatment plan diet, so that health care team should be provided a holistic care to tuberculosis patient long with emotional support to the patient and their family.

Supportive Interventional study was conducted among 113 patients across DOTs centers in and around Bengaluru, patient's knowledge, attitude and practice. The result of the study shows that 113 patients, 46.9 % were found to have poor KAP, 52.2 % were found to have medium KAP and 0.88% of patients were found to have high KAP during the baseline interview. Hence this study assessed level of Knowledge, Attitude and Practice (KAP) among patients with tuberculosis and revealed the need for providing more knowledge about tuberculosis and medications among patients [7].

Similar study was conducted in rural population of Kancheepuram district, Tamilnadu, India. The study was conducted among 400 participants, only 45.5% had adequate knowledge on TB and its treatment, 14.7% had positive attitude and 26.5% had good practices towards TB and its treatment. About 91.5% had heard about TB and 79% knew that TB could be transmitted from a patient to others. The cause for TB was correctly mentioned by only 19.5% of the subjects. About 35% knew that transmission of TB is preventable. Positive

attitude had a statistically significant association with higher socioeconomic class and with adequate knowledge. Good practices on TB were more noted among participants with adequate knowledge and with age ≤ 45 years [8].

Similar study was conducted in Iraq, the educational and other activities of the national TB control programme have had beneficial effects on the knowledge of TB patients and health care workers. However, the relatively good knowledge of TB patients did not significantly influence their practice or negative stigma associated with the disease. Similarly, the relatively good knowledge of health care workers regarding TB was not reflected in their practices, especially regarding the investigation of TB suspects, a deficiency that would negatively influence case-finding and case-holding. An intensive media-based education campaign is recommended to increase awareness of TB, reduce the associated stigma, and to change practices. Strengthening supervision within the national TB programme, ensuring adherence to the DOTS strategy and fostering collaboration between national TB programme and other health care providers, such as the private sector and nongovernmental organizations, are also recommended [9].

Conclusion

Tuberculosis is a major health issues an irrespective of age group. This study finds knowledge and practice gap like regular follow up, patient or family myths regarding DOTS center. This study also concludes that treatment outcome in the program associated with knowledge and attitude of patient, family and society. In addition, provide timely training and retraining the DOTS providers and supportive supervision to achieve and sustain program goals.

References

1. Global TB Report, 2015. World Health Organization

2. Lonnroth K, Raviglione M. Global epidemiology of tuberculosis: prospects for control. SeminRespirCrit Care Med. 2008;29:481

3. Mfinanga SG, Mørkve O, Kazwala RR. Tribal differences in perception of tuberculosis: a possible role in tuberculosis control in Arusha, Tanzania. Int J Tuberc Lung Dis. 2003;10:933–941.

4. Mangesho PE, Shayo E, Makunde WH. Community knowledge, attitudes and practices towards tuberculosis and its treatment in Mpwapwa district, central Tanzania. Tanzan Health Res Bull. 2007; 9:38–43.

5. Jocob P. Knowledge, Attitudes, and Practice of Tuberculosis among Maasai in Simanjiro District, Tanzania The American Journal of Tropical medicine and Hygiene. 2010 Oct 5;83(4):902–905.

6. WHO Global Tuberculosis report 2018

7. Babu T, Ramswami R. Assessment of Knowledge Attitude and Practice on DOTs Therapy by Tubercular Patients. Journal of pharmacytical company. 2016 Apr-Jun;15(2):51–55.

8. Angeline Grace G., Gopalakrishnan S., Umadevi R. Knowledge, attitude and practices regarding pulmonary tuberculosis in a rural area of Tamil Nadu, India: a cross sectional study. International Journal of Community Medicine and Public Health. 2018 Sep;5(9):4055–64

9. Hashim DS, Al Kubaisy W. Knowledge, attitudes and practices survey among health care workers and tuberculosis patients in Iraq. East Mediterr Health J. 2003 Jul;9(4):718–31.