"Knowledge regarding importance of drug regimen among Tuberculosis patients attending clinic at Sub-district Hospital, Karad."

Ms. Komal More[1], Mrs. Anagha V.Katti[2*], Mr.Mahesh Chendake[3] Mrs. Afsana Mulani[4], Mrs. Sushama Shete[5]

[1,2,3,4,5,6] Krishna Institute of Nursing Sciences, Karad

[1] UG student, Krishna Institute of Nursing Sciences, Karad.
[2] Assist. Professor , Krishna Institute of Nursing Sciences, Karad. email- anaghakatti19@gmail.com (Phone No- 9527317201)
[3] Associate Professor, Krishna Institute of Nursing Sciences, Karad Email- maheshchendake@rediffmail.com (Phone No-9423923922)
[4] Clinical Instructor Krishna Institute of Nursing Sciences, Karad. Email : afasanamulla@gmail.com (Phone No- 8485872342)
[5] Assistant Professor, Krishna Institute of Nursing Sciences, Karad. Email-sushamashete626 @gmail.com (Phone No- 7498580744)

ABSTRACT:

Background: Tuberculosis is an infectious disease caused by Mycobacterium Tuberculi. The disease primarily affect the lungs and cause Pulmonary Tuberculosis. In India, Tuberculosis remains a major public health problem. So the present study aimed to assess knowledge regarding Tuberculosis and importance of drug regimen.

Objective- To assess knowledge regarding Tuberculosis and importance of drug regimen among Tuberculosis patients attending clinic.

Design: A quantitative approach using pre experimental one group pre-test post-test design.

Methodology: A community Based study was conducted in rural area of Karad Taluka, Maharashtra. Data was collected from 60 subjects selected with Non-probability purposive sampling technique was used to select the respondents. A structured knowledge questionnaire was administered to assess knowledge of tuberculosis and importance of drug regimen among tuberculosis patients .Data was analyzed by descriptive and inferential statistics.

Results: Overall knowledge score of sample was 14 (23.3%) are having good knowledge , 33 (55 %). average knowledge and 13 (21.6 %) samples were having poor knowledge regarding tuberculosis and importance of drug regimen The mean pre-test knowledge score (10.6 ± 1.1).

Conclusion: There is need for TB awareness campaign , use of mass media and social media and awareness workshops should be held in schools and colleges so that the young generation is well informed about the disease.

Keyword- Assess, Knowledge, Tuberculosis and importance of drug regimen.

Introduction:

In India, Tuberculosis remains a major public health problem. Every year approximately 18-lakh people develop Tuberculosis and about 4 lakh die from it. India accounts for one fifth of global incidence of Tuberculosis and tops the list of 22 high Tuberculosis burden countries. According to WHO report, 7 million people receive record level of lifesaving TB treatment but 3 million still miss out.[1]

Tuberculosis is an infectious disease caused by Mycobacterium Tuberculi. The disease primarily affect the lungs and cause Pulmonary Tuberculosis. It can also affect structure such as Intestine, Meninges, Bones and Joints, Lymph glands, Skin and other tissue and body.

In India, TB is responsible for the death of every third AIDS patients. Moreover, India accounts for about a quarter of the Global TB Burden. The ministry reiterated their commitment to eliminating TB in the country by 2025.[2]

➢ Overall 1/3rd of the world's population is currently infected with Tuberculosis.

➢ HIV infected patients have a 60% more chance of getting infected with Tuberculosis.

➢ 5 to 10% of people who are infected with Tuberculosis become sick or infectious at same time during their life (WHO, Internet information).[3]

The various epidemiological studies enumerated indicates that TB continues to be the major public health problem in the country. India accounts for about 1/3rd of the global disease burden (WHO)[3].

TB causes an enormous burden of diseases and deaths around the world. The impact of TB is greatest on the poor, that is 99% of the developing countries. The majority of the people affected by TB are in the economically poor group. TB and poverty go hand in hand because people who are poor get TB and people who get TB become poor(Smith)[4].

Therefore, there are about 2 million new TB cases occurring in the country every year.

Patients' adherence to the treatment depends on many psychological and sociological factors including age, education level and patient's own idea about the disease.[5]

The National Annual Risk of Tuberculosis Infection (ARTI) was estimated at 1.5% i.e. 75 new smear positive pulmonary TB cases are expected per 1, 00,000 population annually. TB primarily affects people in their most productive years with important Socio-economic consequences for the household when an individual falls sick with TB. Poor living conditions, debility and malnutrition predisposes population to disease. The disease is even more common among the poorest and marginalized section of the community[6]

Thus, the researcher felt the need to conduct a study through a information booklet on TB and also to evaluate the effectiveness of booklet regarding the importance of drug regimen and the health facilities available through RNTCP, which in turn contribute to the general health of the Nation.

STATEMENT OF THE PROBLEM

"Assessment of knowledge regarding Tuberculosis and importance of drug regimen among Tuberculosis patients attending clinic at Sub-district Hospital, Karad."

OBJECTIVES OF THE STUDY :

1. To assess knowledge regarding knowledge regarding Tuberculosis and importance of drug regimen among Tuberculosis patients.

MATERIAL AND METHODS:

Community based study was conducted in rural area . Pre experimental one group pre test design. A total of 60 subjects participated with probabilities Simple Random Sampling Technique for the study. After obtaining ethical committee approval, a study was conducted using a pre designed , pre tested questionnaire was used. The schedule was prepared data collected with the help of structured questionnaire to assess the knowledge regarding Tuberculosis and importance of drug regimen among Tuberculosis patients.

   <u>Selection of Tool</u>   : Structured questionnaire consisting of three sections-
        Section A :- Socio-demographic variables.
         Section B :- Knowledge on TB and importance of drug regimen.
        Section C :- Preventive measures.
   Criteria for Sample Selection:

   INCLUSION CRITERIA:
    Subjects-
- Who are willing to participate in the study.
- Who can understand Marathi and Hindi.
- Who are available at the time of study.

   EXCLUSION CRITERIA:
    Subjects-
- Who are not willing to participate in the study.
- Who are not available at the time of study.

PROCEDURE OF DATA COLLECTION

Step 1: Formal permission will be obtained from Dean, Krishna Institute of Nursing Sciences, Karad.

Step 2: Formal permission will be obtained from Protocol Committee.

Step 3: Formal permission will be obtained from Ethical Committee.

Step 4: Selection of subjects from selected hospital, Karad.

Step 5: Formal permission from subjects (informed consent) attending TB clinic in selected Sub-district Hospital, Karad.

Step 6: Self introduction of investigator.

Step 7: Administration of Pre-test by standard questionnaire to assess knowledge regarding Tuberculosis and importance of drug regimen among TB patients.

Step 8: Analysis and interpretation of data by using statistical measures.

Step 9: Presentation of data and publication.

Data Analysis Method:

  It includes descriptive and inferential statistics.

 1) **Descriptive Statistics:** Analysis includes frequency, percentage, mean, median and standard deviation.

2) **Inferential Statistics:** Analysis includes paired 't' test, chi square test

Results:

Table-I   Frequency and percentage distribution of subjects according to   socio demographic variables

Sr. No	Characteristics	Category	Frequency	Percentage
1	**Age**	20-30 yr	3	5
		31-40 yr	23	38
		41-50 yr	16	27
		51-60 yr	18	30
2	**Sex**	Male	27	45
		Female	33	55
3	**Education**	Illiterate	13	22
		Primary Education	22	37
		Secondary Education	21	35
		Graduate and post graduate	4	6
4	**Occupation**	Housewife	28	47
		Employed	14	23
		Farmer	11	18
		Self employed	7	12
5	**Type of Family**	Nuclear	27	45
		Joint	33	55
6	**Type of Food**	Vegetarian	8	13
		Non Vegetarian	8	13
		Mixed	44	74
7	**Income of family**	Less than 2000	13	22
		2001-3000	16	27
		3001-4000	18	30
		5000 & above	13	22
8	**Marital status**	Single	2	3
		Married	54	90
		Divorced/Widows	4	7
9	**Source of information**	Family	14	23
		Neighbor/ Friend	05	8
		Mass media	08	13
		Health worker	33	55

Table I – Socio--demographic variables

A total of 60 participants 23 (38 %) in the age group of 31-40 yrs,   males 27 (45%) , females 33(55%),having primary education 22(37%),Having occupation housewife 28 (47%), type of family 33(55%),and subjects are taking mixed type of food 44 (74%), total income of

family was 18(30%)in Rs.3001to 4000, whereas 54 (90 %)were married, and source of information is from 33(55%) from health workers.

**Table- II : Finding related to pre test knowledge score:**

Level of Knowledge	Pre-test	
	Frequency	Percentage (%)
Good	14	23.3 %
Average	33	55 %
Poor	13	21.6 %

TABLE – III   Distribution of subject on paired 't' test of knowledge score regarding Tuberculosis and importance of drug regimen among TB patients.

Parameter	Mean	Median	Standard Deviation	't' Value
Pre test	10.6	11	1.1	t=74.348

Table III -depicts that the in pre test **39 (65%)** subjects having average knowledge **9 (15%)** having good knowledge whereas **12 (20%)** having poor knowledge regarding Tuberculosis and importance of drug regimen among TB patients.

Graph No. 1 :
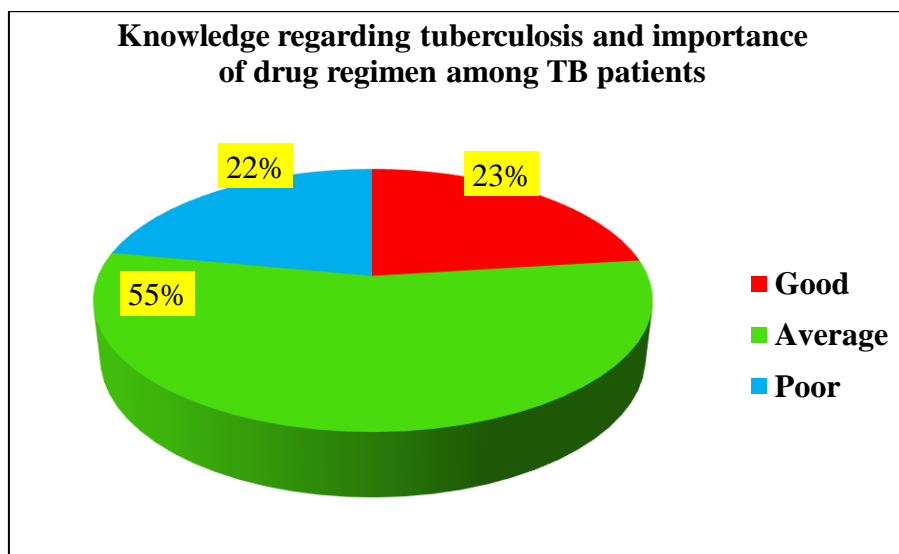
Graph -1 depicts that the in pre test 14(23.3%) subjects were having good knowledge, 33 (55%) subjects having average knowledge and 13 (21.6%) subjects having poor knowledge regarding Tuberculosis and importance of drug regimen among TB patients.

Discussion:

Tuberculosis (TB) remains one of the most common infectious diseases worldwide. Although TB is curable provided the treatment commenced quickly, appropriately and uninterrupted throughout TB treatment duration.

Worldwide tuberculosis remains one of the common infectious diseases.[7-9] It is estimated that in 2017 about 10 million people were infected with TB and 1.3 million deaths among HIV negative people and 3,50,000 deaths among HIV positive[10-11].

Knowledge about Tuberculosis-

The present study showed that 33 (55 %) are having average knowledge regarding tuberculosis and importance of drug regimen among TB patients where as 14(23.3 %)subjects are having good knowledge regarding **tuberculosis and** importance of drug regimen, subjects with literacy of higher education and secondary school education are having knowledge about tuberculosis and importance of drug regimen compare to illiterate Study conducted by M. **Kala , K.R. et al** showed that literates were more aware about the various aspects of Tuberculosis as compare to illiterates. Persons with literacy of higher secondary schooling and above had good TB knowledge compare to illiterates. Study revealed some lacunae in the knowledge about Tuberculosis. 6% knew the tests for the diagnosis of Tuberculosis. (68.3%) were well aware that TB is a communicable disease, (93.1%) were aware lung was mainly affected by TB, (87.4%) knew the causes of TB, (78.9%) were well aware the mode of transmission and (81%) knew the common signs and symptoms of TB[12]. A study from rural community of Delhi highlighted the age, sex and economic status did not have significant influence on TB knowledge

In present study 33(55%) were aware about drug regimen and preventive measures of TB and heard about DOTs centre through health workers. In general, 22(37%)are having primary education and 13 (22%) subjects are illiterate were observed in the study so these groups are having low level of knowledge about symptoms, transmission, diagnosis , treatment and prevention of TB. Overall Tuberculosis and drug regimen knowledge was higher among subjects in males than females with education.

Study conducted by **Philip Ifesinachi Anochie et al Jun 2013** . Most of the participants, (1154, 97.3%) had prior knowledge and awareness about tuberculosis as a disease, 612 (51.6%) considered tuberculosis a result of HIV/AIDS epidemics or malnutrition, and 451 (38%) believed that it can be cured by Western medicine. The unwillingness of respondents to relate with TB patients was generally high (97%, 1150), even where levels of awareness and knowledge were high. Cough, the most common presentation of pulmonary TB was mentioned first in 68% (806) of the respondents' answers. Loss of weight was mentioned by 51.9% (615) of the respondents while hemoptysis was mentioned by 55.6% (660) of them. Only about 55% (652) of the respondents could list 3 or more symptoms or signs of the disease.[13]

These finding were comparable to similar studies conducted in a rural area in Delhi. 27%were aware of the diet should be taken by TB patient. (66.8%) were aware of the preventive measure of TB. 3% had heard about DOTS centre. In general females, older population and individuals without schooling or with primary schooling were observed to be the groups with the significantly lower level of knowledge about the Symptoms, Transmission, Diagnosis, Treatment and prevention of TB.

Over all TB knowledge was higher among males and respondents with higher schooling. The study conducted in rural Delhi in 2001 showed encouraging results with more than 95% participants being aware of cause of TB.[14]

Most of the participants thought that tuberculosis is curable. The duration (6 – 9 month) was correctly known to only 32.9% of the patients. In a study done at DOTS Centre Safdarjung Hospital, New Delhi, 53.3% of the patient knew that the treatment for tuberculosis was to be taken for a span of 6 – 9 month. The vital role of health education/IEC messages. More stress should be put upon the completion and the duration of tuberculosis treatment through IEC messages.[15]

In present study, lower level of knowledge about symptoms, transmission and etiology of the disease were observed in females and in illiterate patient. There is need to be focused on a priority basis for education regarding the disease. World Health Organization also recognizes the importance of tuberculosis-related knowledge, attitude and practice surveys in advocacy, communication and social mobilization strategy planning.[16]

Conclusion:

   Study concluded that most of the study subjects are having average knowledge but efforts has to be taken more to the subjects who are having less education or not having proper knowledge about the tuberculosis and transmission of disease and drug regimen as this disease is communicable disease.

The study revealed that although awareness regarding certain aspects of tuberculosis was adequate, but there is need to improve awareness in illiterate individuals and females about the transmission and drug regimen with dietary pattern and precautions during home management.

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