



“A STUDY TO ASSESS THE KNOWLEDGE REGARDING DOTS THERAPY AMONG TUBERCULOSIS PATIENTS IN A VIEW TO DEVELOP AN INFORMATION BOOKLET IN SELECTED HOSPITAL OF HARIDWAR, UTTARAKHAND”.

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ABSTRACT

Background: Tuberculosis (TB) is an infectious disease which is caused by acid fast bacilli, which belongs to Mycobacterium Tuberculosis complex. It causes about two million deaths each year. In 1993, the World Health Organization (WHO) declared Tuberculosis to be a “Global Emergency” due to increasing number of Tuberculosis cases and a rise in multidrug resistant cases in the developed world. Tuberculosis is one of the world’s deadliest diseases; one third of the world’s population is infected with tuberculosis. In 2013, 9 million people around the world became sick with tuberculosis disease. There were around 1.6 million deaths occurred worldwide related to Tuberculosis. **Aim:** To assess the knowledge regarding DOTS therapy among Tuberculosis patients in a view to develop an information booklet. **Material and Methods:** Quantitative research approach, descriptive research design was adopted for the study. Purposive sampling technique was used for data collection and sample size was 40 tuberculosis patients. Data collection was done by using socio-demographic performa & structured knowledge questionnaire. Data was analyzed by descriptive and inferential statistics by SPSS- 20. **Results:** The result of the study showed that Maximum 25 patients had median & it’s below level of practice score followed by 15 patients had above median level of knowledge score regarding DOTS therapy among tuberculosis patients.

Key words – Assess, Knowledge, DOTS therapy, Tuberculosis, Patients & Information booklet.

INTRODUCTION

“Anything that makes you weak physically, intellectually and spiritually, reject as poison”. - Swami Vivekananda

“Tuberculosis (TB) is an infectious disease which is caused by acid fast bacilli, which belongs to *Mycobacterium Tuberculosis* complex. It causes about two million deaths each year. In 1993, the World Health Organization (WHO) declared Tuberculosis to be a “Global Emergency” due to increasing number of Tuberculosis cases and a rise in multidrug resistant cases in the developed world.

Tuberculosis usually involves the lungs, but it also affect in larynx, kidney, bones, adrenal gland, lymph node and meninges and can be disseminated throughout the body. Tb is world’s second most common cause of death from infectious disease, after HIV/AIDS.

Tuberculosis is transmitted by droplet nuclei; airborne droplets produced when an infected person coughs, sneeze, speak, or sing. The tiny droplets can remain suspended in air for several hours. Infection may develop when a susceptible host breathes in air containing droplet nuclei and the contaminated particle eludes the normal defenses of the upper respiratory tract to reach the alveoli.

It is not easy to become infected with tuberculosis; usually a person has to be close to someone with tuberculosis disease for a long period of time. Tuberculosis is usually spread by family members, close friends & people who work or live together with tuberculosis patient. Tuberculosis is spread most easily in enclosed spaces over a long period of time.

Manifestations of primary progressive or reactivation tuberculosis often develop insidiously and are initially non specific. Fatigue, weight loss, anorexia, low grade afternoon fever and night sweats are common. Noncompliance with prescribed treatment is a major problem in treating active tuberculosis.

Tuberculosis differs from other diseases with high mortality rates because it has a highly effective treatment available .The greatest burden of Tuberculosis incidence and mortality is found in 15-49 age groups. Tuberculosis is ranked as the most cost effective of all diseases to treat, and is estimated to be the cause of 26% of all preventable adult deaths.

Tuberculosis is one of the world’s deadliest diseases; one third of the world’s population is infected with tuberculosis. In 2013, 9 million people around the world became sick with tuberculosis disease. There were around 1.6 million deaths occurred worldwide related to Tuberculosis. Tuberculosis is leading killer of people who are HIV infected. A total of 9,582 tuberculosis cases (a rate of 3.0 cases per 100,000 people) were reported in the United States in 2013.

There were estimated 9 million new cases of tuberculosis, an estimated 1.5 million deaths. 1.4 million Deaths were among HIV negative people and there were a further 360,000 death among HIV positive people, there were an estimated 3.3 million cases and 510,000 tuberculosis deaths among women.

WHO also has declared that tuberculosis is only second to HIV /AIDS as the greatest killer worldwide out of all disease caused by a single infectious agent. In 2010, 8.8 million people fell ill with tuberculosis disease and 1.4 million people died from tuberculosis.

India is the country with the highest burden of tuberculosis with world health organization (WHO) statistics for 2013 giving an estimated incidence figure of 2.1 million cases of tuberculosis for India out of a global incidence of 9 million. The estimated prevalence figure for 2013 is given as 2.6 million. Tuberculosis is estimated that about 40% of the Indian population is infected with tuberculosis bacteria.

NEED FOR THE STUDY

According to the statistics of WHO, Tuberculosis kills more young people & adults than any other infectious disease in the world. It causes more deaths than AIDS and Malaria combined. In the developed world this disease is primarily seen in the elderly, while in developing countries, it is more commonly seen in young adults.

Each person left untreated with active tuberculosis will infect on the average of between 10 to 15 people a year.¹⁰ According to WHO, tuberculosis is a major worldwide problem; about one third of the world's population has latent tuberculosis whereas global estimated cases among children were 5,50,000 out of which 80,000 deaths were noticed.

Multidrug resistance is the name given to Tuberculosis when the bacteria that are causing it are resistant to isoniazid and Rifampicin. In 2010 the World Health Organization estimated that there were globally 290,000 cases of pulmonary tuberculosis that were reported to them. It was also estimated that in total there were 650,000 cases of MDR Tuberculosis among the world's 12 million prevalent cases of tuberculosis. There are at least 4,000 cases of MDR Tuberculosis each year and at least 10% of newly registered Tuberculosis cases are of MDR tuberculosis.

Researchers felt that after providing anti tuberculosis drugs the result is not appropriate and the incidence of tuberculosis is increasing in developing countries. The study focused to find out after having separate privilege of tuberculosis treatment in form of DOTS centre; still the cases are prevalent in the various region of country. The cause of treatment failure is noncompliance which causes the relapse of the ongoing treatment hence the practice of patients is assessed by monitoring their regular scheduled visits to DOTS centre.

Adequate knowledge and understanding of a disease is necessary for preventing practices. Hence, the researchers felt the need for conducting this study to confirm their observation.

STATEMENT OF THE PROBLEM

“A Study to assess the knowledge regarding DOTS therapy among Tuberculosis patients in a view to develop an information booklet in selected hospital of Haridwar, Uttarakhand.”

OBJECTIVES

1. To assess the knowledge of tuberculosis patients regarding DOTS Therapy.
2. To determine the association of the level of knowledge regarding DOTS therapy with their selected demographic variables.
3. To develop an informational booklet for tuberculosis patients regarding DOTS therapy.

HYPOTHESIS

P value was tested at the level of significance 0.05

H₁- There is a significant association of level of knowledge of tuberculosis patients regarding DOTS therapy with selected demographic variables.

ASSUMPTIONS

The study assume that-

1. Patients may have some knowledge regarding DOTs therapy.
2. Patients will respond honestly to structure knowledge questionnaire.

DELIMITATIONS

The study is limited to-

1. The study is limited to TB patients admitted in selected hospital Haridwar, Uttarakhand.
2. Patients who are willingly participant in the study.

MATERIAL AND METHODS

Quantitative research approach, descriptive research design was adopted for the study. Purposive sampling technique was used for data collection and sample size was 40 tuberculosis patients. Data collection was done by using socio-demographic performa & structured knowledge questionnaire. Data was analyzed by descriptive and inferential statistics by SPSS- 20. The conceptual framework used for this study was based on **General system model**. The content validity of the tool was obtained from the experts in the field of Nursing and Community. The reliability of the tool was established by karl pearson's formula which (0.86) was found reliable. Feasibility of the study was confirmed by pilot study. The data was organised, analysed and interpreted in terms of the study objectives. The data was summarized and tabulated by using descriptive statistics (Mean, Frequency, Percentage & Standard Deviation) and inferential Statistics (Chi-square).

VARIABLES

Research Variables: Knowledge regarding DOTS therapy among tuberculosis patients

Demographic Variable:

- Age in years
- Gender
- Education
- Occupation
- Family Monthly income
- Type of family
- Type of diet
- Sources of information regarding home based self-care

RESULTS

Frequency and percentage distribution of demographic data:

Maximum (42.5%) of patient was in the age group of 41-50 years. Followed by 40% of patient belong to the age group of 51 years and above, 10% were in the age group of 31-40 years, 5% were of the age of 21-30 years and only 2.5 was in the age group ≤ 20 years

Majority (60%) patients were male. Remaining 40% patient were female

Maximum (37%) of patient had secondary education, followed by 32.5% of patients studied up to higher secondary education, 17.5% were in the category of no formal education, 10% were in the category of graduate and above and 2.5% were in the category of primary education.

Maximum (55%) of patient were employed, followed by 42.5% were retired and remaining 2.5% were unemployed.

Maximum (42.5%) of patient had income 10001-20000 rupees. Remaining 40%, 17.5% of the study participant had monthly income less than 10000 and 20001-30000 rupees respectively.

Most (80%) of patient were part of joint family and only 20% of patient were living in a nuclear family

Majority (65%) of the patient belong to the category of mixed diet and remaining 35% were vegetarians

Majority (92.5%) of patient got information from hospital/health workers, followed by 5% of patients got information through mass media and remaining 2.5% of the patient got information from study centre.

The result of the study showed that Maximum 25 patients had median & it's below level of practice score followed by 15 patients had above median level of knowledge score regarding DOTS therapy among tuberculosis patients.

CONCLUSION

The study concludes that Based on finding of the study knowledge deficit noticed in the tuberculosis patients about causes of tuberculosis, prevention of tuberculosis, modes of transmission, affect of tuberculosis on body organ, and utilization of DOTS therapy during pregnancy.

RECOMMENDATION

1. A similar study can be conducted with large sample size
2. A study can be done to identify the factors affecting the regular therapy and cause of MDR
3. A similar study to assess the effectiveness of structure teaching programme on knowledge and practice of tuberculosis patients regarding DOTS therapy.

NURSING IMPLICATIONS

1. Nursing personnel working in the community area can conduct mass & group education on prevention & risk factors of tuberculosis.
2. The finding of the study would help the nurse to identify the risk of accruing tuberculosis.
3. Nursing personnel's working in the DOTS centre can conduct educational programme to aware the tuberculosis patients about the risk of irregular DOTS treatment that lead MDR.

4. Research can be conducted to assess the side effect of DOTS therapy on tuberculosis patients and pregnant women.

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