"A STUDY TO ASSESS THE QUALITY OF LIFE AMONG PATIENTS WITH PULMONARY TUBERCULOSIS IN SELCETD HOSPITALS AT BARABANKI."

AUTHOR:

SRIMATHI. A

PROFESSOR

MAYO COLLEGE OF NURSING

UTTAR PRADESH

INDIA

ABSTRACT:

Background: Chronic disease like Tuberculosis often leaves its impact on physical, social and mental aspect of individual. Measuring quality of life provides an opportunity to the different domains of the individual which might go unnoticed understand investigation. **Aims and objectives:** To assess the quality of life among patients with pulmonary tuberculosis in selected hospitals. **Methodology:** A non-experimental descriptive design was adopted for the study conducted on 30 pulmonary tuberculosis patients after obtaining permission from the higher authorities at selected hospitals at Barabanki. The samples were selected by non-convenient sampling technique. The data regarding the quality of life among pulmonary tuberculosis affected patients were collected through a structured interview schedule and was analysed using descriptive and inferential statistics. **Results:** The study findings shows that 2(6.6%) samples out of 30, had mild quality of life, 28 (93.3%) had moderate quality of life and none had severe quality of life of patients with pulmonary tuberculosis. There was a gradual, but significant improvement of quality of life that was more prominent of physical domain than the socio- psychological domain. **Conclusion:** The study concluded that it is very much essential to create awareness among the tuberculosis affected patients and thereby maximize their quality of life by use of various means like health education as well as help the patients to lead a better healthy life.

KEY WORDS: Assess, Quality of life, Patients, Pulmonary tuberculosis

I.INTRODUCTION:

Tuberculosis is one of the oldest infections known to affect humans and despite the new treatment strategies and observation, it yet still remains one of the most substantial causes of death, in the world. It is estimated that about one third of the total world population has the mycobacterium tuberculosis infection.

Tuberculosis is one of the top 10 causes of death worldwide. In 2019, 10 million deaths caused due to tuberculosis that includes about 230,000 children died because of tuberculosis according to the WHO report that was published on annual basis. In the year 2016 out of the total reported patients with tuberculosis, almost one fifth of the patients who reported belonged to the private sector. There is a wide variation from state to state in respect of the proportions of population reporting illness caused due to tuberculosis patient from various sector.

Right back in the year 2010, there were 8.8 million new cases and 1.1 million deaths caused by tuberculosis in the developing and in the industrialized countries. The World Health Organization (WHO) has developed "Global plan to stop TB by 2015 and 2050", which is defined as a fifty percent reduction in the prevalence and mortality rates by the year 2015 and striving to achieve towards less than 1 per 1 million population per year by the year 2050. This interprets that tuberculosis control should be more effective than it is at the present state. Besides this the burden of disease and its mortality, the long duration of treatment and the combination of treatment with several regimens leading to changes in the structure of life. However, in spite of the focus being directed towards the mortality and incidence rate, changes in the morbidity and health status parameters have not been under appropriate consideration.

Tuberculosis in India: India is a country with almost the highest burden of tuberculosis according to the World Health Organization (WHO). **Tuberculosis statistics for India**: In the year 2020 given an estimated incidence of 2.79 million cases of tuberculosis and the number of the new case of active TB disease has increased over the time period .

In addition to not just the diagnosis but tuberculosis also indirectly tries in contributing towards causing conditions such as depression and anxiety or also can lead to worsening and persistence of the symptoms of the disease and this can be followed by frustration, disappointment etc and furthermore patients affected with tuberculosis have no knowledge of the disease prognosis and the treatment which can lead to cause more anxiety and feeling of frustration and thereby decrease the quality of life among the affected patients. Studies focusing on quality of life among tuberculosis patient are limited and no such investigation has been conducted among the affected population.

Considering the fact that improvement in health related quality of life is an important factor for a much greater response in the treatment among tuberculosis patient, and thus may lead to a better outcome in the affected patients .

Therefore, it is required to investigate the quality of life of tuberculosis patients and to recognize the appropriate actions required for their improvement.

Statement of the problem:

A Study to assess the quality of life among Patients with Pulmonary Tuberculosis in Selected Hospitals at Barabanki.

Objectives:

1.To assess the quality of life among patients with pulmonary tuberculosis in selected hospitals at Barabanki

2.To find out the association between the quality of life among patients with pulmonary tuberculosis with their demographic variables

Research Hypothesis:

RH₁: There will be significant level of quality life of patients with pulmonary tuberculosis

RH₂: There will be significant relationship between quality life of patients with pulmonary tuberculosis with their demographic variables

Assumptions:

1. Most of the human beings face problem of pulmonary tuberculosis

2   Many of the affected patients may not know how to cope up with life after being affected with tuberculosis.

II.MATERIALS AND METHODS:

The present study was undertaken at Barabanki, Uttar Pradesh due to geographical proximity, feasibility of the study and the availability of the samples. The District tuberculosis hospital is located at a distance of 1 km from the College of Nursing. The target population comprised of pulmonary tuberculosis affected patients and the accessible population consisted of pulmonary tuberculosis affected patients of the selected hospital setting.

The samples consisted of 30 pulmonary tuberculosis affected patients who fulfilled the inclusion criteria for the study. The inclusion criteria for the sample was men and women who were willing to participate in the study and the exclusion criteria was men and women who were not available at time of study and who cannot read and write Hindi. Non convenient sampling technique was chosen considering the time frame and the availability of the samples. The research variables were quality of life among pulmonary

tuberculosis affected patients and the demographic variables were age, religion, diet, area of residence, type of family, educational status, family income, socio economic status, type of work and type of residence.

Demographic variables:

- ➢ **Age**
- ➢ **Religion**
- ➢ **Diet**
- ➢ **Area of residence**
- ➢ **Type of family**
- ➢ **Educational status**
- ➢ **Family income**
- ➢ **Socioeconomic status**
- ➢ **Type of work**
- ➢ **Type of residence**

Target population:

Pulmonary tuberculosis affected patients

Accessible population:

District TB hospital pulmonary tuberculosis affected patients

Non convenient sampling

Sample size: 30

Data collection tool:

Structured interview questionnaire

Data collection and data analysis

Interpretation

Report and thesis

Description of the tool:

The tool used for the present study comprised of two sections:

Section A: Demographic data consisted of 10 items for obtaining information about the selected background factors of pulmonary tuberculosis affected patients such as age, religion, diet, area of residence, type of family, educational status, family income, socio economic status, type of work and type of residence.

Section B: Structured interview questionnaire on quality of life of patients with pulmonary tuberculosis. The structured questionnaire consisted of 60 items related to the quality of life, measures to be taken, the dietary pattern, the lifestyle modifications, treatment and follow up. The score was divided into three categories and the maximum score obtained was 60.

Interpretation of score:

S.NO	SCORE	Changes of Quality of Life
1.	1-20	Mild
2.	21-40	Moderate
3.	41-60	Severe

Data collection procedure:

A formal permission was sought from Principal, Mayo College of nursing, Gadia, Barabanki, later through proper channel permission obtained from Chief Medical Officer District TB hospital Barabanki. The patients who attended in hospital they extended their full co-operation for data collection which was carried out from February to March. The purpose of the study was explained to the sample population and informed consent was taken before starting the study, they were requested to respond honestly to all the items present in the structured interview and also reassurance that the information would be kept confidential. The data was entered and analyzed through statistical package for social sciences PC+ Ver 17.

Ethical consideration:

The study was conducted after the approval of the ethical committee of the college of nursing. Permission was obtained from the authorities of the District TB hospital, Barabanki. The researcher adhered to all the ethical principles i.e. written consent obtained, justice and privacy and confidentiality.

III.RESULTS:

The data collection were grouped and analysed using descriptive and inferential statistics.

The analysis of demographic variable revealed that majority of samples, 43.3 % were in the age group of above 35 years, 66.6 % were Hindus,70% were non vegetarians, 73.3% belonged to rural areas, 50% belonged to joint families, 50% have completed their high school education, 33.3% have their family income ranging between Rs.10001 – 15000, 83.3% belonged to middle class family, 70% had moderate work habits and 76.6% have their own houses where they reside in.

Figure 1: Quality of life among patients with pulmonary tuberculosis:
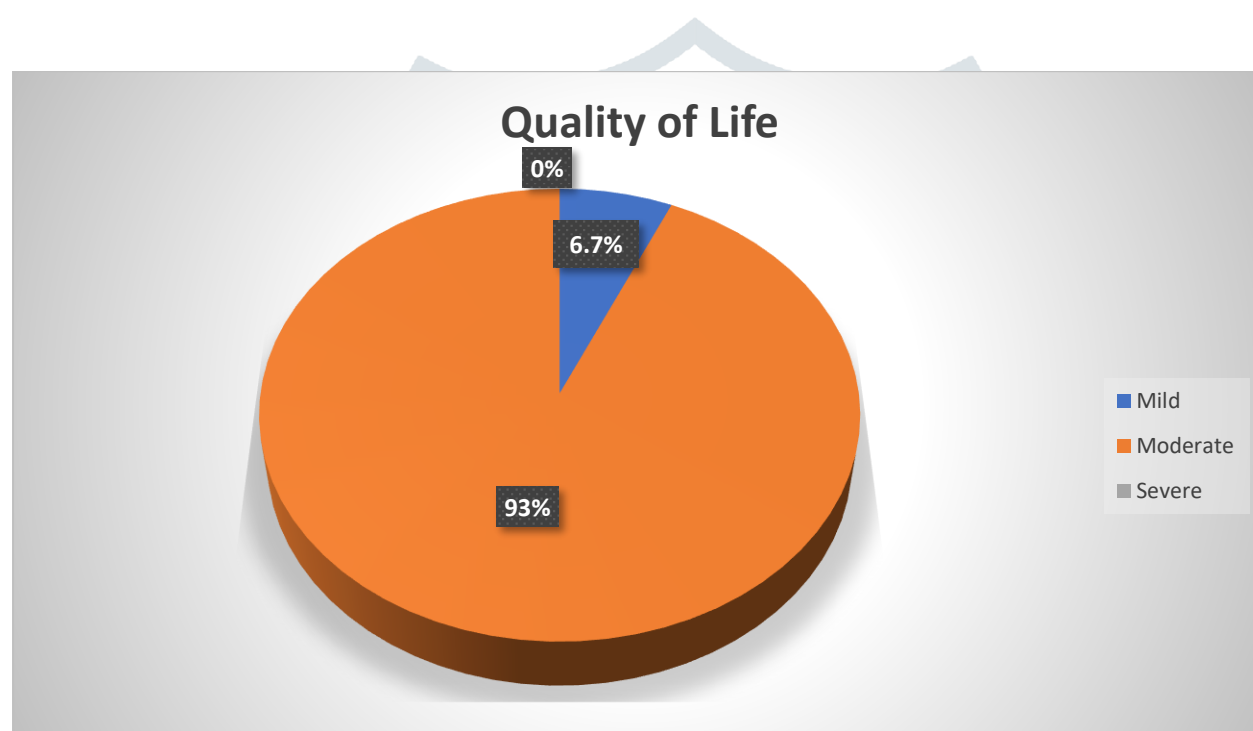

Figure 1 indicates that 2(6.7%) samples out of 30, had mild quality of life among patients with pulmonary tuberculosis 28 (93.3%) had moderate quality of life among patients with pulmonary tuberculosis and none had severe quality of life of patients with pulmonary tuberculosis.

Table 2: Association between quality life of patients with pulmonary tuberculosis and selected demographic variables

S.No	Demographic data	F	%	Quality of life			Chi Square
				Mild	Moderate	Severe	
1	**Age:**						$X^2 = 5.9$
	a)20 - 25 years	03	10	0	03	0	Df = 6
	b)26 - 30 years	06	20	0	0 6	0	S
	c)31 – 35 years	08	26.7	02	0 6	0	
	d)Above 35 years	13	43.3	0	13	0	
2.	**Religion:**						$X^2 = 0.399$
	a) Hindu	20	66.6	02	18	0	Df = 6
	b) Christian	05	16.7	0	05	0	S
	c) Muslim	05	16.7	0	05	0	
	d) Others	0	0	0	0	0	
S. No	Demographic data	F	%	Quality of life			Chi Square
				Mild	Moderate	Severe	
3	**Diet:**						$X^2 = 0.9$
	a) Vegetarian	09	30	0	09	0	Df = 2
	b) Non-Vegetarian	21	70	02	19	0	S

S.No	Demographic data	F	%	Mild	Moderate	Severe	Chi Square
4	**Area of residence:** a) Rural	22	73.3	02	20	0	$X^2 = 0.81$ Df = 2 S
	b) Urban	08	26.7	0	08	0	
5	**Type of family:** a) Nuclear	14	46.6	01	13	0	$X^2 = 0.14$ Df = 4 S
	b) Joint	15	50	01	14	0	
	c) Extended family	01	3.4	0	01	0	

Quality of life

S.No	Demographic data	F	%	Mild	Moderate	Severe	Chi Square
6	**Educational Status:** a) Illiterate	02	6.6	0	02	0	$X^2 = 1.6$ Df = 8 S
	b) Primary	09	30	01	08	0	
	c)High school	15	50	01	14	0	
	d)Higher Secondary	04	13.4	0	04	0	
	e) Graduate	0	0	0	0	0	
7.	**Family Income:** a) Below 5000	02	6.7	0	02	0	$X^2 = 4.7$ Df = 8 S
	b) 5001 - 10000	09	30	02	07	0	
	c) 10001 - 15000	10	33.4	0	10	0	
	d) 15001 – 20000	08	26.6	0	08	0	
	e) Above 20000	01	3.3	0	01	0	

S.No	Demographic variables	F	%	Quality of life			Chi Square
				Mild	Moderate	Severe	
8	Socioeconomic status: a) Lower class b) Middle class c)High class	04 25 01	13.4 83.3 3.3	0 02 0	24 23 01	0 0 0	$X^2 = 0.49$ Df = 4 S
9	Type of work: a) Secondary b) Moderate c)Heavy	08 21 01	26.6 70 3.4	01 01 0	07 20 01	0 0 0	$X^2 = 0.62$ Df = 4 S
10	Type of residence: a) Own b) Rented	23 07	76.6 23.4	01 01	22 06	0 0	$X^2 = 1$ Df = 2 S

S* - Significant at 0.05 level

Table 2 shows the association of selected demographic variables with quality of life among patients with pulmonary tuberculosis and was calculated using chi – square method. It reveals that there was significant association between the quality of life among patient with pulmonary tuberculosis and selected demographic variables such as- Age in years, Religion, Diet, Area of residence, Type of family, educational status, Family income, Socioeconomic status, Type of work, Type of residence. Since the obtained value is greater than the table value at 0.05 level significance. Thus, the stated research hypothesis (RH[1]) is accepted.

IV.DISCUSSION:

Tuberculosis is one of the top 10 causes of death worldwide. In the year 2020 given an estimated incidence of 2.79 million cases of tuberculosis and the number of the new case of active TB disease has increased over the time period.

The investigator had undertaken the present study to assess the quality of life among pulmonary tuberculosis affected patients by means of a non-experimental research design. Data is analysed with the help of descriptive and inferential statistics. In the total sample, majority of samples were 43.3 % were in the age group of above 35 years, 66.6 % were Hindus,70% were non vegetarians, 73.3% belonged to rural areas, 50% belonged to joint families, 50% have completed their high school education, 33.3% have their family income ranging between Rs.10001 – 15000, 83.3% belonged to middle class family, 70% had moderate work habits and 76.6% have their own houses where they reside in.

The chi square values computed between quality of life and selected demographic variables like age (5.9), Religion (0.39), diet (0.9), area of residence ()0.81), type of family (0.14), educational status (1.6), family income (4.7), Socioeconomic status (0.49), type of work (0.62) and type of residence (1).

The quality of life among pulmonary tuberculosis affected patients showed that 6.7% had mild, 93.3% were moderate and none had severe quality of life. Thus, the results obtained is positive

Finally, it can be concluded that emphasis on enhancement regarding quality of life among tuberculosis affected patients can be done through means of creating awareness and also with help of health education.

V. CONCLUSION:

This research has provided a rich experience for the researcher and thus helped to realise the need for emphasising on awareness on the quality of life among tuberculosis affected patients thereby reducing the complications and helping them lead a better life as well as also improve their social interactions. Thus, the patients affected with pulmonary tuberculosis can thereby atleast improve their quality of life and live in.

VI. REFERENCES:

1.   http://www.who.int/tb/publications/global_report/2020/en/index.html

2.   Lienhardt C, Espinal M, Pai M, Mahar D, Raviglione MC, what research is needed to stop TB? Available at http://www.tb/data/statistics/2018.

3.　　Introducing the TB research movement. PLOS med2011 No;8(11)e 1001135

4.　　Jugal K, S. Puri, Rojha. Nursing Role in prevention and control of Tuberculosis. Indian Nursing Year Book;2000-1.

5.　　Van WLM. Tuberculosis: the latest. CRNA [11271033]2000 Feb (Cited 2004 Jun17)11(1) :(15). Available at: http://www.Pubmed.com

6.　　Ishii H, Odauchi S, Funbabashik, Obtak, Yamashita T. Understanding level on tuberculosis among hospital nurse. Kakadu [12187816] 2002 Jul (Cited 2004 Jul 2); 77(7) 521.6). Available at: http//www.Pubmed.com

7.　　Tomsk, Siberia. Developing nursing practice as part of collaborative TB control programming, Journal of Tuberculosis and lung disorders [10524584] 2017 Oct (cited 2018 May 7); s3(10) (878-85). Available at: http//www.Pubmed.com

8.　　Singh MM. TB A Global Challenge Indian Journal of Tuberculosis .2000

9.　　Affolabi D, et al. 'First molecular epidemiological study of tuberculosis in Benin.' International Journal of Tuberculosis and Lung Disease. (2009)13,317-22.

10.　　Avinash CM, Dwarka P. 'Psychological survey of tuberculosis'. Indian Journal of Tuberculosis. (2021)22(1),32-34.

VII. SOURCE OF SUPPORT: Nil

VIII. CONFLICT OF INTEREST: None declared

IX: ACKNOWLEDGEMENT:

X. CONTRIBUTORS:

RM: Conceptualization of the study, collection, analysis of the data, writing of the manuscript, finalization of the manuscript and will act as the guarantor of the paper.

I.A: Conceptualization of the study, analysis of the data, writing of te manuscript, finalised the manuscript, edited and critically evaluated the manuscript.