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HEALTH RELATED QUALITY OF LIFE AMONG PATIENTS WITH PULMONARY TUBERCULOSIS IN PUDUCHERRY.

Nursing

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ABSTRACT

Tuberculosis is a disease with social implications due to the stigma attached to it. It has been seen that apart from physical symptoms, TB patients face various problems that are social and economic in nature. Therefore,for a comprehensive assessment of patients' health status, it is essential to consider the overall impact of TB on health and patients' perception of well-being, besides routine clinical, radiological and bacteriological assessments.Continuous care for patient with tuberculosis focuses on teaching to prevent the spread of the disease to the others and to ensure an effective treatment to eradicate the disease. Tuberculosis is a disease with social implications due to the stigma attached to it. It has been seen that apart from physical symptoms, TB patients face various problems that are social and economic in nature. Therefore, for acomprehensive assessment of patients' health status, it is essential to consider the overall impact of TB on health and patients' perception of well-being, besides routine clinical, radiological and bacteriological assessments The aim of the study to assess the health related quality of life among patients with Pulmonary tuberculosis in selected Primary Health Centres under RNTCP, in Puducherry. The Objectives of the study as to assess the health related quality of life among patients with newly diagnosed Pulmonary tuberculosis. A descriptive cross sectional research design was adopted for the study. For the purpose of this study, a total of 126 subjects with newly diagnosed pulmonary tuberculosis were selected from the four primary health centres as Mettupalayam,Lawspet, Reddiarpalayam and Mudaliarpet under RNTCP (October 2016 to February 2018) by using cluster stage sampling technique. The investigator explained the purpose of the study to the subjects. Socio demographic profile was assessed and the Quality of Life (QoL) score of the subjects with pulmonary tuberculosis was measured and evaluated by using modified Health-Related Quality of Life (HRQoL) short form 36 item scale (Kruijshaar, et al., 2010) with the aim of highlighting the impact of the disease on the overall well-being of the patient as often neglected aspect of health. Health-related quality of life refers to the overall conditions of the quality of life of the individuals in eight domains 1. physical functioning, 2. role limitation / physical health, 3. role limitation / emotional health, 4. energy/ vitality 5. emotional well being / mental health, 6. social functioning, 7. body pain and 8. general health of an individual or a group measured in terms of feelings of satisfaction or dissatisfaction which is a subjective assessment of one's own well-being and perception of the degree of contentment with and capability to perform and control different facets of one's own life..The major findings of the study as out of 126 subjects, the overall health related quality of life mean score in the experimental group was 13.05 ± 8.27 and in the control group it was 12.55±8.28. Results. The results of the current study highlighted a significant impact on several domains of HRQoL of pulmonary TB patients. Conclusion. The results of the present study concluded that TB patients had poor HRQoL in spite of the new therapeutic strategies and free availability of medicines. The disease had a negative impact on HRQoL of TB patients across all domains

KEYWORDS

Health Related Quality Of Life , Pulmonary Tuberculosis

INTRODUCTION:

The effective engagement of all health care providers especially nursing personnel, play an important role to scale up and commensurate to their presence to achieve universal access to tuberculosis care. Majority of times, the nursing personnel were the first person to be contacted, to take care of the patients with tuberculosis. Since the inception of RNTCP, multiple prior interventions through various strategies have been deployed to engage NGOs and private providers for tuberculosis control efforts in reducing the tuberculosis mortality.

Nursing care of the patient with tuberculosis focus on preventing the spread of the infection, assisting the patient and family to manage the environment and monitoring prescribed treatment. The Nurse addresses patient anxiety related to the disease and issues such as poor nutrition, pain and fatigue. When the treatment regimen is followed strictly 90% of the patients become non-infective within 3 months and relapse and non-compliance can be prevented. Identifying populations vulnerable to the disease and providing interventions and teaching to reduce the spread of the tuberculosis are the priorities of nursing care. Continuous care for patient with tuberculosis focuses on teaching to prevent the spread of the disease to the others and to ensure an effective treatment to eradicate the disease. Education of the patient and their family to dispose secretions safely and stress on various preventive measures to prevent the spread of the disease to other residents play a major role in prevention and spread of tuberculosis.

During the period of service in the community, the researcher had seen many of the patients with tuberculosis taking regular treatment and were not aware of the facts of tuberculosis such as the nature of tuberculosis, its symptoms, mode of transmission and how to manage the disease (prevention of transmission, managing drugs side effects etc.) unfavourable attitude towards their disease condition and inadequate practice towards cough hygiene. Patient with tuberculosis had delay in seeking treatment, negative perception towards their illness and poor quality of life. In addition they required lot of psychological support as there is lot of stigma associated with tuberculosis. Many people with tuberculosis disease were hesitant to access the treatment, as they had fear of being discriminated and isolated from their community. Therefore the patients with tuberculosis and their families need to be educated regarding the consequences of incomplete/irregular tuberculosis treatment which could lead to the development of drug resistant tuberculosis and which may require health education and ongoing counseling to motivate them towards strict adherence to tuberculosis drug regimen, thereby their quality of life will be improved.

Statement of the Problem

A study to assess the health related quality of life among patients with Pulmonary tuberculosis in selected Primary Health Centres under RNTCP, in Puducherry.

OBJECTIVES

1. To assess the health related quality of life among patients with newly diagnosed Pulmonary tuberculosis
2. To find out the association between the health related quality of life with selected demographic variables of the subject.

MATERIALS AND METHODS:

A descriptive cross sectional research design was adopted for the study. For the purpose of this study, a total of 126 subjects with newly diagnosed pulmonary tuberculosis were selected from the four primary health centres as Mettupalayam,Lawspet,Reddiarpalayam and Mudaliarpet under RNTCP (October 2016 to February 2018) by

using cluster stage sampling technique. The investigator explained the purpose of the study to the subjects. Socio demographic profie was assessed and the Quality of Life (QoL) score of the subjects with pulmonary tuberculosis was measured and evaluated by using modified Health-Related Quality of Life (HRQoL) short form 36 item scale (Kruijshaar, et al., 2010) with the aim of highlighting the impact of the disease on the overall well-being of the patient as often neglected aspect of health. Health-related quality of life refers to the overall conditions of the quality of life of the individuals in eight domains 1. physical functioning, 2. role limitation / physical health, 3. role limitation / emotional health, 4. energy/ vitality 5. emotional well being / mental health, 6. social functioning, 7. body pain and 8. general health of an individual or a group measured in terms of feelings of satisfaction or dissatisfaction which is a subjective assessment of one's own well-being and perception of the degree of contentment with and capability to perform and control different facets of one's own life.Following the data collection,implementation of nursing strategies as intensive health education, distribution of self instructional module, video documentary film and counselling were given for each patient.

RESULTS AND DISCUSSION

Table – 1 Mean and Standard Deviation of the domains of Health Related Quality of Life (HRQOL) of the subjects

(N = 126)

Domains of HRQOL		
	Mean	SD
Physical Functioning	5.44	4.20
Role limitation / physical health	11.02	15.19
Role limitation / emotional health	11.27	20.45
Energy / Vitality	12.13	6.54
Emotional well being / Mental health	42.58	7.53
Social functioning	5.51	6.25
Body pain	0.04	0.36
General health	16.47	5.60
Total Score	13.05	8.27

Table 1 shows the mean and standard deviation of various dimensions of health related quality of life of the The mean score of the physical Functioning was 5.44±4.20 , the Role limitation / physical health score was 11.02 ± 15.19 role limitation / emotional health in the experimental group was 11.27 ± 20.45 the role limitation due to energy/vitality score was 12.13 ±6.54 In relation to their emotional well being/mental health, the mean score of the subjects was 42.58 ± 7.53 For social functioning, the mean score was 5.51 ± 6.25 in relation to body pain, the mean score was 0.04 ±0.36 Regarding the general health score of the subjects was 16.47 ± 5.60 The overall health related quality of life mean score was 13.05 ± 8.27 and the overall health related quality of life mean score was low and the subjects with tuberculosis had poor quality of life.

DISCUSSION:

In this present study, the health-related quality of life of the subjects was assessed on various dimensions as physical functioning, physical health due to role limitation, role limitation due to emotional health, energy/vitality, emotional wellbeing/mental health, social functioning, body pain and general health of the subjects.

Physical Functioning

The mean score of the physical Functioning in the experimental group was 5.44 ±4.20 which inferred that the physical functioning score of the subjects similar for both groups and found to be comparable. The mean physical functioning score was low among the subjects in the present study and it was similar to the findings reported in previous studies **(Marra, 2008; Jaber, 2016; Dion, 2004 and Bauer, 2015). Chamla (2004) and Atif (2014)** reported that even after completion of tuberculosis treatment, the physical functioning of the subjects were affected more than the mental health. The results of the present study revealed that vigorous activities such as running or lifting heavy objects, climbing several flights of stairs, and walking more than a km were limited a little for most of the subjects with tuberculosis. Most of the time they had to cut down time spent on work and accomplished less than they would have liked to achieve. Similar results were reported in a study conducted in Sudan where tuberculosis affected long distance movements of the subjects with tuberculosis and their activities were limited due to their health **(Mohammed, et al., 2015)**.

Role Limitation / Physical Health

In the present study, the Role limitation / physical health score in the experimental group was 11.02 ± 15.19 and which was almost similar and found to be comparable for both the groups before intervention. Even after completion of tuberculosis treatment, physical health was more affected than mental health after six months **(Chamla, et al., 2004; Atif, et al., 2014)**.

Role Limitation / Emotional Health

In this study, the mean score in the role limitation / emotional health in the experimental group was 11.27 ±20.45 which inferred that the role limitation / emotional health was similar in both groups before intervention and they were found to be similar and comparable.The study done by **Mohammed, et al. (2015)** stated that most of the subjects with tuberculosis had to cut down time for work, accomplished less, and did work and other activities less carefully only sometimes due to emotional problems.

Energy / Vitality

In the present study, the energy score in the experimental group was 12.13±6.54 which inferred that the vitality score was almost similar for both groups and found to be comparable.The results of the present study showed that most of the subjects felt tired and did not have a lot of energy most of the time. These findings were similar in the study conducted by **Madeeha, et al. (2018).** Study done by **Mamani**, **et al. (2014)** revealed that the minimum score was found among the subjects between the experimental and the control groups related to energy.

Emotional Well Being / Mental Health

In this study, the mean emotional well being/mental health score of the subjects in the experimental group was 42.58 ± 7.53 which inferred that the emotional well being score was similar for the both groups and found to be comparable.The study done by **Chamla, et al., (2004) and Atif, et al., (2014)** revealed that emotional well being score was not affected much as physical health. A study done by **Li, et al. (2016)** found that the mental health aspect of quality of life improved more in subjects with smear positive than in those with negative ones.

Social Functioning

In this study, the mean score of the social functioning of the subjects in the experimental group was 5.51 ± 6.25 which inferred that social functioning score of the subjects were similar in the both groups and found to be comparable. Tuberculosis can have an impact on social functioning due to social stigma associated with it. **Madeeha, et al. (2018)** showed that social functioning of the subjects with tuberculosis was slightly affected. Similar findings were reported from a study conducted in Sudan where subjects with tuberculosis felt that their health had affected their social relations **(Mohammed, et al., 2015).**

Body Pain

In this study, the body pain score was 0.04 ±0.36 which inferred that the body pain score was very low in the both groups were similar before intervention and found to be comparable. Body pain can interfere with normal activities of the subjects with tuberculosis and subsequently affect their quality of life. Body pain had mild to moderate effect on the daily activities of the subjects with pulmonary tuberculosis. Similar situation had been reported in Sudan where pain had moderate effect on patient's quality of life **(Mohammed, et al., 2015).**

General Health

In this study, the general health score of the subjects was 16.47 ± 5.60 which inferred that the general health score was similar in both groups and found to be comparable. **Madeeha, et al. (2018)** found that the lowest HRQoL scores were observed for the domain of general health (34.97, ±14.286) perceptions of TB subjects followed by bodily pain (43.40, ±24.594).

Overall Health Related Quality of Life

In this study, the overall health related quality of life mean score was 13.05 ± 8.27 which inferred that the subjects with tuberculosis had poor quality of life. and. Study done by **Madeeha, et al. (2018)** stated that subjects with tuberculosis had poor HRQoL in spite of the new therapeutic strategies and free availability of medicines. The disease had a negative impact on HRQoL of subjects with tuberculosis across all domains **(Kittikraisak, et al., 2009; Othman, et al., 2011; Chamla, et al., 2004; Muniyandi, et al., 2007 and Barennes, et al., 2010).**

Major Findings of the Study

Out of 126 subjects

Nearly 38.2% of the subjects in experimental group and 34.5% of them in control group were between the age group of 30-45 years and 39.7% of them in experimental group and 34.5% of them in control group were above 45 years. Most of the subjects 50(73.5%) were males, suffering from pulmonary tuberculosis in the experimental group and 37(63.8%) of them, in the control group.Around 45(66.2%) of them in the experimental group were living in nuclear family and 41(70.7%) of them, in the control group. Most of the subjects 45(66.1%) in the experimental group belonged to the upper lower class (class IV) and 34(58.6%) in control group.

Overall Health Related Quality of Life

The overall health related quality of life mean score in the experimental group was 13.05 ± 8.27 .The results of the current study highlighted a significant impact on several domains of HRQoL of pulmonary TB patients and concluded that TB patients had poor HRQoL in spite of the new therapeutic strategies and free availability of medicines. The disease had a negative impact on HRQoL of TB patients across all domains.

Association between the Pretest Quality of Life with Selected Demographic Variables of the Subjects

The Kruskall-Wallis test revealed that there was a significant association between the emotional well being of the subjects with religion which was significant at $p<0.05$ level,.social functioning of the subjects with age which was significant at $p<0.05$ level,general health score of the subjects with selected demographic variables such as religion which was highly significant at $p<0.05$ level.

CONCLUSION

The results of the present study concluded that TB patients had poor HRQoL in spite of the new therapeutic strategies and free availability of medicines. The disease had a negative impact on HRQoL of TB patients across all domains.There was a significant association between the quality of life as emotional well being/mental health with religion, social average functioning with age and general health with religion.

Future Implications

Extensive research should be conducted to design appropriate interventions for improving HRQoL in TB patients to decrease the rates of treatment failures and improve treatment response. Interventional studies focusing on health educational programs targeting patients with low educational background must be designed. Studies assessing HRQoL of TB patients at baseline and initial phase of treatment to prevent treatment defaults must be conducted.

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