



## Assess the Quality of Life among Leprosy Patient in Selected Community Area.

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### ABSTRACT

#### INTRODUCTION:

Leprosy is a chronic infectious granulomatous disease caused by *Mycobacterium leprae*, an acid fast, rod-shaped bacillus that evolves slowly, manifesting itself through dermal/neurological signs and symptoms. It mainly affects the skin and peripheral nerve lesions, especially in the eyes, hands, and feet. Leprosy, if untreated, leads to progressive physical, psychological and social disabilities and rehabilitation.

#### AIM:

The aim of the study was to assess the quality of life among leprosy patient selected community area.

#### METHOD:

A quantitative approach with descriptive research design was adopted for the present study. 100 leprosy patients was selected by using non – probability convenient sampling technique. A self – structured questionnaire was used to collect the demographic data and the World Health Organization Quality of Life (WHOQOL)-BREF Questionnaire was used to assess the quality of life among leprosy patients.

#### RESULT:

The findings shows that among 100 study participants in that 45% leprosy patient have poor qualities of life, 36% weremoderate and 19% were satisfied quality of life.The demographic variables such as age, language, nutritional status, allowed continuing of work, sitting in the restaurants and taking to the neighbours had highly significant association with quality of life among leprosy patients.

#### CONCLUSION:

Hence thestudy concludes that identified the quality of life among leprosy patients. There was poor satisfied with their Quality of Life.

**KEYWORDS:** Leprosy, Quality of Life.

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### I. INTRODUCTION:

Leprosy (Hansen's Disease) is a chronic infectious disease caused by *M. leprae*. It affects mainly the peripheral nerves. It also affects the skin, muscles, eyes, bones, testes and internal organs.<sup>[1]</sup> The International Association for the Study of Pain (IASP) defined pain as an “unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage.” Neuropathic pain is defined as “pain arising as a direct consequence of a lesion or disease affecting the somatosensory system According to new theories, pain is a subjective experience influenced by a combination of cortical mechanisms.<sup>[2]</sup> It is widely believed that pain has a profound effect on a person's quality of life (QoL). Considering that leprosy causes sensory loss, it was expected that patients do not experience pain, and it has not been well studied in leprosy<sup>[10]</sup>. Therefore, a lack of knowledge persists regarding chronic pain in leprosy<sup>[3]</sup>.

Leprosy a chronic infectious affliction is a communicable disease that poses a risk of permanent and progressive disability. The associated visible deformities and disabilities have contributed to the stigma and discrimination experienced by leprosy patients, even among those who have been cured<sup>[4]</sup>.

The endemicity status, associated with low socio-economic and environmental conditions, the severity of the disease, the occurrence of clinical parallel conditions or complications and the amount of medication required to alleviate the symptoms, made worse by the high percentage of patients with incapacities, can significantly interfere with the quality of life (QoL). Therefore, the combination of social prejudice, functional limitation and human suffering that are associated with leprosy explain why the disease is feared more than others, even fatal diseases<sup>[5]</sup>.

Quality of life (QoL) is the general well-being of an individual or society experiencing the standard of health, comfort, and happiness and it is a highly subjective measure. The World Health Organization (WHO) defines QoL as an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns; this definition considers the person's physical and psychological health, social relationships, personal beliefs, environment, and their relationship to salient features of their environment. The Centers for Disease Control and Prevention, USA, in the year 2000, defined the health-related QoL (HRQoL) as "An individual's or group's perceived physical and mental health over time" which covers broad domains including physical, psychological, economic, spiritual, and social well-being<sup>[6]</sup>.

Leprosy is still a public health problem with <200,000 new cases of leprosy being registered worldwide annually, with 62% of cases in India. In India, a total of 127,334 new cases were detected during the year 2016–2017, and 4.6% of them had Grade 2 disability at the time of diagnosis. Physical disabilities caused by the disease may result in enormous psychological consequences and more possibility of worsening QoL. Leprosy and leprosy-related disabilities may predispose people to develop psychological, economic, and social problems which have an adverse effect on QoL<sup>[6]</sup>.

In 2018 there were 184 212 cases globally on multidrug therapy, with a registered prevalence of 0.24 per 1000 population. In the same calendar year, 22 countries reported new cases and nearly 11 323 new leprosy cases presented with grade II disability at the time of diagnosis. Grade I indicates loss of sensation but no visible deformity, while grade II disability implies there is visible damage or deformity. The majority of cases were from the Southeast Asia region and Latin American.

The host immune response to *Mycobacterium leprae* is critical for control of the infection but also responsible for the immune-pathological damage to skin and nerves. The complex and varied immune responses to the organism are the basis for the clinical spectrum of disease ranging from tuberculoid to lepromatous leprosy<sup>[7]</sup>. Leprosy occurs more commonly among those living in poverty. Contrary to popular belief, it is not highly contagious (Sengupta, 2016). Leprosy can affect people of all races all around the world. However, it is most common in warm, wet areas in the tropics and subtropics. (Ngan, 2014)<sup>[8]</sup>.

The purpose of the study [1] to assess the quality of life among leprosy patients and [2] to find out the association between quality of life among leprosy patients with their selected demographic variables.

## **II. METHODS AND MATERIALS:**

The quantitative approach with descriptive research design was adopted for the present study. After obtaining ethical clearance the formal permission was obtained from the village panchayat officer. A total of 100 leprosy patients who were in the Community area (n= 100) and the leprosy patients who met the inclusion criteria were selected as the study participants by using non probability convenient sampling technique. The inclusion criteria for the study participants were the leprosy patients between the age group of 20- 60 years, who are willing to participate and able to read, write and understand Tamil and English. The exclusion criteria for the study participants were Leprosy patients who are not able to read Tamil and English. The purpose of the study was explained by the investigator to each study participant and a written informed consent was obtained before collecting the data. The tool was two sections. Section- I: Demographic variable it consists of Age, Sex, Religion, Education, Occupation, Nutritional Status, Language Known, allowed continuing working, sitting in the restaurant, talking to neighbours and going to shopping. Section-II: In this study Quality of life among leprosy patients were assessed by using WHOQOL tool. WHOQOL tool consists of 26 questions it include four domains. Physical Health, Psychological Health, Social Relationship and Environment Health. The physical health domain includes items on mobility, daily activities, functional capacity, energy, pain and sleep. The psychological domain measures include self-image, negative thoughts positive attitudes self-esteem, mentality learning ability, memory concentration, religion and the mental status. The social relationship domain contains questions on personal relationship, social support and sex life. The environmental health domains covers issues related to financial resources, safety, health and social services, living physical environment, opportunities to acquire new skills and knowledge, recreation, general environment and transportation. WHO-BREF is scored from 1 to 5 on a response scale which is stipulated as a five-point ordinal scale. The collected data were tabulated and analysed by using descriptive and inferential statistics.

### III. RESULTS AND DISCUSSION:

#### SECTION-A: Demographic Characteristics

Among the 100 samples regarding to Age 20-40 years were with percentage (35%), 40-60 years were with percentage (36%) and above 60 years were with percentage (29%) with regards to Male (52%), Female (48%) with regards to Religion Hindus (27%), Muslims (41%) Christians (32%) Education secondary education were with greater percentage of (61%) and other were with less percentage (6.7%) and with regards to Occupation of the daily workers was (32%), housewife (22%) and others(46%)with regards to Languages known Tamil(31%), English(27%) and both languages(42%)with regards to Nutritional status vegetarian(31%) non-vegetarian(27%)and both(42%) with regards to allowing continue the workyes(33%), no(31%) and sometimes (36%)with regards sit in the restaurant yes(37%), no(37%) and sometimes (26%)with regards to talk neighbour yes(30%), no(33%) and sometimes (37%)regards going to shopping yes(36%), no(32%) and sometimes (32%)received information concerning

#### SECTION B:Distribution of the Quality of Life.

The findings shows that among 100 study participants in that 45% leprosy patient have poor qualities of life, 36% were moderate and 19% were satisfied quality of life. (Figure-1)

The data presented in table 1 shows that distribution of the quality of life out of 100 samples regarding to physical domains the mean values is (14.51) and standard deviation is (3.21), the psychological domains the mean values is (11.85) and the standard deviation is (4.37), the social relationships the mean value is (13.42) and the standard deviation is (2.74) and the environment domain the mean value is (11.25) and standard deviation value is (2.17).

**Table -1 Mean and Standard deviations of Level Quality of Life among Leprosy Patient.**

DOMAINS	MEAN	STANDARD DEVIATION
Physical	14.51	3.21
Psychological	11.85	4.37
Social relationships	13.42	2.74
Environment	11.25	2.17

**Figure-1 Frequency and Percentage Disruptions of Quality of Life among Leprosy Patients.**



The demographic variables such as age, language, nutritional status, allowed continuing of work, sitting in the restaurants and taking to the neighbours had highly significant association with quality of life among leprosy patients.

The present study findings supported by **K.Geetha, Angeline Dhanalakshmi et al (2015)** was conducted to assess the impact of leprosy on Quality of Life among Leprosy Patients in Government Rehabilitation Home. The results concluded that, out of 120 patients 73.5% people had neither poor nor good quality of life<sup>[10]</sup>.

The finding was supported by **HanenNasef et al Apr (2019)** was conducted relationship between psychological problems and Quality of Life among Leprosy Patients. The results concluded that, out of 100

samples majority of the studied patients had a low level of Quality of Life, also two, third had a moderate level of depression, and anxiety and have a moderate level of stress<sup>[11]</sup>.

### **SECTION C: Association between Quality of Life among Leprosy Patient with their selected Demographic Variables.**

The demographic variables such as age, language, nutritional status, allowed continuing of work, sitting in the restaurants and taking to the neighbours had highly significant association with quality of life among leprosy patients.

The present study findings supported by **K.Geetha, Angeline Dhanalakshmi et al (2015)** was conducted to assess the impact of leprosy on Quality of Life among Leprosy Patients in Government Rehabilitation Home. The results concluded that, there is significant association between quality of life of leprosy and with their demographic variables of age  $p=0.006$ <sup>[10]</sup>.

### **IV. CONCLUSION:**

The findings of the present study revealed that, the existing level of Quality of Life among Leprosy patients was poor and there is a need to improve their Quality of Life through the pamphlet distribution and create awareness by conducting health education programmes.

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### **CONFLICT OF INTEREST:**

Authors declare no conflict of interest.

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