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#### Research Article

# A Study to Assess the Impact of Leprosy on Quality of Life Among Leprosy Patients in Government Rehabilitation Home at Paranur

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#### ABSTRACT

Leprosy is the oldest disease known to man. The earliest written records describing true leprosy came from India around the period 600.Leprosy is a chronic infectious disease caused by *Mycobacterium leprae*, an acid fast, rod- shaped bacillus. The disease mainly affects the skin, the peripheral nerves mucosa of the upper respiratory tract and also the eyes. A total of 13 countries reported zero cases in 2013. Global statistics show that 206107 (96%) of new Leprosy cases were reported from 14 countries and only 4% of new cases from the rest of the world. The age-old stigma associated with the disease remains on obstacle to self-reporting and early treatment in which patients will not hesitate to come forward for diagnosis and treatment at any health facility must be created.

Keywords: Leprosy, myco-bacterium leprae, paranur

#### INTRODUCTION

There has been a degree of stagnation and lack of new approaches in Leprosy control. South East Asia region (SEAR) currently has highest prevalence of 116396 (0.63) cases and highest new case detection rate of 8.38 per 1,00,000 (155385 case with 72% of the global leprosy burden). India alone accounted for 58.85% of the global Leprosy burden, Indian scenario, a total of 127000 new cases were detected during 2013-2014. The fear of leprosy leads to the stigma and discrimination and is due to lack of understanding and knowledge about leprosy - which increases misconceptions about the disease's transmission and treatment. The fact that most of those with untreated leprosy end up with severe deformities and disfigurements has contributed to the stigma (navon. 1998)1. Dr Ram Manohar Lochia Hospital in Delhi showed that the impact of stigmata attached to leprosy had more effect on educated women belonging to a higher socio-economic group than on less fortunate women<sup>2</sup>. Discriminative attitudes were more common in joint the nuclear families. Although many got support from their families, the disease had definite psychological effects. Because of the fear of infecting the family members, women sufferers kept themselves aloof and were constantly worried about divorce. Fear of social ostracism prevented the disclosure of disease to the community. Deformities and disabilities led to deterioration in their functional capabilities and their psychological state of mind. Kopparty SN conducted study on problems acceptance and social inequality among Leprosy patients and their families. Deformity sometimes leads to disabilities and to handicaps causi9ng problems to the patient and his family. Guruinder pal singh conducted a study on psychological aspects of Hansen's disease.

According to this, this disease is an important cause of crippling deformities. The affected people have high psychological problems such as divorce un employment and displacement from their native place of residence. Psychiatric disorders are highly prevalent in people with Hansen's disease.

#### METHODS AND MATERIALS

In this study Quality of life of leprosy patients were assessed by using WHOQOL-BREF tool. The approach was Quantitative approach, Non-probability convenient sampling technique was used and Non experimental descriptive study design was adopted. This study conducted at Govt. Rehabilitation center at paranur, chengalpet. WHO BREF<sup>7</sup> tool consists of two parts, part A consist of Age, sex, marital status and educational status and Part-B consists of 27 questions consisting of four domains. Physical health, psychological health, social relationship and environment health, each individual item of the WHO-BREF is scored from 1 to 5 on a response scale which is stipulated as a five-point ordinal scale. 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. The home has 202

Table 1: Frequency and percentage distribution of leprosy patients (N = 151)

Section A: assessment of the impact of leprosyon quality of life among leprosy patients

|                 | Distribution     |     |      |
|-----------------|------------------|-----|------|
| Demographic var | No.              | %   |      |
| Sex             | Male             | 88  | 58.3 |
|                 | Female           | 63  | 41.7 |
| Age             | 31-45            | 13  | 8.6  |
|                 | 46-60            | 84  | 55.6 |
|                 | 61-75            | 44  | 29.1 |
|                 | 76-90            | 10  | 6.6  |
| Educational     | Illiterate       | 101 | 66.9 |
| qualification   | Primary          | 31  | 20.5 |
|                 | Middle<br>school | 13  | 8.6  |
|                 | HSS              | 16  | 4.0  |
| Marital Status  | Un married       | 35  | 21.2 |
|                 | Married          | 116 | 78.8 |

Section B Assessment of the impact of leprosy on quality of life among leprosy patients

| Quality of Life       | Frequency | %    |
|-----------------------|-----------|------|
| Poor                  | 27        | 17.8 |
| Neither poor nor good | 111       | 73.5 |
| Good                  | 13        | 8.6  |

inmates. But at that time only 151 samples were there. Interview was conducted and responses were recorded. Those who are not willing and admitted in the hospital excluded from the study people those who are willing participated included in the study. The table 2 reveals that there is significant association between quality of life of leprosy and with their demography variable of age. There is no significant association with respect to other demographic variables.

#### **RESULTS**

Data analysis and the results are tabulated. Table 1 illustrate the demographic profile of the leprosy patients .55.6% belongs to (46-60). Age group,58.3% leprosy patients are males.66.9% are illiterates.78.8% are married. Table 2 illustrate the impact of quality of life among leprosy patients in that 73.5% people had neither poor nor good quality of life .Table 3 Shows association between quality of life of leprosy patients and with their demographic variables. reveals that there is significant association between quality of life of leprosy and with their demographic variable of age P= 0.006. There is no significant association with respect to other demographic variables.

#### DISCUSSIONS

Leprosy can be seen as having psychological, socioeconomic and spiritual dimensions that progressively dehabilitate affected persons who are not properly cared for. The emergence of multidrug therapy has given rise to optimism about the prospects for eliminating the disease and preventing disability and dehabilitation. Nevertheless, the stigma attached to the disease remains, and leprosy services have not always been accessible and acceptable. Consequently, the degree of decline in the quality of life needs to be reviewed and correlated with various sociodemographic and environmental factors, including ones associated with health services (G.A.joseph 1999)<sup>5</sup>. Furthermore, adult leprosy patients presented problems in interpersonal relationship, employment, leisure activities and social attendance. In patients with 10-

29 years, there was observed a lower HRQL scores comparing to healthy controls, in several categories, such as psychical, vitality, social functioning and emotional role (Luciana neder 2015). The study included 120 patients undergoing antimicrobial treatment for leprosy. Those interviewed were mostly male (52.5%), with an average age of 42.6 years (SD 15.8 years) (ranging from 18 to 79). Regarding marital status, 49% were married, 43% were single, 6% widowers and 2% divorced. Concerning religion, 24% didn't belong to any; most participants said they were Catholic (47%), followed by Protestant (26%), Spiritualist (2%) and other religions (2%)(clarrisa iris 2014). The results of the present study, as far as age is concerned 13 (8.6%) leprosy patients belong to (31-45) age group; 84 (55.6%) patients belong to (46-60) age group; 44 (29.1%) belongs to (61-75) age group and 10 (6.6%) patients belong to (76-90) age group. Regarding the sex 88 (58.3%) leprosy patients are males and 63 (41.7%) are patients are females. As far as educational qualification of the leprosy patients 101 (66.9%) are illiterates; 31 (20.5%) patients are primary level of education; 13 (8.6%) are middle school level and 6 (4%) are higher secondary level of education. Regarding marital status of the patients 34 (21.2%) are unmarried and 116 (78.8%) are married. Madhavi J Mankar stated in their study, Almost half of the study group and controls were illiterate. More than 80% of the population in both the study and control groups was married, suggesting that leprosy is not a deterrent for marriage. Lustosa AA, Noueiva (2011) reinforces the need to implement more effective strategies of disease control, since the establishment of serious and disabling forms of leprosy is directly related to low HRQOL even in the cured patient. QOL and general mental health scores of leprosy patients were worse than those of the general population. This is the first exclusive study to attempt to measure the impact of lepromatous leprosy on QoL. Lepromatous leprosy has a severe impact on QoL. Joseph and Rao (1999)<sup>5</sup> reported that individuals in India who had been cured of leprosy had a lower OOL than the general population. However, the sample size in this study was small and the QOL of patients under treatment was unclear.

#### **CONCLUSION**

Table: 2 Shows association between quality of life of leprosy patients and with their demographic variables:

|           |            |           | Quality of | of leprosy patie      | nts life scor | e         |      |                           |
|-----------|------------|-----------|------------|-----------------------|---------------|-----------|------|---------------------------|
|           |            | Poor      |            | Neither poor nor good |               | Good      | _    |                           |
|           |            | Frequency | %          | Frequency             | %             | Frequency | %    |                           |
| Age       | 31-45      | 2         | 7.4        | 10                    | 9             | 1         | 7.7  | $X^2 = 18.02$<br>P= 0.006 |
|           | 46-60      | 23        | 85.2       | 58                    | 52.3          | 3         | 23.1 | Significant               |
|           | 61-75      | 1         | 3.7        | 36                    | 32.4          | 7         | 53.8 |                           |
|           | 76-90      | 1         | 3.7        | 7                     | 6.3           | 2         | 15.4 |                           |
| Sex       | Male       | 17        | 63         | 61                    | 55.0          | 10        | 77   | $X^2 = 2.60$<br>P= 0.272  |
|           | Female     | 10        | 27         | 50                    | 45.0          | 3         | 23   | NS                        |
| Education | Illiterate | 20        | 74.1       | 75                    | 67.6          | 6         | 46.2 | $X^2 = 8.10$              |
|           | Primary    | 4         | 14.8       | 24                    | 21.6          | 3         | 23.1 | P = 0.231                 |
|           | Middle s   | 3         | 11.1       | 8                     | 7.9           | 2         | 15.4 | NS                        |
|           | HSS        | 0         | 0          | 4                     | 3.6           | 2         | 15.4 |                           |
| Marital   | Un married | 3         | 11.1       | 28                    | 25.2          | 4         | 30.8 | $X^2 = 2.88$              |
| status    | Married    | 24        | 88.9       | 83                    | 74.8          | 9         | 69.1 | P= 0.236<br>NS            |

In order to reach all patients, leprosy treatment needs to be fully integrated into general health services. Moreover, political commitment needs to be sustained in countries where leprosy remains a public health problem. Partners in leprosy elimination also need to ensure that human and financial resources continue to be available. Integration of primary leprosy services into existing general health services has made treatment of the disease more easily accessible and helped to reduce the stigma to a great deal. present & future strategies to decrease the disease burden. This requires a national-level mass campaign of health education for the general public. The general public should be made aware that Hansen's disease is not a genetic disorder, it is 100% curable, and the patients need social support. A better coordination between all healthcare partners like leprologists, dermatologists, psychiatrists, healthcare workers will settle all the issues and help in achieving the eradication goals.(guruinder pal singh)

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