



Original Research Article

Quality Of Life of Persons Newly Diagnosed With Leprosy in Akwa Ibom State

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ABSTRACT

Leprosy is a chronic infectious disease that affects physical, psychological, social and environmental domain of life of the victims. They have low quality of life but efforts have been made to treat the victims and rehabilitate them to improve their quality of life.

Aim: To compare the quality of life of people newly diagnosed with leprosy before treatment and after completion of MDT.

Methods: 44 persons newly diagnosed with leprosy at Qua Iboe Church Leprosy Hospital, Ekpene Obom, Etinan, Akwa Ibom State between January and December 2011 had their quality of life assessed with WHO Bref questionnaire before treatment and after completion of treatment one year later.

Result: A total of 44 subjects consisting of 32 males (72.7%) and 12 females (27.3%) newly diagnosed with leprosy were started on multidrug therapy. Subjects in aged group 30-39 years, 37.6% (n=16) were more than others. 50% (n= 22) of subjects were single. 49.99% of the subjects were satisfied with their health before treatment compared to 63.63% satisfied with their health after treatment with multidrug therapy. 27.28% had rated their quality of life as good before treatment compared to 59.09% that rated their quality of life as good after treatment. Mean score on physical domain was 46.63 before treatment compared to 61.72 after treatment, T test 2.585, p = 0.0133. Mean score on psychological domain was 37.54 before treatment compared to 64.18 after treatment, T test 4.140, p= 0.0002. Mean score on social domain was 44.40 before treatment compared to 63.09 after treatment, T test 2.845, p=0.0068. Mean score on environmental domain was 37.68 before treatment compared to 56.40 after treatment, T test 3.151, p =0.003.

Conclusion: The quality of life of respondents was low in all domains of quality of life before treatment but improved after completion of treatment.

Keywords: leprosy, pre treatment quality of life, post treatment quality of life.

INTRODUCTION

Leprosy is a chronic infectious disease caused by an obligate intracellular organism *Mycobacterium leprae*.^[1] It has a long incubation period of 2-30 years with an

average of 2-5 years.^[2] Incidence is higher in males than females in a ratio of 2:1.^[3] The disease has ability to cause deformities and disabilities if not detected and treated early.^[4] The deformities and disabilities

caused by leprosy lead to discrimination, rejection, lack of employment, divorce and social exclusion. [5] However, among patients affected by leprosy, only 25% of them will develop deformities. [6] All these deformities and disabilities ultimately will lead to low quality of life. [7]

Quality of life is the perception of the individual of his position in life in the context of the culture and value system in which he or she lives and in relation to his objectives, expectation, standards and concerns. [8] Generally, people affected by leprosy have been shown to have low quality of life in India, Bangladesh, [9] Brasil [10] and Ghana [11] but few studies have been done to show any improvement in quality of life after treatment of patients.

This study was done in Akwa Ibom State, South South Nigeria on quality of life of persons affected by leprosy, before and after completion of treatment to observe if there is any improvement in their quality of life. It intends to add to the body of knowledge of care and rehabilitation of persons affected by leprosy in our environment.

MATERIALS AND METHODS

The study was a cross-sectional descriptive survey of 44 people who were newly diagnosed with leprosy and started on treatment over a one year period from January to December 2011. They completed treatment at Qua Iboe Church Leprosy Hospital, Ekpene Obom, Etinan, Akwa Ibom State.

The hospital was established in 1932 as a Specialist Leprosy facility but it now caters for health needs of non leprosy patients as well and it attends to over 6000 patients per year with those diagnosed with leprosy inclusive.

Data was collected using WHO Quality of Life Bref questionnaire [12] from 44 persons who were newly diagnosed with

leprosy before starting on multidrug therapy dapsone, clofazimine and rifampicin. After completing therapy one year later another data on quality of life using WHO Quality of Life Bref questionnaire was taken and comparison done to observe if there was any improvement. Method of subject selection was consecutive non probability sampling. Adults who were newly diagnosed with leprosy using World health Organization (WHO) guidelines on diagnosis of leprosy were included, those diagnosed before the commencement of the study as well as children who were diagnosed with leprosy were excluded from the study.

The instrument used for the study was “WHO Quality of Life Bref Questionnaire”. It is divided into two parts. The first part assesses the patient’s subjective assessment of his/her quality of life and feeling of satisfaction with his/her health. The second part is divided into four domains namely physical health, mental health, social health, and the environment. A sample question on physical domain is “To what extent do you feel physical pain prevents you from doing what you need to do? The answers are rated thus; Not at all (5), A little (4), A moderate amount (3), Very much (2), An extreme amount (1). A sample question on mental health is “How well are you able to concentrate? Answers are Not at all (5), A little (4), A moderate amount (3) Very much (2), An extreme amount (1). Under social health domain, one of the question is “How satisfied are you with your sex life? Answers are Very dissatisfied (1), Dissatisfied (2), Neither satisfied nor dissatisfied (3), Satisfied (4), Very satisfied (5) . A sample question under environmental health is “How healthy is your physical environment? Answers are Not at all (1), A little (2), A moderate amount (3), Very much (4), Extremely (5). A mean score on each domain was obtained and converted to a transformed score based

on the table provided by the World Health Organization Quality of life Bref Questionnaire (WHOQOL).

The socio-demographic characteristics of the subjects assessed were age, sex, marital status, educational level, religion and income. Data analysis was done with statistical package for social sciences (SPSS VERSION 17). T test was done and p value was set at <0.05. The study was approved by the Hospital and consent was taken from all participating subjects.

RESULTS

A total of 44 subjects consisting of 32 males (72.7%) and 12 females (27.3%) newly diagnosed with leprosy were recruited. Maximum number of subjects were in the age group 30-39 years 36.4% (n=16). Most of the subjects were single 50% (n=22). 40.9% (n=18) of people newly diagnosed with leprosy had primary education. 36.4% (n=16) of people newly diagnosed with leprosy had no formal education. Majority of the respondents were Ibibio, 86.4% (n=38) among those diagnosed with leprosy. This socio-demographic characteristic is shown in table 1.

Table 1 showing socio-demographic characteristics of respondents

Age in years	People newly diagnosed with leprosy.	P-value	X ²	Df
20-29	3 (6.8)	0.808**	2.477	5
30-39	16(36.4)			
40-49	11 (25.0)			
50-59	8 (18.2)			
60-69	3 (6.8)			
>70	3 (6.8)			
Sex				
Male	32 (72.7)	0.347**	1.5714	1
Female	12 (27.3)			
Education				
No formal education	16 (36.4)	0.0001*	22.149	3
Primary education	18 (40.9)			
Secondary education	8 (18.2)			
Post secondary education	2(4.5)			
Marital status				
Single	22 (50.0)	0.086**	6.55	3
Married	10 (22.8)			
Separated	6 (13.6)			
Widow	6 (13.6)			
Tribe				
Ibibio	38 (86.4)	0.136**	2.2576	2
Igbo	0 (0.0)			
Others	6 (13.6)			
Religion				
Christianity	44			
*= significant	**= not significant			

49.99% of people newly diagnosed with leprosy were satisfied with their health before treatment compared to 63.63% of them that were satisfied with their health after treatment. Similarly, 27.28% of people newly diagnosed with leprosy had rated their quality of life as good before treatment compared to 59.09% of same people newly

diagnosed with leprosy who rated their life as good after treatment.

The mean score on physical domain of people newly diagnosed with leprosy was 46.63 before treatment compared to 61.72 after treatment, T test 2.585, p = 0.0133. The mean score on psychological domain of people newly diagnosed with leprosy was 37.54 before treatment

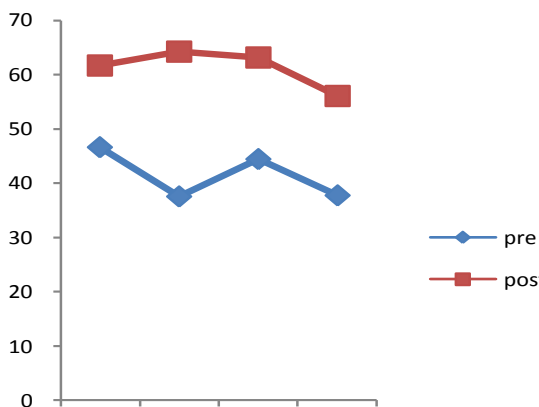
compared to 64.18 after treatment, T test 4.140, p = 0.0002. The mean score on social domain of people newly diagnosed with leprosy was 44.40 before treatment compared to 63.09 after treatment, T test 2.845, p = 0.0068. The mean score on

environmental domain of people newly diagnosed with leprosy was 37.68 before treatment compared to 56.40 after treatment, T test 3.151, p =0.003. This is shown in table 2 and in figure 1.

Table 2: Mean scores on domain before and after treatment.

Domains	Mean score before treatment.	Mean score after treatment.	T –Test	P value
1.Physical	46.63	61.72	2.585	0.0133*
2.Psychological	37.54	68.14	4.140	0.0002*
3.Social	44.40	63.09	2.845	0.0068*
4.Environment	37.68	56.40	3.1519	0.003*

*= significant



Y -axis is number of respondents, X- axis is domains 1-4

Fig. 1 frequency polygon showing the distribution of quality of life across the domains pre treatment and post treatment.

DISCUSSION

The study clearly illustrates that leprosy affects adults of all age groups in our environment. Males were 72.7% (n =32) of those affected by leprosy while females were 27.3% (n =12). This finding agrees with the report of Peters et al [13] that males were twice more likely to be affected by leprosy than females in our environment. Leprosy is a disease of people with little or no formal education. This finding was collaborated by our study as 36.4% (n=16) of the people affected by leprosy had no formal education and only 49.9% (n=18) had primary education. This report agrees with the work of Barkataki et al [14] and Jindal et al [15] who found more illiterates

among male and female persons diagnosed with leprosy.

Patients diagnosed with leprosy showed lower mean score on all domains of quality of life before treatment compared to after treatment. There was statistical significant difference between the physical domain of people diagnosed with leprosy before treatment compared to after treatment, p=0.013. The same significance was found for psychological domain of people diagnosed with leprosy before treatment compared to them after treatment, p = 0.0002. Also noted were significant differences in social domain before treatment and after treatment, p =0.0068 and environmental domain, p = 0.003. This finding was similar to the work of Browsers et al [7] who found that leprosy patients had lower quality of life scores in all domains. The lowest quality of life score was found in psychological domain of people diagnosed with leprosy in this study. This was reported by Tsutsumi et al [6] and Madhavi et al [4] that significant low score in psychological domain was due to impairments developed by people diagnosed with leprosy. This may have been the cause of the low score on psychological domain found in this study before treatment. The implication of this finding is that people diagnosed with leprosy if treated will have their quality of life remarkably improved. Studies have also

shown that those diagnosed with leprosy who had deformities and disabilities and were promptly diagnosed and treated with medications and rehabilitation had improved their quality of life. So, all leprosy patients should be treated on time to improve their quality of life.

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Conflict of interest: nil

REFERENCES

1. Leprosy fact sheet no 101. World health organization. Updated January 2014
2. Federal Ministry of Health, National tuberculosis and leprosy control programme; workers manual(FMOH) Abuja, Nigeria 2007.
3. Kumar R, Singhasivanon P, Sherehand J B, Mahaisavariya P, Kaewkungwal J, Paerapakorn S et al Gender difference in socio epidemiological factors for leprosy in most hyperendemic district of Nepal. Nepal Med Coll 2004;6(3): 98-105.
4. Madhavi J M, Sumedha M J, Deepa H V, Ranjana K M, Aasawari N N. A comparative study of the quality of life, knowledge, attitude and belief about leprosy disease among leprosy patients and community members in Shantivan leprosy rehabilitation centre, Nere, Maharashtra, India . J Glob Infec Dis 2011;3(4):378-382.
5. Enwereji E E, Ahuizi R E, Ihenacho O C, Okechukwu K . Medical rehabilitation of leprosy patients discharged home in Abia and Ebonyi States of Nigeria. Oman Medical Journal 2011;26(6):393-398
6. Tsutsumi A, Izutsu T, Islam M D, Maksuda A N, Kato H, Wakai S. The quality of life, mental health and perceived stigma of leprosy patients in Bangladesh. Soc Sci Med 2007;64:2443-2453.
7. Browsers C, Van Brakel W, Conielje H. Quality of life, perceived stigma, activity and participation of people with leprosy related disabilities in South East Nepal. Disability, CBR and inclusive development. 2011; 2:16-34 DOi 10.5463/DCID.v22il.15
8. The World Health Organisation Quality of life assessment (WHOQOL). Soc Sci Med 1995;41: 1403-1409
9. Joseph G A, Roa P S Impact of leprosy on the quality of life. Bull World Health Organ 1999;77 (6):515-7
10. Martins B D L, Torres F N, Oliveira M C. Impact on the quality of life of patients with Hansen's disease: Collaboration between dermatological life quality index and disease status. An Bras Dermatol 2008;83:39-43
11. Bello A I, Dengzee S A, Iyor F T. Health related quality of life among people affected by leprosy in South Ghana: A need assessment. Lepr Rev 2013;84:76-84
12. WHOQOL-Bref instrumentation, administration, scoring and generic version of the assessment, Geneva: World Health Organisation 1996.
13. Peters E S, Eshiet A L. Male – female (sex) differences in leprosy patients in South Eastern Nigeria: females present late for diagnosis and treatment and have higher rate of

- deformities. Lepr Rev 2002;73(3): 262-7
14. Barkataki P, Kumar S, Rao S. Knowledge and attitude to leprosy among patients and community members: a comparative study in Utar Pradesh, India. Lepr Rev 2006;77:62-68
15. Jindal K C, Singh G P, Molian V, Mahajan B B. Psychiatric morbidity among inmates of leprosy homes. Indian J Psychol Med 2013;35:335-40.

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