

Original article:

Patient satisfaction in national leprosy eradication programme

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Abstract:

Background: Leprosy has been a literal scourge through the history of humanity and to eradicate the disease from high endemic countries need leprosy services to be sustained and they remain of good quality. **Objective:** The present study aimed for getting a reasonable impression of the client's views on a range of quality aspects of leprosy services rendered by district leprosy control unit under national leprosy eradication programme (NLEP). **Methodology:** Cross-sectional study was conducted in Satara district of western Maharashtra, India among registered leprosy patients under district leprosy control unit during April -July 2008. A sample of 25 % of registered leprosy cases were selected by random sampling method from primary health centers and urban leprosy control units to assess the patient's satisfaction under the functioning of NLEP. After verbal consent, participants were interviewed at home site using pre-tested structured proforma include socio-demographic and patient satisfaction variables. Data collected was compiled and analyzed by using statistical software. **Results:** Patient's overall level of satisfaction was very good i.e. 88.89% with max, 46.03% cases were from age group 35 to 52 years. Max, 47.61% cases were illiterate with high case detection rate, 52.38% was seen males. The proportion of multi-bacillary (MB) and pauci-bacillary (PB) cases was 65.07 % & 34.92 % respectively. Most of the patients were satisfied with anti-leprosy drugs, health education and no physical deformity due to disease underline. 98.41 % patients were satisfied about follow-up and motivation services. Satisfaction about diagnosis of disease by doctors and starting of treatment was 96.82 % and 95.23 % respectively, however satisfaction with rehabilitative services was 14.28%. Significant statistical association was existed between age of leprosy affected cases and their level of satisfaction under NLEP services ($\chi^2=15.92, p < 0.05^*$). **Conclusion:** Elimination of leprosy and very good patient satisfaction towards leprosy services in Satara district indicates successfulness of NLEP.

Keywords: Leprosy, Satisfaction, Elimination, NLEP.

Introduction:

Leprosy has been a literal scourge through the history of humanity making the life of the victims most miserable and the crippled victims of the old monster still lodged in some of the leprosy asyla. The advent and universal availability of MDT and efforts of peripheral health care workers result in elimination of disease i.e. prevalence of leprosy less than 1 per 10000 population achieved at national as well as Satara district level, Maharashtra in the year 2005^{1,2}. An achieved leprosy elimination does not mean national leprosy eradication programme (NLEP) is very much successful, but change in community behavior, satisfaction of leprosy affected patient and their

family as well as community as whole about diagnosis, treatment and further social support for self dependency so that leprosy affected person can't be considered as dependent one and extra burden on family, community and government also considered.

In year 2000, Govt of India integrate leprosy services into general health care services which further increased workload on peripheral health care staff and later on in year Jan. 2005 the Govt. of India extended NLEP activities up to March 2007 with main emphasis on Information Education and Communication, Training of GHC staff, Quality improvement & Elimination of duplication of

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activities through NRHM lead national prevalence of leprosy fell further to 0.84/10000 population by 31 March 2006³. Though leprosy eliminated, problem can't be ignored and similarly programme activities can't be stopped or diverted because of chronicity, long incubation period, migration and hidden cases of disease in community can lead to raise its ugly head and take away all our achievements⁴. Functional integration can be viewed successful if general health system (GHS) delivers services to the satisfaction of leprosy patients. Clients' satisfaction in terms of quality treatment and cordial patient provider relation in GHS should be a strong indicator for successful integration⁵.

In order to ensure that leprosy patients are detected and treated adequately, it is essential that they are satisfied with the services provided. Their satisfaction can be analyzed by assessing the quality of the services from a client perspective. This will give crucial information for the identification of strengths and weaknesses of leprosy services. It necessitates, however, that special attention is given to clients' opinions and ideas, both of which are rarely included in reviews and evaluations of leprosy programmes⁶.

The present study aims at getting an impression of the patient's views on a range of quality aspects of leprosy services provided by district leprosy control unit under NLEP in Satara district, state Maharashtra.

Methodology:

The cross-sectional study was conducted in Satara district of western Maharashtra, India during year 2009 among the registered leprosy patients under district leprosy control unit during year 2008. At the time of study, total 248 cases of leprosy were registered under NLEP services in whole Satara district. A sample of 25 % of registered cases of leprosy were selected for present study to assess the patient satisfaction under the functioning of NLEP in Satara district. During study period, out of 71 PHCs and 6 ULCs, 58 PHCs and 5 ULCs had registered cases of leprosy and for present study one Leprosy patient was randomly selected from registered PHC as well as ULC and thus total 63 leprosy patients were included as sample size

which approximately comes up to 25 % of total registered leprosy cases in Satara district. The list of leprosy patient was obtained from selected PHC and ULC and randomly one patient was selected as study subject. PHC or ULC have only one case then that was directly included in study. The registered Leprosy patients were contacted at their home with the help of Leprosy technicians and Multi Purpose Workers(MPWs) and purpose of study was explained to them and their relatives requested them to participate in study. All 63 randomly selected leprosy cases were participated in study. The verbal consent was obtained from each participant before data collection. Data was collected by using pre-tested and modified structured questionnaires include socio-demographic variables like age, sex, occupation, education, income, type of house etc; and other variables related to their satisfaction under NLEP services like early case detection, early treatment, follow up, lepra reaction, rehabilitation etc. The study variables were selected from published previous studies and some were designed by Additional Director Health Services(Leprosy) Satara. The data was collected by investigator by personal interview method at patient's household level.

There were total thirteen leprosy patient satisfaction specific questions and the patient satisfaction score was worked out with the help of leprosy expert, ADHS (Leprosy) Satara. The patient who was not satisfied or not got leprosy services was marked as 0 score for that service specific question and was satisfied and very much satisfied(early case detection, early treatment and treatment completion are very much important activities under NLEP) with leprosy services marked as score 1 and 2 respectively. In present study minimum and maximum satisfaction score obtained was 7 and 17. The collected data was entered into Microsoft excel and analysis was done by using statistical software. Socio-demographic and Satisfaction variable frequency percentage distribution of leprosy patients were done. Association was determined between levels of satisfaction of leprosy patient with socio-demographic factors. Approval for this study was given by the Ethics Committee of this Institute.

Results:

Table 1: Socio demographic distribution of registered Leprosy cases (N = 63)

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Socio - demographic characteristic	Frequency (%)
Age (yrs):	
17-34	23(36.50)
35-52	29(46.03)
53-70	11(17.46)
Gender:	
Male	33(52.38)
Female	30(47.61)
Education:	
Illiterate	30(47.61)
Primary school	22(34.92)
Higher school	11(17.46)
Marital status:	
Married	56(88.88)
Unmarried	7(11.11)
Housing condition:	
Kaccha	41(65.07)
Pakka	22(34.92)
Overcrowding:	
Present	48(76.19)
Absent	15(23.80)
Residence area:	
Rural	58(92.06)
Urban	5(7.94)
Occupation:	
Farmer	16(25.39)
Daily wages labour	37(58.73)
Housewife	10(15.87)

Min and max age of leprosy patient was 17 & 70 yrs respectively with max 46.03 % patients were belonged to age group 35 to 52 yrs. High case detection rate, 52.38 % was seen in males, however 47.61% cases were illiterate. Max, 88.88 % cases were married where as max, 65.07% and 76.19% cases were living under kaccha housing and overcrowding condition. Higher proportion of cases, 92.06% were residing in rural area, however max, 58.73 % were daily wages laborer and max, 52.38 % were belonged to socio-economic class IV according to modified B.J.Prasad socio-economic (2008) classification⁷. The proportion of

MB and PB cases was (65.07 % & 34.92 % respectively (Table 1).

Table 2: Distribution of leprosy patients according to satisfactory level

Satisfaction Level	Freq. (%)
Poor : 0-4	0(0.00)
Fair : 5-9	7(11.11)
Good : 10-13	56(88.89)
Socio economic class:	0(0.00)
Class I	4(6.34)
Class II	15(23.80)
Class III	33(52.38)
Class IV	11(17.46)
Class V	

Satisfaction According to patient satisfaction level (category), cases were classified as poor (0-4), fair (5-9) and good (10-13) satisfaction level. Level of satisfaction was good among 88.89% patients where as 11.11 were fairly satisfied about NLEP services (Table 2). Max and min satisfaction score was 17 & 7 with Mean 14.4 and SD 1.80.

Table 3: Satisfactory variable distribution of Leprosy patients

Client's Satisfaction Under NLEP	Frequency (%)	
	Yes (%)	No (%)
Awareness of NLEP before disease	24(38.09)	39(61.90)
Case detection by MPW	47(74.60)	16(25.39)
Diagnosis by doctor/MO	61(96.82)	2(3.17)
Early treatment started	60(95.23)	3(4.76)
Motivation by staff	62(98.41)	1(1.58)
Regular provision of drugs	62(98.41)	1(1.58)
Drugs - freely available	63(100.0)	0(0.00)
Regular follow up	62(98.41)	1(1.58)
No drug complications	52(82.53)	11(17.46)
Treatment completed	62(98.41)	1(1.58)
No deformity during treatment	63(100.0)	0(0.00)
Rehabilitative services received	9(14.28)	54(85.17)
Health education received	63(100.0)	0(0.00)

Awareness about NLEP was seen in 38.09% registered leprosy patients before they labeled as leprosy patient. All 63 patients were satisfied about getting anti-leprosy drugs free of cost, health education delivered by MPWs about leprosy disease and no physical deformity due to disease underline.

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98.41 % patients were satisfied about regularly of getting drugs, treatment completion, regular follow up by MPWs and regular motivation by them to adhere with treatment. Satisfaction about diagnosed of disease by doctors and starting of treatment immediately by health care system was 96.82 % and 95.23 % respectively. 82.53 % patients were satisfied that they not developed any drug complications during treatment course, however 14.28 % were satisfied with rehabilitative services they received under NLEP (Table 3).

Table 4: Selected Demographic distribution of leprosy patients according to level of Satisfaction under NLEP

Demographic characteristic	Poor satisfaction	Fair satisfaction	Good satisfaction	χ ²
	Freq.(%)	Freq.(%)	Freq.(%)	
Age (yrs.)				
17-34	0(0.00)	1(4.35)	22(95.65)	15.9
35-52	0(0.00)	1(3.45)	28(96.55)	2*
53-70	0(0.00)	5(45.45)	6(54.55)	
Gender				0.28
Male	0(0.00)	3(9.09)	30(90.91)	
Female	0(0.00)	4(13.33)	26(86.67)	
Education				1.79
Illiterate	0(0.00)	4(13.33)	26(86.67)	
Primary	0(0.00)	1(4.35)	22(95.65)	
High. Secondary	0(0.00)	2(18.18)	9(81.82)	
Occupation				4.33
Farmer	0(0.00)	1(6.25)	15(93.75)	
Daily wedges laborer	0(0.00)	3(8.11)	34(91.89)	
Housewife	0(0.00)	3(30.00)	7(70.00)	

* = $p < 0.05$ at 95% confidence level

Max, 95.65%, 96.55% & 54.55 % cases from age groups 17-34yrs, 35-52yrs & 53-70 yrs shows good level of satisfaction about leprosy services under NLEP in Satara district. Similarly max, 90.11% & 86.67% male and female cases also shows good satisfactory level. Max, 86.67 %, 95.65% & 81.82 % leprosy cases with educational status as illiterate, primary school & higher secondary school shows good level satisfaction. Similarly max, 93.75 % , 91.89 % & 70.00 % leprosy cases with occupation as farmer, daily wedges laborers and housewives also shows good level satisfaction. The significant statistical association was

existed between age of leprosy patient and level of satisfaction under NLEP ($p < 0.05^*$) and it indicate, as age increases level of satisfaction also increases (Table 4).

Discussion:

For effective implementation of NLEP, required to improve the holistic care of leprosy patients , their psychological concern also taken in to consideration .The health care workers should have good communication skill and counseling with positive attitude towards leprosy patient and problem solving skill leads to good patients satisfaction which lead to reducing the stigma and burden of disease in community .

Most of the leprosy patients in present study were highly satisfied with anti-leprosy drugs, which are freely available, similarly there was no any physical deformity developed among them. Most of the cases were highly satisfied with health education delivered by health workers about leprosy disease. More than 90% patients were satisfied with diagnosis of disease by doctor, early starting of anti leprosy treatment, regular provision of drugs, motivation for adherence with treatment and regular follow up by health staff. 82.53 % patients were satisfied that they don't develop any drug complications during treatment duration; however 74.60% were satisfied with case detected by MPWs, 38% leprosy cases were aware about NLEP before they labeled as leprosy patient and 14.28% were received rehabilitative services.

Similar findings were also observed by Patnaik⁸ in Brahmipur district of Orissa with more than 92 % cases were satisfied with early case detection, 88 % received MDT immediately, 90 % were satisfied with anti-leprosy services, 93 % received regular medicines as well as regular follow up, however 5 % developed complications but they were managed immediately. A study carried out by Myint⁹ in Myanmar revealed satisfaction of leprosy cases were more than 62 % about early case detected by MPWs, 86 % received regular treatment, 85 % immediately identification and received treatment of lepra reaction, 84 % received regular follow up. Similar findings were also observed by Barkataki¹⁰ in Utter Pradesh as very good satisfaction about NLEP. This achievement was mainly due to positive attitude of health

staff towards leprosy, proper implementation of leprosy services, supervision and regular monitoring of NLEP. In satara district patient's satisfaction was very good which might be due to excellent knowledge and work performance by peripheral health care workers, regular training and re-training of staff and strengthening of health education activities through primary health care as well as strong support by local self government and community participation leads to increased level of satisfaction of leprosy patient's towards leprosy services¹¹. However study carried out by Kampirapat¹² in Muang district of Thailand showed poor satisfaction among leprosy patients. More than 50% were unaware about NLEP before they diagnosed as leprosy patient, more than 50 % received inadequate treatment, more than 50 % were not followed mainly due to poor knowledge about leprosy, traditional home belief treatment,

travel cost, incorrect diagnosis, long waiting period for doctors and poor health education activities.

Effective implementation of NLEP services by district leprosy control unit, positive attitude of health care workers towards leprosy patient, strong support by local self government, strengthening of health care services as well as IEC activities and active community participation are in favor of satisfaction of leprosy patients towards NLEP services.

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