
Services Available to Children of Leprosy Patients in Leprosy Settlements in Abia, and Oyo States of Nigeria



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ABSTRACT

Aim: Study investigates extent to which services like free education, health care including HIV/AIDS prevention and others are available to children of leprosy patients in settlements; To find out the risk factors children of leprosy patients are exposed to in the settlements.

Methods: Study was carried out in 3 purposively selected leprosy settlements, Uzuakoli in Abia State, Ohaozara in Ebonyi State and Ogbomoso in Oyo State using 86 children from 10 years and above who are available during study. Structured questionnaire, and interview schedule were instruments used. Data were analyzed with Stat Pac Gold package.

Results: Provision of social services to children of leprosy patients studied is limited. Only a total of 13 (16.5%) of the children in both States enjoyed free education. The rest 66 (83.5%) paid school fees. Despite the fact that greater number of children in Oyo State 34 (94.4%) than in Abia State 32 (74.4%), enjoyed free education, higher proportion of children in Abia State 43 (95.6%) than in Oyo State 36 (87.9%), was in school. About 42 (97.7%) of children in Abia State and 30 (83.3%) in Oyo State lacked knowledge of HIV prevention. Neither reproductive health services including HIV/AIDS prevention nor prophylactic treatments for leprosy were available to them. Finding showed that out of 33 females studied, 7 (21%) in Oyo and 4 (12%) in Abia, without being properly married, were living and making babies with the opposite sex in the settlements.

Conclusion: In view of above results, increased social services including HIV/AIDS prevention, prophylactic treatments and health promotions are recommended.

Key words: Leprosy, children, HIV/AIDS, sex education, immunization, Nigeria.

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INTRODUCTION

The core function of any government is to provide services such as free education, health care services and others to its citizens irrespective of their social status. Yet many governments selectively deliver these basic services (1,2) and expose children of leprosy patients to poor environmental conditions including social integration with others (3).

Other studies (4,5) specifically noted that though various organizations, like World Health Organization, German Leprosy Relief Association, International Christian Crusaders Foundation, Damien Foundation, Methodist Mission, Assemblies of God Mission, British Leprosy Organization, Federal and State governments of Nigeria have for years provided material and human resources to the settlements in Abia, Ebonyi, and Oyo States, yet little or no information is available on the extent to which children of leprosy patients benefit from these services. Studies (6,7) stress that prejudice that children of leprosy patients harbour mycobacterium leprae like their parents result to isolation, discrimination and encourage their exclusion from most social services. Widespread discrimination and rejection of children of leprosy patients in employment agencies have been confirmed by (9-11), in marriages by (12-14) and in schools by (15-18).

There is therefore the need to appraise the services available to children of leprosy patients resident in leprosy settlements in Nigeria so as to reduce the tendency of excluding them from national welfare planning services. The feeling that children of leprosy patients, like others in the society, might be exposed to several health risks if not provided with health care prevention programmes motivated the authors to carry out this study.

The study therefore, documents social and health services available to children of leprosy patients and also the risks they are exposed to while in the settlements.

The question is, do health care providers and others discriminate against children of leprosy patients in settlements when providing health care and other services? To what extent do the governments (Local, State and Federal) provide social services to these children? Answers to these questions will show the extent to which these children are encouraged to live useful and independent lives in Nigeria.

MATERIALS and METHOD

Nigeria has 6 geo-political zones. Each zone has at least a leprosy settlement. This descriptive study investigated types of services extended to children of leprosy patients in leprosy settlements in 2 zones of Nigeria (South East and South West zones). Three purposively selected leprosy settlements Uzuakoli in Abia State and Ohaozara in Ebonyi State and Ogbomoso in Oyo State of Nigeria were studied. These settlements were chosen for study because they are the only functional leprosy settlements in these zones with inmates (leprosy patients and their children). In other settlements, inmates have deserted the settlements and taken to street begging.

A sample of 86 children of leprosy patients 10 years and above, who are resident in the 3 settlements were purposively chosen for study. These are the total number of children who were available at the time of study and who are also capable of providing needed information. This is made up of 40 children in Uzuakoli, 5 in Ohaozara and 41 in Ogbomoso leprosy settlements. Because of the few number of children, 5 in Ohaozara in Ebonyi State, data from this settlement were analyzed together with those in Uzuakoli in Abia State. The analyses in these two States were merged because Ohaozara and Uzuakoli have same cultural background. Ohaozara was part of Abia State before the creation of Ebonyi State. In this analysis, settlements are interchanged with the states where they are sited.

Structured questionnaire and interview guide were used to collect information from the children. The analysis of data was done with Stat Pac Gold package. The statistical test performed is χ^2 test on Contingency Table (cross tabs) analysis. It examines the relationship between questions or issues raised in the two States (Abia and Oyo). This implies that responses to the questions are compared in Abia and Oyo States. All tests are done at 5% (.05) level of significance. This implies that any calculated χ^2 with significance probability less than 0.05 is statistically significant.

To carryout this survey, written approvals were got from the Leprologists in charge of the settlements in Ministry of Health in Abia, Ebonyi and Oyo States. To obtain information from the children of leprosy patients, the consents of the health workers in the settlements as well as that of the leprosy patients themselves were got.

RESULTS

Demographic Variables of the Children

The children studied were made up of 23 males and 18 females in Oyo State and 30 males and 15 females in Abia State who are within the ages of 10 to 27 years. The mean age of the children in Oyo State was 14.7 ± 4.1 while that for those in Abia State was 12.3 ± 2.2 . The children of leprosy patients in Oyo State were older than those in Abia State $p = 0.001$.

More than half of the children studied, 27 (65.9%) in Oyo State and 25 (55.6%) in Abia State were born in the settlements. The rest were born outside the settlements. Also half of the children in Oyo State 23 (56.1%) and 22 (48.9%) in Abia State live with their parents while the rest live with other relations and friends.

Schooling of Children of Leprosy Patients

Finding shows that except for Uzuakoli settlement in Abia State, where a primary school is sited in the settlement, other settlements do not have schools located in them. Children of leprosy patients in these settlements cover between 7 to 18 kilometers daily to attend school. Locating a school inside the settlement influenced rate of schooling. In Abia State, 43 (95.6%) of the children more than in Oyo State 36 (87.9%) were in primary to post-secondary. From the reasons 7 children who were not in school gave in both states, 3 (42.8%) were because their parents could not afford school fees, while 4 (57.2%) were because of lack of interest to go to school.

Further finding showed that a good number of the children of leprosy patients did not enjoy free education. As high as 66 (83.5%) of the children in both States paid school fees. Only 13 (16.5%) of the children in both States indicated that they enjoyed free education, but this was at the instance of the donor Agencies (German Leprosy Foundation and Damien Foundation). Table 1 contains data on the extent the children enjoyed free education.

There was need to find out whether the children who said they were in school actually attended school regularly. Finding showed that out of 43 (95.6%) of children who were in school in Abia State, and 36 (87.9%) in Oyo State, only 13 (30.2%) in Abia State and 16 (44.4%) in Oyo State attended school regularly (at least 4 times a week) during the period of study. Some of the reasons the children gave

for not attending school regularly included having to walk long distances between settlements and school, being unable to pay school fees and lack of time to attend school. Details of the reasons the children gave are contained in Table 2.

Social Integration of Children of Leprosy Patients with Others in School

The extent to which children of leprosy patients relate with others in school was used to measure their social integration as well as the extent to which they are discriminated against. From the children's responses, their social integration with others is encouraging. About 42 (93.3%) of the children in Abia State and 30 (73.2%) in Oyo State respectively said they enjoyed cordial relationship with others in school (Table 3).

Extracurricular Activities

The types of extracurricular activities the children of leprosy patients had were further used to measure their acceptance in the school environment. The finding showed that 32 (78.1%) of the children in Oyo State and 42 (93.3%) in Abia State participated in activities such as foot-balling, net-balling, dancing

Table 1. Paid school fees *States Cross tabulation.

Paid school fees	States				
	Abia	Oyo	Total		
Yes count % within States	32 74.4%	34 94.4%	66 83.5%		
No count % within States	11 25.6%	2 5.6%	13 16.5%		
Total count % within States	43 100.0%	36 100.0%	79 100.0%		
Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	5.716 ^b	1	0.017		
Continuity correction ^a	4.352		0.037		
likelihood Ratio	6.299		0.012		
Fisher's Exact Test				0.030	0.016
Linear-by-Linear Association	5.644	79	0.018		
N of Valid Cases					

a. Computed only for a 2 x 2 table.

b. 0 cells (0.0%) have expected count less than 5. The minimum expected Count is 5.92.

Table 2. Reasons for not Attending School Regularly States' Cross tabulation.

Reasons for not Attending School Regularly	States		
	Abia	Oyo	Total
Distance to school. Is count far % within States	4 5.0%	18 19.1%	22 12.6%
Inability to pay count school fees % within States	19 23.8%	15 16.0%	34 19.5%
Hawking count % within States	4 5.0%	6 6.4%	10 5.7%
Farming count % within States	5 6.3%	22 23.4%	27 15.5%
Poultry keeping count % within States	28 35.0%	11 11.7%	39 22.4%
Piggery count % within States	2 2.5%	-	2 1.1%
Housekeeping count % within States	14 17.5%	16 17.0%	30 17.2%
Braiding/barbing count % within States	1 1.3%	-	1 0.6%
Baby seating count % within States	3 3.8%	6 6.4%	9 5.2%
Total count % within States	80 100.0%	94 100.0%	174 100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson	31.102 ^a	8	0.000
Chi-Square	33.915	8	0.000
Likelihood ratio	2.076	1	0.150
Linear-by-Linear Association	174		

Association

N of Valid Cases

a. 7 cells (38.9%) have expected count less than 5. The minimum expected count is .46.

competition, track race, debating and religious activities. Only 3 (8.3%) of the children in Oyo State and 1 (2.3%) in Abia State did not participate in any extracurricular activity because of lack of interest.

Table 3. Relationship between the children of leprosy patients and others in school *States Cross tabulation.

Relationship between the children of leprosy patients and others in school	States		
	Abia	Oyo	Total
Cordial relationship count % within States	42 93.3%	30 73.2%	72 83.7%
Not count cordial relationship % within States	3 6.7%	11 26.8%	14 16.3%
Total count % within States	45 100.0%	41 100.0%	86 100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson	6.399 ^b	1	0.011		
Chi-square					
Continuity correction ^a	5.005	1	0.025		
Likelihood ratio	6.683	1	0.010	0.018	0.012
Fisher's Exact Test	6.325	1	0.012		
Linear-by-Linear Association	86				
N of valid Cases					

a. Computed only for a 2 x 2 table.

b. 0 cells (.0%) have expected count less than 5. The minimum expected Count is 6.67.

Further investigation revealed that a good number of the children 82 (95.4%) in both States had represented their schools in several activities including sports.

Children's Desire to Live Outside the Settlement

Realizing the mean ages of the children of leprosy patients, 14.7±4.1 in Oyo State and 12.3±2.2 in Abia State and also the fact that some of these children, without being properly married, are cohabiting and making babies with the opposite

sex in the settlements, there was need to find out the children's willingness to live somewhere else other than the settlements. To this end, the children's desire to live outside the settlement was sought. The findings showed that 21 (51.2%) of the children in Oyo State and 32 (71.1%) in Abia State were desirous to live somewhere else other than the settlements. Table 4 contains the children's responses to the question.

Table 4. Children's desire to live outside the settlement.
* States Crosstabulation.

	States		Total
	Abia	Oyo	
Children's desire to live outside the settlement			
Yes % within States	32 71.1%	21 51.2%	53 61.6%
No % within States	13 28.9%	20 48.8%	33 38.4%
Total			
Count % within States	45 100.0%	21 100.0%	53 100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-square	3.590 ^a	1	0.058		
Continuity correction ^a	2.798	1	0.094		
Likelihood ratio	3.610	1	0.057	0.077	0.047
Fisher's Exact Test					
Linear-by-Linear Association	3.548	1	0.060		
N of valid Cases	86				

a. Computed only for a 2 x 2 table.

b. 0 cells (.0%) have expected count less than 5. The minimum expected Count is 6.67.

The reasons given by the few children 20 (48.8%) in Oyo State and 13 (28.9%) in Abia State who said that they would not like to live somewhere else other than the settlement include: loss of contact with family members, fears of being rejected by family members as well as fears of separating from loved ones in the settlement.

Career Goals

Realizing the fact that the children of leprosy patients also need to aspire to higher goals like other children in the society, so as to live independent lives, they were requested to list their expected career goals in life. From the children's responses medicine and nursing were the main professions they listed, showing that they are also aspiring to higher goals like others in the society. Table 5 shows the children's aspirations.

From the list of professions the children gave, one is safe to deduce that the children of leprosy patients in settlements have high aspirations. This deduction is of value because it would assure policy makers in governments (federal, state and local) that if these children are motivated through providing them with accessible and affordable quality education, that they are likely to succeed and thereby contribute their quota in nation building.

Provision of Health Care Services and/or Health Care Seeking Behaviour

Finding showed that health care services to children of leprosy patients were not totally free. Treatment for minor ailments was paid for by the parents of the children. Results showed that the parents of 26 (57.8%) of the children in Abia State, and 32 (78%) in Oyo State, paid for the cost of treating minor ailments for their children. The few parents who said that they could not afford to pay for their children's treatment said they usually use Agbo (herbal concoctions) and/or purchase drugs from nearby patent medicine stores whenever their children were sick. Further finding showed that health care seeking behaviour for the children was generally very poor. During the period of study, a good number of the children who were critically ill were lying down in the residential areas without the intention of presenting for treatment in the clinics in the settlements. Majority of the children said they did not go for treatment because their parents had no money to pay for cost of their treatment in the clinic. They emphasized that their parents usually

Table 5. Career goals of the children of leprosy patients by settlement.

			States		
			Abia	Oyo	Total
Career goals of children of leprosy patients by settlement	Teaching	Count % within States	2 4.4%	2 4.9%	4 4.7%
	Medicine	Count % within States	15 33.3%	16 39.0%	31 36.0%
	Nursing	Count % within States	9 20.0%	6 14.6%	15 17.4%
	Business	Count % within States	1 2.2%	3 7.3%	4 4.7%
	Petty trading	Count % within States	2 4.4%	1 2.4%	3 3.5%
	Preaching	Count % within States	3 6.7%	1 2.4%	4 4.7%
	Engineering	Count % within States	9 20.0%	1 2.4%	10 11.6%
	Law	Count % within States	2 4.4%	10 24.4%	12 14.0%
	Banking	Count % within States	2 4.4%	1 2.4%	3 3.5%
	Total	Count % within States	45 100.0%	41 100.0%	86 100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson	14.878 ^a	8	0.062
Chi-Square	16.406	8	0.037
Likelihood ratio	0.000	1	0.990
Linear-by-Linear Association	86		

N of Valid Cases

a. 11 cells (61.1.9%) have expected count less than 5. The minimum expected count is. 1.43.

buy drugs from nearby chemist whenever they were sick.

Health Care Control Programmes

The children were asked whether health care control programmes like HIV/AIDS, immunizations, family planning, sex education and others are provided to them in settlements. The children's response revealed that little or no health care control programmes were available to them. Further finding showed that 31 (75.6%) of the children in Oyo State, and 25 (55.6%) in Abia State had poor knowledge of HIV/AIDS prevention, as well as methods of family planning.

For protection against leprosy, the finding revealed no formal provision of prophylaxis to the children. About 20 (48.8%) of the children in Oyo and 29 (64.4%) in Abia States confirmed sharing leprosy drugs especially dapsone with their parents. But this was at the instance of their parents.

The study found that 6 (6.9%) of the children studied, made up of 4 (9.8%) in Oyo State and 2 (4.4%) in Abia State were infected with leprosy and they were all on treatment as at the time of study.

Another important finding is the frequency at which the female children of the leprosy patients cohabited with the opposite sex in the settlements. Finding showed that out of a total of 33 female children of leprosy patients studied, 11 (33.3%) comprising 7 (21%) in Oyo and 4 (12%) in Abia, without being properly married, were living and making babies with the opposite sex in the settlements. Out of the 11 females who are cohabiting with the opposite sex, 4 (22.2%) in Oyo State and 3 (20%) in Abia State respectively were pregnant while 3 (16.7%) in Oyo and 1 (6.7%) in Abia were nursing babies.

DISCUSSION and CONCLUSIONS

Contrary to expectations, the children of leprosy patients had limited access to health care and social

services like HIV/AIDS, family planning, sex education, immunization, free education and others showing that the governments (federal, state and local) pay little or no attention to providing social services to children of leprosy patients in the settlements. The finding that there were limited social services to children of leprosy patients in settlements agrees with that of (13-15) where children of leprosy patients were excluded from most health programmes in the society.

The fact that a good proportion of children of leprosy patients studied cohabited with the opposite sex and had babies without being properly married indicates high promiscuous sex life among children of leprosy patients in settlements. The finding on high promiscuous sex life among children of leprosy patients in settlements, agrees with the findings of (4) among children in rehabilitation institutions. This finding reveals lack of family planning services including sex education in the settlements. This suggests the need to stress safer sex practices as well as the need to reduce the population of mature children of leprosy patients resident in the settlements so as to minimize the risk of unprotected sex.

Lack of prophylactic treatment to children of leprosy patients in settlements as noted in the study, negates WHO 1980 and 1988 recommendations that individuals exposed to leprosy infection should be given prophylaxis for effective control measures. This lack of prophylactic treatment to children of leprosy patients might be one of the major contributing factors to the 6 (6.9%) of the children found infected with leprosy during the period of study.

Social integration of the children of leprosy patients with others in school was excellent. The large number of the children who participated with others in extracurricular activities signified this. With the high participation of children in extracurricular activities, it is easy to understand why in this study there was high school attendance despite the fact that a good number of the parents of the children paid school fees. The finding that the children of leprosy patients had high school attendance is at variance with that of four different studies (10,11,13,14), which reported low school attendance for children of leprosy patients because of discrimination.

As expected, a good proportion of the children expressed the desire to live somewhere else other than the settlement indicating the children's desire to fully integrate and enjoy social services like others in the society. This finding agrees with that of

(2,4) that children of leprosy patients prefer to live outside the settlements so as to freely attend social functions like other children. Because of the limited interaction some of the children of leprosy patients experienced with others in the society, especially with their family members, it is safe to conclude that their life in the settlements could be boring and discriminatory. Thus, efforts should be geared towards ensuring that children of leprosy patients as well as their parents, on discharge, are reunited with their relations outside the settlements. This reunion will help reduce the rising population of leprosy patients and their children resident in settlements as well as the discrimination and isolation they experience while in the settlements.

Again, the idea that a good number of the children of leprosy patients had excellent ideas of their career goals is of value to the study. This suggests that if policy makers motivate these children through opportunities for free education and improved health care services, that the children are likely to realize their life goals thereby live independent and fulfilled lives.

Recommendations

Free education: Free education should be provided to children of leprosy patients. Expecting leprosy patients with no meaningful means of livelihood to pay their children's school fees would increase their financial burden, reduce the chances of their children attending school regularly thereby affect the possibility of achieving their life goals. Free education would encourage regular school attendance.

Inclusion in Health Care Prevention Programmes

Policy planners should include children of leprosy patients when planning national health care prevention programmes like immunization services, HIV and AIDS prevention, family planning services and others. This recommendation is made based on the finding that little or no health care prevention programme is available to children of leprosy patients. Extending health care prevention services to children of leprosy patients would reduce risky sex practices and protect them from sexually transmitted infections including HIV. This will also reduce the poor knowledge of HIV and AIDS prevention as well as family planning methods found among the children during the study.

Prophylactic treatment: Considering the fact that children of leprosy patients live with their parents in the settlements, where they are prone to several

infections, and also the number of children who are already infected with leprosy, there is need to protect them against all forms of infection including leprosy. This is in line with the recommendations of the World Health Organization, that prophylaxis should be given to individuals exposed to leprosy infection.

Free health care services for all forms of treatment:

Free health care services to children of leprosy patients should include treatment for minor ailments. This will help to improve the health seeking behaviour of children of leprosy patients thereby reduce the tendency to practice self-medication.

Periodic review of services available to children of leprosy patients:

There should be periodic review of services available to children of leprosy patients in Nigeria. This will enable researchers to note the extent to which governments (local, state and federal) include the children of leprosy patients in most welfare programmes during national budgets.

Also the research findings should be made available to stakeholders in leprosy control programmes such as leprosy settlement authorities, interested persons, religious groups, NGOs, and governments for their information and guidance in their commitments to leprosy control.

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