

# Assessing Psychological Rehabilitation of Leprosy Patients Discharged Home in Abia and Ebonyi States of Nigeria



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## ABSTRACT

**Aim:** Study aimed to examine the extent to which discharged leprosy patients were psychologically rehabilitated in communities. This study intends to reduce rejection, distress and others, which discharged leprosy patients experience in communities due to recurrent psychological damage.

**Method:** Study used all the 33 leprosy patients who were discharged home after being treated from the two leprosy settlements in Abia and Ebonyi States of Nigeria. The list of the discharged leprosy patients studied with their addresses was collected from these settlements.

**Result:** There was no difference in the results recorded in both states. Sex, age and marriage affected psychological rehabilitation. Males with higher mean depression score  $7.7 \pm 1.8$  were less psychologically rehabilitated than females with lower mean depression scores  $7.2 \pm 2.0$  ( $t=22.9$   $p=0.00000$ ). Among the patients studied, those aged 40-49 years, with the least mean depression score  $6.2 \pm 3.1$  were more psychologically rehabilitated than others ( $t=22.9$ ,  $p=0.00000$ ). Married patients had the least mean depression score  $5.8 \pm 1.5$  and were better psychologically rehabilitated than others. Loneliness, depression and isolation were noted as the main complaints of the patients especially those with leaking ulcers.

**Conclusion:** To minimize loneliness, rejection, depression and others, increased care and support for discharged patients should be encouraged.

**Key words:** Leprosy, isolation, discharged patients, deformity, stigma

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## Nijerya'nın Abia ve Ebony Eyaletlerinde Evine Taburcu Edilen Lepra Hastalarının Psikolojik Rehabilitasyonlarının Değerlendirilmesi

**Amaç:** Toplumda taburcu edilen lepralı hastaların hangi oranda psikolojik olarak rehabilite edildiğinin değerlendirilmesi amaçlandı. Lepra hastalarının taburcu olduktan sonra yaşadığı rekürren psikolojik hasar nedeniyle gelişen red ve stresin azaltılması.

**Metod:** Çalışmaya Nijerya'nın iki lepra yerleşkesinin bulunduğu Abia ve Ebony eyaletlerinde hastanede tedavi edildikten sonra evlerine taburcu edilen 33 hasta dahil edildi. Bu yerleşkelerden taburcu edilen hasta listelerinden hastaların adresleri kaydedildi.

**Bulgular:** Her iki cinsten sonuçlar açısından bir farklılık yoktu. cinsiyet yaş ve evlilik durumu psikolojik rehabilitasyonu etkiliyordu. yüksek ortalama depresyon skoru olan erkekler ( $7.7 \pm 1.8$ ) daha düşük ortalama depresyon skoru olan kadınlar ( $7.2 \pm 2.0$ ) ile mukayese edildiğinde psikolojik olarak daha az rehabilite oldukları görüldü ( $t=22.9$   $p=0.00000$ ). Çalışılan hastalar arasında, 40-49 yaşlarında, en az ortalama depresyon skoru  $6.2 \pm 3.1$  olan hastalar diğerlerine göre daha iyi psikolojik rehabilitasyon almışlardı ( $t=22.9$ ,  $p=0.00000$ ). Evli hastalar en düşük ortalama depresyon skoruna sahipti ( $5.8 \pm 1.5$ ) ve diğerlerine göre daha iyi şekilde psikolojik olarak rehabilite idi. Yalnızlık, depresyon ve izolasyon özellikle sızıntılı ülsere yarası olan hastalarda başta gelen şikayetleri oluşturmaktaydı.

**Sonuç:** Yalnızlık, red depresyon ve diğer semptomları minimize etmek için taburcu olan hastaların daha iyi bakım ve desteklenmelerinin sağlanması cesaretlendirilmelidir.

**Anahtar kelimeler:** Lepra, izolasyon, taburcu hasta, deformite, özgün hastalık bulguları

## INTRODUCTION

Studies have shown that stigmatization, isolation, discrimination and rejection among others, are the negative effects of poor psychological rehabilitation of leprosy patients. The need for leprosy patients to enjoy increased emotional wellbeing should not be underestimated (1,2). Discouraging stigma among leprosy patients is important because it will enable leprosy patients with active disease to present for treatment early so as to reduce the chances of being deformed (3-6). Those with the disease who take complete medication present no threat to the general population (7-9). However, ignorance makes some individuals to feel that discharged leprosy patients with characteristic deformities still have active leprosy (10-12) and as a result, they are isolated (13). The problem is that the discharged leprosy patients themselves especially those with deformities are also not convinced that they are cured. They consent to the popular belief that they are still infectious and as such are depressed (14,15). There is evidence that eradication of leprosy disease worldwide is a realistic goal (16); nevertheless, the stigma associated with leprosy remains a major setback in the psychological rehabilitation of discharged patients (17,18). Leprosy patients are under continual physical distress and anxiety (19,20). There is need to note the extent to which discharged leprosy patients are accepted in communities because non-acceptance dissipates their dignity, confidence and erodes their aspirations and opportunities in life. Therefore, to enable discharged patients enjoy high sense of worth in the communities, periodic assessment of their psychological rehabilitation is needed.

## MATERIALS AND METHODS

A cross-sectional study of discharged leprosy patients treated and discharged home in Uzuakoli and Ohaozara leprosy settlements in Abia and Ebonyi States of Nigeria was conducted. Uzuakoli and Ohaozara are the two functional leprosy settlements in the South-eastern part of Nigeria where leprosy patients are admitted, treated and discharged home. These two settlements will be interchangeably referred to as Abia and Ebonyi. The study group consisted of all 33 discharged leprosy patients living in the communities. Further, snowball-sampling method was used to identify the discharged patients who were either absent during the time of the study or whose addresses were difficult to locate. Each discharged patient interviewed was asked to mention discharged patients living near their vicinity. Subsequently, those mentioned were located and interviewed. The list of discharged patients studied with their addresses was collected from the settlements where they were treated. This strategy helped the researcher to easily identify and interview the discharged patients.

Two psychological tools, Nottingham's life satisfaction index and Beck's inventory on depression indices, were the instruments used to assess psychological rehabilitation of the discharged leprosy patients. These tools were administered because the respondents were essentially those with informal education. Using the respondents' local language, the statements in the instruments were read aloud to the respondents. The patients were allowed to select the statements that matched

**Table 1. Occupation of the discharged patients before and after infection**

Occupation	Before	After	Total
Trading	19(57.6%)	2(6.3%)	21(31.8%)
Farming	1(3%)	20(62.5%)	21(31.8%)
Civil/Public service	3(9.1%)	0(0%)	3(4.6%)
Sewing	1(3%)	0(0%)	1(1.5%)
Shoe-making	3(9.1%)	3(9.1%)	6(9.1%)
Teaching	1(3%)	0(0%)	1(1.5%)
Mat/Basket making	2(6.1%)	0(0%)	2(3%)
Cane chair-making	2(6.1%)	0(0%)	2(3%)
Palm wine tapping	1(3%)	1(3%)	2(3%)
Unemployed	0(0%)	6(18.8%)	6(9.1%)
Total	33(100)%	33(100)%	66(100.0%)

their conditions. In order for the instruments to reflect current status of the patients, the items were presented in a way that they would provoke the patients' attitude at the time of the interview. On the basis of each patient's response, the researcher encircled the appropriate statements selected in each category.

The instruments had 10 categories of symptoms and attitudes that described specific manifestations of depression such as mood, pessimism, sense of failure and others. These contained 4-point scale (Strongly agree=SA, Agree=A, Disagree=D, and Strongly disagree=SD). Using these tools to assess psychological well being of discharged patients enabled the researcher to note the intensity of depression as well as severity of symptoms they encountered in their re-integration in the communities. This helped the researcher to identify factors that encourage psychological rehabilitation among leprosy patients in the communities.

Analysis of data was done quantitatively. In this analysis, the 4-point scales in the instrument was reduced to two extremes, positive and negative responses and scored accordingly. Positive responses attracted '1' while negative responses attracted '0'. The scores on each category in the index were compared with the total score on the inventory. For depression, higher scores meant more depression and less psychological rehabilitation while for life satisfaction index, higher scores represented better life satisfaction and more rehabilitation.

#### **Ethical consideration**

The consents of the Medical Officers in charge of the settlements, Directors in the two settlements as well

as that of the community leaders were sought and their approvals enabled the researcher to penetrate the communities and interview the patients. The University ethics committee approved the study.

#### **Limitations and strengths**

The discharged leprosy patients studied were those who were treated and discharged home in the two leprosy settlements in Abia and Ebonyi States. The discharged leprosy patients who were not treated in these two settlements were excluded from the study because of the difficulty in accessing them. Societal prejudices on leprosy make people treated of leprosy to hide their health conditions to avoid discrimination and isolation. It might be possible that the discharged leprosy patients missed might be the ones that are well rehabilitated.

A major strength of this research is that the discharged leprosy patients were encouraged to identify the difficulties they encounter with their reintegration in the communities. They were also encouraged to analyze the problems from their own perspectives. Through this process, the discharged leprosy patients became aware of the results of the study and also made important contributions to the research process. Their contributions assisted the researcher to identify strategies for improving their lives in the communities.

#### **Data validity problems**

The study was carried out only on those treated and discharged in leprosy settlements. Therefore the findings of this study are relevant to leprosy patients

**Table 2.** Life satisfaction score for discharged patients

	Mean	Median	SD	p-value	
<i>Marital Status</i>					
Married	2.5	2.0	1.0	f= 0.47	0.071
Single	1.5	1.5	0.71		
Divorced/Separated	2.5	2.5	1.6		
Widowed	2.6	2.0	1.3		
<i>Sex:</i>					
Male	2.6	2.0	1.1	t= 0.53	0.60
Female	2.3	2.0	1.3		
<i>Age in Years</i>					
20-29	2.8	2.0	1.9	0.42	0.80
30-39	2.2	2.0	0.84		
40-49	2.1	2.0	0.60		
50-59	2.6	3.0	1.8		
60-69	2.5	2.0	0.93		
70 and above	2.7	2.0	1.0		
Total	2.5	2.0	12.2	12.0	0.000000

From this Table, single patients with mean score  $1.5 \pm 0.71$  had the least life satisfaction among all the discharged patients studied.

## RESULTS

There were little or no differences in the findings noted among the discharged patients in both states.

### Demographic characteristics

The discharged leprosy patients studied were made up of 18 (54.5%) males and 15 (45.5%) females. Their marital status was made up of 15 (45.5%) married, 2 (6.1%) single, 6 (18.2%) divorced/separated and 10 (30.3%) widowed.

The ages of the discharged patients were widely distributed. The finding showed that 1 (3%) of the patients were 20-29 years, 4 (12.1%) were 30-39 years, 8 (24.2%) 40-49 years, 7 (21.2%) 50-59 years, 4 (12.1%) were 60-69 while 9 (27.2%) were 70 years and above. Their mean age was  $55.8 \pm 15.2$  years indicating that the patients were considerably old. A total of 28 (84.8%) of the patients had children while 5 (15.2%) had none. The mean number of children for these patients was  $3.8 \pm 2.5$ .

The level of the patients' educational status showed that 21 (63.7%) of them had no formal education, 11(33.3%) had primary education, while 1 (3%) had postsecondary education. A total of 27 (81.8%) of the patients were Christians, while 6 (18.2%) were in traditional religion. The occupation of the patients before and after infection was explored to note the extent to which they were fully reintegrated after discharge. The finding showed that before infection, majority of the patients 19(57.6%) were trading; while after infection a

good number of them 20 (62.5%) took to farming. None of the patients who were working either as civil or public servants retained their professions after discharge. Furthermore, before infection, none of the patients was unemployed, while after infection, 6 (18.8%) became unemployed p= 0.000000 (Table 1).

### Data on Domicile

The length of time the patients had stayed at home after discharge was explored. The finding showed that 20(60.6%) of the patients had stayed 1-10 years, while 13(39.4%) of others had stayed 11 years and above with mean stay of  $12.8 \text{ years} \pm 12.5$ . Furthermore enquiry into the number of rooms the patients occupied with their family members revealed that 20(60.6%) of the patients live in only 1-2 rooms, while 13(39.4%) others occupy 3-4 rooms and more. For number of people living with the patients in a room, finding showed that the mean number of individuals living with the patients was  $4.3 \pm 3.2$ , indicating overcrowding.

### Psychological rehabilitation

Loneliness, life satisfaction and depression were used to assess psychological rehabilitation of the discharged patients.

#### Loneliness

Noting the number of patients who kept friends to interact with in their home environments was used to assess loneliness in this study. The finding noted that patients complained of being alone most of the time. None of

the discharged patients accepted having steady friends to exchange visits with in the communities. The finding showed that all the patients (100%) of them indicated feeling lonely and wished they had friends to confide in and share part of their problems. Generally, they perceived themselves as being abandoned by friends and relations.

#### **Discharged patients' life satisfaction**

This was determined by using 11 variables derived from Nottingham's life satisfaction index. The maximum score obtainable for this index was 11 and the cutoff point was 7. Higher scores indicated better life satisfaction. In this study, the range of scores obtained by the discharged patients was 0 to 6. The mean score for the patients was  $2.5 \pm 1.2$  indicating that the patients had low life satisfaction. When the life satisfaction score was compared with age, it was noted that discharged patients aged 20-29 years obtained the highest mean score  $2.8 \pm 1.9$  while those 40-49 years had the least mean score  $2.1 \pm 0.60$ .

Sex influenced life satisfaction. Males with mean score  $2.6 \pm 1.1$  had fairly better life satisfaction than females with mean score  $2.3 \pm 1.3$ . For marital status, life satisfaction was better among widows mean score  $2.6 \pm 1.3$ , and worst for the single patients mean score  $1.5 \pm 0.71$ . These differences were statistically significant  $t=12.0$ ,  $p=0.000000$  see Table 2. In all, only 3 (9.1%) of the patients had scores of 5 and 6. None scored up to the cut-off point 7 emphasizing that life satisfaction for these patients was low.

#### **Depression**

Depression score was computed from 30 items contained in Beck's inventory. The range of scores obtainable was 0 to 30 and cut off point was 17. Higher scores indicated more depression and less psychological rehabilitation. In this study, the range of depression scores obtained by the discharged patients was 3 to 10. The mean depression score for the patients was  $7.5 \pm 1.9$ . This shows that none of the patients reached the cut off point. Therefore, the discharged leprosy patients studied had less depression and were more psychologically rehabilitated. When age was compared, it was noticed that patients aged 40 - 49 years with mean score  $6.2 \pm 3.1$  had the least depression and so were better psychologically rehabilitated, while those 70 years and above mean score  $8.0 \pm 1.6$  had more depression and were less psychologically rehabilitated.

Marital status was also tested. The married patients with the least mean depression score  $5.8 \pm 1.5$  were better psychologically rehabilitated than the divorced/separated patients with higher mean depression score  $8.1 \pm 2.0$ . For sex, males with a mean depression score  $7.7 \pm 1.8$  experienced more depression and were less psychologically rehabilitated than females with a lesser mean depression scores  $7.2 \pm 2.0$ ,  $t= 22.9$ ,  $p= 0.00000$ . In all, 11(33.3%) of the patients scored 9 to 10, which means that generally, the patients had less depression. None of the patients scored up to the cut off point of 17, showing that the patients had fairly good psychological rehabilitation in the communities. One of the important findings is that none of the patients reported using anti-depressant during the period of the study.

#### **DISCUSSION**

The study found that religion, age, sex, and marital status influenced psychological rehabilitation of discharged leprosy patients in the communities. Marital status was the most important factor that positively encouraged psychological rehabilitation. Marriage acted as a powerful panacea in enabling discharged leprosy patients cope with depression. Psychological rehabilitation for married discharged patients was better than that of others showing that married patients were better reintegrated than others.

Life satisfaction was better for the widowed patients and worst for the single. The fact that life satisfaction was worst for the single patients suggests that the single patients appeared to have more anxiety regarding their self-worth with leprosy infection. It could be obvious that single patients worried much about the possibility of getting married and fulfilling their social and marital obligations like others in the society. They could also have worried about the limited number of friends they might attract considering their health condition. These uncertainties on likelihood of being betrothed in the midst of other social problems encountered could depress the single patients and make them feel that they lacked people who could act as sources of support and understanding for their problems. This finding is in line with that of (4,5) that unmarried leprosy patients are usually more emotionally disturbed than others.

Age affected the extent to which the patients were depressed. The more middle aged the patients were 40 - 49

years, the less depression they experienced and better psychologically rehabilitated they were. Also the older the patients 70 years and above, the more depressed and worst psychologically rehabilitated they were. The finding that middle aged patients were better psychologically rehabilitated might be as a result of the coping mechanisms these patients who are in their productive ages must have developed for solving life problems and maintaining emotional stability. Also these categories of patients might be the ones that are still married and cohabiting with their spouses. Living with their spouses might have enabled them to acquire increased respect, self worth, less anxiety and more motivation to play their ascribed gender roles in a stable family relationship.

Religion was a positive factor in the psychological rehabilitation of the patients. About 81.8% of the discharged patients said they were very active in religious matters and that some church members assist them financially. It is likely that the thought of unfulfilled marriage and the resultant social prejudices against leprosy patients in the midst of other social problems could have contributed to the patients holding on to religious life as a source of support and understanding of their problems. This highlights the need to encourage the discharged patients to maintain high religious life. High religious life could help to reduce loneliness, which constituted the main problem of the discharged patients.

The fact that married life acted as a strong panacea to increased psychological rehabilitation of the discharged leprosy patients suggest that discharged leprosy patients with fulfilled marital life enjoyed increased emotional stability more than others. The thought of unfulfilled marriage and the social prejudices leprosy patients experience in the midst of other social problems in the society could depress and reduce their psychological rehabilitation. Therefore, for improved psychological rehabilitation, increased emotional stability and self-worth, discharged leprosy patients, should be encouraged to maintain stable married life. Also as a step to reduce depression, loneliness, discrimination and rejection common among discharged patients, they should be encouraged to maintain high religious life as a source of support and understanding of their problems. This highlights the need to encourage the discharged patients to be active in all religious activities.

Simultaneously, the family members of discharged pa-

tients should be health educated on the benefits of providing emotional support to leprosy patients. They should be enlightened on the need to assist leprosy patients to combat the problem of stigma in the communities. The significant impact socially and culturally negative attitudes might have on the patients' overall health should be emphasized .

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