LEPROSY-RELATED DISABILITY AND PSYCHOSOCIAL WELL-BEING OF LEPROSY-AFFECTED PERSONS AS PERCEIVED BY RESIDENTS IN OYO, OYO STATE, NIGERIA

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Abstract

The study investigated leprosy-related disabilities and psychosocial well-being of leprosy-affected persons as perceived by residents in Oyo, Oyo State, Nigeria. A descriptive research design of the survey type was used. The population for the study comprised all residents in Ward 8 of Atiba Local Government, Oyo, Oyo State. A validated structured questionnaire was used for data gathering. The reliability coefficient of 0.77 was obtained using the split-half method and Cronbach's alpha. All the null hypotheses were tested using Pearson Product-Moment Correlation. The study revealed that leprosy-related disability had a significant correlation with psychological well-being ($r = 0.733$, $p < .05$), social well-being ($r = 0.840$, $p < .05$) and marital well-being ($r = 0.781$, $p < .05$) of leprosy-affected persons as perceived by people in Oyo, Oyo State. It was recommended that there is a need for the engagement of health personnel in community mental health education, as this may reduce the psychological distress experienced by affected individuals. There is a need for a community engagement meeting and sensitisation on positive roles expected from relatives and community members towards leprosy-affected persons. Also, there is a need for the engagement of religious and community leaders on ways to stabilise homes of leprosy–affected persons through dialogues and mutual interactions.

Keywords: Leprosy, Disability, Psychosocial, Well-being, Leprosy-affected persons

Introduction

Leprosy-affected persons (LAPs) have been subjected to ridicule and shame since ancient times due to religious and cultural views, including ignorance about leprosy treatment. Leprosy is also known as Hansen's disease. It is among the neglected tropical diseases affecting both genders, young and old, irrespective of race. It is caused by *Mycobacterium leprae* (M. leprae) and predominantly affects the skin, peripheral nerves, the mucosa of the upper respiratory tract and the eyes. If left untreated, it may cause progressive and permanent disabilities (World Health Organisation (WHO), 2025). Leprosy is characterised by a long incubation period that can last from months to decades, but typically lasts between two and five years (Schreuder et al., 2016). It is transmitted through droplets from the nose and mouth of an untreated case of leprosy, containing M. leprae, following prolonged close contact (WHO, 2025).

Damages to the peripheral nerves and other parts of the body caused by M. leprae are called leprosy-related disability (LRD). According to Lewis et al. (2014), leprosy affects peripheral nerves such as the ulnar nerve at the elbow region, the superficial radial cutaneous and median nerves at the wrist, the common peroneal nerve at the popliteal fossa, the posterior tibial nerve located at the foot and the great auricular nerve located at the back of the neck region. Nerve damage due to leprosy can affect the eyes, leading to muscle weakness and a loss of feeling in the arms and legs (WHO, 2025). Skin lesions due to leprosy are of different types, namely, macules, nodules, plaques and papules. These lesions are commonly seen on cooler parts of the body, faces, earlobes, wrists, elbows, buttocks, and knees (Lewis, 2018).

Globally, leprosy occurs in more than 120 countries with around 200,000 new cases reported every year (WHO, 2025). India, Brazil, Indonesia, Madagascar and other African countries have the largest burden of leprosy (WHO, 2021). Nigeria claimed to have attained the global elimination goal of less than 1 case per 10,000 population in

December 1998, yet more than 5,000 leprosy cases are being registered annually (Federal Ministry of Health (FMoH), 2009). Despite the decrease in the leprosy notification rate across the globe, Nigeria was ranked among the eighteen countries in the world with a prevalence rate of more than 1,000 cases of leprosy per year (Disabled People's International, 2015).

In Nigeria, FMoH (2009) reported that more than one in every ten new leprosy patients already had visible physical impairments at diagnosis, that is, grade 2 disability. Late diagnosis and treatment of leprosy have serious consequences, such as physical impairments in the hands, feet and eyes resulting from involvement of the peripheral nerves, damage to the cranial nerve and trigeminal nerve resulting in reduced corneal reflex, leaving the eyes dry and reduced blinking (Lewis, 2018; Arajuo et al., 2014).

Richardus et al. (2016) reported different categories of leprosy disability, whereby patients may be diagnosed with grade 0, that is, no obvious disability. Grade 1 indicates decreased sensation or loss of sensation, but no visible deformity. Also, grade 2 implies the presence of disability and complications. Among the leprosy complications are lagophthalmos (eyelid gap), trichiasis, corneal opacities, lower visual acuity, ulcer in hands and feet, fallen hand and foot or contracture of the ankle (Arajuo et al., 2014). Others include foot drop, clawed hands, ulcerations on hands and feet, corneal ulceration, cataract, collapse of the nose, loss of eyelashes, loss of eyebrows, breast enlargement, to mention a few. According to Van Brakel et al. (2012), impairments may give rise to disabilities, such as limitation of activities involving the use of hands and feet, eyes and diminished participation in social activities.

The inability of the LAPs to feel free in sharing their experiences greatly impaired their psychological health status (Akorede et al., 2021). The result of the study of Kaur and Kaur (2023) shows that 33.1% LAPs have depression, and 19% have anxiety disorders. Lustosa, Ngueira, dos Pedrosa, Teles and Campeto (2011) revealed that depression and anxiety have been identified as the most common mental disorders that affect LAPs. Owoeye et al. (2009) submitted that patients at the dermatological clinic of Lagos University Teaching Hospital, Lagos State, Nigeria, with skin diseases for up to a period of 6 months had lowered self-esteem, increased risk of depression and suicidal attempt.

Attama et al. (2015) expressed that the disfigured skin problem negatively affects the mental health status of leprosy patients. Erinfolami and Adeyemi (2008) reported 36.7% prevalent rate of psychiatric morbidity among leprosy respondents in Lagos State, Nigeria. Sometimes, psychiatric morbidity among leprosy patients manifests in various forms. This includes depression, anxiety and repression, to mention a few. In northern Nigeria, the study of Ossai et al. (2024) revealed that 79.4% of LAPs experienced anxiety disorder and 89.9% had depression symptoms.

Many LAPs suffer physical deformities, stigmatisation and discrimination (WHO, 2025). Most often, deformities in the form of ulcers, especially on legs, hands and other visible parts of the body, attract crowd attention and promote societal stigmatisation and discrimination. Heijnders (2004) confirmed that stigmatisation was associated with visible deformities and ulcers. Leprosy ulcers may persist for years, yet remain unhealed. In a population-based Australian study, it was shown that 45% of leprosy patients were found to be housebound due to the immobility resulting from chronic leg ulcers (Baker & Stacey, 2008). In some situations, leprosy patients changed occupations frequently in a bid to avoid discrimination (Adhikari et al., 2014).

As a result of ugly skin appearance on noticeable parts of the body, Seshadri et. al. (2015) reported that 80% of their respondents who were leprosy patients avoid seeing their friends and close associates due to shame and fear of discovering patches on the parts of their bodies. The extent of shame and ridicule are high among females. Naturally, the researchers observed that women cherish beauty more than men, and this makes them pay more attention to their aesthetic outlooks.

The detrimental effects of LRD on marital relationships are gruesome. The result of the study of Seshadri et al. (2015) revealed that 41% among single leprosy patients found it difficult to get suitors. Seven among them voluntarily postponed their marriages till after completion of treatment. Also, two among them resolved never to marry in life. As revealed by Mishra and Gupta (2010), under the Indian law, a spouse can divorce based on leprosy. Van Brakel et al.'s (2012) study shows that among the single leprosy patients, 67% considered leprosy as the sole reason for not getting partners to marry. Likewise, in Indonesia, 80% of the community participants

opined that leprosy patients would encounter marital problems. Similarly, 32.4% of community participants in Pokhara municipality felt that leprosy patients would have problems with ongoing marriage, and 48% would have problems getting married (Adhikari et. al., 2013).

The results of the study of Ayele (2022) show that LAPs faced difficulty in finding a partner, being abandoned by their spouse and being seen as a threat to the marriage prospects of other members of the family. It was further added that the LAPs concerned were forced to leave their families and areas of birth to live in a settlement designated for them. The study of Meis et al. (2022) revealed that fighting between husband and wife was reported by half of the men affected by leprosy and that disability had a negative influence on the sexual relationships of some of the men because of physical limitations, pain or decreased sexual libido.

Statement of the Problem

In Oyo town, Oyo State, there were three designated clinics for the free diagnosis and treatment of leprosy cases co-sponsored by both the state government and the international health organisation. Going by the field experience of the researchers, LAPs suffered disability due to late presentation for treatment at the designated clinics and ignorance about early signs and symptoms of leprosy. The late presentation worsened the extent of the nerve damage. Although leprosy is curable with the use of biomedicine, many LAPs are still vulnerable to particularly grade 2 disabilities, which lead to stigmatisation and discrimination among the community members.

In Oyo State, the researchers observed that due to irreversible visible physical deformities caused by disability, some ex-LAPs avoid social events, and this greatly reduces their interaction among the family members and most especially among the community members, colleagues and significant others. Some LAPs were seen begging on the streets to meet their daily needs. In the olden days, the level of stigmatisation and social exclusion against LAPs was so high to the extent that they were forced to live in isolated settlements, which became leper colonies or settlements (Disabled People's International, 2015). In many places, LAPs suffered multiple forms of societal discrimination, which include denial of access to work, education and community life (United Nations Human Rights, 2015).

Goncalves et al. (2009) expressed that physical disability affects approximately 23 per cent of LAPs after discharge. The implication of the high disability rate among LAPs contributes to the growing pool of disabled Nigerians (FMoH, 2009). Despite the content in Article 1 of the Universal Declaration of Human Rights, which states that "all human beings are born free and equal in dignity and rights", the researchers observed that societal stigmatisation and discrimination against ex-LAPs due to LRD persist. Therefore, the researchers investigated leprosy-related diseases and the psychosocial well-being of leprosy-affected persons as perceived by people in Oyo, Oyo State.

Objectives of the Study

The objectives of this study were to determine:

1. The correlation between LRD and the psychological well-being of LAPs as perceived by residents in Oyo, Oyo State, Nigeria.
2. The correlation between LRD and the social well-being of LAPs as perceived by residents in Oyo, Oyo State, Nigeria.
3. The correlation between LRD and marital well-being of LAPs as perceived by residents in Oyo, Oyo State, Nigeria.

Hypotheses

The following hypotheses were formulated and tested in this study:

1. There is no significant correlation between LRD and the psychological well-being of LAPs as perceived by residents in Oyo, Oyo State, Nigeria.
2. There is no significant correlation between LRD and the social well-being of LAPs as perceived by residents in Oyo, Oyo State, Nigeria.
3. There is no significant correlation between LRD and the marital well-being of LAPs as perceived by residents in Oyo, Oyo State, Nigeria.

Methodology

A descriptive research design of the survey type was adopted for the study. It was a community-based study. The population for the study comprised all residents in Ward 8 of Atiba Local Government, Oyo, Oyo State. Previous clinic records showed that in ward 8, there were high numbers of reported old leprosy cases treated with biomedicine. A multi-stage sampling technique was employed for the study. At stage one, a purposive sampling technique was used to select four (4) areas where high cases of leprosy have been previously reported and treated in ward 8. At stage two, a stratified random sampling technique was used to put the community members of the selected areas into two strata: those above 18 years and those below 18 years. At stage three, a convenience sampling technique was used to enrol one hundred and thirty (130) respondents as the sample size for the study. A researcher-designed structured questionnaire titled "LRD and Psychosocial Well-being of LAPs (LRDPWLAPs)" was used for data collection. The instrument was validated by three experts in the fields of Health Education, Public Health and Community Health. The reliability test was ascertained through the split-half method, and a coefficient of 0.77 was obtained using Cronbach's alpha. Community entry permission was obtained from reputable community leaders. Informed verbal consent of each respondent was obtained after a clear explanation of the purpose of the study. Four trained research assistants, that is, one per area, helped in the questionnaire administration. The null hypotheses were tested using the Pearson Product-Moment Correlation method at 0.05 alpha level.

Results

Hypothesis One: There is no significant correlation between LRD and the psychological well-being of LAPs as perceived by residents in Oyo, Oyo State, Nigeria.

Table 1: Pearson (r) correlation between LRD and psychological well-being of LAPs

Variables	N	df	SD	r-cal value	r-crit. value	Alpha level	Decision
LRD & Psychological well-being	130	128	4.13 5.21	0.733	0.178	0.05	Ho Rejected

Table 1 above shows that the calculated r-value of 0.733 is greater than the critical r-value of 0.178 with 128 degrees of freedom at 0.05 alpha level. Therefore, the null hypothesis is rejected, which implies that LRD has a significant correlation with the psychological well-being of LAPs as perceived by residents in Oyo, Oyo State, Nigeria.

Hypothesis Two: There is no significant correlation between LRD and the social well-being of LAPs as perceived by residents in Oyo, Oyo State, Nigeria.

Table 2: Pearson (r) correlation between LRD and social well-being of LAPs

Variables	N	df	SD	r-cal value	r-crit. value	Alpha level	Decision
LRD & Social well-being	130	128	3.89 5.01	0.840	0.178	0.05	Ho Rejected

Table 2 above shows that the calculated r-value of 0.840 is greater than the critical r-value of 0.178 with 128 degrees of freedom at 0.05 alpha level. Therefore, the null hypothesis is rejected, which implies that LRD has a significant correlation with the social well-being of LAPs as perceived by residents in Oyo, Oyo State, Nigeria.

Hypothesis Three: There is no significant correlation between LRD and marital well-being of LAPs as perceived by residents in Oyo, Oyo State, Nigeria.

Table 3: Pearson (r) correlation between LRD and marital well-being of LAPs

Variables	N	df	SD	r-cal value	r-crit. value	Alpha level	Decision
LRD & Marital well-being	130	128	4.22 5.42	0.781	0.178	0.05	Ho Rejected

Table 3 above shows that the calculated r-value of 0.781 is greater than the critical r-value of 0.178 with 128 degrees of freedom at 0.05 alpha level. Therefore, the null hypothesis is rejected, which implies that LRD has a significant correlation with the marital well-being of LAPs as perceived by residents in Oyo, Oyo State, Nigeria.

Discussion

Table 1 shows that there was a significant correlation between LRD and the psychological well-being of LAPs as perceived by people in Oyo, Oyo State. The findings revealed that as a result of LRD, a larger proportion of the respondents perceived that LAPs were suffering from depression (93, 71.5%); suicidal thoughts (89, 68.5%), fear (81, 62.3%), anxiety (78, 60.0%) and feelings of being worthless (67, 51.5%). This finding corroborates the assertion of Ossai et. al. (2024), which revealed that 79.4% of LAPs experienced anxiety disorder and 89.9% had depression symptoms. Owoeye et. al. (2009) also submitted that patients with skin disease up to a period of 6 months had lower self-esteem, increased risk of depression and suicidal attempt.

Table 2 shows that there was a significant correlation between LRD and the social well-being of LAPs as perceived by people in Oyo, Oyo State. The findings revealed that as a result of LRD, larger proportion of the respondents perceived that, LAPs were experiencing reduced relative support (97, 74.6%), isolation (93, 71.5%), rejection (82, 63.1%), loss of job (74, 56.9%), neglect (71, 54.6%), low self esteem (69, 53.1%) and reduced income (68, 52.3%). This finding is consistent with the report of Seshadri et. al. (2015) that 80% of their respondents who were leprosy patients avoid seeing their friends and close associates due to shame and fear of discovering patches on the parts of their bodies. Heijnders (2004) also affirmed that among LAPs, stigmatisation was associated with visible deformities and the development of ulcers.

Table 3 shows that there was a significant correlation between LRD and the marital well-being of LAPs as perceived by people in Oyo, Oyo State. The findings revealed that as a result of LRD, larger percentage of the respondents perceived that LAPs were experiencing sex denial (99, 76.2%), spousal embarrassment (84, 64.6%), difficulty in getting suitors (78, 60.0%), divorce/separation (71, 54.6%), domestic violence (70, 53.8%), low spousal respect (69, 53.1%) and broken relationship (67, 51.5%). These findings are consistent with the report of Ayele (2022) and Akorede (2021) that LAPs do face difficulty in finding suitors, being abandoned by their spouse and being seen as threats to the marriage prospects of other members of the family. The result is also in line with the submission of Meis et. al. (2022) that fighting between husband and wife was reported by half of the men who were LAPs.

Conclusion

Based on the findings of the study, it was concluded:

1. There was a significant correlation between LRD and the psychological well-being of LAPs as perceived by residents in Oyo, Oyo State, Nigeria.
2. There was a significant correlation between LRD and the social well-being of LAPs as perceived by residents in Oyo, Oyo State, Nigeria.
3. There was a significant correlation between LRD and the marital well-being of LAPs as perceived by residents in Oyo, Oyo State, Nigeria.

Recommendations

Based on the conclusion of this study, it is hereby recommended that:

1. There is a need for engagement of health personnel in community mental health education, as this may reduce the psychological distress of ailing community members.
2. There is a need for community engagement meetings and sensitisation on positive roles expected from relatives and community members towards LAPs.
3. There is a need for engagement of religious and community leaders on ways to stabilise the homes of LAPs through dialogues and mutual interactions.

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