



Psychological Burden and Social Stigmatization due to Lymphatic Filariasis in Bunza Local Government Area of Kebbi State, Nigeria

Ukatu, V.E. ^{a*} and M.A. Yauri ^a

^a Department of Animal and Environmental Biology, Kebbi State University of Science and Technology, Aliero, Nigeria.

Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

Article Information

DOI: <https://doi.org/10.9734/ajarr/2024/v18i10755>

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/123571>

Original Research Article

Received: 12/07/2024
Accepted: 14/09/2024
Published: 19/09/2024

ABSTRACT

Background: Lymphatic filariasis (LF) is associated with both physical and psychological disability. The psychological burden of disability and stigma was not been given proper attention, to the detriment of those affected in the study area. A systematic assessment of the impact of the disease on social life as well as peoples perception and attitudes towards the disease is important for successful implementation of the control programme and prevention of unnecessary suffering and contribute to reduction of poverty.

Aim: This study aimed at assessing the psychological burden and stigmatization status of lymphatic filariasis in Bunza LGA of Kebbi State. The specific objectives of this exploratory study

*Corresponding author: Email: ukatuvictoria@gmail.com;

were to assess the community knowledge, attitude and practices about the cause and impact of the disease on the psychological and socio-economic life of the people.

Methods: This study employed a mixed-methods approach, utilizing both quantitative and qualitative techniques through semi-structured questionnaires and interview schedules to gather data from affected and unaffected individuals in the community.

Results: Of the 400 participants (32 affected, 368 unaffected), 97.5% of respondents would not propose marriage to someone with physical disabilities due to LF, yet 59.0% would not divorce their spouse if they contracted LF after marriage. Most of the community and family members 346 (86.5%) would associate with sufferers. Though stigmatization was minimal the psychological impact was deep as affected individuals felt sad (31.3%), shame (25.0%), abnormal (28.1%) and suicidal, 1(3.1%). Many of them (34.4%) believed that it ruins marriage, destroys sexual relationship with partner (62.5%).

Conclusion and Recommendation: While isolation and stigmatization were found to be minimal, the significant psychological burden underscores the need for comprehensive morbidity management, including mental health support, to alleviate the suffering of affected individuals in the community.

Keywords: Lymphatic filariasis; psychological burden; stigmatization.

1. INTRODUCTION

Lymphatic filariasis is a parasitic infection transmitted by mosquitoes and can lead to severe swelling and enlargement of the limbs, genitals and breasts [1].

People affected by this disease are often stigmatized due to the visible and disfiguring symptoms of the disease. They suffer social exclusion and discrimination, and are often being shunned by their communities and even their families. The stigma can also impact their mental health leading to depression, anxiety and feelings of shame and isolation.

The life of people living with chronic physical symptoms of lymphatic filariasis was likened to carrying 10 to 20kg of dead weight on their foot or arm everyday of their lives and still being stigmatized for it, losing dignity, respect and ability to work [2]. The deformity and the resulting disability caused by the disease appears to be the main reasons for the discrimination and stigmatization.

Stigma is also an important social determinant of the effectiveness of disease control through its effect on help-seeking and treatment adherence [3].

Depression and emotional consequences is significant on the sufferers. According to [4] between 8.5% and 97% of people with lymphatic filariasis were found to experience, depression or related problems, such as feelings of inferiority.

According to World Health Organization estimates, at least 36 million people remain with

the chronic disease manifestations, 25 million men with hydrocele and over 15 million people with Lymphoedema [5]. Studies on the psychological burden, isolation and stigmatization due to lymphatic filariasis is scanty in the study area and need to be given proper attention.

Significance of the study: There is dearth of information on the emotional difficulty and stigma experienced by people living with LF in the study area. This study will provide baseline information for utilization by control programmes to provide access to the highest attainable standard of health including mental health and to protect persons with LF from stigma, discrimination and social exclusion.

Limitations of the study: The study will specifically examine knowledge on the causes, transmission and prevention of the disease as well as the social and psychological impact on affect individuals.

2. MATERIALS AND METHODS

2.1 Study Area

The study was conducted in Bunza Local Government Area of Kebbi State, which is situated between latitudes 11°59'N and 12°20'N and longitude 3°40'E and 4°05'E. The LGA has a main annual temperature of 21°C, though it sometimes fluctuates, the highest mean annual rainfall is about 1000mm. [6] the major ethnic groups are Hausa, Fulani and Zarmawara. The people are farmers, cattle rearers and fishermen,

there are also traders, artisans and those who engage in numerous skills such as sewing, driving, etc.

Study Population/Design: The study population consisted of males and females aged 7years and above [7] resident in Bunza LGA of Kebbi State. It is a cross-sectional, descriptive study, conducted in the field, from April – September, 2018.

Sampling technique: Random sampling technique was applied in selecting six villages from the LGA. All the villages were listed and selected by balloting. Affected and unaffected people who volunteered were included in the study.

2.2 Data Collection Technique

To collect data, both quantitative and qualitative techniques were used.

Quantitative method: Collection of data was done using semi-structured pre-tested questionnaire that contain mostly closed ended questions. It consist of three sections, first section sought information on the respondents

demographic data. The second section south information on psychosocial and matrimonial impact of the disease. This was for both sufferers and non-sufferers.

Qualitative Method: Qualitative data was collected for only those with visible signs of the disease. They were interviewed on psychological impacts of the disease.

Ethical Clearance: Permission was obtained from Kebbi State Ministry of Health before the administration of questionnaire. Permission was also sought from the LGA authorities and village heads. Informed verbal consent was also obtained from each individual. All information obtained was treated with utmost confidentiality.

2.3 Data Analysis

Data clearing for errors, consistency and completeness checks were done. Information collected was analyzed and presented using frequency tables, and percentages. Descriptive/Narratives analysis was employed. Simple calculations of frequency distributions and percentages were used and display in frequency table.



Fig. 1. Map of Kebbi State showing the study area

Source: [6]

3. RESULTS

The results obtained in this research are presented in Tables 1-3.

Demographic characteristics of study population: A total of 400 participants (32 affected and 368 unaffected) took part in this study. Two Hundred and Thirty-Three (58.3%) were males while 167(41.7%) were females. The age characteristics were ≤ 10 (17.5%), 11-20(35.0%), 21-30(10.3%), 31-40(16.5%), 41-50(6.3%), 51-60(9.8%) and ≥ 61 (4.8%). With regards to educational level, those with no formal education were 163(40.7%), primary school, 88(22.0%), secondary school, 79(19.8%) and tertiary institution, 70(17.5%). Based on marital status, 180(45.0%) were married, 26(6.5%) were widow(er)s, while 194(48.5%) were single. Demographic data of sampled villages were: Bunza 68(17.0%), Maidahini, 68(17.0%), Raha, 68(17.0%), Sabon Birnin, 62(15.5%), Salwai, 68(17.0%) and Zogirma, 66(16.5%). Details of the demographic

information of the study population are shown in Table 1.

Perceived beliefs on some Psycho-social consequences of lymphatic filariasis: Table 2 shows respondents' views on proposing marriage to someone with the disease, divorce and association with an affected person.

Out of 400 respondents (both affected and unaffected), 390(97.5%) of the respondents would not propose marriage to someone with visible physical sign of the disease, 10(2.5%) were not sure.

However, if their marriage partner contacts the disease while already married to them, majority, 236 (59.0) were of the opinion that they would not divorce their spouse while 126 (31.5%) would opt for divorce. However, 28 (9.5%) were undecided. As regards association with an infected person, 346(86.5%) respondents said they will associate with the sufferer while 50(12.5%) will not. 4 (1.0%) were not sure whether they will associate or not.

Table 1. Sociodemographic characteristics of the population

	Affected (N=32) n%	Unaffected (N=32) n%	Total (N=400) n%
Gender			
Males	21(65.6)	212(97.6)	233(58.3)
Females	11(34.4)	156(42.3)	167(41.7)
Age (y)			
≤ 10	0(0.0)	70(19.0)	70(17.5)
11-20	0(0.0)	140(38.0)	140(35.0)
21-30	3(9.4)	38(10.3)	41(10.3)
31-40	6(18.8)	60(16.3)	66(16.5)
41-50	5(15.6)	20(5.4)	25(6.3)
51-60	9(28.1)	30(8.1)	39(9.8)
> 61	9(28.1)	10(2.7)	19(4.8)
Education Level			
Uneducated	18(56.2)	145(39.4)	163(40.7)
Primary School	7(21.8)	81(22.0)	88(22.0)
Secondary School	6(18.7)	73(19.8)	79(19.8)
Tertiary Institution	1(3.1)	69(18.8)	70(17.5)
Marital Status			
Currently married	28(87.4)	52(41.3)	180(45.0)
Widow(er)	2(6.2)	24(6.5)	26(6.5)
Single	2(6.3)	192(52.2)	194(48.5)
Village			
Bunza	0(0.0)	68(18.5)	68(17.0)
Maidahini	7(21.9)	61(16.6)	68(17.0)
Raha	6(18.7)	62(16.8)	68(17.0)
Sabon Birnin	10(31.3)	52(14.1)	62(15.5)
Salwai	9(28.1)	59(16.1)	68(17.0)
Zogirma	0(0.0)	66(17.9)	66(16.5)

Table 2. Respondents views on marriage proposal, divorce and association with affected persons

Variables	Responses	Affected (N=32) n%	Unaffected (N=32) n%	Total (N=400) n%
Marriage proposal to affected persons	Yes	0(0.0)	0(0.0)	0(0.0)
	No	30(93.8)	360(97.8)	390(97.5)
	Don't know	2(6.32)	8(2.2)	10(2.5)
	Total	32(100.0)	368(100.0)	400(100.0)
Divorce of affected spouse	Yes	0(0.0)	126(34.3)	126(31.5)
	No	28(81.5)	208(56.5)	236(59.0)
	Don't know	4(12.5)	34(9.2)	38(9.5)
	Total	32(100.0)	368(100.0)	400(100.0)
Association with affected persons	Yes	31(96.9)	315(85.6)	246(86.5)
	No	0(0.0)	50(13.6)	50(12.5)
	Don't know	1(3.1)	3(0.8)	4(1.0)
	Total	32(100.0)	368(100.0)	400(100.0)

Table 3. Affected person's feelings on living with lymphatic filariasis, thoughts about themselves, acceptance in the family/community, matrimonial consequences

Variables	Responses	Frequency	Percentage
Feelings	Sad	10	31.0
	Shame	8	25.0
	Abnormal	9	28.1
	Suicidal	1	3.1
	Don't know	4	12.5
	Total	32	100.00
Think less of themselves	Yes	24	75.0
	No	5	15.6
	Don't know	3	9.4
	Total	32	100.00
Views of on being Accepted	Well accepted	18	56.3
	Not well accepted	8	25.0
	Not sure	6	18.7
	Total	32	100.00
Opinions on matrimonial consequences	Ruins marriage	11	34.4
	Destroys sexual relation with partner	20	62.5
	Leads to divorce by spouse	1	3.1
	Total	32	100.00
Consequences of disease on marriage prospects	Difficult to find a spouse	23	71.9
	Hinder marriage prospect of family members	7	21.9
	Has no effect on marriage prospect	2	6.2
	Total	32	100.00

Result of qualitative interview with affected persons: Participants with visible signs of lymphatic filariasis were interviewed on psychological,

psychosocial and matrimonial aspects of the disease.

Table 3 shows the deep psychological feelings of the respondents. With regards to their feelings

about their condition, 10(31.3%) felt sad, 8(25.0%) felt ashamed, 9(28.1) felt abnormal, 1(3.1%) felt like committing suicide and 4(12.5%) were indifferent.

The respondents' views on whether the disease makes them think less of themselves, 24(75.0%) of the respondents thought less of themselves while 5(15.6%) did not. However, 3(9.4%) did not offer any comment. On their views on whether their condition affects their acceptance in their family and community, 8(25.0%) believed it did. However, 6(18.7%) did not offer any responses.

As regards the views of the affected persons on consequences of the disease on family, marriage and marriage prospects. The affected individuals had high level of awareness of the disease consequences on family and marriage. Eleven (34.4%) of the respondents believed that it ruins marriage, 20(62.5%) were of the opinion that it destroys sexual relation with spouse while 1(3.1%) agreed that it leads to divorce. Views on the consequences of the disease on prospect of marriage, majority of the sufferers, 23(71.9%) agreed that it leads to difficulty in finding marriage partner, 7(21.9%) believed that it hinders marriage prospect of unaffected family members. However, 2(6.2%) agreed it has no effect on marriage prospect.

4. DISCUSSION

Lymphatic filariasis causes not only physical disability but also psychological disability that tend to be unrecognized. In this study, there were diminished marriage prospects but majority of the respondents (both affected and unaffected) will not divorce their partners if they contract the disease while already married to them. Majority will also associate with affected patients. This is similar to the report of [8] in Kano State. This is probably due to religious belief that everything that happens is an act of God. However, [9] reported high stigmatization in Port Harcourt metropolis.

Affected respondents, in this study felt sad, shame and abnormal. Though stigmatization and isolation was not high, they were angry, bitter and depressed about their condition. This is likely due to their reduced productivity, unattractiveness and sexual dysfunction. Similar negative feelings were reported by [10] in Plateau State, Nigeria, and [11] in India.

A good number of the affected individuals indicated that the disease affects marriage and destroys sexual relation with partners; however, it does not lead to divorce. This is because people from Northern Nigeria are polygamous and instead of divorcing their affected wife, resort to marrying more wives, but women whose husbands were affected after marriage do not abandon them. Strong religious belief by northern Muslims that the health condition is an act of God also plays a part. Some studies however reported that divorce and isolation were common [12,13].

5. CONCLUSION

The psychological burdens of lymphatic filariasis morbidities on the sufferers were deep, however stigmatization and isolation experiences were minimal in the study area.

6. RECOMMENDATION

We recommend that sufferers, family and community members should be trained on morbidity management by the government to alleviate the sufferings of the affected people.

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc) and text-to-image generators have been used during writing or editing of this manuscript.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. WHO. People living with Elephantiasis are often stigmatized WHO Regional Office for Africa;; 2023a. Accessed on 28 Aug, Mdr 2024 Reszon Diagnostics. Available: <https://reszonics.com>
2. Ayushmann K. Living with lymphatic filariasis: Stigma, struggle and tenuous survival for thousands in India. NDTV; 2024. Available: <https://swachhindia.ndtv.com>
3. Reamanathan P, Prabhakar R, Ananthan VA. Perception of social stigma among patients attending a filariasis morbidity

- control clinic in South India. International Journal of Community Medicine and Public Health. 2020;7(11):4604-4608.
DOI:<https://dx.doi.org/10.18203/2394-6040.ijcmph20204452>
4. Simon Makin. Mental Health: The invisible effects of neglected tropical diseases <https://www.nature.com>. Nature Portfolios Journal; 2023.
DOI:<https://doi.org/10.1038/d41586-023-02973-Z>
 5. WHO. Lymphatic filariasis. World Health Organization; 2023b.
Available:<https://www.who.int> Fact Sheets.
 6. Shehu A. Kebbi State: Yesterday and Today, Multinational Concept Limited, Lagos. 2014;433.
 7. Gabral S, Bonfim CO, Oliveira R, Olivera P, Guimaraes T, Brandao E, Aguiar-Santos AM, Medeiros Z. Knowledge, attitudes and perceptions regarding lymphatic filariasis: Study on systematic noncompliance with mass drug administration. Rev. Inst. Med. Trop. Sao Paulo. 2017;59:c 23.
DOI:10.1590/51678-9946Z01759023
 8. Dogara MM, Nock HI, Agbede RIS, Ndams IS. Survey of KAPs of lymphatic filariasis patients in Kano State, Nigeria. International Research Journal of Public and Environmental Health. 2014;10:207-210.
 9. Nzeako SO, Okunniger OH, Nduka E, Ezenwaka GO. Lymphatic filariasis and malaria awareness amongst residents of Port Harcourt Metropolis. International Journal of Applied Science Research and Review. 2016;3:6.
DOI: 10.2176/2349-7238.100051
 10. Abdulmalik JO, Nwefoh E, Taiwo JO, Eaton J, Dakwak S, Ayobola M, Umaru J, Samuel E, Ogoshi C. Emotional difficulties and experiences of stigma among persons with lymphatic filariasis in Plateau State, Nigeria. Health and Human Right. 2018;20(1):27-40.
 11. Kishore BM, Sowmithri ML, Akshay S, Nagaiah. Psychosocial impact on patients with chronic lymphatic filariasis: A cross-sectional study. Medpulse International Journal. 2018;7(1).
Available:<https://www.medpulse.in>
 12. Ahorlu CK, Dunyo SK, Koram KA, Nkrumah FK, Aagaad-Hansen J, Simonsen PE. Lymphatic filariasis related perceptions and practices on the coast of Ghana: Implications for prevention and control Acta Tropica. 1999;73(3):251-261
 13. Akogu OB, Akogu MK, Apeke E, Kale OO. Rapid community identification, pain and distress associated with lymphedema and adenolymphangitis due to lymphatic filariasis in resource-limited communities of North-Eastern, Nigeria. Acta Tropica. 2011;120:562-568.

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of the publisher and/or the editor(s). This publisher and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.

© Copyright (2024): Author(s). The licensee is the journal publisher. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:
The peer review history for this paper can be accessed here:
<https://www.sdiarticle5.com/review-history/123571>