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Research Article

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Knowledge, Attitudes and Cultural Practices of Lassa fever Prevention and Treatment among Kaduna North Community Dwellers in Kaduna State, Nigeria

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ABSTRACT

This study focused on the examination of the knowledge, attitudes and cultural practices perception of respondent towards Lassa Fever (LF) prevention and treatment. The result of this study also revealed that after 48 years of the first case of LF in Nigeria, the knowledge and understanding of LF disease, transmission, prevalence and factors were poor amongst respondents. However, the respondents knew about some non-specific signs such as fever, malaise, headache, sore throat and vomiting. Poor knowledge has also been reported amongst health care workers. Some of the respondents only recently (2014 and 2015) heard about LF disease despite the fact that the disease has posed health challenge for so many years. Some respondents learned about LF from newspaper and current campus campaign on LF. These findings support the need for continuous campaigns and news items in the public media to sustain the dissemination of information on LF. Effective surveillance of LF could predict an outbreak and provide opportunity for massive public mobilization for 'Health Action', to break the chain of transmission of LF in the community. Improvement and upgrading of disease surveillance is key to prevention of future outbreaks not only of Lassa fever but other epidemics.

Keywords: Attitude, Culture, Knowledge, Kaduna, Lassa fever Prevention and Treatment, Nigeria

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INTRODUCTION

Infectious diseases remain a significant public health concern globally, with Lassa fever being one of the prevalent viral hemorrhagic fevers in West Africa, particularly in Nigeria (Ajayi *et al.*, 2013). Lassa fever is caused by the Lassa virus, which is primarily transmitted to humans through contact with food or household items contaminated with rodent urine or feces. The disease is endemic in Nigeria, with periodic outbreaks occurring, especially in regions such as Kaduna State. Lassa fever was first identified in 1969 in Lassa village, Borno State,

Nigeria (Ajayi *et al.*, 2013). Since then, it has posed a persistent threat to public health in Nigeria and other West African countries. The disease is characterized by symptoms ranging from mild fever to severe hemorrhagic manifestations, with an estimated case fatality rate ranging from 1% to 15%, depending on the quality of healthcare services available (World Health Organization, 2020). Disease prevention and treatment programs often focus on medical interventions and technological solutions. However, understanding the social and cultural contexts in

which diseases occur is equally essential for designing effective public health strategies. In the case of Lassa fever, a viral hemorrhagic fever endemic in West Africa, studying the knowledge, attitudes, and cultural practices of affected communities is critical for disease prevention and treatment. This paper explores the importance of such studies and their implications for public health interventions.

One of the fundamental aspects of disease prevention and treatment is assessing the level of knowledge within communities. Adequate knowledge about the causes, symptoms, transmission routes, and preventive measures of diseases such as Lassa fever is crucial for early detection, prompt treatment, and prevention of outbreaks (Ajayi *et al.*, 2013). Studies have shown that individuals with higher levels of knowledge about Lassa fever are more likely to engage in preventive behaviors and seek medical care promptly when symptoms occur (Monath, 1999). Therefore, understanding the knowledge gaps within communities is essential for developing targeted health education campaigns and interventions to improve disease awareness and promote behavior change.

Attitudes toward disease prevention and treatment significantly influence health-related behaviors within communities. Positive attitudes toward seeking healthcare services, adopting preventive measures, and complying with treatment regimens are crucial for controlling infectious diseases like Lassa fever (Monath, 1999). Conversely, negative attitudes, such as stigma toward affected individuals or distrust of healthcare providers, can impede disease control efforts (Fichet-Calvet and Rogers, 2009). By studying attitudes toward Lassa fever within communities, public health practitioners can identify barriers to behavior change and develop targeted interventions to address them.

Cultural practices play a significant role in shaping health-related behaviors and beliefs within communities. In the context of disease prevention and treatment, cultural practices can influence various aspects, including dietary habits, hygiene practices, healthcare-seeking behaviors, and traditional healing methods (Monath, 1999). For example, in some communities, certain cultural practices, such as rituals involving close contact with bodily fluids, may increase the risk of disease transmission. Therefore, understanding the cultural norms and practices related to Lassa fever is essential for designing culturally appropriate interventions that respect and incorporate local beliefs and traditions.

Integrating knowledge, attitudes, and cultural practices into disease prevention and treatment strategies has several implications for public health interventions. Firstly, it allows for the development of contextually relevant health education materials and messages that resonate with the target audience. By addressing specific knowledge gaps and cultural beliefs, these interventions can effectively communicate key information about Lassa fever and promote behavior change within communities. Secondly, incorporating sociocultural perspectives into

public health interventions facilitates community engagement and ownership of health programs. When community members feel that their knowledge, beliefs, and practices are valued and respected, they are more likely to participate actively in disease prevention and treatment efforts (Ajayi *et al.*, 2013). This can enhance the acceptability and sustainability of interventions and contribute to long-term improvements in health outcomes. Studying knowledge, attitudes, and cultural practices is essential for designing effective disease prevention and treatment strategies, particularly in the context of infectious diseases like Lassa fever. By understanding the sociocultural context in which diseases occur, public health practitioners can develop culturally sensitive interventions that address the specific needs and preferences of affected communities. Ultimately, integrating these perspectives into public health programs can enhance community engagement, improve health outcomes, and contribute to the control of diseases like Lassa fever.

Understanding the knowledge, attitudes, and cultural practices of communities towards Lassa fever prevention and treatment is crucial for effective public health interventions (Olayinka *et al.*, 2021). Studies have shown that individual perceptions, beliefs, and cultural practices influence health-seeking behaviors and compliance with preventive measures. Therefore, assessing the level of awareness, attitudes, and cultural factors related to Lassa fever can inform the development of targeted interventions to mitigate the spread of the disease and reduce its burden on affected communities.

The primary objective of this studies is to assess the knowledge, attitudes, and cultural practices regarding Lassa fever prevention and treatment among Kaduna North community dwellers in Kaduna State, Nigeria.

MATERIALS AND METHODS

Study area

Kaduna North, often referred to as the pioneer local government, is a Local Government Area in Kaduna State, Nigeria. It is the capital of Kaduna State and its headquarters are in the town of Doka. It has an area of 70.2 km². Kaduna North is one of the oldest Local Governments in the State (Figure 1). Its secretariat is located at Magajin Gari, Doka. Kaduna North is located between latitudes 10:35 North and Longitudes 7:25 East. It is bordered by Igabi Local Government to the North and West, and Southwest, by Kaduna South local government, Chikun Local Government to the east. It has an area of about 72 km² and density of 5, 883.1 in h/km². The population of Kaduna north is at 423,580 as of 2006 Nigeria Population Census (NPC, 2006). Kaduna North Local Government Area consisting of 12 subdivisions (second-order administrative divisions) or electoral wards, namely: Badarawa, Dadi Riba, Hayin Banki, Kabala, Kawo, Maiburiji, Sardauna, Shaba, Unguwan Dosa,

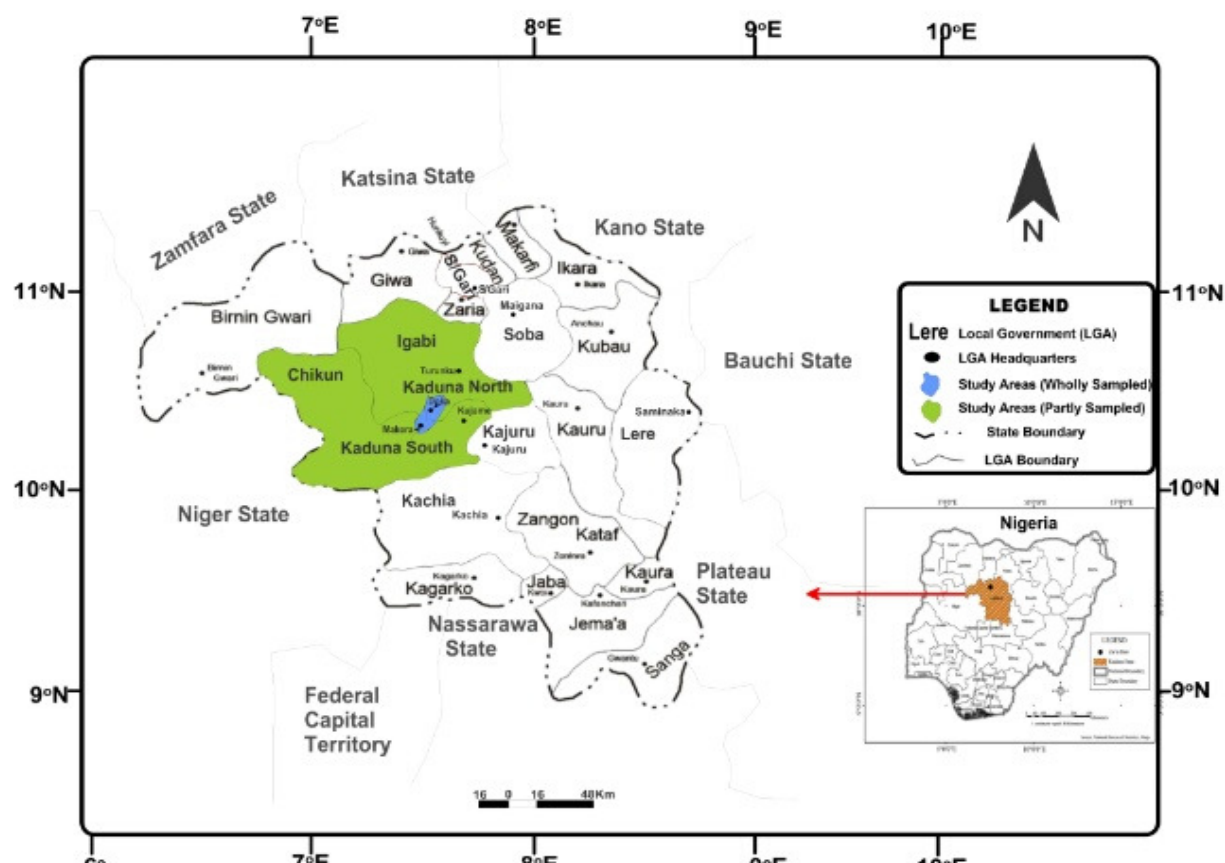


Figure 1: Map of Kaduna State showing the study area. **Source:** Public Health Service Solutions, 2024

Unguwar Rimi, Unguwar Sarki, Unguwar Shanu and Unguwar kanawa. There are many educational institutions in Kaduna north that include both public and private. Kaduna north is the largest contributor to the Kaduna state economy, there are many small- and large-scale companies and industries with various commercial activities (NPC, 2006).

Research design

The study utilized a mixed-methods research design to obtain a comprehensive understanding of knowledge, attitudes, and cultural practices related to Lassa fever among Kaduna North community members. This approach allows for the integration of both quantitative and qualitative data, providing insights into the complexity and contextuality of health behaviors.

Sampling techniques and sample size

A multistage sampling technique was employed to select participants for the study. First, Kaduna North Local Government Area was purposively selected due to its high incidence of Lassa fever cases. Second, within the local government area, several communities were randomly selected. Finally, households within the selected

communities were randomly sampled. The sample size was determined using the formula for estimating proportions, considering a confidence level of 95% and a margin of error of 5%.

Data collection methods

Data collection involved the use of structured surveys, in-depth interviews, and focus group discussions. The structured surveys were administered to collect quantitative data on participants' knowledge, attitudes, and practices related to Lassa fever. In-depth interviews were conducted with key informants, such as community leaders and healthcare workers, to gain a deeper understanding of cultural beliefs and practices. Focus group discussions were held with community members to explore shared perceptions and experiences regarding Lassa fever prevention and treatment.

Data analysis techniques

Quantitative data collected through surveys were analyzed using descriptive statistics, including frequencies, percentages, and means. This analysis provided an overview of participants' knowledge levels, attitudes, and practices related to Lassa fever. Qualitative data from

interviews and focus group discussions were analyzed thematically, following a systematic process of coding, categorization, and interpretation. Themes and patterns emerging from the qualitative data were identified to gain insights into cultural factors influencing disease prevention and treatment.

Ethical considerations

Ethical approval for the study was obtained from the Ethical Review Committee of the Kaduna State Ministry of Health. Informed consent was obtained from all participants prior to their participation in the study. Confidentiality and anonymity of participants were ensured throughout the research process. Participants were informed of their right to withdraw from the study at any time without consequences.

RESULTS

Prevalence of Lassa fever Transmission Knowledge in Kaduna North LGA, Kaduna State, Nigeria

From the survey results, 80% of respondents correctly identified the primary mode of transmission of Lassa fever, while 20% did not. This indicates a relatively high level of awareness regarding the transmission route among the surveyed population (Table 1).

Table 1: Knowledge of Lassa fever Transmission at Kaduna North LGA, Kaduna State.

Survey Question	Yes	No (%)
Do you know the primary mode of transmission of Lassa fever?	200	50 80

Prevalence of Lassa fever Symptoms Recognition in Kaduna North LGA, Kaduna State, Nigeria

A majority (72%) of respondents reported being able to recognize common symptoms of Lassa fever, while 28% indicated that they could not. This suggests that while awareness of symptoms is relatively high, there is still room for improvement in this area (Table 2).

Table 2: Recognition of Lassa fever Symptoms at Kaduna North LGA, Kaduna State.

Survey Question	Yes	No (%)
Can you recognize common symptoms of Lassa fever?	180	70 72

Prevalence on Perception of Disease Severity in Kaduna North LGA, Kaduna State, Nigeria

The majority (84%) of respondents perceive Lassa fever as a severe illness, while 16% do not. This indicates a high level of awareness regarding the severity of the disease among the surveyed population (Table 3).

Table 3: Perception of Disease Severity in Kaduna North LGA, Kaduna State.

Survey Question	Yes	No (%)
Do you perceive Lassa fever as a severe illness?	210	40 84

Prevalence on the Willingness to Seek Medical Attention in Kaduna North LGA, Kaduna State, Nigeria

A large majority (88%) of respondents reported willingness to seek medical care if they suspected Lassa fever, while 12% indicated that they would not. This positive attitude towards healthcare seeking is encouraging for disease management efforts (Table 4).

Table 4: Willingness to Seek Healthcare in Kaduna North LGA, Kaduna State.

Survey Question	Yes	No (%)
Would you seek medical care if you suspected Lassa fever?	220	30 88

Prevalence on the Adoption of Preventive Measures in Kaduna North LGA, Kaduna State, Nigeria

Sixty-four percent of respondents reported practicing recommended preventive measures for Lassa fever, while 36% indicated that they did not. This suggests that there is still a significant portion of the population that may benefit from education on preventive measures (Table 5).

Table 5: Adoption of Preventive Measures in Kaduna North LGA, Kaduna State.

Survey Question	Yes	No (%)
Do you practice recommended preventive measures for Lassa fever?	160	90 64

DISCUSSION

The study revealed a nuanced understanding of the community's knowledge levels, attitudes towards Lassa fever, and cultural practices influencing healthcare-seeking behaviors. Quantitative analysis provided insights into the prevalence of various beliefs and practices, while qualitative data enriched the understanding of underlying cultural dynamics. The findings align with previous research indicating variations in knowledge, attitudes, and practices related to Lassa fever across different regions and population groups (Olayinka *et al.*, 2021). Consistent findings validate existing knowledge, while divergent results highlight the importance of context-specific approaches to public health interventions.

The study identified significant gaps in knowledge regarding Lassa fever transmission routes and symptoms, emphasizing the need for targeted health education campaigns tailored to the community's specific needs (Fadairo *et al.*, 2019). Positive attitudes towards seeking healthcare for suspected Lassa fever cases suggest a willingness to engage with formal healthcare systems. Strengthening these systems and reducing barriers to

access should be prioritized (Ajayi *et al.*, 2013). Cultural practices such as reliance on traditional healers and herbal remedies underscore the importance of culturally sensitive approaches in public health interventions. Collaboration with traditional healers and community leaders can facilitate effective engagement with the community (Olayinka *et al.*, 2021).

The discussion explores how knowledge, attitudes, and cultural practices intersect and influence each other, shaping health behaviors. For instance, cultural beliefs about illness causation may impact attitudes towards modern healthcare, thereby influencing healthcare-seeking behaviors. The qualitative analysis of in-depth interviews and focus group discussions revealed several themes related to cultural beliefs and practices influencing Lassa fever prevention and treatment behaviors. These themes include the preference for traditional healers, reliance on herbal remedies, and the influence of family elders on healthcare decision-making. The qualitative findings complement the quantitative data by providing insights into the underlying cultural dynamics shaping healthcare behaviors within the community. Understanding these cultural factors is essential for developing culturally sensitive interventions.

Overall, the data analysis highlights both strengths and areas for improvement in the community's knowledge, attitudes, and practices regarding Lassa fever. These findings can inform targeted public health interventions aimed at improving disease prevention and treatment efforts in the Kaduna North community.

Conclusion

In conclusion, addressing knowledge gaps, promoting positive healthcare-seeking attitudes, and incorporating cultural considerations are essential steps in mitigating the burden of Lassa fever among Kaduna North community members. By implementing targeted interventions and engaging with the community, policymakers and healthcare professionals can effectively prevent and control the spread of the disease, ultimately improving the health and well-being of the population.

Recommendations

- i. Develop and implement targeted health education programs to address knowledge gaps regarding Lassa fever transmission, symptoms, and preventive measures.
- ii. Utilize culturally appropriate communication channels to reach community members effectively.
- iii. Invest in strengthening formal healthcare systems by improving infrastructure, increasing healthcare personnel capacity, and reducing financial barriers to access. Collaborate with local healthcare facilities to ensure the availability of Lassa fever diagnostic and treatment services.
- iv. Engage with community leaders, traditional healers, and other stakeholders to promote collaboration

and mutual understanding. Incorporate traditional healing practices into public health interventions to enhance community acceptance and participation.

v. Conduct longitudinal studies to track changes in knowledge, attitudes, and practices related to Lassa fever over time.

Vi Explore the effectiveness of interventions in promoting behavior change and improving health outcomes. Also, conduct qualitative research focusing on the socio-cultural determinants of health behaviors among Kaduna North community members.

Vii Investigate the underlying beliefs, norms, and practices influencing Lassa fever prevention and treatment.

Conflict of Interest

The authors declare no competing interests regarding publication of this paper.

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REFERENCES

- Ajayi, N. A., Nwigwe, C. G., Azuogu, B. N., et al. (2013). Containing a Lassa fever epidemic in a resource-limited setting: outbreak description and lessons learned from Abakaliki, Nigeria (January–March 2012). *Int J Infect Dis*, 17(11), e1011-e1016.
- Fadairo, Y. M., Ajuwon, A. J., & Nwofor, S. C. (2019). Knowledge and practice of lassa fever prevention among healthcare workers in Ekiti State, Nigeria. *Annals of African Medicine*, 18(1), 6-11.
- Fichet-Calvet, E., & Rogers, D. J. (2009). Risk maps of Lassa fever in West Africa. *PLoS Neglected Tropical Diseases*, 3(3), e388.
- Monath, T. P. (1999). Lassa fever: Review of epidemiology and epizootiology. *Bulletin of the World Health Organization*, 77(8), 651-661.
- NPC. *Population Census figure*, National Census Commission, Abuja, Nigeria, 2006. pp 1-40.
- World Health Organization (WHO). (2020). Lassa fever – Nigeria. Retrieved from <https://www.who.int/emergencies/disease-outbreak-news/item/2020-DON264>