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Abstract

Background Global re-emergence of the zoonotic viral disease, Mpox (Monkeypox) has drawn global attention, leading to its declaration as a Public Health Emergency of International Concern (PHEIC) by World Health Organisation (WHO) in July 2022. Nigeria is a spotlight identified for the viral disease outbreak, with attention drawn on its transmission to non-endemic nations. With the country's healthcare challenges, care seeking practices particularly amongst low-income urban informal settlement populations are diverse – presenting challenges to both case identification and management during an outbreak. In this study, we examine the social, economic, and behavioural context of Mpox therapeutics.

Methods This was an ethnographic study conducted between September 2022 and March 2023, with the purposive selection of urban informal settlements and interlocutors in Oyo, Ogun and Lagos States. We interviewed a total of 28 interlocutors who were either confirmed or suspected cases of Mpox or parents of children who are confirmed or suspected Mpox cases identified by the public health workers. Data were elicited through In-depth interviews and observations technique on the interlocutor's local knowledge and their lived experiences on the therapeutics of Mpox. Analysis of the transcript was done inductively using thematic analysis process.

Findings The study revealed awareness and vague knowledge of Mpox. Furthermore, the behavioural practices on how ailments are understood and managed revealed a commonality in their social actions in terms of local diagnosis and management. Mpox was perceived to be a mild disease, and this had implications on the local characteristics of the PHEIC in the endemic regions.

Conclusion Our paper contributes to a more nuanced understanding of not only the health care access barriers, but the complex geographical, economic, and sociocultural factors that shape how and when people seek care for Mpox within the context of urban informal settlements. This further draws attention to behavioral dispositions to the

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Background

Mpox virus was previously known to be endemic in West and Central African nations [1

e selected study areas (Local Government Areas) are urban informal settlements facing numerous challenges, including unreliable electricity, poor road networks, lack of clean drinking water, and inadequate healthcare facilities. Furthermore, the residences were clustered, mostly constructed in a rectangular shape, with rooms lined up on either side. e residents have poor drainage systems, with the restrooms usually located in the backyards of the buildings. A lack of adequate urban planning has meant that sanitation e orts were more ad hoc, with patchwork pick-up of trash, as well as refuse dumps located in the settlements, specifically Mushin and Ajegunle. Beyond these infrastructural challenges, the settlements were home to rich social and cultural traditions, with social structures and practices that include forms of mutual aid and support, community-based mitigation of social problems and interpersonal conflict, and cultural forms of leadership. e settlements investigated were mostly populated by the Yoruba and Hausa ethnic groups.

Population and sampling

e study population entailed 36 persons, some of whom were suspected or confirmed cases of Mpox as well as parents of some of these persons (children). Out of this study population, In-depth interviews were conducted with 28 interlocutors. ese interlocutors, were either suspected or confirmed Mpox cases, while others are parents to the suspected or confirmed cases (See Table 1). e selection of these population was through Non-probability sampling method using purposive and snowballing techniques. e states and communities (settlements) with Mpox outbreaks were purposively identified by the State Epidemiologist and DSNO informed by the surveillance data. Further selection and identification of the study population was through the DSNO and community informants using purposive and snowballing techniques.

Research instrument, data collection and analysis

e data were collected from the field using developed research instrument guides for In-depth Interviews (IDIs) and Observation Technique. ere were two different interview guides used to elicit information from the interlocutors. (1) Semi-structured Interview Guide with those suspected of having Mpox. Questions elicited information about their settlement (community); nature of their home; work; relationships; treatment pathway; knowledge, attitudes and perceptions on Mpox. (2) Semi-structured Interview Guide for Persons who recovered from Mpox on their Illness experience and Mpox transmission. To avoid inter-observer bias, content validity was done through the conduct of pilot study.

Informed consent forms obtained from the interlocutors were either signed, or thumb printed on using stamp ink pad depending on the literacy level of the study participants. Also, there was a third-party witness section on the form if the interlocutor cannot give written consent. e interviews lasted between thirty minutes and one hour, conducted in either English, Yoruba, Hausa, or Pidgin English languages, depending on which was most comfortable for the interlocutors. Furthermore, the interviews were conducted in the homes, outdoor spaces, or workplaces of the study participants. e data collection was conducted by research investigators led by OA, MS, and MK, alongside trained Research Assistants who helped bridge any language barrier gaps. Digital recorders were used for the interviews. e data analysis was done thematically, with coding in line with the following themes: awareness and knowledge of Mpox; experiences and management of the disease; access to healthcare facilities; and perceived severity of the disease. Ethical approvals were obtained from the appropriate authorities for the conduct of the study.

Results

Findings from the study demonstrate the heterogeneity of the Mpox epidemic in South west Nigeria. Our study findings highlight the following main points: (1)

participants based in urban informal settlements tended to perceive Mpox as a mild skin condition, rather than a severe infectious disease, and (2) participants sought care from a range of informal and formal health care providers. e demographic details were as follows: 60.7% were aged between 21 and 40 years and 39.3% were above 40 years of age. Also, 67.9% of the interlocutors were females and 82.1% were literate. e above statistics is analyzed on the IDIs conducted with 28 interlocutors. Study population of 36 persons were observed during the data collection. is number exceeded those who were interviewed (28 persons) using In-depth Interview guide. Children who were symptomatic and non symptomatic were observed during the field work, however only the parents were interviewed. ere were 31 Cases: 29.0% (positive for Mpox with some recovered); 67.7% (Suspected cases) and 3.2% (Confirmed Chickenpox case).

Awareness and knowledge of Mpox

Community members interviewed during the fieldwork

female/ Confirmed case/Ajeromi-Ifelodun LGA/ Lagos State).

An additional factor which may contribute to the spread of Mpox is communal living, a common practice in Nigerian communities, where people live together, sharing space, land, and other facilities. ese communal living arrangements were observed in urban informal settlements. Rooms are often occupied by families in parallel lines with the room doors facing each other.

In such a communal environment, there is emphasis on communal values, practices, and ideals. Children are not raised alone by their parents but with the influence of other elders in the compound, and in practice, this means

ter leaves and administered it to them. I gave him some to drink and rubbed some on his body. When I discovered that the pus was coming out, I went to purchase Ampiclox. ose are the drugs I gave them….(Young female/Mother of con rmed cases/ Ajeromi-Ifelodun LGA/Lagos State).

is respondent, as well as some other interlocutors, use traditional care to treat the symptoms of Mpox, such as the use of bitter leaves, palm wine, and black soap. In some instances, there was the additional use of seven keys which is a herbal mixture, and calamine lotion.

e research team met with a young woman and her nine-year-old son at Idi-Araba, Mushin LGA. e son was feverish. He was symptomatic as there were visible rashes and lesions all over his body, including his palms, the soles of his feet. According to his mother, he and another 14-year-old boy in their compound (home of residence) were symptomatic. His mother assumed that her son had what is called *Eta* (measles). She described how treatment was provided to her son.

e Ose ero was used in bathing. We sprinkled the house with palm wine, and he also drank and use it to rub on his body We were also told to make use of the bitter leaves that we should squeeze it and drink it and that he should also rub it on his body. We were also told to add hot gin to it, and he should rub it on his body with palm oil and kerosene. Calamine lotion was also rubbed on his body. Later in the same day the pox breaks and uids come out.

e itching subsided and he was able to eat well again.

e medication was administered to the boy, morning and night (Adult female/Mother of suspected case/Idi-araba, Mushin LGA/Lagos State).

e *Ose ero* (native black soap) was purchased from the herbal medicine seller in the community.

One of the interlocutors interviewed lost her child in the management of the disease. is was a confirmed Mpox case, and she sought advice on how to care for her daughter. While her daughter ultimately died, it is not possible to attribute the cause of her death to the treatment received.

So, when I showed one man, the man told me that ah, this is the chickenpox…I should go and use ehhh "bitter leaves", "ogogoro" (dry gin). I used it. When mine came out for about three weeks, then it came out on my daughter. My rst daughter, it went. I continued using the bitter leaves and the "ogogoro". All her complaints, the stomach, the stomach. I don't understand. At the end of the day, my baby died. But for me, the one I used, I was okay (Adult female/ Mother of con rmed case/Alimosho LGA/Lagos State).

e research team observed in many either suspected or confirmed Mpox cases that there were similar pathways of care indicating the use of materials such as red palm oil, dry gin, palm wine, seven keys, calamine lotion, paracetamol and antibiotics. ese treatments are either ingested into the body orally or applied topically all over the body. is practice is repeated as many times as possible in a day, with a stated healing time of between four and seven days. Furthermore, for some individuals, going to the hospital was not really an option. If they did attend the hospital, respondents complained that they were not properly attended to, or the results of test samples taken were either received late, after the patients had made a full recovery, or never received in some cases.

Access to primary health care facilities

Quite a few of the observed suspected or confirmed cases of Mpox refrained from visiting primary health care facilities or hospitals for various reasons, which will be explored below, with factors informing their decision-making including previous experiences and a lack of trust in the healthcare services, the bureaucracy of healthcare service delivery, as well as lack of funds, and social norms.

According to one interlocutor, a retired Matron from one of the teaching hospitals in the state, her four-year-old son, a triplet, got infected through contact with another child whose younger sister (a toddler) was confirmed to have Mpox. She ultimately decided not to visit the hospital due to barriers such as time, cost, the structure of the healthcare service, and stress.

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card, pay to see the doctor and lots more like that moving up and down, but this one, I just went to

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