How and why do people interact with lay consultants during illnesses? Qualitative study of lay consultation experiences for treatment decisions in slums of Nigeria

Chinwe Onuegbu (chinwe.onuegbu@warwick.ac.uk)
University of Warwick
Jenny Harlock
University of Warwick
Frances Griffiths
University of Warwick

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Abstract

Background

During illness, people interact with personal network members and informal online sources of health information (known as lay consultants) to cope and decide on further treatments. In slum contexts, the interaction is shaped by poor neighbourhood conditions that threaten health, scarce formal healthcare services and complex social structures. We explored how and why people interacted with lay consultants during illness and how the lay consultants influence personal treatment decisions in slums in Nigeria.

Methods

We conducted semi-structured in-depth interviews with 30 adults aged 18–64 years from two slums in Nigeria. Participants were purposively selected for diversity of age, gender, network size and use of online lay advice sources, from a previous survey that mapped lay consultation networks. We analysed the data using an inductive-deductive approach to identify themes across the interviews.

Results

There were multiple reasons for speaking to lay consultants, including casually mentioning an illness/health concern during normal daily conversions, talking about health as part of social norms, projecting self-identity, and directly or indirectly seeking advice and instrumental support. People interacted with small and closely-knit network members, mainly family members, partly due to personal choice, mistrust among neighbours, and low access to online networks or sources of lay advice. Lay consultants offered suggestions and advice about illnesses and treatments, empathy, and instrumental support. However, these were not always helpful. People expressed a strong sense of agency in choosing or engaging with advice from lay others.

Conclusion

Despite living in the extreme resource constraints that drive reliance on lay networks, people exercised agency in how they engaged with lay consultants. If formal, trusted sources of advice were available, slum dwellers are likely to deploy this same agency to seek and use this advice.

Background

Lay consultants are the lay sources, including personal network members (e.g. family) and online networks/sources (e.g. Facebook group, websites), that people interact with regarding their illnesses(1, 2). Their key characteristic is that they are lay, meaning they have no professional healthcare training. The

purpose for speaking to lay consultants vary from casual everyday conversations about a health concern to intentional seeking of advice or social support(3).

The concept of lay consultation was introduced by Freidson (1970) in his theory on lay referral system. Using a symbolic interactionist perspective, Freidson argued that:

The organisation of people into families and other kin groups, neighbourhoods, work groups, cliques and the likes…operates to enforce particular views of illness and its treatment irrespective of the views of the isolated individuals within it. (4 p. 289)

According to Freidson, lay consultants shape people's illness perceptions and selfcare, and encourage or discourage decision to seek professional healthcare (e.g physicians, spiritualists, local healers- depending on who is considered 'professional').

Interaction with lay consultants features in various contexts globally as a pathway to healthcare seeking(5–8). For marginalised and low resource populations, including the gypsies (5, 9), refugees and asylum seekers (10) and immigrants (11, 12), lay consultation is influenced by poor access to formal healthcare and dependence on social networks for support to get by. However, there is only little evidence on how lay consultants are used in slum settings of low and middle-income countries.

One in eight persons globally resides in slums and informal settlements(13). In Sub Saharan Africa, about 60% of the urban population live in the slums(13). Slums are low resource environments located within or proximate to urban centres, and characterised poor health-related infrastructures including adequate housing, potable water supply, hygiene and sanitation, fewer access to comprehensive formal healthcare facilities and high levels of poverty, all of which constitutes risks to personal health (14–16). An understanding of how people address and maintain their health within these contexts is important (15).

The available evidence from slums suggests that family, friends, and neighbours provide lay advice such as opinions about a health provider and instrumental support such as cash loans to help people deal with an illness/health concern (17–21). Some studies have found that people are more selective about who to talk to, and are cautious about approaching or seeking help from neighbours in the slums due to lack of trust or inter-dependence (22, 23). A recent systematic review of studies from informal urban settings in LMICs demonstrated that lay networks are important for maintaining and addressing personal health and that consulting with lay networks has positive and negative consequences on people's health-seeking behaviours with implications for their health outcomes (14, 21). However, there is no evidence on how and why people interact with lay consultants in personal networks and online to make treatment decisions.

There are unique contextual factors that shape health, social relationships, and interactions in slums. Neighbourhood effects, that is the likelihood that neighbourhood characteristics e.g community poverty and poor sanitation affects personal health beyond the individual household factors, are highly likely in

slum environments(24). For instance, factors such as open defecation, burning of household wastes and dumping refuse in community gutters are common in slums in Nigeria and affect collective health(25). Social relationships and interactions in slums are shaped by co-existence in intimately shared physical environments, heterogeneity, frequent migration of people and possible eviction by city authorities (26, 27). Social exchange and reciprocity are difficult to maintain as people with some resources risk being drained by helping those with fewer resources (28). Given these contexts, it is important to explore how people interact with lay personal networks about their health, how network members are chosen (or avoided) and how shared lay knowledge contribute to personal healthseeking decisions.

Access to digital technologies has become widespread in Africa, but there are digital and knowledge gaps mostly affecting low-income populations (29). For instance, 80% of the Nigerian population own mobile phones, but only 32% are smartphone owners (29). Older people and people with lower socioeconomic status are less likely to afford or use smart phones and internet (30, 31). Socially and economically disadvantaged people are less likely to obtain health advice from the internet (30). These factors make it important to explore how slum people perceive and experience use of lay online sources as part of their lay consultation processes.

Therefore, this study aims to explore people's experiences of interacting with lay consultants from personal networks and lay online platforms in making health-seeking decisions in slums of Nigeria.

Methods

Access to healthcare in slums: surveys undertaken prior to qualitative work

Our study is part of a larger research project (called the Slum Health Project) by the National Institute for Health Research (NIHR) Global Health Research Unit on improving health in slums (32). The Slum Health Project involved household surveys in seven slum sites in four countries, including Nigeria, Kenya, Pakistan, and Bangladesh, to examine access to and use of healthcare.

We focus on summarising the processes and findings of Nigeria's household survey because our study was conducted in the Nigerian sites. The household survey in Nigeria was conducted in 2018 in Oyo (2 sites) and Lagos (1 site). During the process, our Nigerian collaborators sought consent for further studies. The household survey demonstrated that most people who needed healthcare services within the 12 months preceding the survey used formal health care services rather than informal health services (33). Patent Medicine Vendors were the most common sources of informal healthcare(33, 34).

Following the household survey, our study team surveyed adults (aged 18–65) to map and describe lay consultation networks in the Oyo sites (submitted to Journal of Urban Health). Respondents gave consent to participate in further in-depth interviews on their responses and provided their phone numbers for contact purposes. The survey demonstrated that most people spoke at least one lay consultant in a

recent illness or health concern requiring care or advice, although most said the conversations were casual. The lay consultants were mostly close family members, friends, and neighbours and were contacted via face-to-face interaction. Nearly all the respondents (94.5%) had never used online sources of lay advice.

The current study

The qualitative study followed the survey to explore people's lay consultation experiences. The study was planned pre-Covid 19 pandemic when it was expected we would undertake face-to-face interviews. With Covid, we replanned the study so we could undertake interviews by phone.

Sampling and recruitment

We purposively sampled 30 respondents for diversity in network sizes, use of online sources for seeking lay health advice, age and gender, based on survey results. In all, we had five groups of participants. We created five categories of participants. Category 1 were respondents who use online lay sources of advice and had one or two lay consultants from personal networks. Categories 2 to 4 were people who did not use online lay advice sources had no lay consultant, one or two lay consultants, three or more lay consultants, respectively. Cat 5 were people selected to be interviewed at the end of Cat 1–4 interviews to explore issues that emerged from them. From these five categories, we aimed at recruiting male and female participants from diverse age groups (18–29, 30–49 and 50–64), recognising that they may have different experiences of using lay consultants(22).

We phoned potential participants to recruit and schedule them form an interview. Interested participants were read the participant information and asked to provide oral consent. Up to three attempts were made to contact each participant before they were considered non-response.

Interview process

We used a semi-structured interview guide developed from the survey to facilitate discussions with the participants. The guide was organised in a reversed funnel approach to ground the discussion in reality (35). We initially asked about experiences of interacting with lay social network members and using online lay advice sources about a recent illness/health concern before asking about more general experiences. We explored how people chose lay consultants, why they used them, how people made decisions using lay advice and how online sources were incorporated in the process of seeking lay advice and support. The interview guide was translated to local languages, Yoruba and Hausa, by a local translator and checked by another language expert for accuracy. The interviews were conducted by a local research assistant (RA) who was proficient in both languages. The RA was not familiar with doing phone interviews, so JH and FG guided CO to train the RA. CO held repeated mock interviews with the RA in English to ensure that the guide was consistently administered. The RA kept field notes about recruitment and interview processes. CO debriefed the RA after each interview and reviewed the field notes. The debrief was useful for monitoring and reviewing the interviewing techniques, rephrasing questions that were not clear after initial interviews and checking understanding of interview data.

Data analysis

All interviews were audio-recorded, transcribed verbatim and translated into English by the RA. The transcripts were transferred into NVivo software for analysis. The analyses followed an inductive-deductive approach adapted from Thomas and Harden (2008): (1) reading the transcripts thoroughly, (2) coding of transcripts to develop a list of codes; (3) organising codes into descriptive themes; (4) developing of analytical themes from the descriptive themes; (5) cross-comparing themes across participants.

In the first stage, CO read the first ten transcripts, FG and JN each read five of the transcripts. We met in pairs (CO and FG, CO and JN) and subsequently together to discuss our initial thoughts and review the guide and technique for later interviews. CO read the rest of the transcripts from later interviews. For stages two to four, CO coded the interviews through line-by-line or collections of sentences to develop a list of codes, examined the codes for similarities and differences and grouped them into descriptive themes, and then reviewed the descriptive themes to identify analytical themes that described experiences of how and why people used physical lay consultants and online sources for lay advice seeking, respectively. FG and JN reviewed each of the stages and provided their feedback, and we met as a team at each stage to review and agree on the outputs. Finally, CO reviewed each theme to check for variations in participants responses.

Results

In all, 30 participants were interviewed. We contacted a total of 93 persons: 56 could not be reached via the phone numbers they provided, five declined participation without giving reasons, and two began the interviews but withdrew. Most of the final participants (24 out of the 30) were recruited from one community. There was community unrest and subsequent movement of people from the other community, and many potential participants could not be reached or could not participate in the interviews. Our final sample had equal numbers of participants representing the five categories based on network sizes and use of online sources for seeking lay health advice. However, within categories 1 to 4, few samples in the age/sex groups were missing and replaced with the alternatives with characteristics closest to the missing sample. For instance, in cat. 1 we replaced female 18–29 with a sample from female 30–49 group aged around 30 years.

Main themes

We identified six main themes from our analysis of people's experiences of lay consultation: (1) Intentions and motivations for speaking to lay consultants (2) Use of bounded networks (3) deciding on how to act on advice from lay consultants (4) choosing not to engage lay consultation (5) Giving lay advice/support (6) Use of digital communication for seeking lay advice

Intentions and motivations for speaking to lay consultants

We found three broad intentions for which people discussed a health concern/illness with a lay consultant: for casual reasons, direct and indirect seeking of support. Most participants described their conversations as casual discussions where they mentioned an illness/health concern without intending to seek any particular support. In such cases, participants said they spoke to a lay consultant that was accessible or proximate at the time, or because it was normal to express as explained by a participant:

> I just told mummy landlord because we both sleep and wake up in the same house. For my family, I had to tell them. Not that the issue was something I could not handle myself (Cat 5 Female 18–29).

Some of the conversations happened between neighbours who noticed a change in their neighbours appearance or behaviour.

> My neighbours checked on me when they notice that I am at home because they do not usually see me at home. They came and knocked on the door to ask "hope all is well, we see you at home?". I told them that I am a little ill, and they asked me and ask if I have taken drugs or injections. (Cat 5 Male 30–49)

About half of the participants consulted or thought they would consult their lay network members for different forms of support. People who engaged in these forms of conversations mainly sought different advice, including suggestions about what might be the cause of their symptom/illness, advice about medications from people who have experienced similar symptoms in the past, and advice about alternative medications or home remedies. Some people sought financial support to care for themselves during an illness. A few persons wanted their network members to empathise with them and provide hands-on assistance:

> Ah, I told her so I can be assisted with what I cannot do, maybe I want to sweep a place, and I cannot sweep it, I will say *oya* sweep here for me, I have backache, I cannot sweep it". (Cat 4/F/ 50–64).

Some participants did not directly ask for advice, reassurance or suggestions but thought that by mentioning their health concerns to a network member, they would obtain some form of informational or practical resource. This pattern was more common among the male participants. For instance, a male participant was asked why he talked to his wife when he was feeling unwell, and they responded that:

> I just wanted her to know, because once she does, she would definitely have something to say. (Cat 4 Male 30–49).

Participants reported that regardless of their intention speaking to lay network members, the network members offered some form of advice or suggestion in their responses. For instance, a female participant explained the lay suggestions and therapies she received from her parents when they noticed something was wrong with her:

> When I discovered a twitch in my feet…and I was staggering while walking, my parents noticed and said it was due shortage of blood. They said I should buy Ugwu (*spinach)*, malt and milk. That I should mix it and drink it. (Cat 4/F/30–49).

Participants had mixed reviews about the advice from their lay consultants. About one-third of the participants thought they were useful as they felt better after following the advice. One participant said they received useful and non-useful advice from the same network members. A few participants reported negative experiences using lay advice about medicines from lay consultants. For instance, one participant said a neighbour advised them to use a prescription -tramadol 60 g when they complained about feeling weak. After using the medication, they experienced adverse effects for which they needed emergency care. They were later informed by healthcare professionals that tramadol was a 'hard drug' and was considered illegal in Nigeria.

Use of closely-knit and immediate network members

We found that participants spoke to close-knit network members, including family, friends, and neighbours. In most cases, family members were the first or only persons with whom people discussed an illness or health concern. Proximity to and emotional connection with the family members contributed to why they dominated the lay consultation networks. The specific family members consulted depended on the participant's status- for instance, married people tended to speak to their spouses, younger persons spoke to their parents, especially their mothers, and older participants spoke to their adult children.

Participants reported that household members tended to notice or detect changes in their health and play significant roles in supporting them:

> I told my wife because you know she is my defence minister…If something happens to me, she would be the first to know, she knows what usually happens to me and what she uses for me that makes my symptom resolve, she knows who to call, the kind of drug to use that would make my body okay. (Cat/5/M/ 30–49)

A small number of participants mentioned health concerns/illnesses to a few friends and neighbours. In some cases, this was because their family members were not proximate. Generally, people preferred neighbours and friends with whom they shared a strong bond and close contact. Participants said they looked out for critical qualities, including knowledge, mutual respect, experience with a similar health concern, intimate connection, reciprocity, and trust that the person would not divulge private information they share with them.

Use of digital communication devices and online sources for seeking lay advice

Most lay consultation took place face-to-face however we found a small number of participants used digital devices to speak to a network member living in a distance or check online sources for information. Some participants did not originally plan to discuss a health concern when they phoned their network members, but casually mentioned it when *catching up.* Others called to ask for advice or financial assitance to help them obtain care for a health concern.

Only one-fifth of the participants used online platforms, including Google, Facebook or Whatsapp groups to obtain health advice for a health concern and confirm advice from lay consultants or healthcare providers. Two of the participants reported passing information they retrieved online to others.

The main barrier to using online lay sources for advice seeking for most participants was the lack of access to smart devices. Most participants could not afford the phones. One person said their smart device was stolen in the community, and they now use a *small phone* (referring to a basic phone). Another participant highlighted that they prioritised meeting other needs to owning a smart device:

> When we give our children proper training and education, it is better than the touch screen phones (Cat 4/M/30–49).

One-third of the participants said they did not know how to use the internet generally or did not know how to search for health advice. The older participants (50–64) did not know how to use internet and operate smart devices or thought those were meant for younger persons. The younger participants knew how to operate the devices and used the internet for other purposes, but did not know how to check for targeted health advice-seeking:

> If not for the way you mentioned it now, I did not know they check for health issues online. I use it for checking stories, joining groups, and commenting. So, I have not even come across health groups not to talk of joining (Cat 5/F/18–29).

Besides socioeconomic reasons, several participants noted other reasons for not using online sources for lay advice-seeking, including proximity and access to other sources of advice network members, PMVs, herbs sellers and formal healthcare facilities; scepticism about online health information, and prioritising getting immediate care for health concerns over seeking advice from online lay sources.

> If I am not feeling fine now, you cannot expect me to carry phone and search on the phone about anything; when I am sound and healthy, I can check for what is wrong (Cat 1/M/30–49)

Deciding on how to act on advice from lay consultants

Participants actively chose how to engage with advice and suggestions offered by others. They decided on whether the opinions of others were useful or not. For instance, a male participant said they classified advice from others as *good, bad or non-substantial* and then proceeded to apply the *good* ones. Many

participants said they had their personal approaches and strategies to address health concerns/illnesses and used those to filter advice and suggestions from other people.

> In any advice they give me, my opinion matters a lot. When somebody gives me advice, I feel that is their own opinion. If I feel that the advice is okay, then I may follow up, but if the advice is not okay by me, then I will not do it, and that is it. (Cat/1/M/ 30–49)

Some participants were critical of advice or information from lay people because they were not experts. They recognised that the opinions are likely subjective and not credible. They questioned the source and credibility of lay people's advice and suggestions.

> If someone who is not a doctor or nurse says something about health, I may not do it because I will be wondering how they got the information. Like "how do you know what you are saying?" (Cat 4/F/18–29).

In line with being critical, some participants consulted multiple persons or perceived experts to determine the credibility of an advice. Getting similar advice from multiple lay network members gave people some confidence. Some confirmed with the Chemists, particularly regarding advice about medicines. Only a few persons confirmed with formal medical care providers such as medical doctors, as this required some form of payment for consultation. Those seeking care from the health practitioners utilised the opportunity to ask them about lay advice they received.

However, there were two instances where participants said they had no choice but to utilise advice from network members. In one instance, a middle-aged female respondent said she was too ill, and her husband sought advice and made the decisions on her behalf. In another instance, a young female respondent said she followed her husband's advice to seek care from a particular provider because he had 'authority' in their household as he paid for healthcare.

Choosing not to disclose illness/health concerns or seek advice from lay consultants

People exercised agency by deciding not to disclose their illness/health concerns or seek advice from others. The decision was linked to how people perceived their health needs or relationship with others. Several persons said they usually had familiar symptoms that they dealt with independently, took herbal concoctions to prevent serious illness or accessed medicines from PMVs to promptly treat an illness and prevent it from becoming *something big*, all of which contributed to not requesting or needing advice from lay others.

Few participants did not seek advice from lay others because they preferred and had access to formal health care providers. For instance, one participant that accessed formal health care insurance through their organisation explained their preference for formal health advice thus:

> I cannot have a health issue now and then consult a farmer to explain to him… I cannot have a headache and meet with a market woman... The Hospital is the best place to get advice concerning that. You may now have to test to know what exactly happened. (Cat 1/M/30–49)

A few participants did not discuss a health concern they were experiencing with others because they did not want to bother them or create a sense that they required attention. In one case, a respondent said they did not appreciate being called and checked upon frequently by network members because they were unwell and were more interested in getting solutions to the problem as soon as possible.

However, about half of the participants highlighted mistrust towards some neighbours as a reason for non-disclosure. A common notion amongst the participants was that neighbours would gossip, mock, or deliberately offer them negative advice:

> I do not seek advice because I realised that once I discuss things like that with neighbours, it is like I am doing more harm to myself. Because it is not every frog that lies on their stomach that has a stomach ache (*meaning not everyone has good intentions for you*)…I might ask a question about stomach ache, and in their minds, they would say, 'oh he is just having stomachache, I hope he will soon have head ache'. Cat/2/M/18–29)

People who distrusted their neighbours avoided speaking to them about their experience, minimised their condition when discussing it with them or anonymised themselves when asking neighbours for advice about their experience.

Giving lay advice or support

In one-third of the interviews, people talked about giving advice and assistance to other network members. Some said that network members approached them for health-related advice because they possessed physical health attributes and social qualities that others admired. For instance, one person said network members admired and asked them for advice because they were rarely sick:

> They usually wonder why, despite how much I labour-because I do not like being idle, I do not usually fall sick. They ask me, "What is the secret to your wellbeing?" So I tell them: "You, go do this, go do this", and if they do it, God makes it successful. (Cat 5 Male 50–64).

> Some thought others approached them because they had knowledge or experience of health issues, empathy, and compassion. People tended to particularly to persons with fewer resources: *"If I have someone whose situation is not as good as mine, I do help in my way"* (Cat 5/F/50–64).

However, it was important to participants that their advice or support was appreciated, as this would determine whether they provided continued support:

> If I advise someone today and the person does not heed, if the person comes back at another time, I will not respond because they didn't turn up on the previous advice I gave... For instance, you have stomach pain and I ask you to use Buscopan (a medication), but you used paracetamol; please can the pain resolve? (Cat 5 Female 18–29)

Giving support to others was a strategic way of investing in networks with the hope to receive their support if needed in the future. For example, one participant said they were open to helping despite not having enough resources because:

> If I help someone today, I do not know who will help me tomorrow nor who will help my children. (Cat/5/F/18–29).

However, a few participants did not give advice to others because they were busy with work or thought that people would not trust their advice. People who cited the later reason were referring to their neighbours that they had a complex relationship with. They avoid telling them about lay therapies or referring them to particular health providers because the neighbours might suspect them to providing misleading advice.

Discussion

Lay consultation in slums of Nigeria was a multi-dimensional activity involving casual conversations, directly or indirectly seeking various forms of support and projecting self-identity to others. Lay consultants offered lay suggestions and advice about illnesses and treatments, empathy, and instrumental support, however, these were not always helpful. Lack of trust among neighbours and low use of online sources of lay advice contributed to having small and closely knit personal lay consultation networks. People expressed a strong sense of agency in speaking about their health to others, selecting lay consultants, using opinions from lay others/online sources to make decisions about their health. Findings from this study supported Freidson's lay referral system theory that lay consultants are used and are influential in personal treatment-seeking decisions, but showed that people negotiated and controlled their interactions with lay consultants.

This study demonstrated how the absence of trust among community members negatively influenced interactions about health concerns among neighbours. A similar finding has been reported in other studies undertaken in slums in countries in Asia and Africa where people had negative perceptions about the character of their neighbours and did not think they could obtain support from them (22, 23). However, this contrasts with some other studies conducted in slums in similar countries that demonstrate that community members cooperate, interact and interdepend on one another for support to cope with health issues (20, 36). These differences suggest that slums vary significantly in social characteristics (14). Low reciprocity and mistrust among community members might be expected from slums that are heterogeneous and lack social cohesion (28, 37).

Our finding that people rarely used digital technologies to check for information about their health concern/illness or connect with online lay networks, partly due to poor access to digital devices or low digital health literacy (knowing how to search, obtain and use health information from the internet) demonstrates how these technologies reinforce inequalities in low resource communities(38). This has also been echoed in other studies on mHealth and remote consulting (mConsulting) in slums and other marginalised settings (39, 40).

Our study highlights the importance of human agents in social networks and supports the critiques of network studies for paying insufficient attention to human agency (41–44). Indeed, people belong to networks that might provide or limit opportunities, but they choose and determine how to act on the opportunities(45). In our study, we found that when people received lay suggestions about how to treat an illness/health concern, they decided how to engage with the advice by scrutinising it against their personal beliefs or confirming the advice with other network members or health professionals.

Our study resonates with other research undertaken in slums that demonstrates that people living in the slums are agentic, even though the agency might be small-scaled and less visible given the structural constraints they live in (46, 47). Slum dwellers are faced with extreme resource constraints, including unfavourable working conditions, lack of access to formal healthcare, poverty, all of which contribute to reliance on lay social networks (17, 19, 36). However, our study demonstrated that despite these constraints, people still had opportunities to exercise agency in how and when they chose to elicit and act on lay consultants advice.

Findings from this study underscore the importance of everyday taken-for-granted interactions for understanding health outcomes. These interactions are part of what constitutes 'seen but unnoticed' (48) activities of daily life, but are the patterns that make up people's overall existence. In our study, we found that people mostly described the reasons for talking about an illness/health concern to a lay consultant as casual, in which they were *'just saying'* without expecting or seeking any support. Yet, having someone to speak to about a problem is a taken-for-granted form of social support which offers emotional benefits and reduces the chances of feeling isolated (49, 50). In other words, even if all the lay consultants do is listen, they are offering important forms of social support. In slum settings where resources are scarce, these

Additionally, our study confirmed that there are multiple forms of interactions going on when people discuss a health concern informally with their lay network members, namely projecting their sense of self-identity, asking or receiving social support, and adhering to group norms of interaction, as has been noted in a study from a high-income country (51). For instance, some of our participants thought that people asked them for health advice because they were in good health despite the challenges of surviving in the slums. These demonstrate how small-scale interpersonal relations relate to how personal health is construed, addressed, and maintained in the slum environment.

A major strength of this study is that we were able to interview adult slum dwellers aged 18–64, which is the working-age population in Nigeria. Slum dwellers are generally hard to reach, and adult dwellers are

even less likely to be accessible due to busy work schedules(26). This study makes a major contribution by eliciting information on how adults manage their treatment decisions through lay consultation. Our sample was also diverse, encompassing different age groups and genders; however, one of the two slums had more representation.

A potential limitation of this study pertains to our use of phone interviews which was new to our research assistant and participants might have limited the richness of data gathered. Nonetheless, we had several mock training with the research assistant and continued monitoring and reviewing the interview techniques to improve the data quality.

Conclusions

Despite living in the extreme resource constraints that drive reliance on lay networks for resources to cope with illnesses, people in slums of Nigeria exercised a strong sense of agency in how they engaged with lay consultants applied the lay consultant's advice to their health. Small networks of lay consultants were involved in how people perceived, evaluated, and responded to illnesses. Conversations with lay consultants are largely taken-for-granted, but they facilitated the transfer of various forms of social support, some useful and some not.

We suggest that if formal, trusted sources of advice were available, slum dwellers are likely to deploy this same strong agency to seek and use this advice. This could be in the form of a health advice website, run by a trusted organisation/government body, that would, amongst other things, guide people to self-manage symptoms that do not require medical consultation and signpost people to the formal medical consultation when needed. Digital devices could be made available in the community, for example at health centres, for use by people without access to smart devices. Technical helpers at the health centres (52) can guide people who lack digital literacy on operating the devices without providing them health advice.

Abbreviations

LMICs
Low and middle-income countries

Declarations

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Authors' contributions

CO designed the research instrument, analysed the interviews and wrote the manuscript. CO is responsible for the overall content as guarantor. JH and FG provided guidance at all stages of the research, supervised CO throughout data collection and analysis, analysed some transcripts, reviewed and revised papers. All authors approved the final version of the paper.

Availability of data and materials

The datasets generated and analysed during the study are not publicly available but may be available from the corresponding author on reasonable request.

Ethical approval

All participants provided informed consent to participate before taking part in the study. Ethical approval was obtained from the Biomedical and Scientific Research Ethics Sub-Committee, University of Warwick, UK (BSREC 17/19-20 AM01) and Research Ethics Committee of the Oyo State Ministry of Health (AD13/479/2035). All methods were undertaken in accordance with the Research Ethics Guidance by the Social Research Association.

Consent for publication

Authors give full consent for publication of this paper in the International Journal for Equity in Health.

Competing interests

The authors declare that they have no competing interests

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