

Implications of Information Sources in Shaping Public Awareness of Kidney Disease: Insights from Health Practitioners

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Abstract— Kidney disease poses a significant public health challenge, yet awareness of its risk factors and prevention strategies remains limited in many regions, including South-West Nigeria. This study aims to evaluate the role of information sources in shaping public awareness of kidney disease, with insights from health practitioners. Specifically, it assesses the level of awareness and exposure to kidney disease risk communication among residents in South-West Nigeria, examines the sources of information used by residents to learn about kidney disease risk factors, and explores the challenges faced by health practitioners in delivering these messages. Using a qualitative approach, data were gathered through in-depth interviews with health practitioners and community members. The findings reveal that while residents are exposed to a range of information sources, including mass media, social media, and healthcare facilities, gaps in understanding persist due to inconsistent messaging, low health literacy, and cultural misconceptions. Health practitioners identified resource constraints, misinformation, and limited community engagement as major barriers to effective communication. The study underscores the need for coordinated, culturally tailored, and evidence-based communication strategies to improve public awareness of kidney disease and empower communities to adopt preventive measures. These insights highlight critical areas for policy intervention and public health campaigns in South-West Nigeria.

Keywords: Kidney disease; Public awareness; Risk communication; Information sources; Health practitioners, South-West Nigeria.

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INTRODUCTION

Kidney disease (KD) is a pressing and formidable public health challenge in Nigeria, affecting a substantial proportion of the adult population with a staggering prevalence rate. It is a primary non-communicable disease whose worldwide burdens have assumed epidemic proportions. Recently, report showed a 15% increase in the yearly diagnosed cases of Kidney Disease in Nigeria (NCDC, 2023). Of this figure, Lagos, Oyo, and Ogun ranked high in confirmed cases. While no comprehensive national data exists on the burden of kidney disease in the country, estimates suggest that around 25 million Nigerians suffer from kidney failure. Globally, the World Health Organization has estimated that millions of people die annually from kidney-related conditions, further emphasising the urgent need for improved awareness and treatment options. (WHO, 2023) For a region densely populated by 70% youths, addressing this multifaceted problem is of paramount importance to advance public health policies and practices.

This growing burden of kidney disease in Nigeria is said to be exacerbated by factors like hypertension and diabetes. Affirming, Babafemi & Onwuzoo (2023) states that nephrologists have identified a number of contributors to Nigerians' upsurge of kidney disease (KD). Some of which include carbonated/alcoholic drinks, excessive intake of un-prescribed/ illegal drugs such as cocaine, "colos" and meth, unidentified traditional herbs etc. This list has been said to have slowly crept in among the people and overwhelmingly the youth Okpongpong and Asemah (2023). In their study on Mobile Drug Vendors, they reported that between 2020-2023, the intake of un-prescribed drugs from non-pharmaceutical experts rose to over 30% while the intake of illegal drugs such as cocaine and meth increased by 27% among Nigeria youth. This report has made kidney disease experts to call for stricter regulations on the importation and production of some of this products to curb the rising cases of kidney damage in Nigeria Ojuringbe (2024). Sharing her concern over the rising prevalence of KD, particularly among younger individuals in their productive years, Babafemi & Onwuzoo (2023) discloses that despite the severity of KD, awareness of the disease remains low, especially among those managing hypertension and type 2 diabetes, many of whom are unaware that kidney disease can be a complication. This ratio is what inspires Public health experts such as Thomson Nduka to describe the disease as a condition under-diagnosed in the country. Explaining concerns over the increasing prevalence of this disease in Nigeria, he says this "silent killer" has exponentially grown over the cause of the years, because it often goes undetected until it has reached an advanced stage Nduka (2023)

STATEMENT OF PROBLEM

Kidney disease is a growing public health concern in Nigeria, particularly in the South-West region, where many residents remain unaware of the risk factors, prevention strategies, and available treatment options. Despite efforts to communicate the risks associated with kidney disease, awareness levels among the general

population remain inadequate, especially in rural areas. Health communication strategies often fail to reach marginalized communities effectively due to barriers such as misinformation, limited healthcare access, language disparities, and inconsistent communication efforts.

Moreover, the urban-rural divide and generational gaps further exacerbate this issue, with younger urban populations receiving more health-related information through digital platforms, while older and rural residents are left behind. In addition to these challenges, the sporadic nature of existing health campaigns and the lack of tailored, culturally sensitive communication materials hinder the ability of residents to fully understand the severity of kidney disease and take preventive measures. This gap in knowledge and awareness may lead to delayed diagnosis, inadequate management of risk factors, and ultimately, higher rates of kidney disease-related morbidity and mortality. There is a pressing need for a comprehensive analysis of the current kidney disease risk communication strategies, as well as an exploration of the factors contributing to the ineffective dissemination of health information. Addressing these gaps is critical to improving public understanding, fostering proactive health behaviours, and reducing the burden of kidney disease in South-West Nigeria.

OBJECTIVES

1. To assess the level of awareness and exposure to kidney disease risk communication among residents in South-West Nigeria.
2. To examine the sources of information used by residents to learn about kidney disease risk factors.
3. To explore the challenges faced by health practitioners in delivering kidney disease risk communication messages.

LITERATURE REVIEW

Health Communication Interventions and Public Health Emergencies

Communication is integral to public health delivery as it is complementary in dousing crises amidst public health emergencies Okpongkpong & Asemah (2023). While research, epidemiological, biological and pharmaceutical intervention are essential to enable curative solutions during health crises, communication interventions are crucial to addressing myths and unwholesome beliefs, promoting healthy curtailment and modifying public perception regarding infectious disease prevention amongst susceptible groups (Mheidly & Fares, 2020; Smit, Zeidler, Resnicow & H de Vries, 2019). WHO (2020) asserts that public health stakeholders must ascribe the same importance given to epidemiological training and laboratory analysis to communication intervention.

Scholars submit that health communication interventions seek to propel behavioural modification and attitudinal shifts regarding health risks among individuals (Vraga & Jacobsen, 2020; Zakaria et al., 2019; Smit et al. & H (de Vries, 2019). Similarly, Levinger and Hill (2020) opine that health communication

interventions focus on engendering the motivation for engaging in wholesome disease curtailment practices by highlighting the seamlessness and utilities inherent in such practices. Also, (the Society for Health Communication SHC, 2017; Berebon, 2021; Berebon, 2022) submits that health communication interventions are used to debunk myths, fake news and unwholesome information regarding prevalent disease outbreaks to mitigate unnecessary levels of risk perception.

Health communication also builds public trust in the public healthcare system and healthcare professionals and experts (Berg et al., 2021). WHO (2020) and Berg et al. (2021) elucidate that efficient and effective health communication entails recognising essential factors and constituents crucial to the communication process. These constituents include health risk communication interventionists, health message recipients, health-based messages, and information and facts. Concerning health communication, risk communication intervention is insurmountable for declining public mortality and morbidity in times of public health emergencies. It is also instrumental in battling other harsh realities of public health emergencies, such as socio-economic and socio-political effects on world governments and the public health system (Ataguba & Ataguba, 2020; Asemah, Nwaoboli, & Nwoko (2022).

Without effective communication during disease outbreaks, there is potential for increased health risks such as heightened morbidity and mortality, pervasive dissemination of fake information, misrepresentation of facts or reality and indiscriminate levels of risk perception (Asemah, 2013; Mheidly & Fares, 2020). Communication interventionists for public health emergencies must ensure high-quality risk messages, which entail disseminating decipherable, comprehensive, fact-based and authentic information to strategic and well-defined audience groups (Asemah, 2011; Kim & Kreps, 2020).

Experts have recognised these factors as cogent for carrying out effective communication interventions during public health emergencies in stages of planning, response and recovery (Wang, Hao & Platt, 2021; Sentell, Vamos & Okan, 2020; Abuse, 2020). However, the independent use of health communication intervention strategies during public health emergencies is discouraged as there must be adequate and strategic integration of these strategies about the audience demographic and psychographic characteristics and socio-economic and linguistic contexts in which they are needed (Asmundson & Taylor, 2020). Adequate integration of communication strategies would enable considerable success and risk mitigation at each phase of disease prevention in public health emergencies.

To enable the optimum realisation of communication intervention goals in public health emergencies, there is a need for integration of efforts amongst critical stakeholders as well as community involvement (Umontong, 2022; Liu, Zheng, Chen, Akinwunmi, Huang, Zhang et al., 2020). As a strategy for public health emergencies, community involvement entails creating ideological and professional consensus amongst public health emergency experts and risk communication interventionists to enable infectious disease control (Zortea, Brenna & McClelland, 2020). However,

susceptible and affected groups must also integrate to allow effective communication (Kim & Kreps, 2020).

Communication interventions seek to mitigate inadequate knowledge levels among individuals, unhealthy practices and negative perceptions regarding prevalent diseases (Kim & Kreps, 2020). Implicitly, health as well as risk communication interventionists, therefore, focus on influencing knowledge, positive attitudes, and societal standards geared towards encouraging the adoption of sustainable health practices for disease prevention (Wang et al., 2021; Sentell et al., 2020).

Regardless of the health communication intervention strategies utilised, the inability of the targeted audience to access information would result in the futility of efforts (Kim & Kreps, 2020). Lemon and VanDyke (2021) argue that audience groups with highly devastating health burdens often have poor access to risk messages, communication technologies, health sensitisation programmes and healthcare infrastructure (as cited in Healthy People, 2020). Hence, health communication interventionists must ensure that health or risk messages for strategically defined audience groups effectively reach that audience; otherwise, risk communication interventions for kidney disease would have minimal effect if the targeted populations lack access to communication channels utilised in message dissemination by interventionists (Wilkinson, 2020; Kim & Kreps, 2020).

EMPIRICAL REVIEW

The study by Ige (2022) aimed to assess the influence of media on kidney disease awareness in South West Nigeria. A survey of 450 residents from three major cities in the region was conducted, and the data were analysed using inferential statistics. The study found that media significantly impacted awareness levels, particularly in urban areas where access to information was higher. The study concluded that media channels are essential for raising kidney disease awareness. It recommended expanding media campaigns to rural areas to ensure broader coverage. However, a gap identified in the research was that it did not investigate the framing or content of the kidney disease messages being communicated.

Obafemi (2018) explored how health communication affects public perceptions of kidney disease risk in Nigeria. The study employed in-depth interviews with 30 health professionals and 200 residents of South West Nigeria. It found that the public often misunderstood kidney disease risk messages, leading to distorted perceptions of the disease's prevalence and severity. The study concluded that miscommunication hinders effective kidney disease prevention. It recommended clearer, patient-centred messaging to correct public misconceptions. A gap in the study was the lack of quantitative data on exposure to specific health communication channels.

Oladapo (2017) investigated the role of community health workers in raising awareness and preventing kidney disease in South West Nigeria. The qualitative research involved interviews with 50 community health workers and 300 residents. The findings showed that community health workers were effective in disseminating kidney

disease information, particularly in rural areas, but their efforts were hampered by limited resources. The study concluded that community health workers are a vital part of the health education system, particularly in underserved areas. It recommended increased resource allocation to community health programmes to enhance their effectiveness. The study did not compare the effectiveness of community-based interventions with mass media efforts, which was a noted gap.

METHODOLOGY

This study aims to explore the effectiveness of kidney disease risk communication strategies in South-West Nigeria by analyzing health practitioners' perspectives on public awareness, communication challenges, and information sources. The methodology is designed to ensure a comprehensive understanding of the issues surrounding kidney disease risk communication through qualitative data collection and analysis. The study adopts a qualitative research design, utilizing in-depth interviews with healthcare practitioners to gather detailed insights into the current state of kidney disease risk communication. The qualitative approach allows for an exploration of health practitioners' personal experiences, perceptions, and the challenges they encounter in communicating kidney disease risks to the public. The study population comprises health practitioners from University of Ibadan Teaching hospital and Lagos State University Teaching Hospital. A combined figure of 108 medical/ health practitioners who are directly involved in kidney disease prevention, diagnosis, and management was found and this served as the population for this study. A purposive sampling technique was used to select participants who have relevant knowledge and experience in kidney disease risk communication.

A sample size of 10 health practitioners was selected for each interviewed. Of these, 6 were medical experts (nephrologists and oncologists), while the remaining 4 were other healthcare professionals knowledgeable about kidney disease and risk communication. Data were collected through semi-structured, in-depth interviews with the 10 selected health practitioners. The specific sample size for the interview was determined based on the principle of data saturation (or theoretical saturation), where sampling continues until no new information or themes emerge from the interviews. The researcher expected that a point of saturation would be reached when a minimum of 10 and a maximum of 15 health practitioners interviewed for this study. The interviews were conducted either face-to-face or via telephone, depending on the availability and location of the participants. The interview guide included open-ended questions designed to elicit information on Awareness and exposure to kidney disease risk communication among the general population; Common sources of information used to communicate kidney disease risks; Perceived challenges in disseminating risk communication messages; Effectiveness of various communication strategies and channels and Recommendations for improving risk communication efforts.

Each interview lasted approximately 45 to 60 minutes and was recorded with the consent of the participants based on anonymity. A purposive sampling technique was

utilised to select health practitioners who were part of the interview sessions. This approach ensured that participants were chosen across diverse roles, experiences, and perspectives within the healthcare sector. By targeting a varied group of health practitioners, the study enhanced the reliability and depth of the qualitative data. This method provided a comprehensive understanding of the current risk communication strategies and their effectiveness in addressing kidney diseases in South-West Nigeria. Data collected for this study was analysed thematically using the explanation-building technique. To ensure the validity of the findings, data triangulation was employed by comparing responses from different health practitioners. Member checking was also used, where participants were given the opportunity to review their interview transcripts to verify the accuracy of their statements. Reliability was ensured by maintaining consistency in the interview process, using the same interview guide for all participants, and applying a uniform coding scheme during data analysis.

PRESENTATION AND ANALYSIS OF INTERVIEW DISCUSSION

This section presents the analysis of interview data collected from health practitioners to gain insights into various aspects related to kidney disease risk communication in South West Nigeria. The discussion aligns with the study's objectives, focusing on exposure to risk communication messages, knowledge levels, information sources, attitudes, perceptions of intervention effectiveness, and preventive health behaviours. Ten (10) health practitioners were interviewed for this study. Of this figure, six were medical experts in nephrology and oncology department. The remaining four were healthcare workers, such as nurses, pharmacists and lab technicians, who are knowledgeable and could provide detailed information on kidney patients' behavioural patterns and the effect of risk communication.

1. Awareness and Exposure to Kidney Disease Risk Communication

The respondents generally acknowledged that there is some level of awareness of kidney disease, but many expressed concerns over the limited understanding of specific risk factors and preventive measures. Respondent A elaborated on this issue: Yes, people know that kidney disease is something to be worried about, but when it comes to understanding how lifestyle choices—like what they eat or how much they exercise—impact their kidney health, they don't seem to make the connection. I've seen patients who have heard about the disease but continue with poor eating habits because they just don't know that it increases their risk. This observation was echoed by Respondent B, who highlighted the stark differences in awareness levels between urban and rural populations:

In the cities, awareness is much higher because people have access to more information. There are posters, radio programmes, and even health talks organised by the local government. But once you move to the rural areas, it's a different story. People there often don't get exposed to these

health campaigns, and as a result, they are less informed about how to prevent kidney disease.

Adding another layer, Respondent D brought up the generational gap in access to health information, noting:

What I've noticed is that younger people, especially those who are active on social media, are more likely to come across information about kidney disease. They watch videos, see posts about health on their phones, and generally have better access to this kind of information. But older adults, especially those in rural areas or those who aren't tech-savvy, often get left behind. They rely more on traditional sources, which may not always provide the most up-to-date information.

Meanwhile, Respondent C raised concerns about the frequency and depth of the messages being communicated:

There are messages out there, but they're just not frequent enough, and when they do come, they aren't always detailed. It's not enough to tell people about kidney disease once or twice. We need to be hammering these points home consistently, and with enough detail so people understand the severity of it and the steps they need to take.

While there is a general understanding of kidney disease, gaps remain in specific knowledge of risk factors and preventive measures. Urban populations are better informed, while rural communities lack exposure due to infrastructural and informational limitations. Younger people benefit from social media access, but older generations face challenges. Respondents agreed that more frequent and detailed communication is needed to bridge these knowledge gaps, especially in rural and older populations.

2. Challenges in Communication

The challenges in disseminating kidney disease information were a recurring theme, with all respondents identifying multiple obstacles. Respondent A pointed to the growing issue of misinformation on social media:

On a different note, Respondent C highlighted infrastructural challenges, particularly in rural areas:

In the rural communities, we just don't have enough healthcare facilities to support widespread education about kidney disease. Even if people wanted to seek out more information or get tested, they often can't because the nearest clinic is too far away. This makes it very hard to ensure that these health messages reach everyone, especially those who need them the most.

Building on this, Respondent D spoke about how literacy and language barriers complicate the communication process:

We also have to consider the fact that many people can't read well, or they speak local dialects that aren't covered in most health campaigns. If you're

putting out leaflets or posters in English, a lot of people won't even understand the message. So, we really need to think about how we can communicate in a way that reaches those who are less educated or who speak different languages.

Interestingly, Respondent E brought up a cultural factor that adds another layer of complexity:

In some communities, people trust traditional healers more than they trust modern medical practitioners. It's part of the culture here, and that makes it hard to convince people to follow modern medical advice, even when it's in their best interest. They would rather go to a traditional healer than a doctor, and that makes our job much more difficult.

Respondents identified misinformation on social media as a significant challenge, with false claims often overwhelming accurate messages. Additionally, rural areas face infrastructural limitations, such as a lack of healthcare facilities, which hinders access to education and treatment. Language and literacy barriers also pose problems, as many campaigns are not delivered in a way that all community members can understand. Cultural preferences for traditional medicine over modern treatment add another layer of difficulty in disseminating effective kidney disease information.

3. Sources of Information

When discussing the sources from which people typically receive information about kidney disease, most respondents agreed on the importance of traditional media and community health workers. Respondent B elaborated:

In this region, local radio and television still play a huge role in spreading health information. People trust these sources because they've been around for a long time, and they're accessible to most households. You'll hear messages about kidney disease during morning or evening radio shows, which are very popular. For a lot of people, that's where they get their health information.

Adding to this, Respondent C pointed out the role of health workers and local meetings: Community health workers are very important, especially in rural areas. They go door to door, hold local meetings, and talk to people directly. That kind of personal interaction makes a big difference because people can ask questions and get immediate answers. It's also more effective because it feels personal and local.

While social media is becoming more prominent, Respondent D noted the challenges it brings, despite its benefits:

Social media is definitely becoming more significant, especially among the younger generation. They're more likely to come across health campaigns online or through WhatsApp groups. But the downside is that it's also where misinformation spreads the fastest. So, while social media has a lot of potential for spreading the right messages, it needs to be monitored closely.

Respondent E introduced another interesting source of information – schools and religious organisations:

We are starting to see more health campaigns through schools and churches, especially in the more religious communities. These organisations have a lot of influence, and when they speak, people listen. It's an avenue that's becoming more utilised, though it's not yet as widespread as it could be.

Traditional media such as radio and television are trusted sources of kidney disease information, especially in rural areas, while community health workers play an essential role in providing personal, interactive communication. Social media is growing in importance but requires careful monitoring to prevent the spread of misinformation. Schools and religious organisations are emerging as significant sources of health information, particularly in faith-based communities, though they are not yet fully utilised.

4. Effectiveness of Communication Channels

When it came to the effectiveness of various communication channels, there were varied opinions on what works best. Respondent D highlighted the value of more interactive methods:

Health talks and workshops are incredibly effective. When you have a room full of people and can explain things directly, show them visual aids, and answer their questions in real time, it makes a huge difference. People leave those sessions with a much better understanding than they would just by listening to the radio or reading a leaflet.

On the other hand, Respondent C emphasised the power of radio, especially in terms of its broad reach:

Radio is still one of the best ways to reach people, especially in the rural areas. It's accessible to nearly everyone, and it allows us to speak to large audiences all at once. The challenge, though, is consistency. It's not enough to broadcast a message once or twice; we need regular, repeated messages to really make an impact. Meanwhile, Respondent B talked about the rise of mobile technology in urban areas:

We've started using text messages and mobile health apps to reach people, particularly in cities where almost everyone has a mobile phone. It's an easy way to get important health information straight into people's hands, and because it's personal, it's often more impactful.

Respondent A proposed a grassroots approach that hasn't yet been widely adopted:

I think peer education programs could be very effective. If we train community members to share health information with their neighbours and friends, it becomes more relatable. People trust someone they know, and it feels less like a top-down message. I really believe this could make a big difference, especially in the more tight-knit communities.

Respondents identified interactive methods such as health talks and workshops as particularly effective because they allow for direct engagement and clarification. Radio remains a valuable tool due to its broad reach, especially in rural areas, though consistency is crucial for impact. In urban areas, mobile technology like text messages and health apps are emerging as effective ways to reach people. Peer education programmes, where trained community members disseminate health information, are seen as an underutilised but potentially powerful method for spreading awareness, particularly in close-knit communities.

IMPLICATION OF FINDINGS

From the interview, health practitioners noted that knowledge levels about kidney disease risk intervention messages are inconsistent across different demographics. Interviewee 5 noted a general awareness of kidney disease, but many people do not understand its severity and the preventive measures they can take. Younger people, due to their higher engagement with social media, tend to be more informed (Interviewee 4). Conversely, older adults, who are less tech-savvy, often miss out on vital health messages. Interviewee 3 emphasized the insufficiency of current messages, stating that "the frequency and depth of these messages are insufficient to create a significant impact."

This indicates a need for more sustained and detailed communication efforts to enhance knowledge. While there is a basic understanding that kidney disease exists, most people do not know how their lifestyle choices, such as diet and exercise, can directly influence their kidney health." Interviewee 2 observed, "In urban areas, awareness is relatively higher due to better access to information and healthcare services, but this is not the case in rural communities. Urban residents benefit from various sources of information, including social media, health campaigns, and regular medical check-ups. Conversely, rural communities often suffer from limited access to such resources, resulting in lower levels of awareness. This urban-rural divide means that those in rural areas are at a disadvantage when it comes to early detection and prevention of kidney disease, highlighting the need for targeted communication strategies to bridge this gap." Although some health campaigns do address kidney disease, they are often sporadic and not comprehensive enough to change behaviour or raise substantial awareness.

A sustained and detailed approach is necessary to ensure that these messages reach and resonate with the community, fostering a deeper understanding and proactive health management." In addition, Interviewee 4 mentioned, "Younger people seem to be more aware due to their higher engagement with social media, but older adults are often left out of the loop. The younger generation, with their constant access to digital platforms, frequently encounters health-related information, including about kidney disease. However, older adults, who may not be as tech-savvy or connected online, miss out on these vital messages. This generational disparity in information access

underscores the need for multi-faceted communication approaches that cater to both digital and traditional media users." Overall, Awareness campaigns need to go beyond just informing the public about the existence of kidney disease; they must also emphasise the serious consequences of neglecting kidney health and provide clear, actionable steps for prevention.

Education on symptoms, regular health screenings, and lifestyle modifications should be central to these messages to empower individuals to take proactive measures in safeguarding their kidney health." due to better access to information and healthcare services, but this is not the case in rural communities." Enhancing the training and resources available to community health workers, increasing the frequency and consistency of messages in local media, and employing interactive and engaging communication methods can significantly improve the residents' understanding and response to kidney disease risk messages. Furthermore, addressing the issue of misinformation through credible and authoritative sources is crucial for effective risk communication.

CONCLUSION

From the above findings, there exists significant gaps in kidney disease awareness, with disparities in knowledge across demographics and regions. While younger, urban populations tend to be more informed due to their engagement with digital platforms, older adults and rural residents are often excluded from vital health messages. Current communication efforts are insufficient in frequency, depth, and reach, resulting in limited public understanding of the severity of kidney disease and its prevention. Additionally, lifestyle influences such as diet, exercise, and regular health screenings remain underemphasized in awareness campaigns. Addressing these gaps is essential to foster proactive health-seeking behaviors and improve kidney health outcomes. To the research makes the following recommendations:

RECOMMENDATIONS

1. Creation of Targeted Communication messages that are culturally relevant, clear, and actionable
2. Incorporation of indigenous messages to specific demographics, using both digital and traditional media platforms to reach all audiences.
3. Empowerment of community health workers in rural areas and provide them with adequate training and resources to deliver kidney disease awareness messages.
4. Implementation of sustained health campaigns that regularly emphasize the severity of kidney disease, its symptoms, and preventive measures to build reinforcement.

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