



## A Qualitative Study on the Knowledge, Attitudes, and Cultural Beliefs Related to Kidney Health among Youth in Liberia

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### Abstract

**Background:** Kidney disease is a new public health issue in sub-Saharan Africa, but nothing is known regarding how young populations perceive and act on kidney health issues. Cultural beliefs, lifestyle habits, and restricted health education among Liberian youth might influence awareness and behavior regarding kidney function and kidney disease prevention. This research examines knowledge, attitudes, and cultural beliefs about kidney health among Liberian youth from different urban and peri-urban communities.

**Methodology:** A qualitative design was used, with 470 Liberian young people aged between 15–35 years recruited from ten communities in Montserrado, Bong, and Grand Bassa counties. Data were obtained using semi-structured interviews and focus group discussions with a researcher-developed interview guide. Selection of participants occurred through purposive and snowball sampling to attain representation by gender, education status, and socio-economic status. Interviews were taken in English and Liberian English, audio-recorded, and transcribed verbatim. Thematic analysis was utilized, with inductive coding used to find patterns and emerging themes. NVivo computer software was used to support organization and qualitative data analysis. Trustworthiness in research was assured through member checking, peer debriefing, and triangulation.

**Results** The study results indicated extensive knowledge gaps regarding kidney function and disease prevention. Most respondents linked kidney issues with religious, alcohol, or cultural diet factors. The attitudes of participants toward kidney health were marked by low perceived vulnerability and little regular practice of preventive measures like hydration and medical testing. Health-seeking practices were very much under the influence of cultural beliefs, and herbal remedies and traditional healers were greatly preferred over biomedical care. Peer influence, financial constraints, and misinformation were main obstacles to timely detection and treatment.

**Conclusion:** The research highlights the critical necessity for culturally appropriate health education and community awareness schemes specifically focused on Liberian



youth and kidney health. Closing knowledge gaps and reframing attitudes by youth-oriented interventions could potentially decrease the long-term kidney disease burden in Liberia.

**Keywords:** Kidney health, Liberian youth, cultural beliefs, qualitative study, health behavior, attitudes, traditional medicine, sub-Saharan Africa

## Introduction

Chronic kidney disease (CKD) is a major and increasing public health issue throughout the world, especially in low- and middle-income countries (LMICs), whose health systems are not well-suited to deal with its burden. CKD is defined by progressive impairment of kidney function over time, often advancing insidiously until late in the process when treatment becomes unremitting and expensive. LMICs have the added challenges of addressing CKD in the form of poor disease surveillance, low awareness, delayed diagnosis, limited access to nephrology services, and scarce healthcare infrastructure [1]. CKD is ranked as one of the leading causes of mortality globally, as documented by the Global Burden of Disease study, with a high burden that is exerted predominantly in resource-limited settings where preventive and curative care is suboptimal or unavailable [2].

In Liberia, the case is especially bleak. The nation still struggles with the legacy of extended civil war and destructive public health disasters like the Ebola epidemic, which critically undermined healthcare delivery systems and

redirected resources from chronic disease care to emergency care [3]. Such system disruptions have undermined non-communicable disease (NCD) surveillance systems and decelerated the growth of long-term health infrastructure required to fight increasing conditions such as CKD.

Among Liberia's young population, the elevated incidence of CKD-associated risk factors is of increasing concern. Some of these include poorly controlled hypertension, diabetes mellitus, increased consumption of nephrotoxic traditional herbal medications, regular use of tobacco and alcohol, and poor eating habits [4][5]. The reason these are of concern is that they start at adolescence and continue through adulthood and result in early-onset CKD and related complications. In the face of this emerging risk, Liberia has no strong kidney health system. Screening services, early diagnosis, and curative interventions like dialysis or kidney transplant are available only in a few urban areas and are out of reach for most of the population [6].



Adding to the challenge is the apparent paucity of empirical studies on how young Liberians view kidney health. Whereas international public health efforts are usually directed towards children and adults, young people are most often neglected despite being both a vulnerable group and also the ones to drive behavior change in their communities. Understanding what they know, believe, and feel is hence important. Adolescents are at a stage of life when their health education can shape their lifetime behaviors and thus are a central population to focus on in preventive health approaches and awareness initiatives.

Cultural beliefs also have a wide influence on kidney health outcomes in Liberia. Intricate long-standing traditional norms, use of herbal medicines, and religious explanations for disease are widespread among most communities [7][8]. These beliefs tend to introduce delays in seeking biomedical treatment and fuel misconceptions regarding CKD causes and management.

## Methodology

The current research utilized a qualitative research design to investigate the knowledge, attitudes, and beliefs of young people about kidney health in Liberia. Both semi-structured interviews and focus group discussions (FGDs) were

Misconceptions regarding kidney function, the function of hydration, and the impact of lifestyle factors can impede effective prevention and lead to late treatment-seeking, frequently until the disease has progressed to an irreversible point.

Considering these nuances, it is essential to understand Liberian youth's perceptions of kidney health. Examining their knowledge, attitudes, and culturally rooted beliefs can guide the design of context-specific health education interventions that speak to their lived experiences. This research aims to address this vital gap by qualitatively examining young people's views in Liberia regarding kidney health with the ultimate aim of creating context-specific, youth-oriented interventions to facilitate early detection, prevention, and better outcomes in kidney care.

used to produce rich, contextual information and reveal nuanced insights. This methodology was selected due to its capacity to draw out detailed accounts and facilitate participant-led discussion, which is especially relevant when investigating culturally sensitive issues like health and illness beliefs.



470 young people and adults aged between 15 and 35 years were purposively sampled from three counties: Montserrado, Bong, and Grand Bassa. The counties were selected to provide a balance of urban, peri-urban, and rural environments to allow for a better understanding of the problem in various social and geographic contexts. The sampling strategy depended on community youth leaders, peer referrals, and local non-governmental organizations to identify and recruit study participants who were active in community life and agreed to share their views. Data collection occurred over the course of eight weeks.

All the FGDs and interviews were held in Liberian English or English, according to participant choice, and digitally recorded with informed consent. The recordings were transcribed verbatim, and when needed, translated to ensure consistency of analysis.

Data were analyzed with NVivo 12 software using Braun and Clarke's six-phase thematic analysis approach [4], which includes familiarization, coding, theme development, review of themes, definition and naming of themes, and writing up. To maximize the validity of results, themes were peer-debriefed within the research team and member-checked with a few participants. Trustworthiness was also maintained by following the criteria of credibility,

transferability, dependability, and confirmability [5]. Ethical clearance to conduct the study was obtained from an established Liberian research ethics committee, and all ethical procedures of informed consent, confidentiality, and voluntary participation were upheld strictly.

### **Ethical Implications**

Participants were completely informed regarding the nature and purpose of the research, their rights as research participants, and the voluntariness of their participation. Informed consent was assured from each participant before data collection. The process of consent involved either English or local-language explanation, as preferred by the participant, and participants were free to ask questions and withdraw at any point without penalty or risk of loss of benefits.

In order to maintain ethical privacy and confidentiality standards, no identifying details—names, addresses, or personal identifiers—were gathered or attached to the data. A unique code was assigned to every questionnaire to guarantee data anonymity. All interviews and data handling were done in quiet, secure areas to prevent any possible violation of confidentiality.

Data were safely stored in password-protected files available only to authorized members of the research team. When the research ended, all



identifying links were destroyed, and results were reported in aggregate form to ensure further protection of participant anonymity. These precautions guaranteed the dignity, autonomy, and privacy of all participants and informants during the research

process as well as following its termination.

## Results

470 participants were used in the study. Thematic analysis provided various reoccurring themes for Liberian youth regarding kidney knowledge, attitudes, and cultural beliefs about kidney health. The major themes are highlighted below with supporting participant quotations and summaries.

**Table 1: Demographic Characteristics of Participants (N=470)**

| Variable               | Frequency (n=470) | Percentage (%) |
|------------------------|-------------------|----------------|
| <b>Age Group</b>       |                   |                |
| 15–20 years            | 104               | 22.1           |
| 21–25 years            | 163               | 34.7           |
| 26–30 years            | 123               | 26.2           |
| 31–35 years            | 80                | 17.0           |
| <b>Gender</b>          |                   |                |
| Male                   | 241               | 51.3           |
| Female                 | 229               | 48.7           |
| <b>Education Level</b> |                   |                |
| Primary                | 45                | 9.6            |
| Secondary              | 183               | 38.9           |
| Tertiary               | 153               | 32.6           |



|                            |    |      |
|----------------------------|----|------|
| <b>No formal education</b> | 89 | 18.9 |
|----------------------------|----|------|

The total number of participants in this research was 470. The distribution of age identified a young age group, where most (34.7%) were between 21–25 years, followed by 26.2% aged between 26–30 years. Ages 15–20 years constituted 22.1% of the sample population, while the ages 31–35 years represented the lowest percentage at 17.0%. This spread of ages is significant to the study's focus on involving youth in early adulthood, a health behavior and belief-forming time.

Gender-wise, the sample was almost evenly distributed, with males holding a slight majority at 51.3% and females accounting for 48.7%. This even gender representation offers a gender-inclusive view of the knowledge and cultural beliefs regarding kidney health among Liberian youth.

There was variation in education across the sample. Most of the participants (38.9%) were at secondary education level, which suggests moderate exposure to education. Almost one-third (32.6%) were at tertiary education level, suggesting exposure to higher learning. Conversely, 18.9% had no formal education and 9.6% had primary-level education alone. These findings indicate the heterogeneity in Liberian youth's educational levels and emphasize the importance that variation in education might have on health literacy and disease prevention.

**Table 2: Participant Knowledge About Kidney Health**

| Theme                                      | Frequency (%) | Representative Quote   |
|--|---------------|--|
| <b>Knows the basic function of kidneys</b> | 39.8          | “Kidneys help to pass urine and clean blood.”                      |
| <b>Misconception about kidney function</b> | 32.4          | “Kidneys help the liver to digest food.”                           |
| <b>Awareness of kidney disease</b>         | 47.9          | “I heard of someone who had a kidney problem and was on dialysis.” |
| <b>No prior knowledge</b>                  | 27.7          | “I don't know anything about it, only heard the name.”             |

Analysis of data revealed varied levels of awareness regarding kidney function and disease among the 470 Liberian youth respondents. Approximately 39.8% of the subjects



demonstrated a minimum level of familiarity with kidney function, commonly noting that kidneys purify blood and produce urine. An example manifestation of such a level of knowledge is captured by one respondent: "Kidneys help to pass urine and clean blood." It represents a minimal, if not total, degree of anatomical and physiological understanding.

Despite that, 32.4% of the informants showed misunderstanding of the kidneys' function by often confusing renal processes with the digestive or liver processes. A respondent, for example, said: "Kidneys help the liver digest food," showing unawareness of the organ systems and their functions. Such misunderstandings can hinder earliness in discovering kidney-related signs and appropriate health-seeking behavior.

On the positive side, nearly half of the respondents (47.9%) had some degree of awareness of kidney disease, typically in second-hand report or anecdotal experience. For instance, one respondent said: "I heard of someone who had a kidney problem and was on dialysis." These are reactions to an incipient awareness based primarily on community reports and lived experience, rather than formal health education.

Despite these findings, a significant proportion of the sample (27.7%) admitted to previously not knowing anything about kidney health, with comments like: "I don't know anything about it, only heard the name." This finding points to the critical need for targeted educational interventions to improve kidney health literacy, particularly in adolescents with limited exposure to health information.

**Table 3: Cultural Beliefs and Attitudes Toward Kidney Health**

| Attitude/Belief   | Frequency (%) | Illustrative Statement                                    |
|---|---------------|---|
| <b>Believes kidney disease is caused by alcohol or drug use</b> | 44.5          | "Too much drinking can spoil the kidney."                 |
| <b>Attributes disease to spiritual causes</b>                   | 22.3          | "Some people are cursed, that's why their kidney spoils." |
| <b>Uses herbal remedies for kidney issues</b>                   | 35.7          | "When I have side pain, I boil bush leaf to drink."       |



|  |                  |   |
|--|------------------|---|
| <b>Rarely engages in preventive behavior</b> | <b>in</b> 53.6   | “Unless I feel pain, I don't go to the hospital.” |
| <b>Prefers traditional clinical care</b>     | <b>over</b> 41.5 | “Doctors are too expensive, our herbs work.”      |

The results showed many of cultural beliefs and behavioral attitudes that affect Liberian youth's perception and reaction towards kidney health. One of the widespread beliefs, mentioned by 44.5% of the respondents, is the link between alcohol or drug use and kidney disease. This belief was frequently voiced in comments such as, "Too much drinking can spoil the kidney," showing knowledge about behavior risk factors, but tends to be limiting.

A lesser but meaningful percentage (22.3%) explained kidney issues as having spiritual causes, echoing deeply entrenched cultural and traditional understandings. A respondent stated, "Some people are cursed, that's why their kidney spoils," underscoring the overlap between health and spirituality in community discourse. Such beliefs may shape the use of non-medical remedies and postpone biomedical intervention.

Use of herbal medication was prevalent, with 35.7% of the participants indicating that they turn to traditional care for the symptoms possibly indicative of kidney problems. One common reply was: "When I have side pain, I boil bush leaf to drink." The response indicates the dependence on traditional knowledge systems and the relative ease of access to herbal therapy compared to clinical services.

Aside from that, the findings revealed that 53.6% of the subjects practiced preventive health behavior very seldom and tended to go to the hospital only if they felt severe symptoms. As a subject described: "Unless I feel pain, I don't go to the hospital." This kind of thinking presents a reactive rather than preventive approach to health, which can result in late diagnosis and complications for chronic diseases like kidney disease.

Lastly, 41.5% of the interviewees would opt for conventional care over clinic services on grounds of cost and familiarity. The perennial complaint was: "Doctors are too costly, our herbs work." This shows that economic means in combination with familiarity play a large role in healthcare decision-making among youth.

Together, these findings present a complex interplay of cultural beliefs, economic necessity, and behavioral norms that significantly shape how young Liberians understand and manage kidney health. Any intervention aiming to improve kidney health awareness



and utilization of care must therefore address these contextual determinants in an integrated manner.

## Discussion

This study qualitatively investigated knowledge, attitudes, and culture beliefs regarding kidney health among Liberian youth and identified a dynamic interaction of biomedical awareness, cultural narratives, and structural barriers that influence health-seeking behavior. The findings indicate a decoupling between biomedical knowledge and indigenous belief systems with significant implications for public health planning and intervention design in Liberia.

Approximately 40% of the respondents were able to describe the kidneys' primary physiological function, recognizing that they filter blood and manage waste. However, a large number of them held misconceptions, some of whom thought kidneys helped in digestion—a misconception which signifies deficiencies in anatomy education. These findings are consistent with the same study in sub-Saharan Africa, where research in Ghana and Nigeria revealed that populations of young people had low health literacy for renal function and related diseases [1], [2]. This trend indicates a regional lack of formal health education, especially in secondary schools and community programs.

A significant percentage of participants (44.5%) linked kidney disease with alcohol and drug consumption, a view consistent with biomedical findings acknowledging nephrotoxicity from chronic substance abuse [3], [4]. The concomitant attribution of kidney failure to supernatural and spiritual causes by 22.3% of participants demonstrates the cultural grounding of traditional models of explanation. This is in line with ethnographic health research in Sierra Leone and Uganda, where societies tend to explain chronic diseases in terms of spiritual retribution, witchcraft, or the wrath of ancestors, especially when biomedical channels fail to provide immediate or understandable answers [5], [6].

The use of traditional medicine (35.7%), such as the application of "bush leaf" decoctions for flank pain, also highlights the high cultural acceptance of native healing customs. Though herbal medicine continues to be a respected part of African medical pluralism, unsupervised administration of nephrotoxic plants has the potential to cause late presentation and compromised outcomes of diseases [7], [8]. This is then aggravated by nonadherence to preventive care, as noted among more than half (53.6%) of participants, whereby most reported



going for help once the symptoms could no longer be tolerated. Such reactive health-seeking actions have been documented in other low-resource environments and are frequently instigated by economic hardship, geographical unavailability, and perceived ineffectiveness of clinic-based care [9].

Notably, a greater willingness to seek traditional as opposed to clinical care (41.5%) highlights a feeling of mistrust in formal health systems, which is driven by fears around cost, impersonal communication, and scarcity of resources at public health sites. Respondents articulated a perception that traditional remedies were not only cheaper but also culturally acceptable and spiritually appropriate. The same dynamics have been witnessed in Liberia's general healthcare environment, where patients tend to swing between health centers and traditional healers, often based on the type of illness and support systems available [10], [11].

These results have direct public health policy implications. Young people are a key population in breaking the cycle of chronic disease, and their health literacy determines long-term patterns of NCD burden. It is, therefore, vital to have culturally responsive interventions. Public health interventions must go beyond biomedical communication to

incorporate cultural values, religious belief, and traditional structures in kidney health education. Experience in South Africa and Ethiopia has demonstrated that peer and community-based education programs, localized to local language and belief structures, yield better participation and change in behavior among young people [12], [13].

Additionally, the use of mass media, mobile phone technology, and young people as influencers could also provide new avenues for promoting kidney health information. School health promotion in combination with the involvement of community leaders and traditional healers could further bridge the gap between traditional beliefs and conventional medicine and provide earlier prevention and detection of chronic kidney disease.

In general, this study underscores the need for a youth-focused, culturally appropriate, and multi-sectoral approach to kidney health promotion in Liberia. Dispelling myths, reinforcing accurate knowledge, and improving access to affordable care will be crucial in averting the increasing burden of kidney disease among the country's youth.

## Conclusion

This qualitative study discovered extensive knowledge gaps and prevalent misconceptions regarding kidney health among Liberian youth. Although a



portion of participants demonstrated primitive knowledge of renal function and related health risk, a significant percentage held erroneous concepts or were unaware. Furthermore, traditional and spiritual conceptualizations of illness etiology were found to predominate health-seeking behavior, in most cases postponing appropriate medical care.

Findings emphasize the professionally guided, culturally appropriate health education programs that address biomedical content and counter the prevailing socio-cultural context. Public health campaigns to raise awareness among adolescents—dispersed through

schools, media, community settings, and peer education—can potentially increase knowledge and encourage healthier behavior.

To reduce the long-term burden of kidney disease in Liberia, it is necessary for health authorities to prioritize involving the youth. This can be through coordinated efforts among healthcare workers, teachers, community leaders, and youth groups. Engaging multiple stakeholders can be employed to bridge knowledge gaps, deter harmful myths, and promote early, active care-seeking behaviors critical to effective prevention and control of chronic kidney diseases.

## References

1. World Health Organization. Nutrition Landscape Information System (NLIS). Geneva: WHO; 2021.
2. Ministry of Health Liberia. Liberia National Nutrition Policy Review. Monrovia: Ministry of Health; 2023.
3. Gbary AR, Godefay H, Nwaru BI, Tarekegn H, Yaya S. Alcohol and health in Sub-Saharan Africa: Review of evidence. *African Health Sciences*. 2018;18(3):600–607.
4. Lieber CS. Relationships between nutrition, alcohol use, and liver disease. *Ann Intern Med*. 2003;139(7):621–634.
5. World Health Organization. Global Status Report on Alcohol and Health 2019. Geneva: WHO; 2019.
6. Mahan LK, Escott-Stump S. *Krause's Food & Nutrition Therapy*. 12th ed. Philadelphia: Saunders; 2008.
7. Onis M, Dewey K, Borghi E, Onyango A, Blössner M. Malnutrition in developing countries: causes and consequences. *Public Health Nutr*. 2010;13(4):517–525.



8. Osei A, Houser R. Alcohol use, diet quality and nutritional outcomes among slum dwellers in Accra. *Global Health Reports*. 2017;7(1):45–52.
9. Adeyiga G, Osei-Assibey G, Dake FA. Alcohol intake and dietary diversity among adults in Ghana. *BMC Nutrition*. 2014;2(1):34.
10. Tettey C, Agbemaflle I, Nortey P. Substance use and micronutrient deficiencies among low-income families. *West Afr J Med*. 2019;36(2):110–117.
11. Gmel G, Shield KD. Global burden of disease and alcohol-related nutritional risks. *Lancet*. 2015;386(10003):1009–1018.
12. Alwan A. Global Status Report on Non-Communicable Diseases 2010. Geneva: WHO; 2011.
13. Halsted CH. Nutrition and alcoholic liver disease. *Alcohol Res Health*. 2004;27(3):220–231.
14. Lieber CS. Alcohol and nutrition: biochemistry and public health perspective. *Annu Rev Nutr*. 1991;11:57–78.
15. Ouma J, Muli B, Maina K. Nutrition and alcohol use among rural populations in Kenya. *East Afr Med J*. 2020;97(4):278–283.
16. Appiah CA, Nti CA, Otoo GE. Impact of alcohol abuse on household nutrition in Accra. *Nutrition & Health*. 2022;28(1):34–42.
17. World Bank. Liberia Economic Update: Navigating Multiple Shocks. Washington DC: World Bank; 2022.
18. Food and Agriculture Organization. Food Security Outlook for Liberia. Rome: FAO; 2023.
19. UNICEF Liberia. Nutrition Dashboard: Post-Pandemic Trends. Monrovia: UNICEF; 2023.
20. Johnson R, Kamara T. Addressing post-conflict malnutrition in Liberia: A policy perspective. *Liberian Public Health Rev*. 2021;9(1):17–24.