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Exploring Media Use for Health Information Seeking among Elderly Slum Dwellers in Kenya

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ABSTRACT

This study investigates how elderly residents of Kibera, one of Africa's largest informal settlements, use media to access health information and enhance health communication in Kenya. Employing a phenomenological research design and purposive sampling, data were collected from 30 elderly participants, a doctor, dietician, pharmacist, social worker, health ministry official, and communications expert through interviews and focus group discussions. Findings reveal that older adults engage with various media channels, including radio, television, phone calls, WhatsApp, SMS, Facebook, and websites to listen to health programmes, consult experts, and manage chronic conditions. Thematic analysis shows that media use promotes beneficial health behaviours such as physical activity, healthy eating, and stress management. The study also highlights the role of media in empowering elderly slum dwellers with accessible health information and recommends a multi-dimensional communication strategy to serve this vulnerable population better.

Keywords: health, information-seeking behaviour, elderly slum dwellers, Kenya, media use

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Introduction

Over the past decade, both traditional and online media have played a critical role in disseminating health information to communities (Lee, 2018). Engaging with media for health information has been associated with positive health behaviours and a deeper understanding of how individuals navigate health-related decision-making (Chaudhuri et al., 2013; Mukherjee & Bawden, 2012). Health information-seeking behaviour is particularly vital for older adults, helping them choose treatments, manage symptoms, understand diagnoses, adopt preventive measures, and maintain well-being (Lewis et al., 2009).

Historically, older adults in Sub-Saharan Africa have been valued for their wisdom and leadership within families. However, changing social dynamics, especially due to rural-to-urban migration have weakened traditional support systems, reducing interpersonal sources of health communication

(Cohen & Menken, 2006; Kyobutungi et al., 2008). In urban informal settlements, elderly individuals face greater health challenges and lower living standards than their rural peers (Chepnengo & Ezeh, 2007; Kyobutungi et al., 2010).

In Kenya, the elderly population (aged 60 and above) has grown significantly from 385,000 in 1950 to approximately 1.4 million in 2010 with projections estimating an increase to over 3.4 million by 2030 (KNBS, 2010; United Nations, 2013). This demographic shift underscores the urgent need for effective health communication strategies tailored to older adults, particularly in urban slums where access to reliable health information is often limited.

Despite the acknowledged role of media in promoting health, limited research has explored how older populations residing in underserved areas perceive and use media to seek health information. Most existing studies focus broadly on community-level media use without considering marginalised populations or contexts characterised by communication inequality. Thus, this study seeks to address this gap by focusing on the lived experiences of elderly individuals in informal settlements, thereby contributing evidence to support more inclusive health communication approaches.

The primary objective of this study is to examine how elderly residents of Kibera, Kenya's largest informal settlement use media to access health information to inform targeted health communication strategies.

This study sought to answer the following research questions:

1. What types of media do elderly slum dwellers use to seek health information?
2. What kinds of health information are most frequently sought through these media?
3. What factors influence the media use for health information among older adults in slum settings?
4. How does the media shape this population's health-related knowledge, attitudes, and practices?

Background

The global trend of an ageing population has led to a growing number of older individuals becoming more aware of their health and actively seeking information to make well-informed healthcare choices. In developed nations, online media has played a crucial role in enabling older adults to access digital platforms for health-related information. Despite this progress, there remains a noticeable lack of research examining how elderly individuals living in slum areas pursue health information (Zhao et al., 2022).

Online media use culminates in facilitative and collaborative doctor-patient relationships. Traditional media disseminate health information to create awareness, while online media "triggers" positive health behavioural change (Millenson & Sarasohn-kahn, 2015). However, using online media to obtain health information is comparatively low among senior residents of urban slums (Chang & Im, 2014). Accessing digital health content is more challenging among rural elderly compared to urban elderly, requiring help when navigating these channels (Park et al., 2021).

Health information seeking helps older adults cope with their health conditions (Choi, 2019; Oliveira *et al.*, 2021). Universal health coverage demands universal access to health information (Tegegne *et al.*, 2022). Nevertheless, insufficient health information remains a major barrier to accessing quality healthcare for older adults living in informal settlements. To bridge this gap, gaining insight into the health-seeking patterns of elderly slum residents is essential for identifying and addressing their specific health requirements (Zhang et al., 2023).

Literature Review

Older adults rely on various media platforms to seek health information, including traditional channels such as radio and television, which offer accessible and familiar sources of health education. Interpersonal communication, such as conversations with family, friends, and healthcare providers, remains vital for understanding and managing health concerns. The growing use of online media presents new opportunities and challenges for elderly health information seeking. The following literature review aims to enhance understanding in this field by examining these diverse communication channels.

Radio

Radio has consistently proved to be a valuable source of health information, particularly among low-income populations residing in informal settlements (Krause & Fletcher, 2023; Sharma, 2011). Similar to television, radio is often classified as an entertainment-oriented medium (Vivian, 2002). Despite its passive nature, it effectively delivers health-related content on various topical issues (Vivian, 2002). As a widely accessible mass communication tool, radio has made significant strides in health communication by broadcasting in multiple local languages, especially within financially marginalised communities. This approach ensures that diverse audiences can comprehend and engage with health content, enhancing their capacity to make informed health decisions (Mogambi, 2024).

In addition, the portability of the radio enhances its accessibility, enabling individuals to listen even while engaged in other activities such as work. Its widespread use is evident in audience engagement statistics, where over 92% of individuals aged 12 and above interact weekly with radio programming. On average, radio listeners consume around 18.5 hours of content per week, demonstrating the medium's substantial presence in daily life and its potential as a conduit for continuous health messaging (Arbitron, 2008).

Local language broadcasting has further enhanced radio's effectiveness in global health communication by tailoring messages to specific linguistic and cultural contexts (Afful et al., 2022). This has been particularly impactful in slum areas, where radio remains one of the most effective platforms for disseminating health education on critical issues such as HIV/AIDS (NASCOP, 2014). Targeted radio campaigns have successfully reached vulnerable populations, reinforcing radio's role as a reliable and inclusive medium for public health outreach.

Television

Television supports informed health decision-making by delivering detailed health content, primarily through edutainment programmes and specialised health shows (Hoffman et al., 2017; Kim et al., 2014; Lee et al., 2013; Luth et al., 2013; van Leeuwen et al., 2013). These programmes can shape attitudes and behaviours, making television an effective tool for health promotion, particularly among broad audiences.

Television is a preferred source of health information in densely populated communities, while newspapers are more common in less populated areas (Rothenbuhler et al., 1996). This may be due to weaker interpersonal networks in large communities, leading to greater reliance on mass media (Olien et al., 1985). However, television has limitations: it lacks storage for future reference (Sissors & Bumba, 1995), is primarily passive (Singer, 1980), and is not often sought out by wellness-focused individuals unless content is recorded.

Studies from 2010 to 2014 show that television provides valuable health content, especially to those with lower socioeconomic status or education levels (Primack et al., 2010; Redmond et al., 2010) and immigrants (Clayman et al., 2010). It is more persuasive than radio or the internet in influencing behaviours such as mammography uptake (Redmond et al., 2010) and in addressing myths around colonoscopy and organ donation by sparking public discourse (Khalil & Rintamaki, 2014; Yoo & Tian, 2011).

Interpersonal Communication Channels

Active health information seekers often rely on interpersonal communication channels—such as family and friends—to access content related to disease prevention, treatment options, and lifestyle changes (Brashers et al., 2002; Kreps & Thornton, 1992). These close-knit social networks provide emotional support and play a critical role in recognising symptoms and recommending treatment pathways. Interpersonal media are particularly valuable in contexts where formal health systems may be limited or inaccessible, allowing for trust-based and culturally resonant health information exchanges.

In line with this, phone calls are a preferred mode of health communication among older adults with limited education, offering confidentiality and direct access to health professionals. In Bangladesh, for example, elderly individuals with lower education levels used direct phone calls to seek medical guidance (Islam et al., 2021; Olamoyegun et al., 2020). Calls provide a more personalised experience, fostering trust and clarity compared to SMS. Additionally, family caregivers serve as primary health information providers to older adults, especially in managing chronic conditions (Ijiekhuamhen et al., 2016; Lundputh et al., 2022).

Digital interpersonal platforms like WhatsApp have also emerged as significant health communication tools, particularly because they support local languages and ensure privacy (Cheung et al., 2020; Nardo et al., 2016; Shu & Woo, 2020). SMS messages from neighbours assist older adults in disease management and medication adherence (Hoogerbrugge & Burger, 2018; Seifert & König, 2019). Moreover, interpersonal interactions with neighbours enhance access to accurate and timely health information, highlighting the continuing importance of community-level communication (Stroope et al., 2017).

Online Media

Older adults with chronic illnesses face multiple barriers to adopting technology for online health information seeking. These include health-related issues like impaired eyesight (Jiang et al., 2022), hearing loss (Søraa et al., 2021), motor difficulties (Ancker et al., 2015), and cognitive challenges such as poor memory (Jiang et al., 2022; Ondiege & Clarke, 2017), limited learning capacity (Jiang et al., 2022), and overall cognitive decline (Søraa et al., 2021). Such limitations contribute to a persistent digital divide, particularly among elderly individuals in marginalised areas like informal settlements. This divide can limit awareness and self-management of medical conditions, leading to poor health outcomes, delayed diagnoses, and overreliance on traditional media or informal sources that may lack accuracy and depth (Bertolazzi et al., 2024).

Beyond physical and cognitive limitations, personal attitudes and lifestyle factors further hinder digital technology adoption. Many older adults exhibit resistance to change, preferring familiar routines and expressing low interest in new health management methods (Herkert et al., 2021; Jiang et al., 2022; Middlemass et al., 2017; Portz et al., 2019; Smaerup et al., 2016; Søraa et al., 2021). Fear of scams (Jiang et al., 2022), device malfunctions (Jo & Hwang, 2021; Ondiege & Clarke, 2017), and operational errors (Simmich et al., 2021) further discourage engagement with digital tools. These concerns and limited digital literacy often push elderly individuals to depend heavily on family or caregivers for health decisions, potentially reducing autonomy and confidence (Jo & Hwang, 2021).

Technical and usability issues also impede older adults' access to digital health platforms. Poor internet connectivity in underserved areas (Banbury et al., 2014; Herkert et al., 2021; Middlemass et al., 2017), non-intuitive interfaces, small text, and complex navigation (Or & Tao, 2012; Portz et al., 2019) make these tools less accessible. Studies have shown that older adults frequently rely on various media to seek health information (Smith et al., 2015; Wackerbarth & Johnson, 2002; Wu & Li, 2016). In Kenya, socioeconomic status shapes media use among older adults, with media playing a key role in health behaviour (Kiringa, 2019). Unlike elderly populations in countries like China and the U.S. (Hadi Mousavi, 2020; Seo et al., 2017; Wu & Li, 2016), older adults in Africa's informal settlements face added risks from limited digital access and weakened social structures due to migration (Cohen & Menken, 2006; Duah et al., 2020; Kyobutungi, 2008). Despite challenges, traditional media such as

radio and television continue to be essential health information sources in regions like Ghana and Hong Kong (Duah et al., 2020; Wang et al., 2013).

Media Utilisation for Health Information in Kenya

In Kenya, older adults have frequently been excluded from numerous national healthcare policies and programmes, though there has been notable progress recently (Kyobutungi, 2008). The Kenyan government has committed to raising awareness through various media channels about the importance of quality life for older adults (Olum, 2003). However, elderly individuals residing in slums encounter diminished health and, consequently, a reduced standard of living compared to their rural counterparts (Chepnego & Ezech, 2007; Kyobutungi et al., 2010). The significance of acquiring data regarding the health information-seeking behaviour of older adult slum dwellers is likely to have a great impact in filling the evidence gap. It is, therefore, important to understand the media sources, motivations, and information types sought by seniors living in poor urban communities, especially among health stakeholders aiming to promote equitable access to valuable health information. This knowledge is vital for developing effective health promotion strategies and addressing the unique needs of older adults in various contexts.

This paper focuses on identifying media used by elderly slum dwellers to seek health information and provides recommendations on how to improve these channels. The media utilisation by ageing populations in low-income urban areas while making critical health decisions culminates in positive health behaviours. Comprehending media that provides health information to ageing community members in informal housing is an expanding research area.

Methods

Study Design

This study employed a qualitative descriptive design grounded in a phenomenological approach to explore the lived experiences of elderly individuals residing in slums regarding health information seeking through various media. The phenomenological design was selected to capture participants' interpretations and meanings associated with their use of media—radio, television, interpersonal communication channels, and digital platforms—for accessing health-related information (Zalta, 2004).

Setting

The research was conducted in Kibera, one of the largest informal settlements in Nairobi, Kenya, between 1 February and 29 April 2022. Kibera was selected as the study site because it serves as a representative microcosm of urban slum conditions in Kenya and East Africa, with a diverse population drawn from various regions.

Sampling

The study used purposive sampling guided by criterion-based selection to recruit participants with relevant experiences seeking or encountering barriers to accessing health information. This method enabled the researcher to identify individuals whose perspectives would provide rich, context-specific data (Patton, 2002). The sample comprised 30 elderly participants, equally distributed across the five wards in Kibera, with equal gender representation. Three focus group discussions (FGDs) were held, each with eight participants (four males and four females), while five key informants were selected based on their professional involvement in elderly health in Kibera. These included a doctor, a pharmacist, a social health worker, a Ministry of Health official, and a communications expert. Participants were identified with the assistance of the Sub County ward administrator. Data collection ceased once data saturation was reached.

Data Collection

Data were collected through structured, in-depth interviews, focus group discussions, and key informant interviews (KIIs). Interviews were guided by a structured interview guide to ensure consistency and

comparability across participants. Sessions were conducted in a comfortable and private environment to encourage candid responses. Each session lasted between 60 and 90 minutes and was audio-recorded with participants' consent. Transcriptions were done verbatim to ensure the accuracy and reliability of the data.

Data Analysis

The study employed manual thematic analysis, following the six-step framework proposed by Braun and Clarke (2006). The process began with familiarisation through repeated reading of transcripts, followed by systematic coding of key ideas. These codes were then grouped into potential themes, which were reviewed and refined for coherence and relevance. The final themes were clearly defined and named. To ensure the credibility and trustworthiness of the findings, member checking was conducted with selected participants to confirm that the themes accurately reflected their experiences.

Results

The author formulated categories into sub-themes and themes through a systematic coding process. The process began with familiarisation with the data, followed by open coding to identify key concepts. Related codes were then grouped into broader categories, and specific sub-themes were derived from these categories. The author identified key themes representing the core findings, refining the interpretations through participant feedback. This process was carried out iteratively, ensuring the themes accurately captured the participants' lived experiences.

Radio

Through leading vernacular stations, health information on ageing and healthy lifestyles was accessible through local language broadcasts. These shows promoted regular physical activities, mental stimulation, and the preparation of balanced diets. S02 stated, "Inooro Rucini (morning show), through 'Ugima wa Mwiri' (Healthy body) show hosted by Wambui Wa Muturi offers heart health information and maintaining regular body exercises." KW05 said, "Ramogi radio Kogwen (very early in the morning) show which airs between 5:00 –10:00 am EAT every weekday and hosted by Ben Olucoch provides cooking skills to combat cognitive decline." SKI03, a Communication Expert, mentioned that vernacular radio stations have bridged health information gaps among elderly slum dwellers. Besides, a participant from the Laini Saba focus group mentioned, "Mulembe FM through its programme 'Bukha Bushiere' (Wake up in the morning) hosted by Omar Bakuli from Monday to Friday, 6–10 am guides me on preparing balanced diets."

Radio programmes on chronic disease management promoted monitoring of chronic health conditions through clinic visits to prevent health complications. For example, KM03 noted, "Radio Citizen (a leading radio station) Jambo Kenya programme that airs daily from 7 am to 8 am, hosted by Vincent Ateya and Melody Sinzore helps monitor diabetes and hypertension through clinic visits." In addition, L02 stated, "Doctor Explain FM (an online radio programme controlled by the human health professionals) provides information on benefits of clinic visits to monitor my asthmatic and diabetic condition." A pharmacist who was a key informant in this study indicated that radio frequently promotes chronic disease medication adherence through reminders.

Furthermore, radio daily health news provided health updates and fostered medical adherence, doctor consultations, and consumption of healthy foods. A participant, S05, stated, "Musyi FM (a leading vernacular station) through 'Thome wa Mukamba' (Kamba session) programme hosted by Wavinya Mwiitu wa Muthiani offers health news on medication management, chronic illness management, and mental health support." It is important to note that Makina Ward Focus Group used radio for daily health news on medical breakthroughs, disease outbreaks, public health campaigns, health research and technology. A case in point is M08 who noted, "KBC Coro FM (a national vernacular radio station) provides daily health news on research and health technology necessary when deciding whether to consult doctors on alternative treatment methods." Similarly, LS11 stated, "Ingo FM (a vernacular radio station) broadcasts health expert interviews on mental health, nutrition and chronic disease management, which reminds me to frequently eat fruits and vegetables." LSBKI01, a social worker

and a key informant, remarked that radio is commonly sought for health information because it is easily accessible.

It is significant to highlight that radio programmes on nutrition and healthy eating were preferred because they reduced travelling costs to health facilities when seeking information. For instance, MKI04, a dietician and a key informant, indicated that radio offered practical dietary tips promoting healthy eating habits. Another participant, LS01, noted, "Radio Maria's health show provides information on healthy eating to manage diabetes."

Radio also provided guidelines for creating a balanced diet. This is demonstrated by S05 who stated, "...Radio programmes such as 'The Health Show' on Radio Maria provides healthy eating tips enhancing intake of nutritious food." Another participant, L01, noted, "...Radio through Bora Afya (good health) programme hosted by Solomon Zully that airs on Radio Kaya on Wednesday from 10 pm to midnight provides practical tips for planning nutritious meals." Further supporting these views, Woodley Ward Focus Group stated that radio provided health information on nutrient-rich foods.

In addition to its nutritional focus, radio promoted cognitive function maintenance through consuming brain-healthy foods. This is exemplified by LS05 who stated, "Radio Ramogi through 'Women's Voice' show that airs every Saturday from 9 am to 11 am has educated me on healthy eating to boost cognitive function and memory." Lindi Ward Focus Group also noted that Ramogi radio and Inooro FM broadcasts promoted the consumption of brain-boosting foods.

Besides, radio PSAs enhanced adherence to disease prevention and proper medicine storage. M04 stated, "Pamoja FM Morning show 'Tuamke' (Let's Wake Up) that airs every weekday from 7 am to 10 am informs me on vital vaccinations and immunisations through public service announcements."

Radio also provided important PSAs on vaccinations, as depicted by L05, who stated, "Doctor Explain FM, provided announcements on AstraZeneca vaccines, wearing masks and practicing social distancing during the Covid 19 pandemic." Medication safety and cognitive fitness health information was also sought from the radio, as depicted by M06, who stated, " 'Arahuka' (Wake Up) show on Kameme FM hosted by Muthee Kiengei and Gatonye wa Mbugua educates me on proper medicine storage and cognitive fitness." MOHKI01, a key informant from the Ministry of Health, noted that radio and television were powerful tools in persuading elderly slum dwellers to get immunised.

Moreover, radio inspired brain health by promoting regular exercise and good dieting. This is illustrated by S07 who stated, " 'Inooro Rucini' (Inooro morning show), through 'Ugima wa Mwiri' (Body Health) show hosted by Wambui Wa Muturi promoted brain health and healthy lifestyle through regular exercise and social engagement." Adding to this, KM05 stated, "Milele FM's radio morning show hosted by Emily Mbai every weekday from 6 am to 10 am has previously shared valuable information on preventing memory-related health conditions such as stroke through good dieting." Sarang'ombe Ward Focus Group also noted that radio provided health information related to memory and cognitive health, providing accessible and cost-effective cognitive education among seniors in poor urban communities.

It is also essential to acknowledge that radio promoted stress management among elderly caregivers who were tasked with complex personal health care management for older adults. LS09 stated, "Women's Voice' show on Radio Ramogi that airs every Saturday from 9 am to 11 am provides real-life inspirational feature stories and interviews offering a sense of shared struggle and triumph thus enhancing stress management." Makina Ward Focus Group pointed out that radio helped elderly slum dwellers' caregivers manage stress and anxiety through educational shows broadcasted in local languages.

Television

Television programmes were preferred because they enhanced understanding of health content through simple language, visuals, and demonstrations, catering to various literacy levels. Television shows on chronic disease management promoted medical adherence, consumption of healthy diets, doctor

consultations and physical exercises. LS06 stated, "...Ebru TV (a local television station) 'My Doctor' programme that airs every Tuesday at 8 pm hosted by Dr. George Kapiyo and Doctor Explain FM provides me with health information on medication adherence and management." Another participant, LO7, stated, "...Ramogi TV (a leading vernacular television station) through Penj laktar (Ask the Doctor) programme aired daily at 6 pm educates me on dietary modification such as carbohydrate management for diabetes. The programme also helps me with symptom recognition and doctor consultations." LO6 highlighted, "...Ebru TV through 'My Doctor' programme that airs every Tuesday at 8 pm hosted by Dr. George Kapiyo and online radio through Doctor Explain FM provides me with information on physical exercise plans."

Television health news also promoted vaccinations and the consumption of balanced diets. In another case, S09 stated, "Television show aired on Citizen TV (a leading television station) known as 'Siha na Maumbile' (Fitness and Nature) hosted by Mwanahamisi Hamadi during the 7 pm news bulletin provides me with health news on preventative care and screening, and vaccination updates." Adding to this, Makina Ward Focus Group indicated that Inooro TV, through the 9 pm news bulletin known as 'Inooro thaa ithatu' (Inooro at 9 pm), provided health news on healthy ageing, nutrition and dietary guidelines. MKI04, a dietician and a key informant, supported the idea that television provided health news and updates on hydration and dietary considerations for chronic diseases.

Another observation is that television effectively provided practical dietary information which promoted the consumption of healthy foods. W05 said, "...Inooro TV (a leading vernacular television station) through the programme 'Uria ndagitari' (Ask the Doctor) hosted by Wambui Muturi from Monday to Friday at 6 pm provides me with dietary advice related to type 2 diabetes and digestive disorders." Adding to this, LS05 stated, "...NTV (a leading television station) 'Health Diary' programme that airs every Sunday at 6:30 pm and hosted by Gladys Gachanja guides on meal planning and preparation to manage hypertension." MOHKI01, a key informant from the Ministry of Health, noted that television educates ageing populations in low-income urban areas with cost-effective, practical and accessible guidance for healthier eating, which is necessary in managing chronic diseases.

Besides the promotion of healthy foods, television shows promoted stress management among elderly slum dwellers who had chronic diseases. This is supported by LS04 who stated, "Health Diary show that airs every Sunday on NTV at 6:30 pm hosted by Gladys Gachanja has helped me manage stress related to my diabetic condition" and W03 who noted, "Citizen TV known as 'Siha na Maumbile' (Health and Fitness) hosted by Mwanahamisi Hamadi at 7 pm helps in managing stress related to asthma."

Lindi Ward Focus Group also acknowledged that Citizen TV's 'Siha na Maumbile' show has created awareness of mental health, cognitive decline and brain health.

Interpersonal Communication

Phone calls with family members offered tailored health guidance and instant replies to inquiries, encouraging medication compliance and the adoption of balanced diets. One participant, KMO1, stated, "Phone calls with my children facilitates conversations on doctor's instructions, dietary guidelines and doctor's appointment schedules." Another participant, LS04, remarked, "Phone calls with my first-born child and grandchildren provide information on diabetes management after they consult doctors." SKI03, a communication expert and a key informant, mentioned that phone calls with family members provided dietary guidelines for managing chronic diseases among older inhabitants of high-density urban settlements.

Elderly slum dwellers aged 60 to 80 were already familiar with WhatsApp for communication purposes. WhatsApp video calls with friends and health workers enhanced medication adherence, consumption of balanced diets, doctor consultations and taking vaccinations. For instance, R05 stated, "WhatsApp video calls with a health worker who regularly visits me and Merry-go-round group members who are personal friends, provides me medication advice and dietary tips." Another example is LS01 who said, "WhatsApp video calls with friends guides on doctor referrals and body exercises." Additionally,

Woodley Ward Focus Group noted that WhatsApp video calls with friends enhanced eating balanced diets and doctor referrals.

WhatsApp messages with nurses further supported medication compliance, encouraged doctor visits, promoted healthy eating habits, and facilitated vaccination uptake. This is exemplified by KS03 who stated, “WhatsApp messages with doctors and nurses, and Merry-go-round members assist me on medical administration, wound care and home health care options.” Another example is KM02 who stated, “WhatsApp messages with doctors and nurses from a nearby clinic and community health volunteers (CHVs) have enhanced understanding of arthritis symptoms which guides on doctor consultations and vaccination.” As further support, S01 noted, “WhatsApp messages with nurses, doctors and pharmacists helps in medical management and dietary recommendations.” S04 also indicated, “WhatsApp messages with doctors and nurses who help monitor my high blood pressure and diabetes have enabled me care for my recurring wounds.”

Another essential discovery is that WhatsApp messages with volunteer coordinators promoted medication adherence, consumption of healthy diets, and physical exercises. One participant, LS04, stated, “WhatsApp messages with my first-born child and grandchildren provide medication reminders to manage my diabetic condition and planning healthy meals after they consult doctors and volunteer social health workers.” During the focus group discussions, participants highlighted that older adults in Kibera slum sought WhatsApp messages with volunteer coordinators to provide health information on physical exercises.

It is worth noting that SMS with neighbours provided a cost-effective medium of health information for elderly slum dwellers with limited financial resources, promoting vaccinations, maintaining a healthy diet, and following medication regimens. For instance, KM05 stated, “SMS with neighbours supplements the health information from radio. These channels inform me about vaccinations and healthy eating to manage my high blood pressure.” LK02, a pharmacist and a key informant, mentioned that SMS with neighbours helped with medication reminders without incurring any transport expenses.

SMS with rehabilitation counsellors also enhanced medication adherence, consumption of balanced diets, and doctor consultations. This is supported by W04 who stated, “SMSs with doctors in a nearby health facility and health workers provide health information on medications and treatments, as well as nutrition and dietary needs.” MOHKI01, a key informant from the Ministry of Health, mentioned that SMSs with rehabilitation counsellors helped in elderly pain management through medications. Across the Focus Group Discussions, it was noted that SMS with rehabilitation counsellors facilitated discussions on emotional health and promoted appropriate doctor consultations.

In addition to SMS, emails with doctors provided detailed written content through smartphones, promoting medication adherence, healthy diet consumption, physical exercises and doctor consultations among older adults with formal education. S02 stated, “Emails with doctors provide me with medical instructions and treatment options for arthritis and diabetes conditions.” Another participant, M04, highlighted, “Emails from health experts provide dietary advice, disease management, and body exercise recommendations.” A doctor who served as a key informant also mentioned that email communication between doctors and older adults was utilised for symptom explanations, preventative measures and consultations with specialists. The respondents across the Focus Groups supported this view. Interestingly, emails with hospice social workers were not a common medium of health information among older adults in Kibera Slum. However, one of the respondents noted that these emails promoted bedtime routines, which reduced sleep disturbances and insomnia. The participant, KM01, stated, “Emails with social health workers provided health information on bedtime routines such as brushing teeth, changing into pajamas, engaging in calming activities like meditation, and ensuring a comfortable sleeping environment.”

Online Media

Online media was preferred by elderly slum dwellers and their care partners because it delivered up-to-date health information on health interventions.

Online radio was used to obtain health information by older adults in Kibera slum with the assistance of their children. This can be exemplified by L02 who indicated, “Doctor Explain FM promoted medication adherence for managing asthma and diabetes, and doctor consultations.” This is further supported by S02 who stated, “A radio morning show known as Inooro Rucini, through ‘Ugima wa Mwiri’ (Good Health) show hosted by Wambui wa Muturi offers heart health information and body exercises to prevent chronic diseases.” Providing further support, W05 stated, “Ramogi radio Kogwen (Very Early in the Morning) show which airs between 5 am to 10 am EAT every weekday hosted by Ben Olucoch broadcasts current health issues.” SKI03, a communication expert and a key informant, provided further support by noting that vernacular radio stations, available on digital platforms, have bridged health information gaps among older persons residing in slum communities.

It is worth noting that online television, through the assistance of their children, promoted the consumption of healthy food, vaccinations and stress management. A case in point is W06 who stated, “...An online vernacular television station, Metha ya Kagoni, (Kagoni’s Desk) that broadcasts using Kikuyu language, provides unique health stories on chronic disease management through healthy eating.” In addition, S09 noted, “Citizen TV online show known as Siha na Maumbile (Fitness and Nature) hosted by Mwanahamisi Hamadi during the 7 pm news bulletin provides health news on preventative care and screening, vaccination updates, and chronic disease management.” W03 also noted, “Television show aired on Citizen TV known as Siha na Maumbile hosted by Mwanahamisi Hamadi during the 7 pm news bulletin helps in managing stress related to asthma.”

Nevertheless, Facebook and Twitter were not common sources of health information among senior citizens in marginalised urban areas, but they promoted emotional regulation among chronic disease patients fairly well. According to L03, “...Facebook (Health Talk) and Twitter (Institute for Global Health and Infectious Disease) help me in managing emotions related to arthritis and diabetes.” Websites, although not commonly used by older adults in the Kibera slum, promote enrollment in health insurance coverage and the consumption of healthy foods. W06 explained, “...M-TIBA website helped me get insurance cover for my entire family.” Websites such as the World Health Organisation promoted healthy eating as depicted by L06, who stated, “World Health Organisation website has been a valuable source of health information on nutritious foods through the help of my children.”

Table 1

Media and Health Information-seeking Behaviour among Elderly Slum Dwellers in Kenya

Component	Results
Radio	The informants stated that they listened to radio programmes focused on ageing and healthy lifestyles, chronic disease management, health news, nutrition and healthy eating, ageing and mental health, public service announcements, memory and cognitive health, and caregiver support.
Television	The informants noted that they watched television shows on chronic disease management, health news, healthy eating and mental health.
Interpersonal Communication	The informants pointed out that they usually held interpersonal conversations on health issues through phone calls with their family members, WhatsApp video calls with friends and health workers, SMS with neighbours, and emails with doctors.
Online Media	The informants stated that they used online media such as radio, television, Facebook, Twitter, and websites to seek health information through the assistance of their children.

Discussion

Radio

The findings of this study reinforce the role of radio as a vital tool for health communication among elderly slum dwellers, echoing previous research that underscores its accessibility and relevance for marginalised populations (Krause & Fletcher, 2023; Mogambi, 2024). In particular, vernacular radio shows emerged as an effective channel for promoting health knowledge, especially among older adults with limited formal education who find it easier to engage with content delivered in local languages (Afful et al., 2022). These findings are consistent with those of Agyemang-Duah et al. (2020), who noted that radio broadcasts featuring health education content contributed to improved health behaviours. In this study, participants referenced radio programmes that shared guidance on body exercise, dietary habits, and preparing nutritious meals—practical information supporting chronic illness management and prevention.

Additionally, this study supports earlier findings from Cutilli et al. (2018), which identified radio as a key source of health event announcements among older adults in the U.S., including vaccination campaigns. Similarly, participants in Kibera cited radio public service announcements (PSAs) as instrumental in providing timely information on vaccinations and immunisations. This aligns with evidence from Ghana, where radio campaigns contributed to preventing COVID-19 transmission among older adults by promoting vaccine uptake (Adu-Gyamfi & Asante, 2022). These findings confirm radio's ability to deliver timely and behaviour-changing health information, particularly in public health crises.

Beyond confirming prior literature, this study extends existing knowledge by demonstrating how radio serves not only as a mass communication tool but also as a culturally responsive medium tailored to slum contexts. While traditionally viewed as an entertainment platform (Vivian, 2002), radio's capacity to integrate educational segments within popular programming reveals its potential as a hybrid medium for both leisure and learning. Its portability and integration into daily routines (Arbitron, 2008) make it a uniquely immersive channel, especially for elderly populations facing mobility or technological barriers. Moreover, this study adds to earlier work (NAS COP, 2014; Sharma, 2011) by showing that local language broadcasting remains a powerful strategy for inclusive health communication. Unlike newer digital platforms, radio bridges literacy and economic gaps, making it indispensable in slum-based public health outreach. However, while radio's strengths are evident, this study also invites further inquiry into how the medium might evolve to sustain engagement amid the rising influence of digital health tools.

Television

The findings of this study affirm the value of television as a critical medium for delivering detailed and practical health content to elderly slum dwellers. Participants highlighted how specialised television programmes—such as *Siha na Maumbile* and *Health Diary*—guided preventative care, chronic disease management, nutrition, and mental health, supporting informed health decision-making. These findings resonate with prior research that emphasizes the role of television in shaping health attitudes and behaviours through “edutainment” and targeted health programming (Hoffman et al., 2017; Lee et al., 2013; Luth et al., 2013). As demonstrated by Kim et al. (2014) and van Leeuwen et al. (2013), the effectiveness of television lies in its ability to combine entertainment with education, making complex health topics accessible to broad and diverse audiences.

Television's significance in densely populated communities, such as Kibera, aligns with earlier studies by Rothenbuhler et al. (1996) and Olien et al. (1985), which suggest that residents in large, urban areas often rely more on mass media due to weaker interpersonal support networks. This study further supports these findings by illustrating how ageing community members in informal housing depend on scheduled TV health programmes to compensate for limited access to face-to-face consultations or community health forums. Moreover, the elderly participants in this study—many of whom face barriers related to education, mobility, or income—benefited from regular health broadcasts that presented information in local languages and easily understandable formats. This aligns with research

by Clayman et al. (2010), Primack et al. (2010) and Redmond et al. (2010), which underscores television's utility among individuals from low-income and immigrant backgrounds who may otherwise face barriers in accessing formal healthcare information.

However, critical reflection reveals that while television provides valuable health content, its limitations persist. As noted by Sissors and Bumba (1995) and Singer (1980), television lacks archival functionality, and its passive nature may reduce long-term engagement unless content is deliberately recorded. This was evident in some participants' remarks, which implied that critical information could be missed unless they consistently watched certain programmes. Despite this, the current study extends previous research by demonstrating that elderly viewers in informal settlements are not merely passive recipients of televised content—they actively use health shows to guide dietary planning, manage chronic conditions like hypertension, and seek screening and vaccination updates. These actions suggest that under the right conditions—such as culturally relevant programming and consistent broadcasting—television can transcend its traditional limitations and become an active tool in promoting preventive health behaviours among vulnerable urban populations.

Interpersonal Communication

This study confirms the critical role of interpersonal communication channels such as phone calls, WhatsApp, and SMS in facilitating health information access among elderly slum dwellers. Consistent with Brashers et al. (2002) and Kreps and Thornton (1992), the findings highlight that older adults actively engage trusted family members, friends, and healthcare workers for support in managing chronic illnesses, understanding treatment plans, and navigating health decisions. These interpersonal sources serve not only as conduits for practical health advice but also as vital emotional and motivational anchors.

Phone calls emerged as a preferred mode of communication for participants, particularly those with limited formal education. This aligns with Olamoyegun et al. (2020) and Islam et al. (2021), who found that elderly individuals in resource-limited settings such as Bangladesh favour voice calls over SMS due to their immediacy, confidentiality, and potential for two-way clarification. The current study extends these findings by demonstrating that seniors living in urban poor communities used phone calls not only with healthcare providers but also with family caregivers to discuss dietary guidelines, appointment schedules, and medication use. As Lundputh et al. (2022) and Ijiekhuamhen et al. (2016) suggest, family caregivers are crucial intermediaries in health communication, especially when older adults face mobility or literacy barriers.

Furthermore, this study contributes new insights into how elderly slum residents utilise WhatsApp, an increasingly popular interpersonal digital tool, to manage their health. Participants used the platform to consult doctors, communicate with pharmacists, and receive health-related recommendations in their local language, reinforcing findings by Shu and Woo (2020) and Cheung et al. (2020), who emphasised WhatsApp's ability to break down linguistic and cultural barriers while maintaining privacy. In contrast to the passive nature of other digital platforms, WhatsApp enabled interactive video consultations and peer health discussions, thus promoting personalised, trust-based communication.

SMS messaging also played a supportive role, especially through community-based interactions. Like Hoogerbrugge and Burger (2018) and Seifert and König (2019), this study found that elderly participants received health-related reminders and guidance from neighbours via SMS, including medication adherence and dietary suggestions. Such findings reinforce Stroepe et al.'s (2017) assertion that neighbourhood networks enhance timely health communication and reduce social isolation. These results suggest that grassroots communication networks remain influential in shaping health behaviours among vulnerable populations even without formal care systems.

However, while interpersonal channels such as phone calls and messaging apps are widely used, some technologies remain underutilised. For instance, although previous studies (Turner et al., 2018) highlight the effectiveness of email in caregiver-patient communication, participants in this study rarely used email due to poor digital literacy and lack of access to computers. This echoes the findings from

Chen et al. (2022), which identified significant barriers to email usage among older adults during the COVID-19 pandemic.

In summary, this study supports and extends prior literature by illustrating that interpersonal communication—especially through accessible, culturally relevant, and trusted platforms—remains a cornerstone of health information seeking among elderly slum dwellers. However, it also highlights enduring digital divides, suggesting that any strategy to improve health communication among older adults in informal settlements must integrate low-tech and human-centred solutions alongside emerging digital tools.

Online Media

Older adults with chronic illnesses in informal settlements face significant challenges in adopting digital technologies for health information seeking. Consistent with Jiang et al. (2022), Søråa et al. (2021), and Ancker et al. (2015), informants reported that physical limitations such as poor vision, hearing loss, and limited motor function, alongside cognitive impairments like memory decline and low learning capacity, hinder their ability to navigate digital platforms. These barriers reinforce the persistence of a digital divide, particularly among the socioeconomically disadvantaged elderly, echoing findings by Bertolazzi et al. (2024). As in previous studies, this digital exclusion not only delays diagnosis and self-management but also increases reliance on traditional or informal media sources, which may lack reliability and depth.

In addition to physical and cognitive constraints, the study confirms that psychological and attitudinal factors, such as resistance to change, fear of scams, and concern over device malfunction, discourage digital adoption (Ondiege & Clarke, 2017; Portz et al., 2019; Simmich et al., 2021). Many informants relied on younger family members to access online platforms, a finding that mirrors Jo and Hwang's (2021) observations about caregiver dependence reducing older adults' autonomy. Social media platforms like Facebook and Twitter were not widely used but did offer emotional support for managing chronic conditions like arthritis and diabetes. This supports research by Berry et al. (2017) and Gabarron et al. (2015), who found that social media fosters emotional resilience and peer exchange among older adults, while studies like Chan et al. (2024) confirm its potential to influence health behaviours such as vaccine uptake.

Despite limited direct use, informants acknowledged the potential of digital tools like Facebook and health websites when supported by family. Websites were accessed through intergenerational collaboration, with children interpreting and relaying digital health content—a finding that reflects Sheng and Simpson's (2015) concerns about older adults' mistrust of online sources. Unlike counterparts in higher-income regions like China or the U.S. (Seo et al., 2017; Wu & Li, 2016), older adults in Kenya's informal settlements face compounded challenges of digital illiteracy, infrastructural gaps, and social dislocation (Duah et al., 2020; Kyobutungi, 2008). Still, traditional media, especially radio and television, remain essential for reaching elderly populations, consistent with Duah et al. (2020) and Wang et al. (2013). As noted by SKI03, a communication expert, any expansion of digital health outreach must prioritise trust-building, address privacy concerns, and combat disinformation to ensure safe and meaningful engagement.

Conclusion

Implications

This study underscores the importance of adopting a mixed-media strategy to enhance health communication among elderly slum dwellers. Participants actively used a range of media channels such as radio, television, phone calls, WhatsApp, SMS, email, and websites to access health information.

Acknowledging this diversity is crucial in designing inclusive health communication strategies that align with older adults' unique needs, preferences, and access levels in informal settlements. Tailoring health messages to preferred channels can improve comprehension, encourage healthier lifestyles, and foster more active engagement with health information, particularly around chronic disease management, diet, and physical activity.

Limitations

While the study offers meaningful insights into the health information-seeking behaviours of elderly residents in Kibera, its findings may not be fully generalisable to other slum settings or elderly populations across different cultural or geographical contexts. The sample size was relatively small, and data collection was occasionally hampered by participants' health limitations, mobility issues, and communication barriers. These factors may have led to the underrepresentation of certain vulnerable subgroups, especially those with severe impairments or limited social support. Moreover, the reliance on self-reported data may have introduced recall bias, affecting the accuracy of responses.

Future Research Pathways

Future studies should expand to other informal settlements and include larger, more diverse samples to validate and deepen the current findings. A critical area of exploration is the role of digital literacy in enhancing or impeding media use for health information among elderly populations. Researchers should also examine how cultural norms and beliefs influence media preferences and message interpretation. Longitudinal studies are essential to understand how sustained exposure to various media channels affects long-term health outcomes. Additionally, there is a need to design and test targeted interventions that integrate trusted media channels and interpersonal networks to improve health literacy and behavioural outcomes among older adults living in informal settlements.

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Conflict of Interest

No conflicts of interest are declared by the author.

Author Contribution Statement

GGN: Conceptualization, Methodology, Data Curation, Formal Analysis, Writing – Original Draft, and Writing – Review & Editing.

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Ethics Statement

This study did not require IRB approval as it involved qualitative methods without the collection of personally identifiable or sensitive information. Prior to participation, all respondents were provided with informed consent forms outlining the study's purpose, voluntary nature, and confidentiality measures.

Data Access Statement

Research data supporting this publication are available upon request to the corresponding author.

Author Biography

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