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Author (s): Geoffrey Gathii Njenga


Affiliation (s): The Co-operative University of Kenya, Nairobi, Kenya

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What Shapes Health Information Seeking Behavior Among Kenya's Elderly Slum Dwellers?

Geoffrey Gathii Njenga*

School of Business and Economics, The Co-operative University of Kenya,
Kenya

Abstract

There is a strong correlation between media use and quality of life because various channels aid positive social change, including healthy eating in contemporary communities. This research highlights the essential attributes that influence the choice of media for elderly people in Kenya's slums and how it influences their health-related knowledge in terms of the major variables that shape their health information-seeking behavior. Interviews and focus group discussions provided valuable insights into the underlying elements that shape health information-seeking behavior. It was found that anxiety, attitudes, self-efficacy, and health literacy were the major contributing elements that determined how the elderly utilized various health channels. Media can play a great role in the dissemination of quality health knowledge. In this regard, boosting media channels for quality health knowledge dissemination may include adjusting radio content to address local needs for the elderly, strengthening social networks to enhance interpersonal communication, and involving all health stakeholders to improve the digital media navigation skills of the elderly.

Keywords: Elderly slum dwellers, health, information-seeking behavior, Kenya

Introduction

Individuals and groups in developed and developing regions seek health knowledge via various sources when making key life decisions, especially preventing infections (Lee, [2018](#); Mukherjee & Bawden, [2012](#)). Individuals and groups embark on seeking health content through media as a result of being attracted to various audio-visual formats and having anxiety resulting from health concerns (Chaudhuri et al., [2013](#); Pesala et al., [2017](#)). The elderly utilize media to enhance their ability to formulate quality health choices (Lewis et al., [2009](#)). Research indicates that media use benefits the

*Corresponding Author: jeffnjenga2012@gmail.com

elderly by reducing uncertainty and improving their healthcare-seeking behaviors (Feltwell & Rees, [2004](#); Shi et al., [2004](#)). As the global elderly population increases, particularly in urban areas of developing regions like Kenya's informal settlements, understanding their HISB becomes increasingly critical (United Nations, [2013](#)). However, societal shifts, including rural-to-urban migration, have weakened traditional health communication sources, leaving elderly individuals in urban areas with reduced health and lower living standards (Kyobutungi et al., [2010](#)). Despite recent governmental efforts in Kenya to enhance the quality of life for the elderly, a significant research gap remains regarding their personalized views on HISB, particularly in contexts where communication inequality persists.

Higher anxiety levels among the elderly are linked to increased online media use for seeking health information (Schuster et al., [2023](#)), driven by heightened concerns about health conditions and disease symptoms (Singh & Brown, [2016](#)). As a result, the elderly actively seek and share crucial health information online (te Poel et al., [2016](#)). A study on anxiety prevalence among Chinese elderly found that 11.24% were affected by anxiety, which was primarily associated with 14 factors across five domains: demographic attributes, health conditions, mental state, social trust, and social engagement. Notably, isolation was identified as the most significant factor affecting psychological status. The study recommended enhancing interpersonal communication channels to mitigate anxiety and improve elderly mental health (Liu et al., [2023](#)).

The belief that engaging in health information seeking through media is valuable influences health information-seeking behavior (Ajzen, [1991](#)). This behavior is further encouraged when family members prioritize sharing health information (Brashers et al., [2002](#); Loiselle et al., [2006](#)). However, elderly individuals often have negative attitudes toward digital media platforms as sources of health information (Czajka et al., 2020). In Poland, positive attitudes toward digital media platforms and doctors led to increased vaccination uptake, with health professionals playing a crucial role in vaccination decisions among the elderly (Czajka et al., [2020](#)). In Ghana, during the COVID-19 crisis, people preferred radio, television, community members, and religious leaders for health information, even though these channels sometimes caused anxiety (Adu-Gyamfi & Asante, [2022](#)). Positive attitudes toward short health messages on television have

been effective in preventing binge drinking (Kim et al., [2014](#)). Moreover, viewers' favorable perceptions of entertainment-education show on television have promoted healthy behaviors (van Leeuwen et al., [2013](#)).

The likelihood of engaging in health information-seeking behavior (HISB) is significantly influenced by self-efficacy (Arora et al., [2008](#); Bass et al., [2006](#); Bandura & Cervone, [1983](#)). Higher self-efficacy typically leads to increased health information seeking, though this varies among individuals (Bass et al., [2006](#); Bandura & Cervone, [1983](#)). When individuals successfully find valuable health information through media, their self-efficacy is further enhanced. However, different contexts can affect HISB differently. Even with high self-efficacy, seeking health information through media is not cost-effective and it may not be able to achieve the desired outcomes (Fishbein et al., [2001](#)). Self-efficacy is closely linked to HISB, with higher self-efficacy among the elderly leading to more frequent health information seeking via media (Chen et al., [2013](#); Callaghan, [2005](#); Yeom, [2014](#)). Regular media consumption is indirectly associated with higher health literacy, where increased self-efficacy serves as the mediating factor. Previous research has explored how self-efficacy mediates the relationship between external influences and health-related issues (Choi, [2020](#); Magalhães et al., [2022](#)). According to social-cognitive theory, personal performance and feedback from others influence an individual's decision to engage in specific activities (Peechapol et al., [2018](#)). Among Chinese elderly, increased self-efficacy resulting from media use contributed to higher health literacy (Yu et al., [2023](#)).

There is a correlation between media use and health literacy. Those individuals who utilize more channels become more health literate (Cutilli et al., [2018](#); Liu et al., [2015](#); Pechrapa et al., [2021](#)). Health professionals and digital platforms have contributed to promoting health literacy in the United States (Yamashita et al., [2020](#)). Health literacy influences health information seeking behavior, thus promoting health status in communities (Lambert & Loiselle, [2007](#)). According to the CMIS, health condition, ailment experience and demographics influence health information seeking. (Johnson & Meischeke, [1993](#)). Health literacy influences the selection of health information channels through the beliefs and importance attached to that particular health issue (Johnson & Meischeke, [1993](#); ; Sorensen et al., [2012](#); Von Wagner et al., [2009](#)).

Generally, higher literacy levels correlate with seeking print media health information, while lower literacy levels are associated with broadcast media and interpersonal communication channels (Cutilli, [2010](#); Gombeski et al, [1982](#)). Print sources such as newspapers have promoted health literacy (Cutilli et al., [2018](#)). Turkish residents have increased their health literacy through reading books and newspapers (Çaylan et al., [2017](#)). In other areas such as Vietnam, the elderly who are health literate are able to use radio, television, and newspaper when satisfying health needs (Van Hoa et al., [2020](#)). However, health content from digital channels in the United States and Vietnam have really improved health literacy (Cutilli et al., [2018](#); Van Hoa et al., [2020](#); Yamashita et al., [2020](#)).

The use of health experts in the American community has resulted in a higher degree of health literacy (Yamashita et al., [2020](#)). Neighbors also provide social support necessary for developing health literacy in communities (Pechrapa et al., [2021](#)). Elderly people enhance their self-presentation through posting comments and sharing photographs online which shapes the impressions others have of them (Hollenbaugh, [2021](#)). It is believed that when rural elderly individuals aim to cultivate positive online self-images, they are inclined to excel in health-related knowledge, anticipating increased positive attention. However, the situation is different among older rural populations. From this, one may assert that understanding of health matters and skills in managing personal health is shaped by health literacy, which is an individual factor (Lambert & Loiselle, [2007](#)).

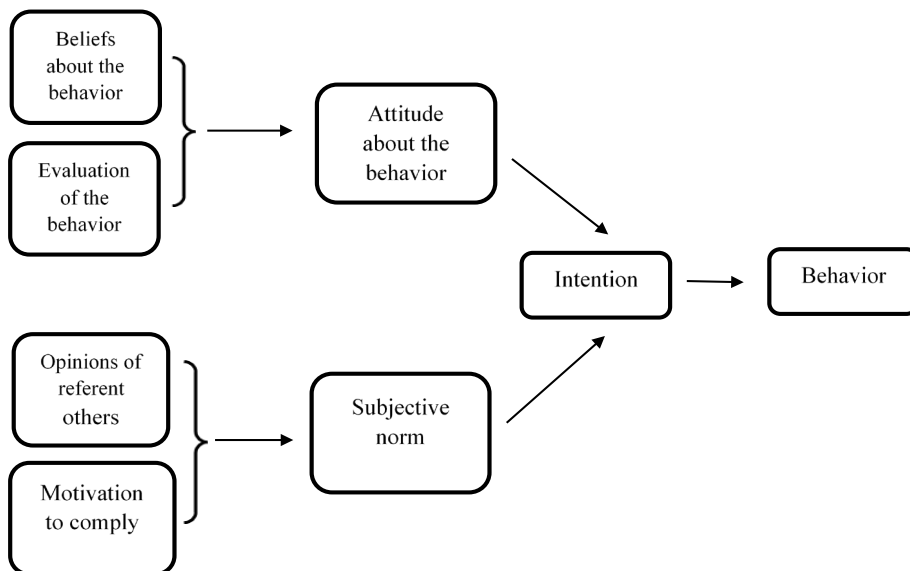
Very few studies have focused on information seeking behavior among elderly with low degree of health literacy (Smith-McLallen et al., [2011](#)). Previous studies do not provide data related to the subjective views of the elderly with lower health literacy, but only assert that this group of people mostly seeks health information from informal health information sources.

Numerous studies have examined health information-seeking trends among the older population, particularly through digital platforms, highlighting various challenges and patterns of usage. For instance, Wu and Li ([2016](#)) explored online health information seeking among Chinese seniors, while Wackerbarth and Johnson ([2002](#)) identified frequent sources used by older individuals. Smith et al. ([2015](#)) noted significant barriers to access, emphasizing health literacy and usability as major constraints. Understanding what shapes health information seeking behavior among elderly slum dwellers is crucial given their heightened vulnerability, as they

have distinct health information needs compared to other demographics (Rice & Fineman, [2004](#)). Muiruri ([2019](#)) investigated the influence of societal and economic factors on media use for health content among rural Kenyan elders, finding that media shapes health information-seeking behavior, with better socioeconomic status correlating with more positive behaviors. Publicizing health campaigns through media can enhance community adaptation to positive health practices, making it essential to study these behaviors in low socioeconomic urban contexts. As older adults are more susceptible to infections and have specific health needs, understanding their media usage in various contexts is vital for effective health promotion strategies (Lambert & Loiselle, [2007](#); Mills & Todorova, [2016](#)). Overall, gathering data on the factors that shape health information seeking behavior among economically disadvantaged elderly individuals is crucial for health stakeholders aiming to improve equity in access to valuable health information.

Figure 1

Fishbein-Ajzen (1975) Theory of reasoned action



Theoretical Framework

The study utilizes the Theory of Reasoned Action (TRA) and the Uses and Gratifications Theory. Hill ([1981](#)) highlights that many theories explain

how attitudes predict behavior; however, among them, Fishbein and Ajzen's Theory of Reasoned Action (TRA) is the most significant. Formulated in 1975, TRA helps predict behaviors, aiding policy creation and has been applied in health campaigns, such as those promoting slimming. It assumes that individuals make rational behavioral choices based on their attitudes, the opinions of others (subjective norms), and their motivation to conform. TRA posits that behavioral intention, driven by attitudes and social expectations, is the best behavior predictor. TRA effectively explains voluntary health behaviors, including oral health practices and cancer prevention behaviors.

The Uses and Gratifications Theory (UGT), developed by (Blumler & Katz, [1974](#)), explores why individuals select specific media channels based on personal needs. Unlike traditional theories, UGT views users as active agents who choose media to fulfill needs like information or relaxation. Refined by Rayburn and Palmgreen, it distinguishes between expected and actual gratifications. Key components include media consumption, audience motivations, and satisfaction outcomes. Media use can be instrumental (goal-oriented) or ritualized (habitual), with satisfaction stemming from how well it meets users' expectations and involvement with the content, be it cognitive or behavioral.

Methods

This exploration utilizes qualitative research guided by phenomenological principles to examine how the target population encounters the health information seeking phenomenon (Zalta, [2004](#)). Interview guides facilitated data collection from the elderly and key informants including, a doctor, dietician, pharmacist, social worker, a Ministry of Health official, and a communications expert. The target population comprised of seniors aged 60 years and above, who had stable mental health and had resided in Kibra Sub-County for a period of one year or more. The older population in this age bracket within the Sub-County geographical scope is 5,189 (Kenya National Bureau of Statistics [KNBS], [2019](#)). A sample of 30 elderly persons drawn from the five wards was chosen using purposive sampling. Dudovskiy ([2016](#)) argues that study participants should be picked based on their unique features. This sampling strategy involved utilizing exceptional cases to obtain high-class qualitative data within the required timeframe. The purposive strategy also helped identify two government health

institutions and two level-4 treatment facilities since they were the most useful to the target population.

Primary data was obtained directly from the informants through personal interviews by using an interview guide. This study utilized structured interviews to ensure consistency in data collection, allowing reliable comparisons across responses from elderly slum dwellers regarding their health information-seeking behavior. The interviews and focus group discussions (FGDs) were conducted in a comfortable environment to encourage open dialogue, with sessions lasting approximately 60 to 90 minutes each. All sessions were recorded and transcribed verbatim to ensure accurate representation of participants' responses and facilitate thorough analysis. Data saturation in this study was achieved when no new themes or insights emerged from the interviews with elderly slum dwellers, indicating that sufficient information had been collected to address the research questions.

However, the study incorporated multiple healthcare centers, persons and partners so as to capture an array of trends in the use of media for health content among the seniors residing in this region. This study carefully chose 3 males and 3 females in equal proportion from each ward totaling to 30 elderly respondents. Face to face interviews with the sample ensured in-depth examination of the participants which ultimately ensured data validity. Furthermore, 6 key informants comprising of a physician, dietetic professional, pharmaceutical professional, social services worker, health ministry staff representative, and a communications specialist dealing with public health communication campaigns for the old in this region. 3 Focus Group Discussions comprising of 4 men and 4 women were also used. Kibra Sub-County Ward coordinator was useful in spotting the key informants.

Results and Discussion

Anxiety

Vernacular radio stations, telephonic interactions with relatives, WhatsApp video sessions with friends, SMS from rehabilitation counselors, and emails with doctors helped the elderly manage their heightened health anxiety. These communication channels reduced anxiety by providing accurate health information, enhancing community support, and fostering a sense of reassurance and connection.

W04 stated that

Inooro Rucini (morning show), through “Ugima wa Mwiri” (Healthy body) show hosted by Wambui Wa Muturi broadcasts information on heart health, offering reassurance, and fostering a sense of community support and well-being. Additionally, phone calls with family members provide emotional support and a sense of connectedness to loved ones especially when managing hypertension.

LS02 stated that “WhatsApp video calls with friends provide visual connection to help manage chronic obstructive pulmonary disease.”

A key informant from the Ministry of Health observed that emails with doctors contributed to the psychological well-being of elderly individuals with formal education. These emails, accessed through smartphones, provided detailed written content that promoted medication adherence, healthy diets, physical exercise, and regular doctor consultations. This perspective was echoed by a pharmacist, who emphasized the crucial role of emails in improving medication adherence, facilitating communication, providing timely updates, and offering personalized guidance to enhance patient health outcomes.

Feedback from all focus groups indicated that SMS correspondence between rehabilitation counsellors and the elderly helped reduce anxiety in elderly slum dwellers by fostering discussions on emotional health and facilitating appropriate doctor consultations.

There is a clear causal relationship, showing that elevated anxiety levels among the elderly is associated with increased OHIS (Schuster et al., [2023](#)). In contrast, participants in this study frequently used vernacular radio stations, telephone conversations with family, WhatsApp video meetings with friends, SMS exchanges involving rehabilitation counsellors, and emails when faced with health anxiety. Elderly individuals in slums preferred vernacular radio and interpersonal communication channels when managing health anxiety due to cultural resonance, ease of access, and the comforting human connection, contrasting with the often-unfamiliar online media landscape. To encourage elderly use of online media for health anxiety, there is a need to provide digital literacy training, create user-friendly platforms, offer multilingual content, and establish community support programs addressing concerns and promoting digital engagement.

Health anxiety culminates to the desire to seek more and more health content to facilitate understanding of certain ailments (Singh & Brown, 2016). Similarly, elderly slum residents sought information related to ailments such as nutritional tips for managing chronic diseases. Basically, this desire leads to spending long hours trying to comprehend how certain diseases are spread and tactics to prevent such ailments (te Poel et al., 2016). Elderly individuals spent considerable time seeking health knowledge from vernacular radio broadcasts, local television programs, SMS, telephonic conversations with relatives and WhatsApp videoconferencing, to aid prevention of common infections and manage medications. It therefore follows that interpersonal communication channels have the capacity to promote community dialogues, organize informative sessions, and foster a culture of health knowledge-sharing among elderly slum dwellers, transforming them into active information seekers.

Anxiety was predominantly associated with 14 issues categorized into five domains among Chinese seniors: sociodemographic attributes, health conditions, mental well-being, social confidence, and levels of social engagement. Importantly, solitude, a component of mental condition, stood out as the most significant element. These findings implied the significance of interpersonal communication to manage emotional concerns, thereby promoting elderly mental health (Liu et al., 2023). Similarly, in this study WhatsApp video calls offered visual connection, while SMS with rehabilitation counselors provided emotional support, reducing anxiety among elderly slum dwellers by fostering social bonds and promoting mental well-being. Interpersonal communication channels stand as a cornerstone in alleviating anxiety among the elderly, serving as a comforting bridge that fosters emotional connections, understanding, and community support for enhanced mental well-being in their later years.

Attitudes

Attitudes significantly impacted media use among elderly slum dwellers for seeking health information, influencing their preferences for personalized media channels such as WhatsApp and phone calls, often due to familiarity, trust, and cultural issues. Participants frequently used interpersonal communication channels for health information but also held positive attitudes towards radio and television health messages.

LS6 stated that

Limited understanding of technology and language complexities is the main barrier of using online media for health information. These platforms do not consider most of us who lack digital literacy skills and we have to keep on pestering our children through phone calls when we want to navigate through these digital platforms.

M07 stated that

“WhatsApp video calls with health workers, and emails with doctors provide accurate and detailed health information on medical instructions. Furthermore, they provide better treatment options for arthritis and diabetes conditions.”

A professional dealing with older persons’ public health communication campaigns mentioned that elderly possess positive attitudes toward phone calls with family members because they value the personalized health information and emotional connection. Such interactions foster mental well-being by providing a sense of belonging and support within the family network.

Makina ward focus group noted that radio and television health messages inform the elderly on vital vaccinations and immunizations, healthy eating doctor consultations, physical exercises and stress management, thus promoting disease prevention.

The elderly exhibit lower confidence in online media as a health information source and hold unfavorable attitudes towards health-related information obtained from this channel (Czajka et al., 2020). Similarly, elderly slum dwellers are hesitant to embrace online media due to inadequate digital literacy and language barriers. Challenges in grasping technology and language nuances influence their negative perception, affecting their interaction with online health information platforms. Promoting digital literacy programs tailored to the elderly in slums would ensure their comprehension of online language. Language is a major barrier in navigating digital media platforms among the elderly, thus formulation of online content in local languages would have the capacity to address the elderly health needs, enabling them to have more confidence in these platforms.

Among the Poles, health experts and digital media are perceived to be credible sources of health content ultimately promoting preventative injections uptake. These results reinforce findings from numerous prior

studies, affirming that positive attitudes towards doctors as health information sources positively influence willingness to take up vaccines. Health experts are crucial in influencing the decision-making process regarding vaccination among communities including the elderly (Czajka et al., [2020](#)). In this study, elderly slum dwellers had positive attitudes towards emails with doctors, promoting medication adherence, consumption of healthy diets, physical exercises and doctor consultations. However, the elderly perceived online media as difficult to use, thus never using this channel frequently unless through the help of their children. This shows the need to foster a supportive environment that encourages online engagement, ensuring elderly slum dwellers feel confident when consuming digital health content.

Majority of Ghanaian elderly displayed positive attitudes towards health content sourced from radio, television, family members, and religious affiliations. However, COVID-19 information through these channels heightened psychological distress among elderly, fostering feelings of fear and panic (Adu-Gyamfi & Asante, [2022](#)). In contrast, elderly slum dwellers perceived vernacular radio, television, family phone conversations, and video conversations with friends on WhatsApp as trusted sources of health information, encouraging positive behavior changes such as healthy eating, fostering a sense of connection and reliability in health communication within the community. During the COVID-19 pandemic, certain health information sources, often lacking accuracy or spreading misinformation, fueled fear and panic in communities including the elderly. Sensationalism, inadequate fact-checking, and the rapid spread of unverified data contributed to heightened anxiety and apprehension in communities.

Positive attitudes towards short health messages inserted in primetime television have resulted in prevention from binge drinking (Kim et al., [2014](#)). Similarly, elderly slum dwellers hold a positive view of television shows combining education and entertainment. Programs on chronic disease management, health news, healthy eating, and mental health are valued for their edutainment, promoting medical adherence, consumption of healthy diets, doctor consultations, physical exercises, vaccinations, and stress management within the community by engaging and informing.

Additionally, television viewers perceive entertainment-education narratives to be both credible and enjoyable, preventing alcohol drinking behavior (van Leeuwen et al., [2013](#)).

Self-Efficacy

The majority of elderly slum dwellers, possessed a heightened self-efficacy, proactively seeking health information through various media channels like radio, television, WhatsApp, SMS, phone calls, and online platforms, showcasing a comprehensive approach to staying informed about their well-being. Increased self-efficacy among elderly slum dwellers fostered a preference for interpersonal communication as a means for acquiring health information, emphasizing the role of confidence and trust in shaping media preferences in this demographic.

KMO1 stated that

“Phone calls with my children provide a personalized avenue for health discussions and I always have confidence in this channel. I believe that phone calls with children are effective while seeking and utilizing relevant health information.”

LS01 stated that

WhatsApp video calls with friends are trusted sources of health information and provide the required health information especially on doctor referrals and body exercises. This channel creates a sense of assurance regarding the accuracy and reliability of the health information I access.

A dietary consultant expressed that there exists a symbiotic relationship between media use for health information, self-efficacy, and health literacy. Media consumption influences confidence in health decision-making, contributing to elevated self-efficacy and improved health literacy in individuals seeking nutritional guidance.

Woodley ward focus group noted that confidence in understanding health information from media channels is associated with effective decision-making. High confidence levels contribute to feeling more capable of making informed choices about health, reinforcing self-efficacy in health management.

Increased self-efficacy is associated with improved health information seeking behavior. Additionally, research indicates that elderly individuals with elevated self-efficacy are inclined to actively seek out health services (Chen et al., [2013](#); Callaghan, [2005](#); Yeom, [2014](#)). Self-empowerment among elderly Kibera slum residents led to media use for health knowledge

utilizing traditional and digital platforms. This resulted in better health outcomes and increased self-management capabilities.

The linkage between increased health knowledge and media use is mediated by an elevation in self-capability. Other scholars have explored factors that shape self-assurance within the realm of health matters, emphasizing the role of exterior elements. (Choi, [2020](#); Magalhães et al., [2022](#)). Similarly, self-competence also shaped health literacy among the study participants influencing their media usage patterns for health content. This means that self-reliance is a very critical variable within the realms of health information seeking among communities.

The decision to engage in health information seeking through media is largely shaped by self-reliance, which is a product of personal or societal forces (Peechapol et al., [2018](#)). Utilizing various channels for health knowledge has been observed as an activity that is enhanced by self-belief to facilitate the receiving and sharing of pertinent health related information. This trend was observed among the Chinese older population whereby personal confidence was elevated by frequent media usage for health knowledge (Yu et al., [2023](#)). Similarly, elderly slum dwellers' self-competence was elevated through sharing and receiving quality health information, thus emphasizing the critical role of media in enhancing health knowledge among this population. This further implies that utilizing an array of media sources has the capacity to increase self-competence ultimately promoting positive health practices such as healthy eating among the elderly.

Health Literacy

Elderly slum dwellers boosted their health literacy through diverse channels, embracing radio, phone calls, WhatsApp, SMS, email, television, and online media, showcasing adaptability and a comprehensive approach to information access.

LS3 stated that

"Listening to health advice on radio, watching television programs, discussing with my children through phone calls, receiving WhatsApp health tips from friends, SMS with neighbors, and emails with doctors help me stay vigilant against common diseases."

S07 stated that

"Vernacular radio provides health information in a very clear language. Books and magazines use complex language, making it hard to understand health content. "Inooro Rucini (Inooro morning show), through "Ugima wa Mwiri" (Body Health) show hosted by Wambui Wa Muturi always simplifies complex health concepts for easier understanding."

L03 stated that

"Phone calls with my children provide the required online health information because I lack digital skills. Personalized assistance enables me to access valuable health content on platforms like Facebook and Twitter, accommodating my technological limitations."

LS04 stated that

"Phone calls with children and grandchildren, and WhatsApp video calls with friends provide vital health information, aiding doctor referrals and exercise guidance, facilitating informed health decisions."

W04 stated that

"Interpersonal communication channels like WhatsApp, emails, and SMS help me in seeking health information from healthcare providers, such as doctors, and helps me make critical health decisions to prevent chronic diseases."

KMO5 stated that

"Utilizing SMS with neighbors offer a cost-effective means of health information due to constrained finances, providing information on vaccination, healthy diets, and medication reminders."

It was highlighted during focus groups that phone conversations with kids and grandkids serve as a bridge across the digital divide for elderly slum dwellers, offering online health information, working to alleviate health inequalities.

A public health communication professional expressed that technological disparities are more visible among elderly slum residents as a result of low-income levels, thus affecting their accessibility to quality health information. This technological inequality is a major constraint for accessing health knowledge necessary for making critical health resolutions among elderly slum dwellers, alleviating inequalities in underserved areas.

Scholars agree that media use of an assorted nature has aided communities to live healthy lives (Cutilli et al., [2018](#); Liu et al., [2015](#)) by consuming valid health content (Pechrapa et al., [2021](#)). Similarly, elderly slum dwellers who utilized various assorted channels exhibited an elevated health comprehension. It therefore follows that health literacy had a strong correlation with media use among elderly slum dwellers. This phenomenon was also observed among the American population who frequently engaged in online health information seeking and doctor consultations (Yamashita et al., [2020](#)).

Newspapers and magazines as sources of health knowledge have the advantage of providing detailed information and platforms for future reference (Cutilli et al., [2018](#)). Print media has been an instrumental source of health knowledge among the Turks who are able to access comprehensive health information (Çaylan et al., [2017](#)). On the other hand, Vietnamese elderly utilize traditional media in making critical health resolutions (van Hoa et al., [2020](#)). In contrast, elderly slum dwellers listened to local radio broadcasts for easier understanding as opposed to newspapers and magazines. The media choice could be attributed to the low literacy levels and socioeconomic status among the study population. It therefore follows that public health actors especially media professionals need to conduct thorough audience analysis when formulating programs targeting this population.

Online health information seeking culminates to elevated health literacy among individuals and groups. Vietnamese and Americans are major consumers of digital health content (Cutilli et al., [2018](#); van Hoa et al., [2020](#); Yamashita et al., [2020](#)).

Among Americans digital health content and doctor consultations have greatly contributed to the high health literacy in this region (Yamashita et al., [2020](#)). Children and grandchildren acted as intermediaries for accessing digital content among elderly slum dwellers. Through phone calls the elderly were able to benefit from the updated health materials available through websites and social media. It therefore follows that having personal networks can be critical in alleviating technological accessibility gaps in society. Mobile phone technology also aided the elderly access updated health information since they were already familiar with the usage of this channel when making regular phone calls.

The Dutch elderly perceive family members as significant sources of health knowledge (De Wit et al., [2017](#)). Similarly, elderly slum residents made multiple phone calls to their children, grandchildren and friends to manage certain conditions such as hypertension. Furthermore, they used these phone calls to access updated digital health content. This led to healthy eating, physical exercises and proper medical management. This indicates the significance of local and national governments supporting community-led initiatives to support the aging population.

Over the years doctors, nurses, nutritionists and pharmacists have been perceived as trusted sources of health knowledge. Health wise, America has been at the top in the list of the most developed continents because of regular doctor consultations among its citizens which ultimately prevents misinformation (Turner et al., [2018](#)).

Scholars in America (Yamashita et al., [2020](#)) and Thailand (Pechrapa et al., [2021](#)) emphasize the significance of doctor consultations to improve health literacy in society. Similarly, the elderly slum dwellers leveraged mobile phone technology to access valuable health content from nurses and doctors through emails and SMS. This indicates that the older population is willing to consume online health content but only when given proper support. This is a great opportunity for all public health actors to develop innovative strategies to integrate traditional and digital media use in supporting positive behavior change.

Neighbors have also been instrumental in the provision of medication support among the elderly. Based on the fact that the older population spends a lot of time at home, these sources come in handy to aid in quality health decision making (Pechrapa et al., [2021](#)). Similarly, elderly slum dwellers received SMS alerts from their neighbors on important health events such as vaccinations. It therefore follows that, interpersonal communication through channels like mobile phones has the capacity to elevate health literacy in marginalized areas such as slums.

Elderly individuals, especially those from rural regions share information with online communities to boost their self-image (Hollenbaugh, [2021](#)). The situation is different in urban residents who possess higher health literacy, where family, friends and neighbors are the major avenues for boosting self-image (Sun & Lyu, [2020](#); Wang et al., [2020](#)). This nature of media use exposes the rural older population to fake

digital health content due to low media literacy. In contrast, the correlation between health literacy and online media was not evident in this study due to lack of digital literacy skills among the participants.

Lack of online media navigation skills is a major barrier for communities to access updated health information (Hilton et al., [2012](#)). The ever-expanding gap between the poor and the rich in contemporary society is also reflected in health information access (Cheng et al., [2022](#)). This is the same case among elderly slum dwellers particularly in accessing digital content. Technology developers and all health stakeholders should aim to formulate easily accessible interfaces.

Conclusion

Anxiety, attitudes, and self-efficacy are critical variables that play a role in the matrix of elderly health information seeking. The heightened anxiety and attitudes of elderly individuals towards various sources of information shape their health information seeking behavior. Those with increased self-efficacy regularly engage in consumption of health content through assorted channels. Additionally, health literacy is a key element in making use of available health content through media. Basically, these three elements are significant in the process of health information seeking through media, aimed at positive behavior change. The study recommends that producers need to realign radio programming to coincide with local needs. Moreover, support of interpersonal communication at all governance levels must be provided along with accessible digital platforms. Radio programs could include chronic disease management, mental health awareness, nutrition and cooking shows, exercise and mobility tips, health education workshops, elderly rights and access to healthcare, home remedies and traditional medicine and community health initiatives. In order to help elderly slum dwellers navigate digital platforms, health stakeholders should aim to initiate digital literacy training programs, develop user-friendly interfaces, train community health advocates, provide hotline or helpline services, partner with local tech organizations and incorporate feedback and needs assessment.

Conflict of Interest

The authors of the manuscript have no financial or non-financial conflict of interest in the subject matter or materials discussed in this manuscript.

Data Availability Statement

The data associated with this study will be provided by the corresponding author upon request.

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