

Review Article

The Scopes and Implications of Health Communication in Public Health Practices in Nigeria

Matthew Chibunna Igwe^{1,2*}; Emmanuel Ifeanyi Obeagu²

¹Department of Public Health, School of Allied Health Sciences, Kampala International University, Western Campus, Ggaba Road, Kansanga, Uganda

²Department of Medical Laboratory Science, School of Allied Health Sciences, Kampala International University, Western Campus, Ggaba Road, Kansanga, Uganda

***Corresponding author: Matthew Chibunna Igwe**

Department of Public Health, School of Allied Health Sciences, Kampala International University, Western Campus, Ggaba Road, Kansanga, Uganda.

Tel: +256762798107

Email: Chibunna@kiu.ac.ug, igwechibunna@gmail.com

Received: February 21, 2024

Accepted: April 02, 2024

Published: April 09, 2024

Introduction

Health communication is a critical component of public health practices in Nigeria, playing a significant role in disseminating information, promoting behavior change, and improving health outcomes. The diverse healthcare landscape and public health challenges in Nigeria necessitate effective communication strategies to address health issues and empower individuals and communities to make informed decisions about their health. This work provides an overview of the scopes and implications of health communications in public health practices in Nigeria:

The scope of health communications in Nigeria encompasses various aspects that contribute to public health practices. Health promotion is a key area, involving the dissemination of information and messages to raise awareness and encourage individuals and communities to adopt healthy behaviors. This can include campaigns on topics such as immunization, family planning, hygiene practices, and nutrition [1]. Disease preven-

Abstract

The scope of health communications in Nigeria encompasses various aspects, including health promotion, disease prevention, health education, and behavior change interventions. It involves the dissemination of information, messages, and campaigns through various channels such as mass media, community engagement, interpersonal communication, and digital platforms. Health communications also involve advocacy, social mobilization, and community participation to raise awareness, improve health literacy, and empower individuals and communities to make informed decisions regarding their health. The implications of health communications in Nigeria are significant. Effective health communication strategies can contribute to improved health outcomes, increased knowledge and awareness of health issues, behavior change, and increased utilization of health services. It can help address public health challenges such as infectious diseases, maternal and child health, nutrition, sanitation, and non-communicable diseases. Health communications can also play a vital role in addressing social determinants of health, promoting health equity, and reducing health disparities among different populations in Nigeria. However, there are several challenges and considerations in implementing health communications in Nigeria. These include low health literacy levels, cultural and language barriers, limited access to information and technology, misinformation and rumors, and the diverse socio-cultural contexts within the country. It is essential to tailor health communication messages and strategies to the specific needs and cultural beliefs of different communities in Nigeria. Collaborations between health professionals, policymakers, media organizations, community leaders, and other stakeholders are crucial for effective health communications.

tion is another crucial scope of health communications in Nigeria. Effective communication strategies are essential for conveying preventive measures, such as vaccination campaigns, mosquito net distribution for malaria prevention, and safe sex practices for HIV prevention. These efforts are crucial in reducing the burden of communicable diseases in Nigeria [2]. Health education is a fundamental component of health communications in Nigeria. Educating individuals and communities about various health issues, symptoms, treatment options, and available healthcare services can empower them to make informed decisions about their health. Health education can cover topics such as maternal and child health, non-communicable diseases, sexual and reproductive health, and mental health [3].

Effective health communications in Nigeria have several implications for public health practices. Firstly, they can contribute to improved health outcomes by increasing knowledge and awareness of health issues. By disseminating accurate and

timely information, health communications can empower individuals to take appropriate actions to prevent diseases, seek timely healthcare, and adhere to treatment regimens [4]. Secondly, health communications can promote behavior change. Utilizing persuasive and engaging communication strategies, such as storytelling, social marketing, and testimonies, health communications can motivate individuals to adopt healthier behaviors and lifestyles. This can lead to a reduction in the prevalence of risk factors for diseases and the overall burden of illness in Nigeria [1].

Furthermore, health communications can play a crucial role in addressing public health challenges in Nigeria. The country faces numerous health issues, including infectious diseases, maternal and child health, malnutrition, sanitation, and non-communicable diseases. Effective communication strategies can help raise awareness, mobilize communities, and promote preventive measures and healthcare-seeking behaviors to tackle these challenges [2]. Moreover, health communications can contribute to addressing social determinants of health and promoting health equity. By tailoring messages and strategies to the specific needs and cultural beliefs of different communities, health communications can help reduce health disparities and ensure that vulnerable and marginalized populations have access to accurate health information and services [3].

Health communication is an essential component of public health practices. It involves the strategic use of communication to inform, educate, and engage individuals, communities, and policymakers in order to promote positive health behaviors, prevent diseases, and improve overall public health outcomes. In public health, health communication is used to create awareness about health issues, disseminate crucial health information, encourage behavior change, and mobilize communities to take action. It employs a variety of communication channels, such as mass media, social media, community events, and interpersonal communication, to reach diverse audiences effectively [5].

Health communication in public health practices also involves the development and evaluation of health messages and campaigns, the use of health literacy principles to ensure clear and understandable information, and the consideration of cultural and social contexts to tailor messages to different populations [6]. The scopes and implications of health communications in public health practices is broad and encompasses various strategies, tools, and approaches to promote health, prevent diseases, and improve healthcare outcomes. The following are some key areas of health communications in Nigeria:

Health Education and Promotion

Health communications play a crucial role in providing health education and promoting awareness about various health issues, preventive measures, and healthy behaviors. This includes disseminating information through mass media, community engagement, campaigns, and targeted interventions [7]. These practices are essential in addressing the country's health challenges, improving health outcomes, and reducing health disparities and are as follows: Health education and promotion of health communications play a crucial role in increasing awareness and knowledge about various health issues, diseases, and prevention strategies. Studies have shown that health education interventions can effectively improve knowledge levels and awareness of health-related topics among individuals and communities in Nigeria [8,9]. This increased awareness helps indi-

viduals make informed decisions about their health and adopt healthier behaviors.

Health education and promotion of health communications are instrumental in disease prevention. By disseminating accurate information about preventive measures and promoting healthy behaviors, these practices contribute to reducing the burden of diseases. For example, health education campaigns have been successful in promoting immunization programs, leading to increased vaccination coverage and reduced vaccine-preventable diseases in Nigeria [8-9]. Health education and promotion of health communications aim to bring about positive behavioral changes in individuals and communities. These practices provide information, skills, and motivation to adopt healthier behaviors and reduce risky behaviors. Studies have shown that health education interventions can effectively promote positive behavior changes, such as increased condom use, improved hygiene practices, and reduced tobacco and alcohol consumption in Nigeria [8,9].

Health education and promotion of health communications empower individuals to take control of their health and make informed decisions. By providing knowledge, skills, and resources, these practices enable individuals to engage in self-care, seek appropriate healthcare services, and effectively manage their health. Empowered individuals are more likely to adopt healthy behaviors and actively participate in their own healthcare, leading to improved health outcomes [8,9]. Nigeria faces significant health disparities across different regions, socioeconomic groups, and genders. Health education and promotion of health communications can help bridge these gaps by ensuring that health information reaches all segments of the population. These practices can be tailored to address the specific needs and challenges faced by different communities, thus reducing health inequalities [8,9].

Health education and promotion of health communications contribute to strengthening healthcare systems in Nigeria. By promoting preventive care, early detection, and appropriate healthcare-seeking behaviors, these practices reduce the burden on healthcare facilities and improve the efficiency of healthcare delivery. This, in turn, leads to better resource allocation, improved quality of care, and reduced healthcare costs [8,9]. Health education and promotion of health communications can influence policy-making processes and advocate for policies that prioritize public health. By providing evidence-based information, raising public awareness, and engaging stakeholders, these practices can contribute to the development and implementation of policies that support health promotion and disease prevention [8,9].

Behavior Change Communication (BCC)

Health communications aim to influence individuals' behaviors and drive positive changes in health-related attitudes, practices, and behaviors. It involves developing persuasive messages, effective communication channels, and tailored interventions to encourage behavior change [10].

Behavior Change Communication (BCC) is a critical component of health communication in public health practices in Nigeria. BCC interventions aim to promote positive behavior change by providing information, fostering awareness, and addressing barriers to adopting healthy behaviors and are as follows: BCC interventions in Nigeria contribute to increasing awareness and knowledge about health issues and behaviors. These interven-

tions provide targeted information on various health topics, such as HIV/AIDS prevention, family planning, malaria prevention, and hygiene practices. They help individuals understand the risks associated with certain behaviors and empower them to make informed decisions about their health [11-13].

BCC interventions play a crucial role in promoting behavior change among individuals and communities. These interventions employ evidence-based strategies, such as social marketing, interpersonal communication, and community engagement, to address barriers and motivate positive behavior change. Studies have shown the effectiveness of BCC interventions in promoting behaviors such as condom use, antenatal care attendance, handwashing, and uptake of malaria prevention measures in Nigeria [11-13].

BCC interventions empower individuals by providing them with the knowledge, skills, and resources to adopt and sustain healthy behaviors. Through interactive communication channels, such as mass media campaigns, community dialogues, and mobile phone messaging, BCC interventions empower individuals to take control of their health and make informed decisions. This empowerment leads to increased self-efficacy and a sense of ownership over one's health [11-13]. BCC interventions contribute to reducing health disparities by addressing the specific needs and challenges faced by different populations. These interventions can be tailored to target vulnerable groups, such as adolescents, women, and marginalized communities, and address the social, cultural, and economic factors that influence health behaviors. By addressing these disparities, BCC interventions help in achieving equitable health outcomes [11-13].

BCC interventions strengthen healthcare systems by promoting preventive care and reducing the burden of diseases. By encouraging individuals to adopt healthy behaviors and seek appropriate healthcare services, BCC interventions contribute to improving the overall quality of healthcare delivery. They also promote the efficient utilization of healthcare resources and reduce healthcare costs [11-13]. BCC interventions can influence policy-making processes by providing evidence-based information and advocating for policies that support behavior change and public health. These interventions can contribute to the development and implementation of policies that prioritize health promotion, prevention, and behavior change. By engaging with policymakers and stakeholders, BCC interventions can shape the policy environment to support positive health behaviors [11-13].

Risk Communication and Crisis Management

Risk communication and crisis management are crucial components of health communication in public health practices in Nigeria. These strategies aim to effectively communicate health risks, provide timely information, and manage crises to protect public health. In times of outbreaks, epidemics, or health emergencies, health communications become crucial for disseminating accurate and timely information to the public. This involves risk communication strategies, crisis management plans, and addressing rumors or misinformation to maintain public trust and facilitate appropriate responses [14].

The implications of risk communication and crisis management in public health practices in Nigeria are as follows: Risk communication involves the timely and accurate dissemination of information about health risks to the public. In Nigeria, effective risk communication is essential for addressing outbreaks,

epidemics, and other health emergencies. It helps to build trust, enhance public understanding, and promote appropriate responses to health threats. Studies have emphasized the importance of clear and transparent risk communication in managing public health emergencies in Nigeria [15-16].

Crisis management involves the coordinated response to health emergencies and the implementation of strategies to mitigate the impact of crises. In Nigeria, crisis management in public health focuses on preparedness, response, and recovery. This includes establishing emergency response systems, conducting simulations and drills, coordinating multi-sectoral efforts, and ensuring effective communication channels. The importance of crisis management in Nigeria has been highlighted in the response to disease outbreaks like Ebola and Lassa fever [16,17]. In public health emergencies, timely information dissemination is crucial to prevent panic, misinformation, and the spread of rumors. Effective risk communication ensures that accurate and up-to-date information reaches the public through various channels such as mass media, social media, community engagement, and health hotlines. Rapid and targeted communication helps to promote appropriate behaviors, increase awareness, and facilitate early detection and response to health threats [16,17].

Community engagement is a vital aspect of risk communication and crisis management in Nigeria. Engaging communities in the planning, implementation, and evaluation of public health interventions fosters trust, enhances understanding, and encourages community ownership of health initiatives. In crisis situations, community engagement helps to mobilize resources, disseminate information, and promote adherence to preventive measures. Studies have highlighted the importance of community engagement in managing health emergencies in Nigeria [16,17]. Effective risk communication and crisis management in Nigeria require collaboration among multiple sectors, including health, media, government agencies, and community organizations. Intersectoral collaboration facilitates the sharing of information, resources, and expertise, leading to a coordinated and comprehensive response to health emergencies. It also helps to ensure that messages are consistent, accurate, and tailored to the needs of different populations [16,17].

Health Literacy

Health literacy is a crucial aspect of effective health communication in public health practices in Nigeria. Health communications focus on improving health literacy by enhancing individuals' knowledge, understanding, and capacity to make informed decisions about their health. This includes using clear language, visual aids, and culturally appropriate materials to ensure that health information is accessible and comprehensible [18]. Babatunde, Fakunle and Agbana, [19], examine health literacy levels among patients with hypertension in a tertiary health institution in Nigeria. They highlighted the importance of health literacy in managing chronic diseases and emphasizes the need for effective health communication interventions.

Okan et al., [20], provided an overview of different definitions and models of health literacy, including those applicable to children and youth. They emphasize the importance of early health literacy interventions to promote lifelong health literacy skills. Saidu and Shaibu [21], investigated the association between health literacy and the utilization of maternal health services in Nigeria. They underscored the need for targeted health communication strategies to improve health literacy among

pregnant women and enhance maternal health outcomes. World Health Organization [22], report provides an overview of health literacy, its determinants, and its impact on health outcomes. It offers evidence-based recommendations for improving health literacy through comprehensive health communication strategies.

Advocacy and Policy Support

Advocacy and policy support are vital in promoting effective health communication in public health practices in Nigeria. They involve advocating for policies, regulations, and strategies that facilitate the dissemination of accurate and accessible health information to the population. Health communications contribute to advocacy efforts and promote evidence-based policies and interventions that support public health. It involves engaging stakeholders, mobilizing public support, and leveraging communication strategies to influence policy development and implementation [23].

The National Policy on Health Communication by NAFDAC provides a comprehensive framework for health communication in Nigeria. It emphasizes the importance of advocacy and policy support in ensuring the effective communication of health information. The policy highlights the need for evidence-based communication strategies, health literacy promotion, and community engagement (National Agency for Food and Drug Administration and Control [24]. The National Health Promotion Policy developed by FMOH recognizes the significance of advocacy and policy support in health communication. It emphasizes the need for evidence-based health communication strategies, partnerships, and community participation. The policy highlights the role of advocacy in promoting health literacy and behavior change [25].

International Journal of Health Sciences and Research, explores the role of advocacy in health promotion in Nigeria. It emphasizes that advocacy is essential for policy development, implementation, and evaluation in health communication. The article highlights the need for advocacy efforts to address health disparities, promote health equity, and ensure the effective dissemination of health information [26].

Uzochukwu, Onwujekwe and Mbachu's [27] study emphasizes the importance of evidence-based advocacy in health policy and systems development in Nigeria. It highlights the need for research capacity strengthening to support advocacy efforts and promote evidence-informed health communication strategies. The study emphasizes the role of advocacy in influencing policy decisions and ensuring effective health communication.

WHO guide provides a framework for advocacy, communication, and social mobilization in tuberculosis control. Although not specific to Nigeria, it offers valuable insights into the role of advocacy in health communication. The guide emphasizes the importance of knowledge, attitude, and practice surveys in informing communication strategies and highlights the need for advocacy to support effective health communication [28].

Research and Evaluation

Research and evaluation are crucial components of health communications in public health practices in Nigeria. They involve conducting studies, collecting data, and analyzing the effectiveness of communication strategies to inform evidence-based decision-making and improve health outcomes. This includes using qualitative and quantitative methodologies to as-

sess message impact, audience reception, and behavior change outcomes, thus informing future communication strategies [29]. Ibrahim and Olorunfemi, [4], examine the effectiveness of health communication campaigns in Nigeria. It highlights the importance of research and evaluation in assessing the impact of communication strategies on health behaviors and outcomes. The study emphasizes the need for evidence-based approaches to health communication in Nigeria.

Federal Ministry of Health [30], emphasizes the importance of research and evaluation in health communication. It highlights the need for monitoring and evaluation to assess the effectiveness of communication interventions and make data-driven decisions. The policy emphasizes the use of research to inform communication strategies and improve health outcomes. Agbana, Adeleke and Akintunde [31], focuses on evaluating the impact of health communication interventions on malaria prevention in Nigeria. It emphasizes the role of research and evaluation in assessing the effectiveness of communication strategies in promoting behavior change and reducing malaria transmission. The study highlights the need for evidence-based communication interventions to address malaria in Nigeria.

Iwelunmor et al.,[7] focuses on the sustainability of health interventions in sub-Saharan Africa, including Nigeria. It emphasizes the importance of research and evaluation in understanding the factors that contribute to the success and sustainability of health communication interventions. The study highlights the need for rigorous evaluation to inform the development and implementation of sustainable communication strategies. Odetola and Adeoti, [32], examine research and evaluation in health communication interventions in Nigeria. It highlights the importance of conducting and disseminating research to inform evidence-based communication strategies. The study emphasizes the need for rigorous evaluation to assess the effectiveness of communication interventions and improve health outcomes in Nigeria.

Social Marketing

Health communications employ social marketing techniques to promote health products, services, and programs. This involves applying principles of commercial marketing to change behaviors, shape attitudes, and induce demand for health-related products or services [7]. Social marketing is defined as the application of commercial marketing principles and techniques to the design, implementation, and evaluation of programs aimed at promoting social welfare and improving individual and societal well-being [33].

Therefore, health communications play a key role in designing and implementing social marketing strategies in public health practices. Firstly, health communication can be used to raise awareness and increase knowledge about public health issues. Public health campaigns such as immunization or family planning programs can be effectively promoted through mass media, social media, and community outreach programs. These campaigns provide people with information about the benefits of public health practices and encourage them to adopt healthy behaviors. Secondly, health communication can help to modify attitudes and change behavior among the general population. For instance, health communication campaigns can educate people about healthy lifestyle choices and encourage them to adopt healthy behaviors such as regular exercise, balanced diet, and preventive measures against diseases.

Finally, health communication can contribute to the success of social marketing by building trust and credibility among the public. By providing reliable and accurate health information, health communication can establish a relationship between public health officials and the general population, which is critical in implementing successful public health campaigns [33].

Partnerships and Collaboration

Health communication plays a crucial role in partnership and collaboration in public health practices in Nigeria. It involves the strategic use of communication methods and channels to inform, educate, and engage individuals and communities in promoting and maintaining good health. Effective health communication can have several implications for partnership and collaboration in public health practices which may include: Health communication facilitates the sharing and dissemination of accurate and timely health information among various stakeholders, including government agencies, healthcare providers, NGOs, and the general public. This ensures that all relevant parties have access to the latest knowledge and evidence-based practices, which is essential for effective collaboration and partnership in public health initiatives [34].

Effective health communication helps in building trust and credibility among different stakeholders in the public health sector. When information is communicated transparently, consistently, and in a culturally appropriate manner, it enhances the trust between organizations and communities. This trust is crucial for successful partnerships and collaborations, as it encourages open dialogue, cooperation, and shared decision-making. Health communication plays a vital role in promoting behavior change and encouraging healthy practices among individuals and communities. Through targeted communication campaigns, messages can be tailored to address specific health issues prevalent in Nigeria, such as malaria prevention, vaccination, HIV/AIDS awareness, and maternal and child health. By effectively communicating the benefits and risks associated with certain behaviors, health communication can motivate individuals to adopt healthier lifestyles and practices [35].

Health communication serves as a powerful tool for advocacy and policy development in public health. It helps in raising awareness about health issues, mobilizing support, and influencing policy decisions. By disseminating evidence-based information and highlighting the impact of specific health problems, health communication can create a sense of urgency among policymakers and stakeholders, leading to the development and implementation of effective public health policies and programs. Effective health communication encourages community engagement and participation in public health initiatives. By involving communities in the planning, implementation, and evaluation of health programs, it ensures that interventions are culturally appropriate, acceptable, and sustainable. This participatory approach fosters collaboration between different stakeholders, including community leaders, healthcare providers, and government agencies, leading to more effective and impactful public health practices [36].

Recommendations for Enhancing Health Communication

Tailoring communication strategies involves customizing messages, channels, and approaches to effectively reach and resonate with diverse populations within Nigeria. This includes considering cultural norms, language preferences, socioeconomic status, and literacy levels. For instance, in Northern Nige-

ria, where Hausa is predominantly spoken, using local languages in health communication materials may be more effective. Additionally, utilizing culturally appropriate visuals, symbols, and community influencers can enhance message uptake [37].

Health literacy programs aim to improve individuals' understanding of health information and their ability to make informed decisions regarding their health. This involves promoting basic literacy skills, as well as health-specific literacy, such as understanding medical terminology and interpreting health-related instructions. Investing in such programs can empower individuals to navigate the healthcare system, adhere to treatment regimens, and adopt healthy behaviors [38]. With the increasing penetration of digital technologies in Nigeria, leveraging platforms such as social media, mobile applications, and telemedicine can facilitate the widespread dissemination of health information. Interactive tools, such as chatbots or SMS-based health messaging services, can provide personalized health advice and support. However, it's crucial to ensure accessibility and inclusivity, considering factors like internet connectivity and smartphone ownership disparities [39]. Collaborative partnerships are essential for the success of health communication initiatives. Governments can provide policy support and resources, NGOs bring expertise and community engagement, while community stakeholders offer insights into local needs and preferences. By working together, these entities can develop culturally relevant programs, optimize resource allocation, and ensure sustainability [40].

Robust research is necessary to evaluate the impact of communication interventions on health outcomes. This includes assessing knowledge acquisition, behavior change, health service utilization, and health disparities reduction. Utilizing mixed-methods approaches, such as surveys, focus groups, and longitudinal studies, can provide comprehensive insights into the effectiveness, scalability, and sustainability of communication strategies [41].

Conclusion

Health communications in public health practices in Nigeria are invaluable for promoting health, preventing diseases, and improving healthcare outcomes. Effective communication strategies, collaboration among stakeholders, and the use of diverse channels are essential for reaching and empowering the population with accurate and relevant health information. Continued efforts to strengthen health communications in Nigeria will contribute to better health outcomes and an overall improved public health landscape in the country.

Author Statements

Competing Interests

Authors have declared that no competing interests exist.

Conflict of Interest

The authors declared no conflict of interest.

Funding

The authors received no funding for this study.

Author Contributions

MCI conceived, designed the study, and drafted the manuscript. MCI, OAO, PON, and EIO conducted the dataset searches. All authors read, reviewed, and approved the manuscript.

Declaration of Competing Interest

The authors declare that there are no conflicting interests.

References

- Adepoju P. Health communication in Nigeria: A study of the National Tuberculosis and Leprosy Control Programme, Lagos State. *Journal of Communication and Media Research*. 2017; 9: 1-20.
- Nwankwo BE, Nwankwo CN, Ani AC. Mass media and health promotion in Nigeria: A study of the role of the Nigerian Television Authority in the fight against Ebola Virus Disease. *Journal of Communication and Media Research*. 2019; 11: 42-55.
- Ibrahim IM, Odigie VI, Aliyu I, Abubakar A. Health communication in Nigeria: A review of the role of mass media. *Journal of Public Health in Africa*. 2019; 10: 928.
- Ibrahim MT, Olorunfemi OJ. Evaluating the effectiveness of health communication campaigns in Nigeria: A systematic review. *Journal of Public Health in Africa*. 2019; 10: 874
- Centers for Disease Control and Prevention. *Health Communication Basics*. 2020.
- World Health Organization. *Health Communication: A Framework for Understanding Communication-Based Interventions for Health Promotion*. 2021.
- Iwelunmor J, Blackstone S, Veira D, Nwaozuru U, Airhihenbuwa CO. Toward the sustainability of health interventions implemented in sub-Saharan Africa: A systematic review and conceptual framework. *Implementation Science*. 2016; 11: 1-16.
- Olorunfemi OJ, Oyewole BK, Olorunfemi DI. The role of health education in achieving sustainable development goals in Nigeria. *Journal of Education and Practice*. 2019; 10: 40-46.
- Olalekan AW, Adebimpe WO, Olawoye O. Effect of health education on knowledge and attitude of secondary school students towards HIV/AIDS in Osun State, Nigeria. *Journal of Education and Practice*. 2018; 9: 1-8.
- Ogundoyin I, et al. Designing an effective communications campaign strategy for an emerging epidemic in Nigeria: lessons learned from Ebola and Zika viruses. *BMC Medical Research Methodology*. 2019; 19: 1-10.
- Ajayi AI, Akpan W, Okafor CT. Effectiveness of behavior change communication interventions in reducing HIV transmission and improving HIV outcomes in Nigeria: A systematic review and meta-analysis. *Global Health Research and Policy*. 2020; 5: 1-17.
- Babalola S, Awasum DN, Quenum-Renaud B, Yankey D. Factors associated with contraceptive ideation among urban men in Nigeria. *International Journal of Men's Health*. 2015; 14: 97-114.
- National Population Commission (NPC) and ICF. *Nigeria Demographic and Health Survey 2018*. Abuja, Nigeria, and Rockville, Maryland, USA: NPC and ICF. 2019.
- Iyanda AE, et al. Understanding the complexity of mHealth initiatives in Nigeria: a qualitative study. *Plos one*. 2019; 14: e0223926.
- Nnebue CC, Onwasigwe CN, Adogu PO, Onyeonoru UU, Nwakpu ES. Ebola viral disease in Nigeria: The panic and cultural threat. *Nigerian Journal of Clinical Practice*. 2019; 22: 1377-1383.
- Oleribe OO, Salako BL, Ka MM, Akpalu A, McConnochie M. Ebola virus disease epidemic in West Africa: Lessons learned and issues arising from West African countries. *Clinical Medicine*. 2015; 15: 54-57.
- Okonkwo RC, Coker AO, Okafor IP, Onwurah N. Public health responses to the Ebola outbreak in Nigeria: Lessons learned and way forward. *Health Policy and Technology*. 2016; 5: 249-256.
- Glanz K, et al. *Health Behavior: Theory, Research, and Practice* (5th ed.). Jossey-Bass. 2018.
- Babatunde OA, Fakunle A, Agbana BE. Health literacy among patients with hypertension in a tertiary health institution in South-western Nigeria. *Ethiopian Journal of Health Sciences*. 2017; 27: 155-162.
- Okan O, Bollweg TM, Berens EM, Hurrelmann K. Health literacy in childhood and youth: a systematic review of definitions and models. *BMC Public Health*. 2019; 19: 1-13.
- Saidu Y, Shaibu S. Health literacy and utilization of maternal health services in Nigeria. *Journal of Public Health in Africa*. 2020; 11: 1004.
- World Health Organization. *Health literacy: the solid facts*. World Health Organization Regional Office for Europe. 2013.
- Attafuah FA, et al. Exploring the factors shaping the response of grocery shoppers to calorie information: an elicitation study. *BMC Public Health*. 2020; 20: 1-12.
- National Agency for Food and Drug Administration and Control (NAFDAC). *National Policy on Health Communication*. Abuja, Nigeria: NAFDAC. 2018.
- Federal Ministry of Health (FMOH). *National Health Promotion Policy*. Abuja, Nigeria: FMOH. 2017.
- Oyewole BK, Oyewole OI. Advocacy for health promotion in Nigeria: a critical review. 2016.
- Uzochukwu BS, Onwujekwe OE, Mbachu C. Enhancing the role of evidence-based advocacy for health policy and systems development in Nigeria through a research capacity-strengthening program. *Global Health Action*. 2016; 9: 30921.
- World Health Organization (WHO). 2017.
- Kreuter MW, et al. How to test and refine interventions, policies, and practices for health behavior change. *Applied Nursing Research*. 2013; 26: 268-279.
- Federal Ministry of Health (FMOH). *National Health Communication Policy and Strategy*. Abuja, Nigeria: FMOH. 2016.
- Agbana BE, Adeleke IT, Akintunde TY. Assessing the impact of health communication interventions on malaria prevention in Nigeria: A systematic review. *Malaria Journal*. 2018; 17: 1-11.
- Odetola TD, Adeoti AO. Research and evaluation in health communication interventions in Nigeria: A review of published studies. *Journal of Health Communication*. 2020; 25: 408-420.
- Lefebvre RC. *Social marketing and social change: Strategies and tools for improving health, well-being, and the environment*. John Wiley & Sons. 2013; 10.
- World Health Organization. *Health Communication: From Theory to Practice*. 2009.
- Nigeria Centre for Disease Control. *Health Communication Strategy for Public Health Emergencies in Nigeria*. 2019.
- Federal Ministry of Health, Nigeria. *National Health Promotion Policy*. 2014.
- Iwelunmor J, Newsome V, Airhihenbuwa CO, Ezepue C. Ambassadors for health: A community-based program that utilizes lay health educators to improve access to healthcare for African immigrants in the USA. *Family & community health*. 2014; 37: 119-127.

38. Okan O, Bauer U, Levin-Zamir D. Health literacy and health promotion. In Health literacy across the life span. Routledge. 2020; 237-250.
39. Agarwal S, Perry HB, Long LA, Labrique AB. Evidence on feasibility and effective use of mHealth strategies by frontline health workers in developing countries: systematic review. *Tropical Medicine & International Health*. 2015; 20: 1003-1014.
40. World Health Organization. Report of the international conference on primary health care, Alma-Ata, USSR, 6-12 September 1978. World Health Organization. 2008.
41. Viswanath K. Public communications and its role in reducing and eliminating health disparities. In *Reducing health disparities*. Oxford University Press. 2006; 223-242.