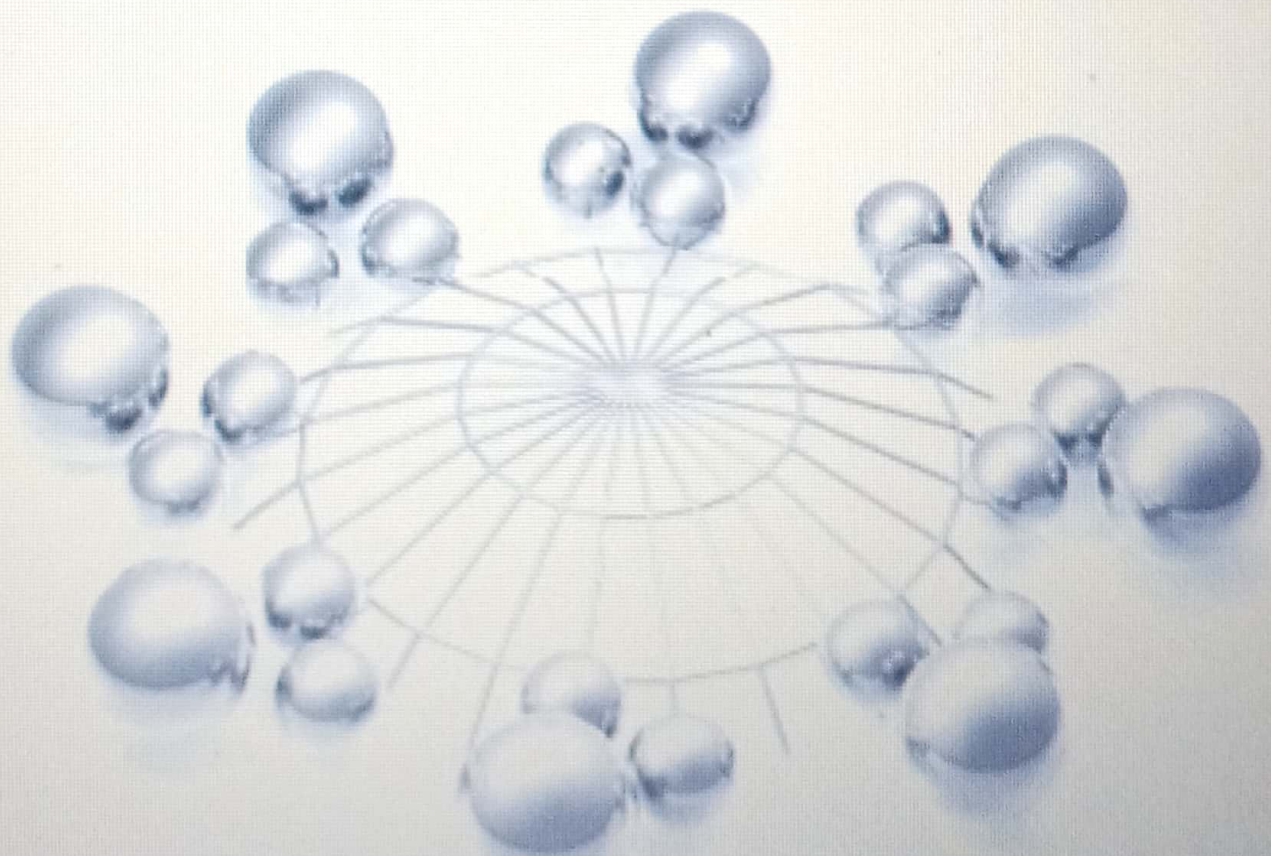# Media and Communication Theory in Africa

Edited by Nelson Okorie
Babatunde Raphael Ojebuyi · Ngozi Okpara

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Nelson Okorie
Babatunde Raphael Ojebuyi
Ngozi Okpara
Editors

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palgrave
macmillan

Editors
Nelson Okorie
School of Media and Communication
Pan-Atlantic University
Lekki-Ibjeju, Nigeria

Ngozi Okpara
School of Media and Communication
Pan-Atlantic University
Lagos, Nigeria

Babatunde Raphael Ojebuyi
Department of Communication and
Language Arts
University of Ibadan
Ibadan, Nigeria

Health Communication Models, Theories and their Applications in Africa

Charity A. Ben-Enukora

1 INTRODUCTION

Public health is an area where people do not possess adequate knowledge as health challenges are numerous and they assume various forms based on an individual's physiological composition and lifestyle. Hence, information is crucial in improving human health, and access to health information is paramount to health decision-making at both individual and community levels (Ben-Enukora, Okorie & Amodu, 2019). Therefore, health communication has become a vital constituent of public health practice due to the insufficiency of traditional epidemiological and microbiological interventions in addressing infectious diseases control among high-risk populations across the globe (Würz et al., 2013; Okpoko & Aniwada, 2018). Virtually all facets of public health delivery (disease prevention, treatment, and management) have communication inputs, because the public must be empowered with adequate information to

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C. A. Ben-Enukora (✉)
Department of Mass Communication, Landmark University,
Omu-Aran, Nigeria
e-mail: ben-enukora.charity@lmu.edu.ng

facilitate informed decision-making (Sixsmith et al., 2014; Tumpey et al., 2018).

Despite the global acceptance of health communication as an interdisciplinary practice, academics and health organisations efforts to delineate the concept have not yielded a universally acceptable definition (CDC, 2011; Nacinovich & Langdon-Neuner, 2011). For the purpose of this article, two recent definitions have been adopted. The United States Office of Disease Prevention and Health Promotion (2011, p. 20) conceptualizes health communication as "the study and use of communication strategies to inform and influence individual and community decisions that affect health". Alternatively, Stephenson et al. (2011, p. 7) perceive health communication as "the process through which an individual or an audience engages, either directly or indirectly, information that can influence health-relevant beliefs and behaviours, regardless of whether that information was or was not intended to affect health outcomes". These definitions underscore that exchange of critical information to raise awareness about high-risk behaviours or lifestyles that predispose people to diseases, shaping of perceptions and beliefs regarding disease prevention and management options, and motivating individuals to adopt or sustain certain behaviours to reduce the risk of diseases, are the central ideas in health communication. Additionally, policymakers could be persuaded to implement programmes that enhance positive changes such as increase of healthcare funding, sponsorship of medical research, empowerment of healthcare services, or deployment of healthcare personnel to under-served communities.

Health communication is indispensable in reducing the morbidity and mortality resulting from contagious and non-communicable diseases, and minimizing the socio-economic impacts of such diseases on national economies as well as the public health infrastructures (Infanti et al., 2013). Communication interventions in public health encompass a wide range of initiatives from individual lifestyles and decisions to social and macroeconomic problems (McDaid et al., 2015).

Accordingly, health communication could be delivered through the mass media, interpersonal communication channels, internet mediated platforms, or a combination of approaches, depending on the socio-cultural networks, values, and norms within a social system. It could be a complex enterprise when a mixed-method of interpersonal communication, social marketing, behaviour change communication, and medical anthropology is applied to positively influence health practices among

large populations (Schiavo, 2007). However, no matter the approach adopted, the audience's access to health communication content is paramount as lack of access automatically translates to failure of communication objective.

Unhealthy/risky behaviour is a major facilitator to a majority of leading causes of morbidity and premature mortality in the human race (Keeney, 2008; Jackson et al., 2010; Janowski et al., 2013). This notion necessitates a high level of concentration on human behaviour, as well as why and how people make an informed decision regarding their health. Consequently, interventionists aim at positively influencing knowledge, attitudes, and social norms which may result in the adoption and sustenance of healthy behaviours and lifestyles that improve the health conditions of the people. Thus, behaviour change strategies occupy the centre stage in every communication attempt towards reducing the risk of mortality and morbidity (Govender, 2010). This is why interventionists focus on those factors that could (1) reduce, inhibit, or modify behaviours or social and physical environments considered hazardous or disease-promoting or (2) increase behaviours or enhance social and physical environments considered health-promoting (Kumar & Preetha, 2012).

Therefore, interventionists' ability to identify the best contexts, channels, content, and factors that trigger attention to and use of health information, is a fundamental ingredient for effective health communication (WHO, 2017). To ensure that interventionists are guided in figuring out these elements, experts have developed some communication models and theories as the bedrock of public health promotion, education, and intervention programmes.

The popular axiom "there is nothing more practical than a good theory" (Lewin, 1951, p. 169) describes that applying theories to specific issues is a roadmap to providing tangible solutions to life problems including health-related circumstances.

Similarly, Edgar and Volkman (2012) capture the significance of theories in health communication when they posit that decision-making in health promotion activities would be based on intuition and guesswork, in the absence of theories. The reason for this assumption is clear as health communication models and theories identify a collection of interconnected ideas and propositions that can be used to methodically analyse individuals and community's knowledge, attitude, and behaviour regarding public health. Theories are the foundation of evidence-based practices as they enable practitioners to predict the outcomes of interventions

through a vivid understanding of how and why people behave the way they do, the environmental context in which the behaviour occurs, and actions that would facilitate behaviour change (Prager, 2012). Therefore, good knowledge and choice of theories provide a lever for cost-effective health promotion planning, execution and evaluation.

Talking about the usefulness (or not) of theoretical propositions, some scholars argue that some components in health communication propositions are much less relevant in non-Western contexts due to cultural disparity and health care inequalities between the West and non-western nations (Ngodo & Klyueva, 2022). Furthermore, the neglect of cultural effect in such theories could make the ideas culturally insensitive, particularly in societies where individualism thrives more than collectivism. A re-examination of the theoretical constructs is considered significant before the selection of theories and models proposed for application in health communication.

Although theories and models available for use by interventionists in health promotion abound, only seven theoretical perspectives have been selected based on their popularity in understanding and predicting a great deal of health-related behaviours. These theories include; Health Belief Model, Theories of Reasoned Action and Planned Behaviour, Diffusion of Innovations Theory, Extended Parallel Processes Model, Transtheoretical/Stages of Change Model, Social Marketing Theory, and The Ecological Model. All of these models are unique and consist of multiple components. The paper examines the propositions of the selected theories as well as their applicability in African contexts using case studies from different nations and regions in Africa.

1.1   *Health Belief Model (HBM)*

The health belief model is a social cognitive proposition that describes the process of decision-making and behaviours. This model was conceived by social psychologists, Rosenstock, Hochbaum, Kegeles and Leventhal in reaction to the non-participation of the target population in tuberculosis and cervical cancer screening exercise in the early 1950s (Coulson et al., 2016). Since then, it has remained relevant in the field of health communication, especially in disease awareness and prevention programmes. The original concept suggests that an individual's response towards health prevention depends on four critical psychological variables about individual perceptions which could affect behaviour. These
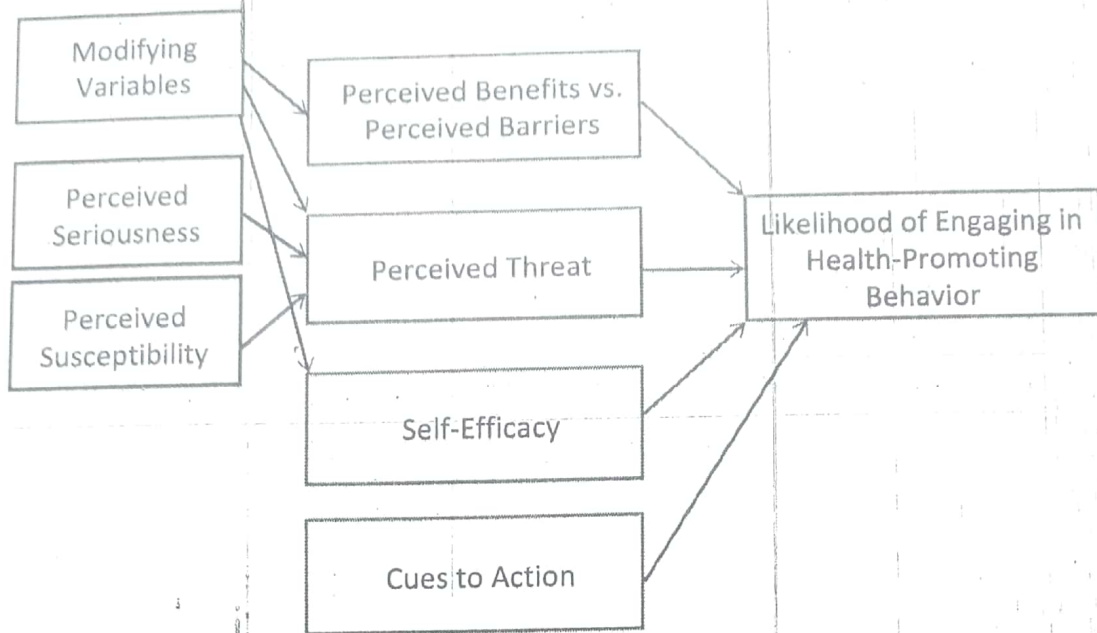
Fig. 1 Health belief model. Source: Methods for Stress Management (2021)

are; perceived susceptibility, perceived severity, perceived benefits, and perceived barriers (Rawlett, 2011, p. 15). Over the years, the HBM has been modified to include modifying factors, cues to action, self-efficacy and others (Fig. 1).

Individual perception about susceptibility and severity of health risks is a set of interrelated elements that affect health-related decisions and behaviours. Perceived susceptibility is someone's conviction about his or her vulnerability to or risk of contracting a disease, while perceived severity is an individual's judgement regarding the seriousness and the consequence of a health concern (Adesina et al., 2021). This suggests that an individual's attitude and behaviour towards disease prevention could be determined by his perception about susceptibility and the severity of a health issue as expressed through communication. Therefore, it could be inferred that an individual's belief in the severity of a health condition in terms of discomfort, pain, loss of job time, financial implications of treatment, and untimely death, together with the perception of vulnerability to such health problems influences decisions making and behaviour (Imoh, 2008). The HBM seeks to increase awareness of disease severity and change perceptions about susceptibility to induce behaviour change.

Perceived threat is established by assessing the chances of contracting a disease or developing a health problem based on existing behaviour. Hence, a perceived threat is felt before recommended preventive actions are considered. However, barriers, as identified by an individual's judgement, could prevent behaviour change (Glasgow, 2020). Barriers may be that the expected behaviour is problematic, time-consuming, or requires some financial commitments. For example, even when COVID-19 disease is perceived to be severe, certain factors could still hinder some individuals from adopting and sustaining recommended risk reduction behaviours such as abstaining from crowded places. Consequently, individuals exposed to behaviour change communication usually weigh the perceived benefits of advocated behaviour and the perceived barriers to behaviour change on a pendulum to determine if it is worth the stress (Champion & Skinner, 2008). Thus, the likelihood to take the desired action depends on the weight of the perceived benefits, which is the belief that a suggested action can reduce or eliminate a health risk (Janz et al., 1995). Hence, the benefits of advocated action must outweigh the barriers for action to occur (Champion & Skinner, 2008). Therefore, knowing exactly what the potential positive results will be provides direction for judgement.

The construct modifying factors consist of external influences that shape individual perceptions. These elements include demography-based variables (like age, gender, race, ethnic and educational backgrounds) as well as psychological factors (such as social class, personality traits, and socioeconomic status) that impact individual judgment about disease severity, threat, and susceptibility (Abraham & Sheeran, 2015). For instance, illiteracy and low economic status tend to influence people's perception of disease susceptibility and threat since those who have little or no education and cannot afford good healthcare may not feel susceptible or threatened by the "rich man's disease".

Self-efficacy relates to confidence in someone's capability to perform an expected behaviour, and the sustenance of such behaviour in event of obstacles or challenges. Self-efficacy could result from past personal accomplishments, experiences of other people, and verbal persuasion from other individuals via demonstration of the desired action (Bandura, 1977).

More so, cues to action are prompts that stimulate preventive practices. These include the mass media contents, information from a reliable relative and illness of a family member and close friends, or advice from healthcare workers and reminder messages that serve as catalysts that trigger the

decision to change. However, the cues must be 'salient or relevant to triggered action'.

Even though the paradigm has been extensively used in health promotion programmes including cancer and Severe Acute Respiratory Syndrome (SARS) screening exercises, immunization, vaccination, sexual and dietary behaviours, etc., it has been criticized for its emphasis on the individual, ignoring socioeconomic and emotional factors that affect perception. Also, some authors have indicated that it does not presuppose or imply a strategy for change and should Therefore be applied with caution. Likewise, some of the theoretical reviews on HBM have reported that not all the constructs are good predictors of behaviour. These criticisms provoke doubts about the usefulness of some of the model's constructs. Nevertheless, its emphasis on the importance of knowledge is essential for change to take place. It is, therefore, worthy to note that using the health belief model without a complementary effort to improve access to healthcare services may amount to a waste of resources.

1.1.1 Case Study: COVID-19 Awareness

Perceived Susceptibility and Severity: Persons who have other diseases such as asthma, diabetes, and hypertension as well as the early and other immune-compromised individuals have been referred to as the most vulnerable to covid-19 diseases, who perceive that they are at higher risk of covid-19 infection, would go on to consider the severity of the disease that they are vulnerable to as well as its consequences.

Perceived benefits and barriers: The benefits of observing the non-pharmaceutical preventive measures for Covid-19 as expressed in communication messages such as "protect yourself to protect others", and "the weapon to kill Corona Virus is in our hands" are considered alongside the factors that may hinder someone from achieving the recommended behaviours. The barriers may include the difficulty in avoiding public places like markets, public buses, and religious gatherings. Therefore, the benefits of taking recommended actions are emphasized in communication messages to aid positive belief that the suggested behaviours can reduce the risk of Covid-19 infection.

Cues to action: In the case of the Covid-19 pandemic, the cues to action include the mass media jingles, news bulletins, daily updates of confirmed cases and deaths resulting from the disease, SMS messages from NCDC, and information from interpersonal communication networks,

as well as personal experience regarding family members' Covid-19-related illness or death, that can trigger behavioural change.

Self-efficacy: Individuals exposed to Covid-19 awareness campaigns based on HBM could ask themselves the following questions: Can I maintain 20 meters distance from other people? Can I avoid handshakes with people? Can I stop hugging my friends? Can I avoid crowded places? Can I wash my hands with soap regularly? Did I succeed in taking similar actions in the past? The results of these personal interrogations and many more determine the perceived self-efficacy to perform the non-pharmaceutical preventive measures against contracting Corona Virus.

Modifying factors: Individuals may consider that they are still very young and energetic with a strong immune system. Therefore, they do not need to be bothered about Covid-19. Some persons who do not travel by air or public transport may as well consider themselves unreachable by Corona Virus.

1.1.2   Practical Example of HBM-Based Intervention in Africa

COVID-19 Animation Video for Children in Malawi

The Ministry of Health in Malawi, with the support from UNICEF, UK Aid, and WHO, created an animated video using dialogue, drama, music, dance, and demonstration to promote the adoption of 5 key Covid-19 prevention actions (frequent handwashing with soap, physical distancing, use of elbow when coughing and sneezing, avoiding touching the face and staying at home) among Malawian children.

> The message reads;
> (A male child riding on a bicycle to a playground where a female child is seated)
> **The male child:** Hello! Chinwenwe!
> **The male child:** Hello! Chinwenwe!
> **The female child:** No, no, no, stay back
> Don't come close to me
> I am keeping my distance to prevent the spread of Covid-19.
> **The male child:** Oh yes, we have to stay at least two steps to 1 meter apart
> I remember now.
> It's good to remember

The female child: Let's tell our family and friends about Covid-19 and how to prevent it

Dance: Covid-19! Covid-19! It's a new disease that makes you cough
Covid-19! Covid-19! It's a new disease that gives you fever
With Covid-19, it's hard to breath
Covid-19 makes you cough

The female child: This is serious! it's a disease that's all over the world
The male child: But can we prevent it?
Dance: Before you eat! Wash your hands!
After you sneeze! Wash your hands!
Whenever you cough! Wash your hands with soap and water!

The male child: For how long would I wash my hands with soap and water?
The female child: For at least 20 seconds
Demonstration of handwashing steps

The Male Child: Chinwenwe, how many times do we wash our hands with soap and water?
Dance: So many times! So many times! So many many, many times in a day!
The Male Child: Well, I can do that. What else do we need to do to avoid the spread of Covid-19, Chinwenwe?

Dance: Don't touch your face!
Don't touch your eyes, your mouth, or your nose!
Don't touch your eyes, your mouth, or your nose!
Stay at Home!
Source: Ministry of Health Malawi (2020). COVID-19 Animation Video for Children in Malawi. https://www.youtube.com/watch?v=CecQuh1nGM0

1.2 Theories of Reasoned Action and Planned Behaviour

The theory of Reasoned Action (TRA) was developed by Fishbein and Ajzen (1975) but Ajzen (1985) added the construct-Perceived Behavioural Control (PBC) to form the Theory of Planned Behaviour (TPB). The theories are psychological propositions developed to explain the factors that impact conscious decision-making. The theorist presupposes that human behaviours towards persuasive messages are based on certain variables such as intention, attitude, subjective norm- normative belief, and

motivation to comply with the desired intent of the message source. The TRA holds that intention is the most powerful determinant of human behaviour under volitional control (Ajzen, 1991). Intention is the possible behavioural inclination or desires to engage in an action or not, in the nearest future (Ajzen, 1991; McEachan et al., 2016). However, intention does not guarantee the performance of behaviour. Behavioural intentions could be best described as the precursor to actual behaviour as they precede attitude and are likely to change at any point in time (Littlejohn & Foss, 2009), though, intentions are shaped by attitudes and subjective norm (Ajzen, 1985; WHO, 2012). The formation of intention is, therefore, a result of some thought processes that may be influenced by various factors (Fig. 2).

The construct attitude is described as a predisposition to favourable or unfavourable interaction with an object, person, or situation (Ajzen, 1991; Tommasetti et al., 2018). Attitude formation is a cognitive process demonstrating a broad perspective of behaviour predicted by beliefs and personal evaluations (Littlejohn & Foss, 2009). It is determined by identifying some related beliefs and evaluating their strength. For instance, if an individual tenaciously believes that the consumption of rodents can lead to Lassa fever infection and does not want to be infected, the individual will probably develop the intention to withdraw from rodent consumption. This intention is a product of his attitude towards rodents.
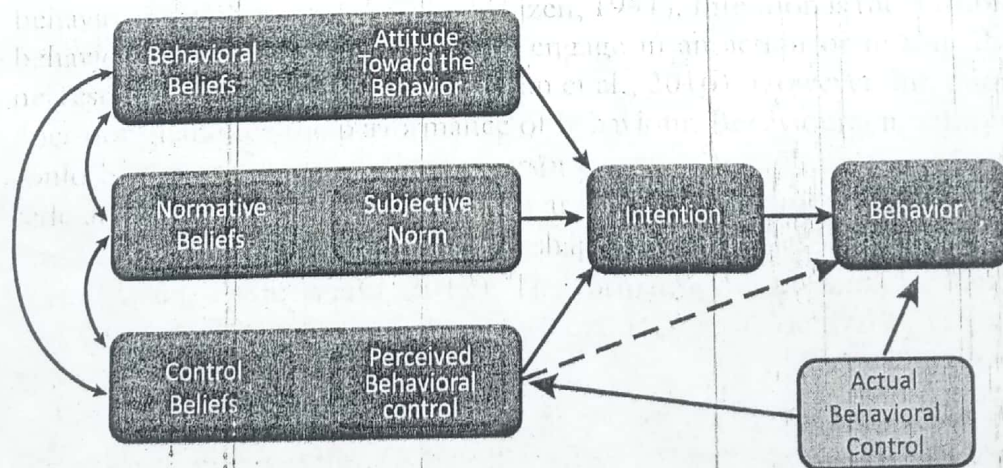

Fig. 2   Theories of reasoned action and planned behaviour. Source: Ajzen (1985)

Another variable that determines human behaviour, according to Ajzen, is subjective norm. Subjective norm refers to the social influences/pressure that impact the performance or non-performance of behaviours (Ajzen, 1991; Nguyen et al., 2020). The theorist assumes that decision-maker's perception of a particular behaviour is more or less influenced by the opinions and behaviour of people considered significant in their social network (Northern Health, 2013). Subjective norm consists of normative beliefs (opinion of other people about a behaviour) and motivation to comply (compulsion to align with or satisfy the "significant others" viewpoints). Normative beliefs refer to the perception of significant others' opinion on whether an action should be carried out or not (Wang, 2018; Xin et al., 2019), while motivation to comply refers to actions taken by other persons in the social ties that inspire the performance of certain behaviours. Subjective norm could either be positive or negative. A positive disposition towards a behaviour held by "relevant others" would yield a positive subjective norm from their loyalists who are motivated to meet their expectations. Alternatively, where the "relevant others" have a negative disposition about an action and their loyalists are motivated to meet their expectations, it results in a negative subjective norm (Oyero & Salawu, 2014). Thus, the relevant others could influence people within their social network to adopt a positive or negative behaviour.

Despite the popularity of the TRA in depicting the link between attitude, intentions, and subjective norm, critics have argued that these factors are insufficient to explain the variance in human behaviours. The theory was also criticized for focusing on voluntary behaviours and excluding impulsive, scripted, or habitual behaviours (Littlejohn & Foss, 2009). Similarly, Ajzen (1985) maintains that the theory does not apply to behaviours that are compelled or restricted by individual deficiencies and/or external constraints. These criticisms led to the development of the TPB (Ajzen, 1991) to include Perceived Behavioural Control (PBC) to improve the predictive power of the TRA (Gomes & Nunes, 2017; Wang, 2018).

Therefore, the underlying premise of the TPB is that behaviours are planned and purposeful (Ajzen, 1991; Xin et al., 2019). Hence, the construct, PBC has a direct impact on behaviour. It reflects the personal capability of accomplishing an action, considering internal and external factors that may impact the behaviour (Ajzen, 1991). Control is in two dimensions; control beliefs (sufficient control and availability of resources for the effective implementation of an action) and perceived power (the level of

ease or difficulty involved in performing an action) (Madden et al., 1992; Ajzen, 2002; Van Briemen et al., 2019; Wijayaningtyas et al., 2019).

The level of ease or difficulty involved in performing an action is shaped by internal and external factors such as skills and abilities, and time respectively. Thus, a high level of control belief and perceived power translates to a greater perceived behavioural control (Ajzen, 1991).

The construct, PBC as depicted in the TPB, aligns with Albert Bandura's Self-Efficacy Model. The Self-Efficacy Model presupposes that confidence in performing human behaviour is predicated by the perceived ease or difficulty in performing the behaviour. Therefore, behaviours that are perceived as easy-to-perform are more likely to be accomplished compared to behaviours that are perceived as difficult tasks.

Critics believe that TRA and TPB are no longer relevant (Prager, 2012) and call for the retirement of the proposition (Sniehotta et al., 2014, p. 1). Likewise, some authors claim that changes in intention, subjective norm, and PBC have failed to bring about behavioural changes as many people who develop intentions do not perform the intended action eventually (Coulson et al., 2016). More so, various researchers have attempted to include additional variables to the already existing constructs. However, both theories have been extensively utilized in predicting health-related behaviours and some of their assumptions are still apparent in recently developed behaviour change theories.

1.2.1   Case Study: Lassa Fever in Nigeria

Lassa fever is a major health concern in Nigeria. Communication messages on disease prevention highlight harmful behaviours such as rodent consumption, consumption of food contaminated by rats' excreta and secretions, sun-drying of farm produce on the roadsides, as well as poor standards of household and environmental hygiene practices as the risk factors for Lassa fever. As Lass fever vaccine trails have not been approved, behaviour change in these directions would help reduce the threat of the disease in Nigeria.

Intention: An individual exposed to communication messages on Lassa fever may develop the intention of abstaining from rodent consumption (one of the preventive measures for Lassa fever) in the nearest future. However, the intention may not lead to action.

Subjective norm: Subjective norm demonstrates social influence from people considered significant on an individual's intentions and behaviour.

Normative beliefs (opinion of other people about a behaviour) and motivation to comply (compulsion to satisfy the "significant others" such as trusted family members, relatives, friends, neighbours, religious leaders, and other role models) could influence decision making towards Lassa fever prevention. Therefore, individuals whose significant others demonstrate a positive attitude towards Lassa fever prevention may be motivated to comply with the recommended practices to satisfy their influencers.

Perceived Behavioural Control: The recommended practices for Lassa fever prevention include; adequate food strong in rodent-proof containers, rat-proofing of human habitat, avoidance of sun-drying of food items in open places and roadsides, and standard waste disposal practices. The perceived behavioural control will reflect the perceived capability of performing these behaviours in terms of how easy or difficult the risk reduction behaviours are in terms of cost, skill, and time factors. Thus, a strong PBC would stimulate the desired actions.

1.2.2 Practical Example of the Theory of Planned Behaviour-Based Intervention in Africa

The Theory of Planned Behaviour was utilized in a risk communication jingle created by the National Orientation Agency, Ebonyi State Chapter for Lassa fever prevention

The message reads:

Ist Female voice: Wait oooh! Oga, this one you're carrying hammer, cement and saw, are you a carpenter?

Male voice: "If turning to a carpenter means that I will stop these rats from invading my house? Then I will do it oooh! I will close every hole in this house, even church rats will not enter!

Ist Female voice: "Heeheeee! I wonder what they did to you like this

Male voice: Is it until they do something?

So, you never hear about Lassa fever?

Ist Female voice: Heeeh! I have heard something small oooh!

Male voice: Well! This is what you need to know about Lassa fever

2nd Female voice: Lassa fever is a haemorrhagic fever caused by rodents

Lassa fever can be contracted from rats to man

Or from man to man through the exchange of body fluids

Lassa fever symptoms include sore throat,

Vomiting, diarrhoea, fever, body pain, bleeding etcetera

Treatment of Lassa fever is free at the virology centre in the State Specialist Hospital

Lassa fever is curable when reported early to the teaching hospital or any health centre.

The prevention they say is better than cure
Lassa fever is preventable!
Avoid eating rats!
Close the holes in your house!
Stop bush burning!
Empty your dustbins far away!
Keep your environment clean!
Store your food and food items in rodent-proof containers!
And for health workers, adhere to infection protection and control guidelines!

1.3   Diffusion of Innovation Theory

The theory describes how a product or an idea secures acceptance and spreads within a social system over a period. The diffusion of innovation was conceived by Everett Rogers (in 1962) who defines diffusion as "the process by which an innovation is communicated through certain channels, over time, among the members of a social system" (Rogers, 2009, p. 4). The result of this process (diffusion) is the adoption of a new idea, behaviour, or product. Therefore, adoption occurs when an individual acts differently from what he/she had previously done. Information is a fundamental element in the diffusion process. The nature of information exchange between change agents and their prospects determines the condition in which an innovation is received and perceived.

According to Rogers, innovation could be grouped into two categories; preventive and incremental (non-preventive). Preventive innovation refers to new ideas which individuals adopt in an attempt to reduce the possibility of certain unwanted future consequences (Rogers, 2003, p. 233). The dissemination of messages about preventive innovations, which could be adopted by individuals to reduce the incidence of the disease, falls under the ambit of health communication. Just like every other innovation, the adoption of preventive innovation does not occur simultaneously in a social system. Rogers described the stages in the adoption process with a bell curve distribution, as well as the elements of an innovation that shape the speed of adoption. He noted that non-adoption and partial adoption were not assessed during his research. Thus, this curve was generated by the evaluation of complete adopters of innovations over time.

Figure 3 represents different categories of innovation adopter dimensions, measured by the length of time it takes individuals to adopt new ideas or
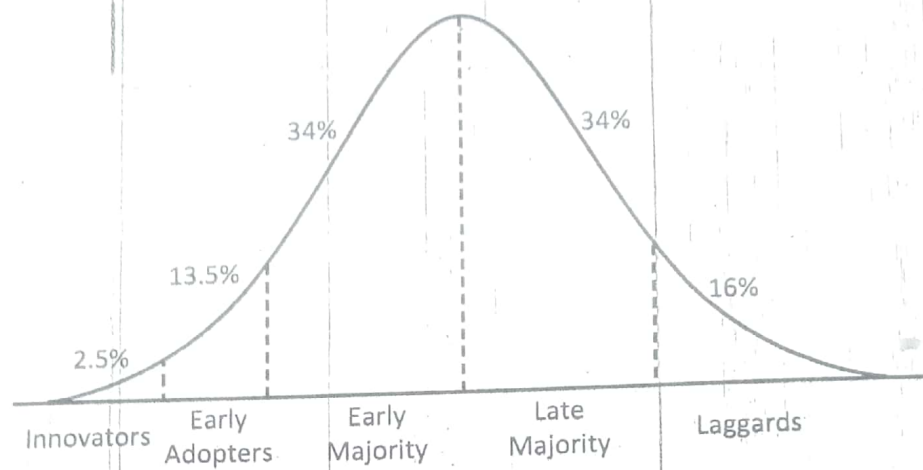
Fig. 3 Diffusion of innovation curve. Source: Rogers (1995)

behaviours. The curve depicts five ideal categories of adopters; innovators, early adopters, early majority, late majority, and the laggards.

As represented in the curve, Rogers posits that when an innovation is introduced, a greater number of people are within the early or late majority adopters, fewer people tend to become early adopters or laggards, whereas very few people fall within the innovator cadre (the first people to use a new product or implement an idea). Innovators are adventurists who are very eager to try new ideas not minding the outcome of their actions. Rogers maintains that though innovators may not be respected in the social system, they occupy a prominent position in the innovation process as idea launchers.

Early adopters represent opinion leaders. This group of individuals enjoys leadership roles as they express subjective evaluations of the innovation to their peers through various interpersonal networks. Therefore, early adopters tend to become role models as potential adopters seek information and advice about the innovation from them. However, Dearing and Permanente (2012, p. 11), argue that "not all early adopters are opinion leaders". Likewise, loss of credibility on opinion leaders could be highly detrimental to the adoption of positive behaviours. For example, an opinion leader who marries more than one wife cannot successfully persuade community members to disengage from having multiple sex partners.

The early majority consists of persons who are likely to deliberate for some time or seek evidence concerning the workability of an innovation before they are willing to adopt it. Thus, to capture the interests of this

population, testimonies or proof of the innovation's effectiveness must be established. Their strategic position (between the early adopters and the late majority) provides the interconnectedness of the stages in the adoption process.

The late majority are sceptics who would only try out a new behaviour or idea when the majority of the population had done so. They need motivation to adopt innovation. Hence, information regarding the success of other peoples' attempts in adopting an innovation can stimulate them to action whereas the laggards are usually the last group to adopt a change in the society. This set of people is often bound by tradition and conservativeness. Their resistance to change slows down the innovation-decision process. Oftentimes, they eventually adopt an innovation when it may have become old-fashioned and surpassed by another novel idea being tried out by the innovators. To influence these hardest adopters, statistics, fear appeals, and pressure from other adopter-categories are required.

1.3.1   *Stages of the Adoption-Decision Process*

Innovation adoption is a step-by-step process. The stages at which individuals adopt new ideas or behaviours include;

1. **Awareness/Knowledge acquisition:** This phase begins from exposure to information about the existence of innovation and acquiring knowledge about its functions (Dearing & Permanente, 2012, p. 11).
2. **Persuasion:** At this point, individuals develop a positive or hostile attitude regarding a new product or idea. Rogers (2003, p. 176), explains that positive or negative attitudes towards a new idea do not always result in direct or indirect adoption or rejection. Individuals, therefore, shape their attitudes as soon as they acquire knowledge about an innovation (Sahin, 2006, p. 16).
3. **Decision:** Individuals choose either to adopt or reject the innovation after considering its benefits and weaknesses at the decision stage. Rogers (2003, p. 177) describes adoption as complete utilisation of innovation at the best option available while rejection refers to the failure to adopt an innovation. He also explains that rejection could be active or passive. Active rejection occurs when an individual attempts an innovation, then, considers adopting it, but later changes his/her mind. Thus, a discontinuance decision could be considered as an active rejection. Alternatively, passive rejection happens when the adoption of an innovation is not considered at all.

4. **Implementation:** This is the period an innovation is tried out. Uncertainty about the benefits of the innovation is always an issue at this stage. Implementers depend on practical assistance from change agents for a reduction of uncertainty about the outcome of an innovation (Sahin, 2006, p. 17). Hence, motivation from change agents could propel action.

5. **Confirmation:** Support for innovation decisions is sought at this juncture when exposure to conflicting messages on the subject of an innovation could lead to a reversal of decision (Rogers, 2003, p. 189). However, individuals ordinarily seek messages that support and confirm their decision and disassociate themselves from contrary information. Later adoption or discontinuance may occur in the process, depending on the support for innovation-decision and individual perception. Replacement discontinuance occurs when innovation is rejected and a better option is adopted in place of it, while disenchantment discontinuance refers to a situation where the individual rejects the innovation due to nonsatisfaction with its adoption.

Still, in the process of diffusion, certain factors influence how rapidly and easily an idea is embraced and disseminated. Rogers (2003, p. 219) notes that the speed at which a new product or idea is utilised within a population is determined by individuals' perception of five specific variables; relative advantage, compatibility, complexity, trialability, and observability.

Relative advantage describes the extent to which an innovation is perceived as a better option compared to the preceding idea or behaviour. This attribute enables individuals to measure the benefits of adopting novel ideas or behaviours and the consequences of rejecting them. Therefore, where the potential benefits (such as social prestige, economic benefit, and so on) of new ideas are perceived to be greater than current practices, innovations tend to diffuse faster.

Also, perceived compatibility with social patterns, current values, previous experiences, and desires of the potential users increase the prospects of innovation adoption. Alternatively, a complexity, which is the perception of difficulty in trying an innovation, is negatively associated with the speed of adoption. Therefore, a high level of perceived complexity is an obstacle to innovation adoption.

Similarly, trialability of innovation without much commitment or with minimal investment triggers faster adoption and reduces uncertainty about

risks regarding the innovation. In addition, observation of innovation outcomes can inspire its adoption. Thus, increased functionality and better outcomes observed by potential adopters are likely to influence new users (Cain & Mittman, 2002, p. 9).

Besides these traits, the nature of the decision about an innovation (optional, collective, or authority), communication channels (interpersonal and mass-mediated channels), social system (norms or social network), and change agents, all have the potential to predict innovation's adoption (Sahin, 2006, p. 17). More so, Cain and Mittman (2002, p. 5) note that communication channels, opinion leaders, existing infrastructure, characteristics of the target population, social norms and social networks which they termed "critical dynamics of innovation diffusion", affect the pace and pattern of diffusion.

In summary, knowledge of the distinctive attributes of each adopter-category and how fast people can adopt a preventive innovation enable interventionists to successfully develop and execute communication strategies that are tailored to their specific demands (WHO, 2012). However, critics of this theory argue that it failed to provide specific direction on how the social, cultural, and economic barriers related to the contexts could be addressed

1.3.2   Case Study: Covid-19 in Tanzania

Tanzania under President John Magufuli was popular for her Corona Virus scepticism. The president declared Tanzania "Corona Virus free" and criticized the use of masks or social distancing practices (Dahir, 2020). He accused health officials of exaggerating the health crisis and communicated his disbelief about Corona Virus to Tanzanians. In his words "we need to be careful because some of these donations to fight Corona Virus could be used to transmit the virus (BBC, 2020, June 8).

Also, the Permanent Secretary of the Ministry of Health Mabula Mchembe alleged that every death is not necessarily Covid-19-related (BMJ, 2021). Thus, the government downplayed the pandemic resulting in a negative public perception of the Covid-19 pandemic in Tanzania.

After he died in 2020, his predecessor and health officials struggled to combat skepticism and misinformation about the pandemic and the vaccine. The public vaccination of the president was aimed at dispelling fear about Covid-19 vaccine. Although vaccine hesitancy is still high among young persons, some of the elderly have taken giant strides in getting the jab.

These early adopters represent opinion leaders who are likely to influence other adopter-categories to get vaccinated using communication messages to dispel the unbelief, misconceptions and propaganda about the pandemic.

1.3.3 *Practical Example of Diffusion of Innovation-Based Intervention in Africa*

Covid-19 Vaccine Acceptance in Côte d'Ivoire

Covid-19 Vaccine is an innovative idea disseminated through various communication media for acceptance and uptake by the public. The case of Covid-19 vaccine acceptance in Côte d'Ivoire' demonstrates the diffusion of innovation process.

A covid-19 vaccination campaign was launched amidst much excitement in Côte d'Ivoire, as 504,000 doses of the AstraZeneca vaccine were successfully delivered to the nation on February 26, 2021. A month later, the enthusiasm plunged as a result of misinformation and low vaccine acceptance. Only 40,153 doses of the vaccine were administered in the whole of Côte d'Ivoire as of March 30. The National Security Council, chaired by Ivorian President Alassane Ouattara, decided to expand access to the Covid-19 vaccine to all Ivorians 18 years and above to boost vaccination rate. This initiative failed to yield the desired benefits as vaccine hesitancy persisted especially on social media.

Then, OligaGneppa, a shopkeeper and a mother of five, finally accepted vaccination but only a few persons followed in Olga's footsteps. Although the vaccination centers in the capital, Abidjan, and its environs could serve about 300 people per day, they struggled to vaccinate 20 in a day. This was a far cry from the health authorities' target of vaccinating 10 million people, or 40% of Ivorians by the end of 2021 and 57% by December 2022. At that rate, many vaccine doses were likely to expire and end up in the garbage.

Consequently, the government embarked on a nationwide awareness-raising campaign, deploying mobile clinics and enlisting the support of influencers and community mobilization campaigns through religious and community leaders, as well as local elected officials. As a result, vaccine demand increased after four weeks from 2000 per day to 20,000 the following week.

Source: World Bank (September 6, 2021).

1.4 *Social Marketing Theory*

The social marketing concept as developed by Kotler and Zaltman (1971) describes the application of marketing principles used in selling goods and

services to sell ideas, attitudes, and behaviour. The authors defined social marketing as "the design, implementation, and control of programmes calculated to influence the acceptability of the social ideas and involving considerations of product planning, pricing, communications, and market research" (Kotler & Zaltman, 1971, p. 5). The theory stipulates that social intervention programmes could be achieved via a fusion of six factors; focus on behaviour change, consumer research, audience segmentation, exchange, competitiveness, and the marketing mix (Shams, 2018).

The marketing mix entails the integration of the four marketing principles (the 4 ps—product, price, place, and promotion) in promoting social interventions, to facilitate behaviour change. From its inception, the theory has been successfully applied in promoting modern contraceptives, condom use, and other initiatives. Specifically, it had a positive impact on clients' knowledge of and access to contraceptive methods and condom use (Sweat et al., 2012, 2020). Also, social marketing interventions could be combined with mass media messages.

1.4.1   Case Study: HIV Self-Testing

Despite improved HIV services and awareness programmes in Africa, data suggests that people living with HIV/AIDS face stigma and prejudice, which leads to laxity or refusal in wanting to test. Self-testing was designed to get beyond the limitations of facility-based HIV testing to identify HIV-positive people and connect them to care centres.

Self-testing is a process where people who intend to know their HIV status use a medical kit to collect a specimen, perform the test, and interpret the test results themselves (World Health Organization, 2020). Although self-testing for HIV was first proposed in the 1980s, it remained unexplored in low-income countries in Africa until Star initiative launched a five-year project of large-scale distribution of HIV self-test kits in the continent (Sithole et al., 2021).

Product: The HIV self-test kit provides a solution to the social problem by closing the gap in HIV testing. The social marketing methods offer easy and affordable approaches for the distribution of the product to targeted populations.

Price: In terms of cost, the affordability of the HIV self-test kit would motivate potential users to take the desired action (demand). The consideration of costs and benefits, as well as ease of use, determines whether the action would be favourable or not. Thus, free self-test kits and demonstration of use within 20 minutes could encourage potential users to try the

product. Communication the price to the beneficiaries is vital for a cost and benefit assessment.

Place: Place usually describes the way that the product reaches the consumer. For HIV self-test kits, this refers to facilities where it could be obtained. This includes primary health centres, secondary health facilities, pharmacies, kiosks, etc. Places where the kits could be obtained should be incorporated in communication messages regarding the self-testing option to facilitate action.

Promotion: Promotional activities include mass media campaigns through radio, television, and the Internet, billboards, public events, and interpersonal communication such as community outreach in primary health centres, religious and social gatherings, home visitations, and other channels accessible to the intended consumers/beneficiaries of the HIV self-test kits. These media are essential in creating demand for the products.

1.4.2 Practical Example of Social Marketing Theory-Based Intervention in Africa

The practical example of social marketing-based interventions was demonstrated in HIV self-test kits projects in South and West Africa. Star, together with others; Population Services International (PSI), and Unitaid-funded projects; and ATLAS in collaboration with Solthis, have been promoting the HIV self-testing African initiative.

Over 750,000 self-test kits were provided during the first phase, which lasted two years and included Malawi, Zambia, and Zimbabwe. By November 2018, 2.3 million HIV testing kits had been distributed in Eastern and Southern Africa, increasing HIV testing among persons who had never been tested by 28% (The AIDs Free Project, 2021).

In South Africa, UNAID distributed HIV self-test kits with demonstrations on how to use them. In addition, incentives were given out for reporting the test results and the large-scale distribution targeted at men in the rural KwaZulu-Natal district was reported to be very effective (Sithole et al., 2021).

High-risk populations including men having sex with men, female sex workers, and people who use drugs as well as young persons were targeted using the mass media such as radio, MTV Shuga show in addition to social media interaction, peer education, and graphic novel that young people loved.

With a stronger health system, the self-test kits were swiftly distributed to pharmacies. Despite the pandemic, distribution of the test kits remained stable as the products were mailed or sent through Uber during the Covid-19 lockdown

Source: Oduro-Bonsrah (2021, April 15). Self-testing kits make strides in fight against HIV in Africa. Geneva Solution. https://genevasolutions.news/global-health/self-testing-kits-make-strides-in-fight-against-hiv-in-africa

1.5   Trans-Theoretical/Stages of Change Model

The Trans-Theoretical Model (TTM) or Stages of Change Model (SCM) proposed by Prochaska and DiClemente (1983), describes how individuals undergo a process of change comprising a series of stages (Prochaska & Velicer, 1997). The TTM represents a deliberate change that takes cognizance of the decision-making abilities of individuals (Coulson et al., 2016). The model submits that behaviour change occurs in a five step progression-pre-contemplation, contemplation, preparation, action, and maintenance. The original concepts have been modified to include a relapse stage, indicating that someone can move a step or more backwards in the process. The inclusion of this stage illuminates the possibility of achieving change, relapse, and then change again (Northern Health, 2013). Hence, movement through this model is cyclical rather than linear as individuals may progress or regress in the process.

The TTM has been further modified by Kern (2008) to include transcendence, to explain the stage when individuals recovering from addiction are free and have transcended to a new life. This stage could be regarded as the stage of sustaining the maintenance achieved, where the achieved behavioural change has been sustained longer than six months and the change agent has developed a sense of purpose and meaning, and integrated with his/her family, friends and community (Egunjobi, 2020).

Consequently, intervention strategies that suit the specific information needs of individuals at each stage are required to reinforce individuals to make progress to the next stage (WHO, 2012).

The TTM has been successfully applied in several health-related interventions, including tobacco cessation, dietary change, addiction, and other topics, even though some authors argue that the proposed levels are 'pseudo stages' that should be neglected.

1.5.1   Case Study: Substance Abuse

In less than a decade remaining for the actualization of the Sustainable Development Goal in 2030, the use of dangerous psychoactive substances and drugs still constitute a major high-risk behaviour in Africa, as nearly all nations report one or more drug and substance/s being abused by its citi-

zens especially young people (United Nations Office on Drugs and Crime (UNODC), 2020; Campbell, 2019). Besides the social problems such as violence and crimes resulting from substance abuse (UNODC, 2007; Oshodi et al., 2010), it increases the risk of Cardio-Vascular Diseases (CVD), lung cancer, Hepatitis B and C, HIV/AIDS, collapse of the veins, seizures, strokes, migraine, hyperthermia, lung damage and other obstetric complications and sometimes leading to untimely death (World Health Organisation (WHO), 2009). Therefore, substance abuse could lead to public health crises besides the socio-economic and legal implications.

More importantly, 1 in 5 persons who had used drugs in the past is suffering from drug user disorders and requires treatment (UNODC, 2018), as well as communication intervention for behavioural change. Withdrawal from drug or substance use and coping with the effects can be very difficult. In this light, communication intervention based on the trans-theoretical model of change and appropriate channels for disseminating the information is desirable.

The pre-contemplation stage is where an individual who injects, sniffs, or orally takes cocaine, heroin, marijuana, cannabis or regularly uses drugs prescribed by authorized health practitioners after medical diagnosis or not, does not know the health implications of his actions and is not thinking of carrying out any actions towards changing the behaviour.

At this stage, communication interventions based on TTM would consider increasing awareness about the health consequences of drugs and substances abuse and the benefits of behavioural change, using interpersonal communication channels such as community engagements in a town hall and age-grade meetings, social and religious gatherings as well as one-on-one interaction with a drug/substance user.

At the contemplation stage, an illicit drug user or someone who engages in other substances abuse still engages in the behaviour, but he/she is aware of the health implications of the behaviour through exposure to communication intervention messages. Here, motivation and encouragement are required to stimulate action, especially where the person is thinking about a change of behaviour within the next 6 months. Since peer pressure has been identified as a socio-demographic risk factor for illicit drug use, change agents can engage in constant interaction with those in this stage through peer education to provide support for a change.

The preparation stage is where the illicit drug user or someone who abuses other substances is getting ready for a change of behaviour. Readiness to change could be expressed by seeking guidance and assistance from trusted persons or a rehabilitation centre. Thus, it is likely that action can be taken within the next 30 days. Therefore, communication messages should

concentrate on providing vivid reinforcement of the benefits of behaviour change.

When the individual consistently withdraws from drug or substance use for weeks, but less than 6 months, he/she can be said to be in the action stage. At this juncture, follow-up communication would stimulate feedback. This would enable interventionists to respond to problems that may arise in the course of action and provide reinforcement for consistent action through community and gender-based engagements.

The maintenance stage is when the individual consistently withdraws from drug or substance use for at least six months. It is vital to mention that communicating the alternatives to illicit drug use and substance abuse as well as engagement in physical activities would bring about a stable lifestyle.

However, relapse may occur when the person moves back to the abandoned behaviour. Egunjobi (2020) refers to this stage as a recycling stage when a person recovering from addiction returns from either action or maintenance stage to an earlier stage. Then, the individual requires support to sustain the maintenance stage.

Transcendence stage: Where a substance user has remained at the maintenance stage for more than 6 months and has come to terms with reasoning, he/she is regarded as being free and could be integrated with his/her community. At this stage, community engagement with community members would help to discourage stigmatisation.

1.5.2   Practical Example of Transtheoretical Model-Based Intervention in Africa

Substance Abuse Intervention in George, South Africa

The video of the intervention programme in George (a small town about five hours' drive from Cape Town) shows a network of alcohol, tobacco, and drug addicts, social workers, and health practitioners coming together as activists to fight substance abuse.

Sahara support group trains victims of addiction to engage in peer education to those undergoing the stages of the change process.

Maverick Citizen (2020). Solving substance use in George, South Africa https://www.youtube.com/watch?v=uFRVa8Rh_To

1.6   Extended Parallel Processes Model

The Extended Parallel Process Model (EPPM) describes how the development of risk messages using fear appeals and scare tactics could be

accomplished (Edgar & Volkman, 2012). The theory aligns with the health belief hypothesis.

The theory presupposes that people engage in threat appraisal whenever they are exposed to fear appeals by assessing the severity of, and their susceptibility to, the risk issue (Witte et al., 2001). Thus, the outcome of this appraisal determines the line of action, that is, either paying more attention to the message or ignoring it. It is worth noting that a high level of perceived severity and susceptibility implies that the individual feels threatened, and the next thing is to engage in efficacy appraisal.

Efficacy appraisal involves two forms of value evaluation; self-efficacy (trust in personal capability to act) and response efficacy (the chances of the proposed behaviour to yield a positive result) are evaluated. The EPPM explains that fear appeals succeed only when the outcome of both self-efficacy and response-efficacy appraisals are high (Meadows, 2020).

1.6.1 Case Study: Diabetes in Africa

According to the International Diabetes Federation (IDF) Africa Region (2019), "**19 million adults Africans (20-79)** are living with diabetes and 45 million adults (20-79) in the IDF Africa Region have Impaired Glucose Tolerance (IGT) which places them at high risk of developing type 2 diabetes. Furthermore, 60% of adults living with diabetes do not know they have it and **USD 9.5 billion** was spent on healthcare for people with diabetes in 2019 alone".

Complications resulting from diabetes include blindness, kidney failure, heart attacks, stroke, and lower limb amputation. Fortunately, a healthy diet, regular physical activity, maintaining normal body weight, and avoiding tobacco use are ways to prevent or delay the onset of type 2 diabetes (WHO Africa, 2021).

Due to the severity of diabetes and its attendant consequences, fear appeals have been used in creating health communication messages for diabetes prevention. Based on the assumptions of the EPPM, audiences engage in threat and efficacy appraisals when they are exposed to such fear-laden messages.

Threat appraisal: An individual exposed to the fear-based message of diabetes prevention considers if he or she is susceptible to diabetes (at risk of becoming diabetic) and the severity (seriousness) of the disease by evaluating the complications which could result from the disease. Here, communication messages emphasize the likelihood of people developing diabetes and illustrate its consequences with people who are demographically similar to the target audience.

For efficacy appraisal, the audience considers if healthy eating and physical activity would help them reduce the risk of diabetes. This refers to response efficacy (perceived effectiveness in averting threat). Therefore, communication interventions should emphasize that the recommended response is effective in reducing the threat of diabetes.

Self-efficacy: Audiences consider their capability to perform the recommended behaviour. Questions like "can I maintain a health easting habit considering the 'high cost of food items in Nigeria"? Hence, communication interventions using participant modelling would help to demonstrate performance accomplishments.

1.6.2   Practical Example of Extended Parallel Process-Based Intervention in Africa

Here is an example of fear-laden communication intervention on diabetes developed by Diabetes South Africa, a Non-Governmental Organisation

The message reads;

I am Adele Swart, a type 1 and I have had diabetes for 40 years.

Did you know that every 6 seconds, a person dies from diabetes; every 10 seconds, two people develop diabetes; and every 30 minutes a lower limb is amputated worldwide?

I have had amputations. I have also had renal failure.

Diabetes is a Tsunami of the 21st century, killing more people in the world than AIDs and Cancer combined....

Accompanying this text is the video of the young lady in a wheelchair who had her limbs amputated.

2   APPLICABILITY OF HEALTH COMMUNICATION THEORIES IN AFRICA

Health behaviours vary between the developed nations and the less developed nations in Africa. This variation results from unequal access to social amenities and socio-economic status as well as the information communication infrastructure dichotomy between the west and the developing nations amongst other factors. Therefore, this inequality makes the applicability of communication theories in Africa problematic.

The challenges to health communication interventions in Africa could be critically examined in two dimensions; 1. Those dealing with the development, packaging, and dissemination of health communication interventions 2. Inaccess to health communication messages.

2.1 *Challenges Associated with Development, Packaging, and Dissemination of Health Communication Interventions Include*

1. **Poor health budgets and financing:** Poor allocation and appropriation to health budget is a pandemic eating deep into healthcare delivery across many developing nations in Africa. As of 2013, the World Health Organisation report indicated that the total health expenditure in 22 African nations does not reach even the minimal level of US$ 44 per capita (WHO, 2013). Although, the health organisation reported that while a few lower-income countries allocate more than 15% of their public spending to the sector (Ethiopia, Gambia and Malawi) in 2016, nineteen African countries have been spending less on health than in the early 2000s (WHO, 2016). This critical problem resulting from political corruption and other competing needs (Anugwom, 2020) hampers healthcare delivery as well as health communication interventions.

2. **Donors Interference:** Major health communication interventions are funded by international donors due to the paucity of funds in many developing nations in Africa. The donors' agenda often dominate the development goals resulting in conflict with what works in African contexts (Govender, 2010). Thus, conflicting power relations between the donor agencies and communication interventionists reduce the efficacy of health communication interventions at the grassroots.

3. **A wrong approach to message development and delivery:** There is no gainsaying that the efficacy of public health communication is dependent on the effectiveness of the communication strategy deployed (Olubunmi et al., 2016). This implies that health communication would not achieve the desired goal if the approach is faulty. Incapability in developing, implementing, and evaluating health promotion programmes and amplification of risk rather than solution-oriented messages whittle down the effect of many health communication interventions. The effective health communication approach is to identify the optimal contexts, channels, content, and reasons that will motivate people to pay attention to and use health information to better their lives and that of society (WHO, 2017). Oftentimes, African values for community, inclusiveness, and consensus-building (Ngodo & Klyueva, 2022) are neglected in the construction of health interven-

tions messages. Thus, individual health behaviours are targeted more often rather than collective health decision-making.

4. **Lack of complimentary infrastructural interventions:** Schiavo (2007) notes that health communication cannot substitute for limited healthcare infrastructure or incapability of healthcare workers or compensate for the absence of standard medical laboratories for diagnosis, or adequate treatment as well as preventative measures. Infrastructural deficit has been one of the major challenges in the healthcare sector in many low-income nations in Africa. Hence, complimentary infrastructural interventions are required for health communication to be effective.

Therefore, social and geographical inclusion, intentional healthcare financing in addition to skilled content development and delivery considering language preferences and adequacy of language translations are requisite for a paradigm shift in health communication interventions in the African continent.

2.2   Challenge Regarding Access to Health Communication Messages

Geography and social exclusion is a major factor militating against access to health communication interventions in Africa. oftentimes, vulnerable and underserved communities experience communication gaps when their locations are excluded from health promotion activities. Research has shown a disparity between the rural and urban populations in terms of access to healthcare interventions (Mutangadura et al., 2007). Likewise, inequitable distribution of healthcare intervention programmes result in exclusion of ethnic minorities, male gender, migrants, displaced persons and the destitute (Obuaku-Igwe, 2015; Galactionova et al., 2017). Ideally, the efficacy of health communication is determined by its capability to meet the specific needs of all population sub-groups, including the vulnerable and marginalised groups, but persistent inequalities even in seeming egalitarian communities in Africa limits access to health communication interventions. Other issues threatening equitable access to credible health information are socio-economic issues, relating to the digital divide and the varying levels of health literacy (Kubheka et al., 2020). Besides extreme poverty and illiteracy, the absence of electricity and unsteady power supply contribute to limited access to information through the traditional media

(radio, television, newspapers, and magazines) in most rural communities in Africa.

Consequently, oral or interpersonal communication has been the cheapest and preferred source of disseminating health information (Asante, 2017). Songs, storytelling, lecture, dance and drama, and the use of town crying are some forms of oral communication used in disseminating relevant health information (Anasi, 2012; Omogor, 2013; WHO Uganda, 2019).

More so, information is shared through social networks such as family, friends, peer-groups, community, and religious groups (Patrick & Ferdinand, 2016; Sokey et al., 2018), although, information spread through this channel suffers distortion. Likewise, community health workers and self-help groups are sources of interpersonal health communication in different African nations (Anasi, 2012; Naanyu et al., 2013; Almozainy, 2017; Ezeh & Ezeh, 2017).

Alongside oral communication, radio is a key source of information due to its capacity to penetrate the hinterlands with information dissemination in diverse local languages and dialects (Almozainy, 2017; James & Akintunde, 2018; Sokey et al., 2018).

Printed materials are of limited value in Africa, due to low literacy and socio-economic level (Mtega, 2012). However, posters are the most accessible, particularly to rural dwellers due to their ability to draw people's attention with illustrations in pidgin and local languages (Almozainy, 2017; Nwodu, 2007; Ben-Enukora et al., 2021).

Recently, the Internet, mobile phones, and social media platforms are gradually evolving as avenues of health information dissemination to both rural and urban residents (Almozainy, 2017) irrespective of the credibility problem often associated with the new media technology (Jacobs et al., 2017; Thilaka et al., 2019). Information sharing during the recent Covid-19 pandemic in diverse regions of the world is a testament to this fact. Videos shared via digital devices (mobile phones and laptops) are gradually complementing and sometimes recognized as the preferred media for accessing health information (Sokey et al., 2018). Despite these developments, some authors have maintained that digital media could widen the inequality in access to health information between rural and urban settings (Kaur & Marwaha, 2016; Jacobs et al., 2017). Ultimately, demographic, socio-cultural, and economic factors influence health information seeking as well as the choice of information sources through the internet-mediated platforms.

Going further, value systems and cultural factors also play critical roles in shaping individual and community responses to health messages. More so, individual choices are mediated by economic concerns, family habits, personal tastes, cultural preferences, and beliefs. Therefore, a culturally grounded approach to health communication can help in dismantling perceived barriers and facilitate a sense of shared identity around health-promoting choices and behaviours.

More so, it is worthy to note that the contexts in which health behaviours occur are evolving. Some theories have converged over the years while others have uncovered constructs that are central to multiple theories. More importantly, interventionists should be conscious of socio-cultural inequalities within regions, nations, and local communities. Thus, what works in one geographical location may not work in other settings (Anugwom, 2020). Therefore, more than one theory may be applied in addressing a health issue in Africa, given the diversity of culture and the extremely rural and special-needs populations in the continent. These complexities require dynamic communication approaches. More so, drawing from more than one theory is often more effective for planning a comprehensive intervention. This provides the ability to target multiple health behaviours and allows the practitioner to consider individual and environmental influences at the same time (Northern Health, 2013).

3   CONCLUSION

The African continent is endowed with peculiar cultural values of collectivism rather than individualism that thrive in the Western World, which is the origin of the health communication theories. As such, utilizing these theories in health interventions with disregard to the inequality in cultural and socio-economic contexts in Africa could prevent such interventions from achieving the desired objectives. No doubt, the environments in which people engage in health behaviours are becoming more dynamic due to urbanization, migration, and globalisation, calling for a more sophisticated approach to behaviour change communications. Therefore, this paper recommends;

- Further modification of health communication theories to align with the communitarian cultural value that is widespread in the African continent.

- Community-based interventions rather than a generalized approach to health communication as interpersonal relations influence decision-making on health issues.
- Mobilization of community people to actively engage in identifying their health challenges and co-creating health communication messages for solving the identified problems.

REFERENCES

Abraham, C., & Sheeran, P. (2015). The Health Belief Model. In M. Conner & P. Norman (Eds.), *Predicting and Changing Health Behavior* (3rd ed., pp. 30–64). McGraw-Hill.

Adesina, E., Oyero, O., Amodu, L., Amoo, E., Oyesomi, K., Adeyeye, B., & Yartey, D. (2021). Health Belief Model and Behavioural Practice of Urban Poor Towards COVID-19 in Nigeria. *Heliyon, 7*(9), e08037. https://doi.org/10.1016/j.heliyon.2021.e08037

Ajzen, I. (1991). "The Theory of Planned Behaviour" (AJZEN I 1230). *Organisational Behaviour and Human Decision Processes, 50,* 179–211.

Ajzen, I. (2002). Perceived Behavioural Control, Self-Efficacy, Locus of Control and the Theory of Planned Behaviours. *Journal of Applied Social Psychology, 32,* 665–683.

Almozainy, M. (2017). Assessing the Use of Social Media as a Source of Information Related to Dentistry in Saudi Arabia. *Journal of Dental Health and Oral Disorder Therapy, 8*(7), 663–668. https://doi.org/10.15406/jdhodt.2017.08.00312

Anasi, S. N. (2012). Access to and Dissemination of Health Information in Africa: The Patient and the Public. *Journal of Hospital Librarianship, 12*(2), 120–134.

Anugwom, E. E. *Health Promotion and Its Challenges to Public Health Delivery System in Africa :Public Health in Developing Countries - Challenges and Opportunities.* IntechOpen, 2020, April 5. https://doi.org/10.5772/intechopen.91859. Available from: https://www.intechopen.com/chapters/71667

Asante, F. K. Sources of Information Among Rural Residents: The Case of AtwimaApemanim. Master Dissertation, Ghana. University of Ghana, 2017. http://ugspace.ug.edu.gh/bitstream/handle/123456789/23570/Sources%20of%20Information%20among%20Rural%20Residents%20The%20Case%20of%20Atwima%20Apemanim.pdf?sequence=1&isAllowed=y

Bandura, A. (1977). *Social Learning Theory.* Prentice-Hall, Inc.

Ben-Enukora, C., Amodu, L., & Okorie, N. (2019). Health Communication and Hepatitis Health Management: A Study on the Awareness and Behavioral Practices in Nigeria. *Journal of Health Management, 21*(2), 313–325.