Application of Social and Behaviour Change Communication Education Strategies in the Management of Open Defecation in Cross River State, Nigeria

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Abstract: Open defecation remains a critical global health challenge, affecting almost 1 billion people around the world and contributing significantly to the estimated 842,000 people who die each year because of poor sanitation, hygiene practices, improper management of feces and unsafe water supplies. This study on the Application of Social and Behaviour Change Communication (SBCC) education Strategies in the Management of Open Defecation in Cross River State adopted mixed methods of Qualitative and Quantitative research approaches with the use of instruments of questionnaire and focus group discussion guide for data gathering. Multistage sampling approach was used to select a sample size of 370 respondents for the quantitative study and eighteen participants for the three focus group discussion segments. The study employed Diffusion of Innovation and Health Belief Model as theoretical framework. Data collected were analyzed using simple percentage statistical tool to answer the four research questions while descriptive rhetorical analytical technique was employed for the focus group discussion. The result exposed the constraints to the effective utilization of SBCC interventions in managing open defecation to include lack of its inclusion in government policies and inadequate funding of SBCC interventions that can trigger behavioural change of individuals and communities. The study thus, advocated that, state government through the local government chairmen should construct decent public toilet facilities in various communities of the state, and at strategic locations to communicate in more concrete terms, the need to abandon open defecation and embrace the use of toilets. This should be followed by providing a framework for punitive measures to discourage individuals and communities from engaging in open defecation. This should be backed-up with laws which must be enforced by appropriate agencies.
Keywords: Application, Social and Behaviour Change Communication Education, Strategies, Management, Open Defecation.

I. INTRODUCTION

Open defecation is a "disgusting" and "dirty" practice that affects the health of children, adults-males and females -in a community, state and nation. The practice of open defecation remains a critical global health challenge, affecting almost 1 billion people around the world and contributing significantly to the estimated 842,000 people who die each year because of poor sanitation, hygiene practices, and unsafe water supplies." (WHO, 2014). As observed by Saleem, Burdett and Heaslip (2019), despite several years of action plans like Millennium Development Goals (MDGs), 2.3 billion people have no access to improved sanitation facilities (flush latrine or pit latrine) and nearly 892 million of the total world's population is still practicing open defecation.

A look around our surroundings, gutters, streets, roads, and even our higher institutions' environment will reveal the eyesore of open defecation practices in our state and Country.

Defecation is a bodily process that is crucial to life itself; "open defecation refers to the practice whereby people go out in bushes, forests, uncompleted buildings, and fields, open bodies of water, or other open spaces rather than using the toilet to defecate. The practice is rampant across communities all over the world. About 1.1 billion people in the world today practice open defecation (UNICEF (2012)."

Open defecation simply put, is the process of relieving oneself in any available space within or outside the living environment due to lack of toilet facilities.

Open defecation is a well-established traditional practice deeply ingrained in many societies. Consequently, open defecation has persisted as a norm for a long period of time. Nigeria has a huge population estimated at about two hundred million (200,000,000) and extremely rapid rural–urban migration and it economic development and urban planning has not kept pace with the sheer volumes of people arriving and

being born every day in its towns and cities. The size, density and poverty of the urban population in Nigeria, combined with chronic governmental failure to provide sanitation services to slums, forces over 13 million of these urban dwellers to find anywhere they can to relieve themselves. In fact, as far as urban sanitation access goes, it is a case of one step forward, two steps backward for Nigeria and Cross River State in particular.

Water-Aid (2008), Contended that, increased investments in sanitation would contribute to a country's economic productivity, and its appropriate management practices would enhance agricultural production, providing economic revenues from sales of produce and securing food provision to face increasing global food prices. In addition, progressive sanitation interventions must take into account issues of sustainability and ownership of toilets or latrines by each family in the state.

The United Nations Children's Fund (2012), asserted that the long-term effects of poor sanitation on the development opportunities of populations living in developing countries should also be clearly assessed to design appropriate intervention and advocacy strategies. These are daunting tasks, which require a great deal of support not only from the recipients of the interventions, but also from local, national governments and the international community. Improper sanitation and open defecation indirectly contribute to poverty as they lead to contaminated water sources, soil and farmland; once blighted by disease, children are unable to complete their formal education, and are later hindered in their capacities to work, provide for themselves and educate their children. These factors only perpetuate the poverty cycle in the state.

As confirmed by World Bank (2006), Sanitation impact on the educational advancement of children in developing countries is estimated at 443 million of school days lost every year due to water-related diseases. There is some evidence that lack of toilets in schools may affect learners, due to their waiting for longer periods before being able to relieve themselves. Lack of access to toilet facilities affects women more than men; this is because women who go out of their houses to defecate in the open spaces are more susceptible to sexual harassment and violence in densely populated areas. It is equally more challenging for women to find privacy leading to the refrain from urinating and defecating for many hours, which may cause urinary tract infections. (UNDP, 2006).

Men tend to see open defecation as an acceptable practice that is entrenched in their habits from early childhood; these groups often prefer open defecation even if there is easy access to toilets. (Biran, Jenkins, Dabrase & Bhagwat, 2011, pp. 854–862).

Compounding this poor progress, under the current population growth trends, predictions reveal that, to reach the MDG's target on sanitation, more than 120 million people would gain access to improved sanitation and clean toilet every year.

UNICEF (2016) confirmed that, the causes of open defecation are not far-fetched as lack of latrines and modern toilet facilities for household use is a key contributor of the practice. Also the state of some available public toilets makes it difficult for residence to utilize it to its maximum as such toilet are dirty, stinking and filled with flies and maggot. Comparably, open defecation and lack of sanitation and hygiene in general is an important factor that causes various diseases, most notably diarrhea and intestinal worm infections as well as typhoid, cholera, hepatitis, polio, trachoma, and others.

One of the main challenges faced in the drive to manage open defecation, therefore, is the inadequate human resources to communicate the right behavioural change communication where it is most needed; therefore, the inhabitants of affected areas continue to prefer to defecate in gutters, streams, bushes etc

According to Abrams (2001), to combat Open Defecation, the state government needs to develop a multipronged National Reach-out Campaign that will help to:

1. Increase awareness by deploying frontline workers who will initiate door-to-door contact with residents of Cross River State.
2. Launch a national and state-level media campaign, incorporating audio, visual, mobile phones, as well as local outreach to broadcast the messages.
3. Involve celebrities, spokespersons, such as movie and musical icons.
4. Mobilize communities through the involvement of local stakeholders such as doctors, teachers, politicians and religious leaders, NGOs, health workers, self-help groups and community members at-large.
5. Empower children to be messengers of change on sanitation and hygiene and hold activities at schools, such as rallies, seminars, walk/run for sanitation and artifact or painting competitions around toilet use/open defecation prevention.

Who (2015) highlighted Nigeria as the 3rd worst country in terms of access to sanitation and toilets facilities, with 71% of its population having no access to toilets. Nigeria has also been highlighted to have the highest rate of under-5 deaths caused by diarrhea, 11 children in every 1,000 die of illnesses associated with diarrhea each year as a result of improper management of open defecation. Diarrhea is one of the three most common killers of young children globally, yet 58% of these deaths could be prevented through sanitation, access to clean water, and open defecation free practice.

Sahel Standard News, April 8, 2017 reported that, "Nigeria is one of the country with the highest number of people practicing open defecation in Africa, estimated at over 46 million people and more than two-third of its populations are living without access to basic sanitation (toilet) facilities."

Srinivas (2002) has described how bathing and defecation in rural areas were seen as social activities until the late 1940s. It was considered to be quite appropriate to be sociable while defecating, in addition people "made a separation between the corporeal self and the social self, thus while the physical body engaged in evacuation or purification, the social self continued interaction unabated" (Srinivas 2002, p.371).

According to Srinivas, this "communal bond of defecation" was lost as villagers began to build individual toilets in their backyards; the social individual and the corporeal body fused into one, and notions of privacy and shame became associated with open defecation, while Srinivas seemed to suggest that open defecation is uniformly seen as a shameful practice now, it wasn't so in the 1940s.

. Baran and Davis (2009, p. 276) stated that knowledge gap is a "systematic differences in knowledge between better informed and less-informed segments of a population".

Aina (2002, p. 1) saw Management as the Manipulation of Resources to achieve pre-determined objectives.

In 2013, the UN Deputy Secretary General issued a call to action on sanitation that included the elimination of open defecation by 2025, although the situation of the urban poor poses a growing challenge to this, as they live increasingly in mega cities where sewage is non-existent and space for toilets and removal of waste is a problem. The integration of Social and Behaviour Change Communication (SBCC) education strategies into government programmes, would help in stimulating the demand for toilets and attitudinal/behavioural change towards toilet use in our society. This is the essence of this study.

1.2 Statement of the Problem

The Sustainable Development Goals (SDG'ˢ), launched in 2015, include a target to ensure that everyone everywhere in the surface of the earth has access to toilets by 2030. (Ahmad, 2014). This makes sanitation a global development priority. In 2013, the United Nations General Assembly officially designated November 19th as 'World Toilet Day', a day to raise awareness and inspire action to tackle the global sanitation crisis regarding open defecation and its management, a phenomenon often neglected and shrouded in taboo.

The practice of open defecation is not limited to rural areas of Cross River State alone, as even mega cities across the urban areas are equally spotted among the practitioners of this menace to the ton of 12 percent. While in rural settings, open defecation is rated about 65 percent of the total volume of human waste. The problem of this study therefore, is that the society does not view the lack of a toilet as a problem, thus, building and owning a toilet is not perceived as aspiration of many people in the society and no communication effort so far has been strong enough to reverse the ugly habit of open defecation. Construction of toilets is still seen as "Elephant Project" and the government's responsibility in most communities today, rather than a priority that individual households should take responsibility for. The challenge here is how to utilize social and behaviour change communication education strategies to motivate people to see the need for toilets as fundamental to their social status and well-being.

It is also a problem when one observes that a significant gap therefore, exists between knowledge and practice judging from the fact that even people who are aware of the health risks associated with open defecation, continue with the unhealthy practice. The question is to what extent can the utilization of SBCC education contribute more to the management of open defecation than what other forms of communication have done in the past? The aim of this study, therefore, is to provide answer to the above question by exploring the possibilities of social and behaviour change communication strategies in the management of open defecation in Cross River State.

1.3 Objectives of the Study

In view of the above problem, the study is set to achieve the following objectives:

A. Highlight the role of Social and Behaviour Change Communication education strategies in the management of open defecation in Cross River State.
B. Identify the effectiveness of Social and Behaviour Change Communication education strategies and their usefulness in enhancing individual and community behaviour against the practice of open defecation in Cross River State.
C. Determine the various ways of managing open defecation in Cross River State through SBCC strategies.
D. Ascertain whether the practice of open defecation is a traditional norm that cannot be corrected using SBCC Strategies.

1.4 Research Questions

The research questions formulated to achieve the purpose of this study are as follows:

1. What is the specific role played by Social and Behaviour Change Communication education strategies in the management of open defecation in Cross River State?
2. How effective are SBCC interventions in changing individual and community behaviour against the practice of open defecation in Cross River State?
3. In what ways can SBCC be used in managing open defecation in Cross River State?
4. To what extent can the practice of open defecation as a traditional norm be corrected or not, using SBCC strategies in Cross River State?

II. SOCIAL AND BEHAVIOUR CHANGE COMMUNICATION

The shift in terminology from Behaviour Change Communication (BCC) to Social and Behaviour Change Communication (SBCC) is a recent landmark in health communication that reflects renewed emphasis on improving health outcomes and development through more healthful individual and group behaviours as well as strengthening the social context, systems and processes that underpin development and health communication. Through SBCC, a very useful prevention process and programming of intervention, change agents can arrive at tipping points in change communication.

Iorza (2015, p.75) asserted that Social and Behaviour Change Communication is an interactive, consultative, research based, multi-pronged communication approach aimed at behaviour change at the individual, community, systems and social levels. SBCC deals with the role communication can play in bringing about social change, including individual behaviour and norms.

It is as well, the systematic application of interactive, theory-based, and research-driven communication processes and strategies to address tipping points for change at the individual, community, and social or societal levels. SBCC is equally a research-based, consultative process that uses communication to promote and facilitate behaviour change and support the requisite social change for the purpose of improving developmental programs and health outcomes. (C-Change Project, 2012).

As defined by Health Communication Capacity and Communication (2015), Social and behaviour change communication (SBCC) is the use of communication to change behaviours, including service utilization, by positively influencing knowledge, attitudes and social norms. The application of SBCC strategies to the management of open defecation has been in doubt in Nigeria and in Cross River State. This is because it is not clear whether the state government pays any attention to the menace of open defecation even in the state capital which is considered the home of tourism in Nigeria. It is my strong conviction that if Social and behaviour change communication which uses three key strategies otherwise known as **SBCC Tripod Strategies** can be used in addressing the problem of open defecation, positive change at individual and community levels can be attained. This is because SBCC is potent in addressing social and health issues in the following ways; Advocacy, Social mobilization, and Behaviour Change Communication. (C-Change 2011).

Utilizing SBCC tripod strategy can serve as a holistic approach in tackling the issues of open defecation. (C-Change, 2012).

2.1.1 Advocacy

Advocacy here, describes a strategy by which groups or individuals attempt to bring about social or organizational change on behalf of a particular health goal, programme, interest, or population. (Green, O'Conner, French, Grimshaw, Spike, King (2010). Media advocacy adopts a participatory approach that emphasizes on the need of communities to gain control and power to transform their environments.

According to Green and Tones (2010) advocacy can influence government to develop healthy policies and legislation, commercials and other organizations to impact on development and the individuals, groups and communities in making healthy choices and support developmental initiatives that will promote the well-being of the populace. Using advocacy to inform and motivates leaders to create a supportive environment to achieve programme objectives and development goals is one easy step towards eradicating the menace of open defecation in the society. There are basically three types of advocacy-media, community and policy advocacies. (C-Change 2012).

Advocacy is a continuous and adaptive process of gathering, organizing and formulating information into argument, to be communicated to decision-makers through various interpersonal and media channels, with a view to influencing their decision towards raising resources or political and social leadership acceptance and commitment for a development programme, thereby preparing a society for its acceptance. (C-Change, 2012). In the context of managing open defecation, media advocacy may be carried out by key people in international agencies, as well as special ambassadors, but is gradually taken over by people in national and local leadership positions and the print and electronic media. Designing a well developed media messages and applying it to

open defecation through the drivers of SBCC education Strategies will go a long way in bringing the much desired change and encourage toilet use in the state.

Scandlen (2004), posited that, Social advocacy does not minimize the importance of individual changes but, instead, he strongly argued that the latter require changes in social conditions, because external conditions are responsible for health, the strategy should target those conditions instead of centering on lifestyle behaviours.

Social mobilization is closely interlinked with media advocacy; according to Scandlen (2004), social mobilization "is the glue that binds advocacy activities to more planned and researched program communication activities." It strengthens advocacy efforts and relates them to social marketing activities. According to Anaeto& Solo-Anaeto (2010), social marketing is the systematic application of marketing principles and techniques to achieve behavioural goals for societal good. It is concerned with inducing positive change in the attitude and behaviour of the target audience. It makes it possible to add efforts from different groups to reach all levels of society by engaging in different activities: service delivery, mobilizing resources, providing new channels for communication; providing training and logistical support for field workers, and managing field workers.

One of the types of advocacy use in bringing about change in behaviour against open defecation is Community/Programme Advocacy. Green et al, (2010) stated that programme advocacy consists of a large number of information activities, such as lobbying with decision makers through personal contacts and direct mail; holding seminars, rallies and news making events; ensuring regular newspaper, magazine, television and radio coverage and obtaining endorsements from known people. The goal of advocacy is to make the innovation a political or national priority that cannot be swept aside with a change in government.

Another type of advocacy useful in addressing the problem of open defecation is policy advocacy.

Policy Advocacy uses data and approaches to advocate to senior politicians and administrators about the impact of the issue at the national level, and the need for actions towards solving it. For example, the Safety Injection Global Network (SIGNS) advocacy campaign began with a survey of 198 decision makers in 33 countries on their perceptions of the status of safe injections in their countries. Based on the data, it was possible to frame arguments which addressed their knowledge of the situation and their concerns. The results fed into the framing of future advocacy strategies.

2.1.2 Social Mobilization

Social mobilization according to UNICEF is a process that engages and motivates a wide range of partners and allies at national and local levels to raise awareness of and demand for a particular development objective through dialogue. Members of institutions, community networks, civic and religious groups and others work in a coordinated way to reach specific groups of people for dialogue with planned messages. (UNICEF, 2014). In other words, social mobilization seeks to facilitate change through a range of players engaged in interrelated and complementary efforts. The goal of health promotion is to facilitate the environmental conditions to support healthy behaviors. Individual knowledge, as conceived in traditional approaches, is insufficient if groups lack basic systems that facilitate the adoption of healthy practices. The mobilization of a diversity of social forces including families and communities is necessary to shape a healthy environment (Bracht (1990), Rutten (1995) as cited in Shefner -Rogers, (2013). The

Social mobilization recognizes that sustainable social and behaviour change requires collaboration at multiple levels, from individual to community to policy and legislative action, and that partnerships and coordination yield stronger impact than isolated efforts. Key strategies of social mobilization include using advocacy to mobilize resources and change inhibiting policies, media and special events to raise public awareness and create public spheres for debate, building and strengthening partnership networks, and motivating community participation.

2.1.3 Behaviour Change Communication (BCC)

According to Blum (1999, p. 16), Behaviour Change Communication is a process of using communication approaches and tools to develop the skills and capabilities of people to promote and manage their own development initiatives by adopting positive change that offers opportunities for growth and sustainable development. The above definitions recognize behaviour change communication as a process of working with individuals or groups of people, communities and societies using communications strategies to promote positive behaviour and offer a supportive environment that enables people to imitate and sustain positive behaviours.

(BCC) is evidence and research based process of using communication to promote behaviours that lead to improvements in health outcomes intended to foster the necessary actions in the home, community, health facility or society. To develop strategies for behaviour change. In the context of this article, it is important to identify the drivers associated with the target behaviour. It is equally useful to compare potential drivers of toilet

construction and access across the thirty-six states in Nigeria and among countries that have demonstrated a higher capacity for reducing open defecation.

The pathway to behaviour change as pointed out by Lantican (2003, p. 312) is through a process. Blum (1999, p. 32), has observed that individuals adoption and behavioural change go through a number of internal stages before any behaviour is changed, the comprehensive process in which one passes through BCC stages are;- Unaware → Aware → Concerned → Knowledgeable → Motivated to change → Practicing trial behavior change → Sustained behavior change. After these processes, individual learn and become more knowledgeable, thus they become motivated to change, try new behaviours, assess it and decide whether or not to sustain it. BCC has proved to be an instructional intervention which has a close interface with education and communication. It involves the following steps:

1. State program goals
2. Involve stakeholders
3. Identify target populations
4. Conduct formative BCC assessments
5. Segment target populations
6. Define behavior change objectives
7. Define BCC strategy & monitoring and evaluation plan
8. Develop communication products
9. Pretest
10. Implement and monitor
11. Evaluate
12. Analyze feedback and revise

2.2 Review of Studies
Empirical studies relevant to this article will be examined in this section.

2.2.1 Open Defecation: A Behaviour Change Communication Challenge; India on the Move
Gupta & Agarwal (2017) in a study titled "Open Defecation: A Behaviour Change Communication Challenge; India on the Move" discovered that; a significant number of children in India, about 61 million, representing 48% under the age of five, continued to suffer from moderate or severe stunting which results to long-term cognitive deficits, poor school attendance and performance, fewer years of completed schooling, and lower adult productivity as well as increased risk of infections and higher mortality rates. They pointed out that this is because the faecal germs that children tend to ingest make them sick and prevent them from reaching their optimal growth potential. They added that the lack of sanitation facilitates the spread of diarrhea diseases, a leading cause of child deaths worldwide.

2.2.2 Health and Social Impacts of Open Defecation on Women: A Systematic Review
In a study by Saleem, M. Burdett, T. and Heaslip, V. (2019) titled; "Health and social impacts of open defecation on women: a systematic review," the authors provided a systematic review of the published literature related to implications of open defecation that go beyond the scope of addressing health outcomes by also investigating social outcomes associated with open defecation. The Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) was used to frame the review, empirical studies focusing upon open defecation in women aged 13–50 in low and middle income countries were included in the review. Research papers included in the review were assessed for quality using appropriate critical appraisal tools. In total, 9 articles were included in the review; 5 of these related to health effects and 4 related to social effects of open defecation.

The review identified 4 overarching themes; Health Impacts of open defecation, increased risk of sexual exploitation, Threat to women's privacy and dignity and Psychosocial stressors linked to open defecation, which clearly present a serious situation of poor sanitation in rural communities of Lower-Middle Income Countries (LMICs). The findings of the review identified that open defecation promotes poor health in women with long-term negative effects on their psychosocial well-being.

2.2.3 Determinants of Open Defecation in the WA Municipality of Ghana: Empirical Findings Highlighting Socio-cultural and Economic Dynamics among Households
In another study by Osumanu, I. K. Kosoe, E. A. and Ategeeng, F. (2019). Titled, "Determinants of Open Defecation in the Wa Municipality of Ghana: Empirical Findings Highlighting Socio-cultural and Economic Dynamics among Households," the authors examined socio-cultural and economic factors determining open defecation in the Wa Municipality, Ghana. The study employed a mixed method approach

involving questionnaire administration to 367 households systematically selected from 21 communities, observation, and eight key informant interviews.

The mixed log it model was used to determine the factors that significantly influence open defecation. The findings revealed that 49.8% of households had no form of toilet facility at home and were either using communal/public toilets or practicing open defecation. Several socio-cultural and economic reasons accounted for this. But for these households, having a toilet facility at home does not seem to be a priority. Six factors (education, household size, occupation, income, traditional norms, and beliefs and ownership of a toilet facility) were positively significant in determining open defecation. Fundamental too many of the significant factors is households' capacity to finance construction of home toilets. In addition to finding new and innovative approaches to public education, the principle of credit financing, that incorporates community-led initiatives, may be considered in assisting households to construct home toilets.

2.2.4 Community-Led Total Sanitation: Mixed-Methods Systematic Review of Evidence and Its Quality

Venkataramanan V. Crocker, J. Karon, A. and Bartram, J. (2018) also conducted a study titled, "Community-Led Total Sanitation: A Mixed-Methods Systematic Review of Evidence and Its Quality."

The authors summarize CLTS impacts, identify factors affecting implementation and effectiveness. Eligible studies were systematically screened and selected for analysis from searches of seven databases and 16 websites. They developed a framework to appraise literature quality. They also qualitatively analyzed factors enabling or constraining CLTS, and summarized results from quantitative evaluations.

They included 200 studies (14 quantitative evaluations, 29 qualitative studies, and 157 case studies). Journal-published literature was generally of higher quality than gray literature. Fourteen quantitative evaluations reported decreases in open defecation, but did not corroborate the widespread claims of open defecation–free (ODF) villages found in case studies. Over one-fourth of the literature overstated conclusions, attributing outcomes and impacts to interventions without an appropriate study design. The authors identified 43 implementation- and community-related factors reportedly affecting CLTS. This analysis revealed the importance of adaptability, structured post triggering activities, appropriate community selection, and further research on combining and sequencing CLTS with other interventions.

While the studies reviewed in this article focused either on impact, influence or determinants of open defecation on individuals, women or specific communities, the focus of this particular study was on how to use social and behaviour change communication education to manage open defecation in Cross River State.

2.3 Theoretical Framework
The theories and models relevant to this study are: The Diffusion of Innovation Theory and Health Belief Model (HBM).

2.3.1 Diffusion of Innovation Theory
Everett Rogers in 1962 postulated that diffusion is the process by which an innovation is communicated over time among the participants in a social system. Diffusion of innovations is a theory that seeks to explain how, why, and at what rate new ideas and technology spread. Rogers proposed that four main elements influence the spread of a new idea: the innovation itself, communication channels, time, and a social system. This process, according to him, relies heavily on human capital. The innovation must be widely adopted in order to self-sustain within the rate of adoption, there is a point at which an innovation reaches critical mass. Diffusion manifests itself in different ways and is highly subject to the type of adopters and innovation-decision process. The criterion for the adopter categorization is innovativeness, defined as the degree to which an individual adopts a new idea as seen in the model of Diffusion of Innovation below.
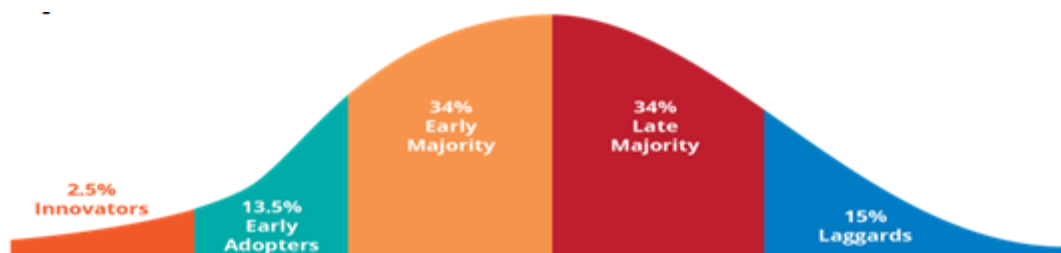
Diffusion occurs through a five step decision-making process. It occurs through a series of communication channels over a period of time among the members of a similar social system. Rogers' five

stages are: awareness, interest, evaluation, trial, and adoption which are integral to this theory. In later editions of Diffusion of Innovation, Rogers changed his terminology of the five stages to include:

Stage	Definition
Knowledge	The individual is first exposed to an innovation, but lacks information about the innovation. During this stage the individual has not yet been inspired to find out more information about the innovation
Persuasion	The individual is interested in the innovation and actively seeks related information/details
Decision	The individual takes the concept of the change and weighs the advantages/disadvantages of using the innovation and decides whether to adopt or reject the innovation.
Implementation	The individual employs the innovation to a varying degree depending on the situation. During this stage the individual also determines the usefulness of the innovation and may search for further information about it.
Confirmation	The individual finalizes his/her decision to continue using the innovation. This stage is both intrapersonal (may cause cognitive dissonance) and interpersonal, confirmation the group has made the right decision.

Diffusion of Innovation can be used to change behaviors that are influenced by social norms and social trends. The theory tells us how to promote the desired behaviour by focusing on attributes. This can be done through agents of change, that is, the early adopters of a new behaviour who promote it and encourage others to adopt it. Agents of change can be people working in the community or community members who have adopted the new behaviour such as toilet use and can act as role models. Targeting effective agents of change, such as local leaders, influential individuals, peers and celebrities, who can accelerate the adoption of a new behaviour. Applying the theory of the diffusion of innovations, communicators can identify "early adopters," i.e. people who have already adopted a new behaviour or idea that a programme is trying to promote within a community, and use them to further promote the behaviour so that it diffuses through the entire community.

2.3.2   Health Belief Model
The Health Belief Model originated in the 1950s by social psychologists Irwin M. Rosenstock, Godfrey M. Hochbaum, S. Stephen Kegeles, and Howard Leventhal at the U.S. Public Health Service to better understand the widespread failure of screening programs for tuberculosis and helps predict public attitudes and actions around health issues. The Health Belief Model was further refined by Becker and Maiman in 1975, it assumes that people are largely rational in their thoughts and actions, and will take the best health-supporting action if they feel that, it is possible to address a negative health issue.

"As one of the most widely applied theories of health behaviour (Glanz & Bishop, 2012), the Health Belief Model (HBM) posits that six constructs predict health behaviour: risk susceptibility, risk severity, benefits to action, barriers to action, self-efficacy, and cues to action (Becker, 1974; Champion & Skinner, 2008; Rosenstock, 1974). This theory is originally formulated to model the adoption of preventive health be HBM has been successfully adapted to fit diverse cultural and topical contexts

Health-related behaviours are also influenced by the perceived benefits of taking action, for instance, if an individual believes that a particular action will reduce susceptibility to a health problem or decrease its seriousness, then he or she is likely to engage in that behaviour regardless of objective facts regarding the effectiveness of the action. For example, individuals who believe using latrine will prevents health related disease are more likely to stop the practice of open defecation than individuals who believe that the practice of open defecation will not prevent the occurrence of disease spread in their neighborhood. The health belief model posits that a cue is necessary for prompting engagement in health-promoting behaviours; cues to action can be internal or external.

External cues include events or information from the media, or health care providers promoting engagement in health-related behaviours. The intensity of cues needed to prompt action varies between individuals by perceived susceptibility. The model has gained substantial empirical support since its development in the 1950s, and has remained one of the most widely used and well-tested models for explaining and predicting health-related behaviour. The theory helps in the understanding of how best to address the individual problem of keeping the toilet/environment clean and maintaining good hygiene as to prevent open defecation related diseases.

III.   METHODOLOGY
Amidst the various options of research designs, this study considered a mixed method which is the use of both quantitative and qualitative research methods to facilitate cross verification of data from two sources. In other words, this research employed the survey method which is a type of quantitative research method involving the administration of standardized questionnaire to a sample of respondents. Okoro (2001) maintained

that, survey research is a vital method for collecting data for the purpose of describing a population too large to be directly observed.

The survey design was useful in the measurement of public attitude and influence of SBCC education strategies in the management of open defecation. Focus group discussion was also adopted. The Focus Group Discussion (FGD) is a type of qualitative method involving the administration of open-ended questions to a carefully selected target group. Wimmer and Dominick (2003) posited that apart from being time saving and flexible, focus group discussion allows for the understanding of the audience attitudes and behaviours.

A sample size of 370 elements was used for the study. According to Wimmer and Dominick (2011), a sample size is a subset of the population that is representative of the entire population. A multi-stage sampling approach involving the process of dividing the study population into smaller groups or clusters and further narrowing the clusters where necessary was used for the selection of the sample for the study.

In the first step of the multi-stage approach, Cross River State was progressively narrowed down to senatorial districts and local government areas from where three local government in each of the three senatorial districts was purposively selected and each of the three local government areas selected was divided into streets (units) and some streets (units) randomly selected and houses from the selected streets, systematically selected and adult males and females found in the houses served with copies of the questionnaire. Clustering also played important role in determining subjects for both quantitative and qualitative studies. Purposive sampling technique which enables an investigator to deliberately choose from a study population, only those who have relevant views from the subject of investigation, was used for the selection of participants for the focus group discussion. Purposive sampling procedure was used for the selection of one local government area each from the three senatorial districts in the state as it provided the needed information sought by the researcher regarding social and behaviour change communication education in the management of open defecation in Cross River State.

The participants for focus group discussion consisted of eight (8) participants, five females (5) and three (3) males drawn for the discussion. Unstructured moderator's guide was used for the FGD with an experienced moderator, in this process close ended and the open ended questions were decided on in order to limit the participants from in-depth and uniformed responses. It also gave the researcher the opportunity to ask follow up questions for clarification purposes.

The structure of the questionnaire was close-ended in a two/four-Point Likert Scale. The main aim of the questionnaire was to ensure uniformity in responses and accuracy in data analysis as it eliminates uncertainty in data collection from respondents.

The items in the questionnaire dealt with the core issues related to the research questions. Questions from the focus group discussion and questionnaire contained specific items that addressed the research questions.

To achieve validity, the instruments were subjected to face validation by experts who examined them for clarity.

Wimmer and Dominick (2011) stated that, measure is reliable if it consistently gives the same answer. Reliability of the instrument was established through the use of the test-re-test reliability type. This was done by collecting data using the research question from 20 respondents and after two weeks, the instruments were re-administered on the same 20 respondents.

The data collection was carried out with the assistance of three research aids. The FGD notes were transcribed and developed for analysis. A total of three hundred and seventy (370) copies of the questionnaire were prepared and served to respondents while three hundred and fifty two (352) were retrieved.

The data gathered from the study instruments (questionnaire and focus group discussion) were analyzed by means of frequency tables, percentages in the case of the questionnaire and explanation in the case of focus group discussion.

IV.   DATA PRESENTATION AND ANALYSIS

The analysis of survey research was done on the 352 copies of the questionnaire retrieved, out of 370 copies served while the qualitative analysis was based on the responses from the focus group discussion.
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4.1.1   Data Presentation and Analysis

On the appropriate medium in communicating open defecation related messages to people in Cross River State, it was observed that 128 respondents, representing 36% of the total respondents believed that advocacy is the appropriate medium of communicating open defecation related messages, 80 respondents (22%) agreed that town hall meetings is appropriate, 65 respondents representing 18% said radio is more appropriate, 55respondents, (15%) prefer television while 24 respondents representing 6% thought that the Newspaper is more appropriate medium of communicating open defecation messages.

On whether lack of open defecation messages in the media contributes to lack of knowledge about open defecation in the State, 101 respondents representing 28%, agreed that lack of open defecation messages in the media contributes to lack of knowledge about open defecation in the State; 45 respondents, representing 12% disagreed. Meanwhile, those who strongly agreed that the absence of open defecation messages in media contributes to lack of knowledge were 165 respondents representing 46%; and a total of 41 respondents, representing 11% strongly disagreed on the statement.

On whether people think social and behaviour change communication when integrated into government policies can be useful in the management of open defecation, 89 (25%) of the respondents agreed that SBCC when integrated into government policy can be useful in managing open defecation, 30 respondents, representing 8% disagreed, 207 respondents representing 58% strongly agreed to that statement while 26 respondents or 7% of the respondents strongly disagreed to the statement.

On whether children should be taught the habit of toilet use in their early childhood rather than being pushed to the practiced of open defecation, 91 respondents, representing 25% held the opinion that children should be taught to use toilet in their young age, 26 (7%) disagreed to this, 196 respondents representing 55% strongly suggested that children should be taught toilet use, and 41 (11%) strongly disagreed to this.

On how the effective management of open defecation practice could reduce the spread of open defecation related diseases, 98 (27%) of the respondents agreed that effective management of open defecation could reduce the spread of many diseases; 39 respondents, representing 11% disagreed. Those who strongly agreed to the statement were 200 representing 56%, while 15 respondents representing 4% strongly disagreed.

In determining the number of respondents who have practiced open defecation before, 252 respondents representing 71.5% indicated that they have practised open defecation before, while 100 (28.5%) of the respondents said they have not engaged in the act of open defecation before. On whether respondents derive Satisfaction with their current place of defecation, the result of the survey shows that 119 respondents representing 33.8% indicated that they are not satisfied with their current place of defecation. Meanwhile 233 (66.1%) of the respondents said they did not like their current places of defecation.

On the general opinion of the Respondents on whether there is nothing wrong with the practice of Open Defecation in the society, 57 (16.1%) of the respondents agreed that there is nothing wrong with the practice of open defecation in the society, 93 (26.4%) disagreed, 68 (19.3%) of the respondents strongly agreed, while 134 (38.1%) of the respondents strongly disagreed, indicating that it is very wrong for one to practice open defecation in the society. On whether there are enough modalities to educate the society against the ills of Open defecation, 158 respondents representing 44.5% of the respondents believe that there are enough modalities to educate the society against the ills of open defecation, while 194 respondents representing 55.5% believed differently.

The study also sought to determine how effective are SBCC interventions in changing individual's behaviour against the practice of open defecation. The result indicates that 125 respondents, representing 35.5%, felt that SBCC-related interventions in changing individual's behaviour against the practice of open defecation are effective, 104 representing 29.5% said there are very effective, 70 respondents (19.8%) said there are ineffective, while 53 respondents, representing 15.0% believed that SBCC interventions are very ineffective towards the change of behaviour against the practice of open defecation.

Whether giving of incentives/award to community that is open defecation free, would motivate other communities into toilet use, 57 (16.1%) of the respondents agreed to the statement, 93 (26.4%) disagreed to this, 134 (38.0%) respondents strongly agreed to giving of incentives to communities so as to encourage them on toilet use. Meanwhile 68 (19.1% disagreed to this idea. On whether availability of toilets and latrines alone can effectively manage open defecation in Cross River State, 57 (16.1%) of the respondents believe that the availability of toilets and latrines in Cross River State can bring about effective management of open defecation. 93 (26.4%) disagreed to that, 77 (21.8%) respondents strongly agreed, while 125 (35.5%) respondents strongly disagree; showing that provision of toilets/latrines alone cannot solve the problem of open defecation in Cross River State. This implies that social and behaviour change communication education is essential to bring about change in behaviour by individuals and communities towards both toilet use and against open defecation.

To determine whether or not availability of toilet facilities is the root cause of open defecation in Cross River State, 315 respondents, representing 89.4% agreed that unavailability of toilet facilities is the major cause of open defecation in some communities in Cross River State, while 37 respondents, representing 10.6% expressed a contrary opinion. On respondents' rating of the impact and consequences of open defecation in the state, 125 (35.5%) of the respondents said that open defecation effects is very high and 104 (29.5%) said the effect is high; while 70 (19.8%) rated the consequences to be low and 53 (15.4%) rated the effect of open defecation to be very low. The study also sought to determine whether the practice of open defecation is regarded by the respondents as traditional norm that cannot be corrected by communication strategies in Cross River State, 84 respondents representing 23.8% strongly agreed, 66 (18.75%) agreed to the statement, 79

respondents, representing 22.4% disagreed. While those who strongly agreed were 123 respondents representing 34.9%. This implies that SBCC is one of the best tools in the management of open defecation in Cross River State. Similarly, 186 respondents representing 52.8% suggested that lack of finance cannot be the major constraints to toilet ownership in the urban/ rural areas of Cross River State. 62 (17.6%) agreed, 46 (13.0%) disagreed, meanwhile 58 (16.4%) did strongly disagree to this statement. On whether one can confidently say the government is doing enough with regards to open defecation management in Cross River State, 102 respondents representing 28.9% strongly agreed, 51(14.4%) agreed to the point, 58 representing 16.4% disagreed, 141 respondents representing 40.0% strongly disagreed. This means a lot needs to be done by government to help curtail the huge effect of open defecation in the state. The result also indicates that 174 representing 49.4% accepted that, they have observed the practice of open defecation to often results to high rate of infant mortality, violence against women and girls in the community, 94 (26.7%) agreed to this, 35 respondents representing 9.9% disagreed with other on this views, while 49 (13.9%) strongly disagreed to this point. Whereas 127 respondents, representing 36.0% indicated that the provision of modern toilet facilities can boost economic growth of the state. 82 respondents, representing 23.3% agreed, 70 (19.8%) disagreed, while 73 respondents (20.7%) strongly disagreed with that point.

4.2 Discussion of Findings
The discussion is done on the basis of the research questions directing this study.

Research Question One: What is the specific role played by Social and Behaviour Change Communication strategies in the management of open defecation in Cross River State?

The following findings help to answer the research question. It was revealed that Social and Behaviour Change Communication strategies plays a key role in the management of open defecation by employing it vital three key strategies of advocacy, social mobilization and behaviour change communication to mobilize different stakeholders, generates dialogue, engage in negotiation and consensus among key players that includes the media, opinion leaders, in -makers, NGO's, policy-makers, private sector, networks and religious groups who worked in a coordinated way to change the socio-cultural norms of the people. This is in line with the views of Lapinski and Rajiv (2005), who observed that social norms are the rules and conventions that provide part of the social context within which people takes decisions to change. However for the effectiveness of SBCC strategies in the management of open defecation to be adequately felt in the state, government needs to include finance for human waste management otherwise known as open defecation management in its yearly budget to accommodate the provisions, maintenance, evacuation of filled toilets and training of Information, Education, and Communication (IEC) Officers in the state and its environs. This point is further strengthened by Olsen, Samuelsen, & Onyango-Ouma, (2001), who stated that a concerted effort to manage sanitation effectively is to make it a priority in the political agenda of both developing and developed countries.

Research Questions Two: How effective are SBCC interventions in changing individual and community behaviour against the practice of open defecation in Cross River State?

Results of the study which provide the answer to this question indicate that Although, UNICEF (2011) had pointed out that the use of latrines/toilets and their maintenance are poor in several localities, mainly due to the gap in implementation of Information, Education, and Communication (IEC) programs, as one of the findings indicates, 125 of the respondents representing 35.5%, felt that SBCC interventions in changing individual's behaviour against the practice of open defecation is effective, 104 respondents, representing 29.5% said it is very effective. The findings of the study is in line with the views of Abrams (2001), who observed that to combat Open Defecation, the state government needs to develop a multipronged National Reach-out Campaign that will help in the increase of awareness by deploying frontline workers who will initiate door-to-door contact with residents of Cross River among others. This however implies that SBCC interventions can be much more effective in changing individual behaviour against the practice of open defecation in the State.

Research Questions Three: In what ways can SBCC be used in managing open defecation in Cross River State?

Findings which provide answer to awareness campaign, advocacy interventions and workshops/town hall meetings as the ideal means of communicating and educating the masses on need for a behavioural change aptly answers this question. The result also indicated that respondents strongly agreed to giving of incentives as one of the ways SBCC can be used in the management of open defecation in communities of the state, as this encourages them on the need for toilet ownership, maintenance and use. One of the findings also approved of Community-Led Total Sanitation (CLTS) approaches which involve strategically sub-dividing the areas of study (urban or rural) into manageable units, and then triggering 'communities' of landlords and tenants to arrive at a tipping point. Successful element in CLTS is using local designs, adapting upgrades to existing latrines, and linking sanitation businesses to an army of community-based marketers working on commission.

According to Chambers (2009), CLTS dose not only focuses on the construction of latrines, but also on local knowledge, attitude, practice, and beliefs (KAPB) related to hygiene and defecation behaviour, which play a key role for sustainability through a participatory grassroots approach, CLTS aims to achieve and sustain an open defecation-free status for communities and driven by the SDGs, collective behaviour change programmes utilizing (CLTS), safe transport, disposal, and treatment of waste, are addressed while ensuring that women, girls, and vulnerable groups are not left out.

Research Questions Four: To what extent can the practice of open defecation as a traditional norm be corrected or not, using SBCC strategies in Cross River State?

To provide answer to this question, 123 respondents representing 34.9% strongly disagreed to the question, believing strongly that open defecation practice can be corrected using SBCC strategies. Similarly, 84 respondents representing 23.8% strongly agreed, 66(18.75%) agreed to the statement, 79 respondents, representing 22.4% disagreed. This implies that SBCC is one of the best tools in the management of open defecation in Cross River State. This finding is in line with Blum (1999), who postulated that Behaviour Change Communication is a process of using communication approaches and tools to develop the skills and capabilities of people by promoting and managing their own developmental initiatives by adopting positive change that offers opportunities for growth and sustainable development. The above shows that behaviour change communication is a process of working with individuals or groups of people, communities and societies using communications strategies to promote positive behaviour and offer a supportive environment that enables people to imitate and sustain positive behaviours.

In clear terms, the respondents themselves through the focus group discussions helped in supporting the answer to the research question. They all had a fair grasp of the subject matter as every average adult of the State had in one time or another engaged in the practice of open defecation knowingly and unknowingly. An instance given here includes being allowed to defecate outside the home by parents at young age, defecating in bushes, bodies of waters and uncompleted building when one is seriously pressed and far from the reach of toilet facilities.

Discussants in the focus group panel were also asked about the causes of open defecation in our homes, communities, state and country. The question was raised to determine what the discussants felt was the root cause of open defecation in our environment, however, the direction of the discussion showed that most people practice open defecation with reference to a number of reasons which includes:-

1. Filthy toilets, dark, foul-smelling, or unattractive (often this is the case for shared or public toilets)
2. There is a risk to personal safety (e.g., if the toilets are public or shared, and criminals are known to gather there to wait for possible victims)
3. Toilets are only at some distance; also, it may be dangerous to get there at night.
4. Distance may as well cause one to defecate in the open as this means there is not enough time to go to a distant shared toilet.
5. Dilapidated toilets may cause user to practice open defecation as they may be afraid of a collapse. Toilet enclosure does not provide enough privacy.
6. Ignorance on the benefits of using toilets.

Consequently, reasons for open defecation are varied, and this activity can indeed be a voluntary choice, but in most cases it is due to the fact that the alternatives places of defecation are not available or not clean, safe, or attractive enough for users.

The participants were asked if they were satisfied with their current place of defecation And If not, whether they have plans of building a latrine/toilet in the future, in answering this question, most discussants maintained that, they are not satisfied with their current places of defecation. This point is supported by the result which shows that 119 respondents representing 33% said they are not satisfied with their current places of defecation while 233 (66%) respondents said they did not like their current places of defecation and are making an alternative provision for a safe place of defecation. A good look around our surroundings will reveal thousands of neighbours living without an access to toilet facility in their neighborhood. These sets of people are not happy about the idea of defecating in the open, but nevertheless they are engaged in the act due to lack of access to toilets. However they believed that toilet use is the best and wished to own one within their homes.

V.   CONCLUSION

The major aim of this study was to examine the role of Social and Behaviour Change Communication education strategies in the management of open defecation in Cross River State, with focus on one community from the central, northern and southern senatorial districts of the state. The study adopted survey research method while the Questionnaire and Focus Group Discussions were used for data gathering. Meanwhile, 370 copies of the questionnaire were administered to respondents from which 352 copies were retrieved and the data collected were analyzed and presented by means of frequency tables and simple percentages. The views of the focus group discussants were interpreted and explained in relation to the findings from the quantitative survey.

The study found that there are some impediments to the effective management of open defecation in Cross River State due to improper use of communication strategies.

Based on the findings, it can be concluded that one of the remote causes of sanitation problem in the state is open defecation. The immediate causes are poverty, lack of public education, illiteracy, unwillingness to provide toilet facility by landlords. Arising from the findings of the study, it can further be concluded that the health implications of open defecation requires that the whole population of Cross River State be educated through the process of social and behaviour change communication regarding the problems associated with open defecation. It can also be concluded that unless the government policy incorporates SBCC interventions well funded, the triggering of behavioural change of individuals and groups concerning open defecation may not be possible.

5.2 Recommendations

Based on the findings of the study, the following recommendations were made:

1. The state government through the local government chairmen should engage communication experts to introduce SBCC interventions to discourage open defecation among the people of Cross River State. Government at all levels should also construct decent public toilets in various communities of the state, to create easy access to toilets.
2. The change agents and stakeholders such as donor agencies, NGOs, civil society organizations, and the academia should assist communities through public education, awareness creation and sensitization of the community members on the importance of toilets and the dangers of open defecation.
3. The framework for punitive and incentive measures to encourage acceptable behavioural practices and discourage unhealthy lifestyles must not be an unambiguous and strict one. This means laws must be enforced by the regulatory agencies to thereby prosecuting any households whose members are fond of defecating openly.
4. There must be conscious efforts to include peer groups, youth leaders and leaders of women groups in all decision-making processes of developing, planning and implementing policies against open defecation.
5. Governments at all levels should engage in the advocacy that would continually raise the image of latrines use among the people of Cross River State.

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