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AUDIENCE KNOWLEDGE, AWARENESS AND PRACTICE OF HANDWASHING MEDIA CAMPAIGNS IN ANAMBRA STATE

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Abstract
This study examines audience knowledge, awareness and practice of hand washing media campaign messages in Anambra State, Nigeria. Using the triangulation method of survey and focus group discussion (FGD), three hundred and eighty-four respondents for the survey and thirty participants for FGD were selected for the study. Multi-staged sampling method was used to randomly select three culturally homogenous communities in Anambra State. Findings of the study show that majority of the respondents are exposed to hand washing with soap (HWWS) media campaign messages. They have knowledge of the skills of hand washing with soap/ash and it is largely practiced by the respondents. However, they still face a lot of challenges to the practice ranging from distance between the toilet and source of water, lack of soap, and lack of designated place for hand washing, time and fatigue amongst others. It was recommended that more efforts are still needed to improve hand washing practices using properly designed health intervention messages like effective hand washing education and provision of water supply and soap which will address the identified barriers in Anambra State.

Keywords: Barrier, Exposure, Hand Washing, Knowledge, Practice.

Introduction

The use of contaminated hands for cooking, eating and other household activities makes it possible for the transmission of germs into the body through food, thereby causing diseases like diarrhea especially in young children. Some communities and individuals still continue to disregard the link between hand washing with soap or ash and the benefits it offers in combating diseases. According to World Bank (2012), hand washing with soap can reduce diarrhea in young children by as much as 48 percent. In developing nations like Nigeria, diarrhea is one of the major killer diseases of young children. This is caused by lack of adequate water supply in homes to maintain a clean and healthy environment. Water Aid (2014), observe that 36 per cent of the Nigerian population is without clean water, and 72 per cent lack access to improved sanitation; making washing hands and

keeping clean a huge challenge in the country. In Anambra State, UNICEF introduced Water Sanitation and Hygiene (WASH) project as an avenue for maintain healthy environment within the communities and among individual however, Muanya (2015) notes that only about 20 percent of the communities are benefitting from the Water Sanitation and Hygiene (WASH) project leaving the remaining 80 percent at the mercy of cholera, gastroenteritis, diarrhea, typhoid fever and other communicable disease due to absence of safe water and toilet facilities.

Improvements in hygiene behaviour and hand washing can reduce diarrhea disease and spending on expensive medicines substantially. A synthetic review carried out by the International Initiative for Impact Evaluation in water, sanitation and hygiene found that hand washing at critical times including before eating or preparing food and after using the toilet can reduce diarrhea rates by almost 40 percent (Waddington, Snilstveit, White & Fewtrell, 2009). Hand washing works by interrupting the transmission of harmful pathogens obtained through contact with human faeces in the environment. When ingested, these pathogens cause diarrhea and other gastro-enteric infections that lead to longer term adverse outcomes for young children who are infected, including growth faltering, malnutrition, and cognitive and learning impairments (World Bank, 2008). The prevailing effect of diarrhea which is both preventable and treatable in developing countries can be seen in impaired growth, lost lives, schools absenteeism, poverty, malnutrition etc.

In Africa, diarrhea kills 1.5 million children every year (Greentug, 2010), which is 18% of the cause of death (WHO 2010). Diarrhea is responsible for 23% of the under 5 deaths, where under five mortality rates is 109 per 1000 lives birth, making it the third leading killer of children in the region (WHO Health Statistics, 2010). According to UNICEF (2016), Diarrhea is a leading killer of children, accounting for 9 per cent of all deaths among children under age 5 worldwide in 2015. This translates into over 1,400 young children dying each day, or about 530,000 children a year, despite the availability of simple effective treatment. In Nigeria, diarrhea accounts for over 16% or about of 150,000 deaths mainly amongst children under five occur annually due to this disease that is caused by poor sanitation and hygiene practices (UNICEF, 2008).

Curtis and Cairncross (2003) opine that, hand washing, if regularly and properly practiced by mothers of children under 5 years old will go a long way in reducing the prevalence of infectious diseases, hospital admissions due to these diseases and also mortality among the under 5 years old children, thereby making them grow well and healthy. Often, knowledge about hygiene does not translate into practice very quickly. A lack of awareness, education and a culture of good hygiene living can make changes in the community and among individuals slow and complicated. Understanding the factors associated with routine hand washing is essential to any initiative likely to result in sustained behaviour change among the population.

Several campaigns messages on hand washing have been mounted in the various media in the country. Some of the campaigns include: The Nigerian Medical Association sponsored Dettol hand washing advertisement on television where children are exposed to the dangers of unsafe and contaminated hands which could lead to diseases. Also there

are health talks given in hospitals on hygienic hand washing to mothers during postnatal visit on care of the new born. Again the Water and Sanitation Hygiene (WASH) initiatives in schools provide sensitization for the children on the need to maintain a healthy lifestyle by constant hand washing practice. These various strategies of disseminating information on hand washing are aimed at increasing awareness and inducing their behavior towards maintaining a healthy lifestyle. It is against this backdrop that this study aims at finding out the exposure, knowledge and practice of hand washing with soap/ash among the target audience in Anambra State.

Statement of the Problem

Hygienic measures, including hand washing with soap/ash at critical times such as before cooking and eating meals, after use of rest rooms, when one returns from work or relating with others etc. appears to be one of the veritable means of preventing diseases like diarrhea. WHO (2008) estimates that diarrhea and respiratory infections are responsible for two- thirds of child deaths. UNICEF (2008), reports that over 150,000 deaths occur annually amongst children in Nigeria due to diarrhea. A simple hygiene habit of washing hands with soap could half this figure. Yet, rates of hand washing with soap at critical times are believed to remain low especially in developing nations, even when both soap/ash and water are available.

Though there have been a lot of awareness in the media about hand washing with soap, the rates of hand washing are still minimal. This is caused by inadequate sanitary conditions and poor hygiene practices which play major roles in the increased burden of communicable disease within developing countries. These problems underscore the importance of adopting the precautions offered by media campaign as regards hand washing practice. The worry now is that people seem not to adopt the precautions offered by media campaigns as regards hand washing behavior.

Objectives of the Study and Research Questions

The aim of this study is to examine the audience exposure, knowledge and practice of hand washing with soap media campaigns in Anambra State. Specifically, the study sought to accomplish the following objectives: (1) To assess the exposure to hand washing with soap media campaigns among resident of Anambra State. (2) To determine the knowledge of hand washing with soap among citizens of Anambra state. (3) To determine the practice of hand washing with soap among citizens of Anambra state. (4) To ascertain the challenges to the practice of hand washing with soap among citizens of Anambra State.

The five research questions were posed to guide the study. The questions are: (1) How exposed are the residents of Anambra state to hand washing with soap media campaign messages? (2) What is the level of knowledge of hand washing with soap among the target audience? (3) What is the level of practice of hand washing with soap among the target audience? (4) What are the barriers to the practice of hand washing with soap among the citizens of Anambra State?

Literature Review

The practice of hand washing is as old as man. It was an important practice held by the Jews who ensured that hand washing preceded eating. Good hand washing involves the vigorous, brief rubbing together of all surfaces of lathered hands, followed by rinsing under a stream of water. Hand washing suspends microorganisms and mechanically removes them by rinsing with water. Therefore, the fundamental principle of hand washing is removal, not killing (CDC, 2009). CDC further identified hand hygiene as an important way to prevent spread of infection as they explained that Hand washing with soap helps prevent gastrointestinal diseases like diarrhea; respiratory diseases like pneumonia and influenza; and other infections such as Ebola and healthcare-associated infections. Hand washing with soap may help prevent soil-transmitted helminthes infections, which infect over 1.5 billion people. In the same vein, Water Aid (2014) concurs that good hygiene and hand washing are critical in helping to prevent the transmission of many infectious diseases that are devastating communities across Africa, including Ebola, cholera, diarrhea, and pneumonia. However, in many parts of the continent, services such as sanitation, adequate water and soap supplies, and knowledge of appropriate hygiene practices are missing.

In recent times, hand washing with soap and other forms of hand hygiene has been gaining recognition as a cost-effective, essential tool for achieving good health and nutrition. Now that its effectiveness is no longer in question, the main focus is on how to make hand washing universal. However, Hyde (2010) points out that hand washing is an often over looked behavior that is very important for food safety, disease prevention, and personal health yet most people underestimate the potential seriousness of food borne illness and its correlation with hand washing practices.

In Nigeria, diarrhea prevalence rate is 18.8%; which is one of the worst in Sub-Sahara Africa and above the average of 16%. Diarrhea accounts for over 16% of child deaths in Nigeria and an estimated 150,000 deaths mainly amongst children under five occur annually due to this disease mainly caused by poor sanitation and hygiene practices (Limlim, 2008). Most parasites live and breed in faeces and are transmitted to humans when ingested or through the hands. According to World Bank (2005), parasitic infestations pose serious threats to young children and are a cause of child mortality. Among those who survive, parasitic infestations are associated with diarrhea and micronutrient malnutrition, which often leads to iron-deficiency anemia, protein-energy malnutrition, and enlargement of the liver and spleen (Hesham, Edariah & Norhayati, 2004).

In addition, World Bank further views that some respiratory tract infections, including the severe acute respiratory syndrome (SARS)-causing corona virus, are transmitted via the fecal-oral route or simply on hands. Hand washing can be a critical measure in controlling pandemic outbreaks of respiratory infections. Studies carried out during the 2006 outbreak of (SARS) suggest that washing hands more than 10 times a day can cut the spread of the respiratory virus by 55 per cent. Diarrhea is one of the leading killers globally, and strong evidence indicates that hand washing with soap is one of the most effective interventions available to reduce the incidence of diarrhea. From various studies that have

been carried out on the effect of hand washing on diarrhea occurrence, it is estimated that 30 to 50% reduction in diarrhea episodes can be achieved (UNICEF, nd).

As part of the efforts of reaching out to more people with hand washing messages, both electronic and print media were mobilized for the campaigns. The processes of engagement with media commenced with sensitization meetings with journalists across the country for proper understanding of hygiene related issues especially hand washing. Over 30 media organizations were sensitized with their skills enhanced on hygiene promotion. Jingles were produced on hand washing practices in both English and Local languages and these jingles were distributed to over 20 Radio and Television Stations for airing. The Nigerian Television Authority (NTA) which is the largest television station in the country with network covering over 95% of the country and 101 stations in all the 36 States and FCT now airs the English version of the jingle. Apart from the jingles, more than 12 radio and television stations have regular programs such as documentary, drama and live discussions on hygiene practices. Features and Stories on Improved hygiene practices have also been produced in print media towards creating awareness on benefits of hygiene practices such as hand washing among the populace (Agberemi, Ofem & Saidu, 2009).

The challenge therefore is to find effective ways of getting people to wash their hands appropriately and habitually use soap when they wash their hands (HBS, 2008). This demands the proper selection of theoretical frame works for behavioral prediction as well as intervention. In their study to access the knowledge, attitude and practice regarding Ebola viral disease prevention measures among secondary school students in Nnewi North and Nnewi South Local Government Areas in Anambra State, Nwabueze, Amah, Azuike, Anene, Kadiri-Eneh, Anameje & Akudu (2016) found high practice of hand washing among the students in that area.

A quasi experimental design was used to collect data from 450 students aged 6 to 12 years. The study data which was collected by a self-administered questionnaire sheet and observation checklist in Port Said city elementary schools in six months periods concluded that there were significant statistical difference in total knowledge and practice score of the studied sample after implementation of educational programme. The study concluded that the hand washing practices of children in primary schools was improved after the programme implementation (Moussa, Abdella, Abu-Elenna & Elkazaz, 2015).

Several strategies for promoting hand washing with soap identified from 11 countries research reviewed by Curtis et al (2009) include creating social norms, highlighting disgust of dirty hands and teaching children hand washing with soap as good manners. Among these status, nurture, comfort, habit, privacy, affiliation, attraction, fear and motivators like dirty, disgust, foul or smelly faeces, urine, bodily fluids and rotten or dead items are discussed in the document. Most of them have got positive impact for hand washing, but in very rare areas they do have different meanings. For instance, status- being seen to be clean could lead to being admired and respected, and a clean child was regarded as an ambassador from the family to the society at large. On the other hand, being labeled as 'dirty' was thought shameful and to be avoided at all costs. However, some respondents in Kenya and Uganda raised the concern that if their hands are washed with soap, they

might be seen as being too clean and different from other people, as trying to get above themselves and people hate you.

Many parts of the world have practically tested and proved that if we change our behavior risk factors, it is possible to improve hygiene related health problems. But there are different factors that affect hand washing with soap behavior. Environmental factors that influence hand washing practice as Curtis, Danquah, and Aunger (2009) mentioned are divided into social, biological, and physical factors which either positively or negatively influences it. Curtis elaborated them as: (1) Physical factors include water, soap, and toilets. Their presence, abundance and place where they are available are important issues. (2) Social factors includes local cultures, beliefs, traditions and norms which are emanated through social structures such as the family, neighbors, local social organizations, government-health workers, schools and mass media. Who control the family soap budget is important issue in many cultures? In some, it is the father who is responsible to buy soap. (3) Biological factors include lack of time and energy for hand washing, and being so busy that hand washing is forgotten.

In discussing the harm these environmental factors have caused in Anambra State, Muanya (2015) observes that in Aguata, Idemili South, Nnewi, and Anambra East, we have so many water boreholes in the last four to five years running. That does not mean we do not have challenges. There are some places where this lackadaisical attitude about public utilities and maintenance culture is still a concern in some rural communities. The importance of hand washing with soap cannot be over emphasized. This study therefore decoded some issues. First, how exposed are the residents of Anambra State to hand washing with soap? Second, what is their level of knowledge and practice of hand washing with soap? Third, what are their barriers to the practice? Based on previous research, these research questions will attempt to fill the gap that exists in the studies of hand washing with soap practice.

Theoretical Framework

This study is anchored on the Integrative Model of Behavioral Prediction (IBM) by means of which the determinants of hand washing related behaviour was determined. Fishbein & Yzer (2003) introduced the IBM as a means to analyze how certain behaviors might be formed and changed. Fishbein and Yzer focus on the selection of beliefs, the beliefs to target in an intervention and the goals of the intervention for problematic beliefs. Their research shows that the effectiveness of a health communication document is determined by several aspects of the message, the audience and the context. Most of the models for the design of health communication stress the importance of the fact that a message has to address the most important determinants and beliefs of the problematic behavior as a condition for the message to be effective (Fishbein & Yzer, 2003).

The IBM proposes that intentions (as the function of attitudes, subjective norms, and perceived self-efficacy) are the primary determinants of behavior. Four additional components directly affect behavior: knowledge, salience of the behavior, environmental constraints, and habit. Glanz Rimer & Viswanath (2008) described this recommendation by discussing about IBM determinants; the most important determinant of behavior in the

IBM is intention to perform the behavior similar to theory of reasoned action/theory of planned behavior TRA/TPB. Without motivation, a person is unlikely to carry out a recommended behavior. Glanz et al., (2008) continues their description about other components of IBM, among four other components that directly affect behavior three of them are important in determining whether behavioral intentions can result in behavioral performance. First, even if a person has a strong behavioral intention, he needs knowledge and strong behavioral intention; the person needs knowledge of hand washing with soap and skill to carry out the behavior. Second, there should be no or few environmental constraints that make behavioral performance very difficult or impossible. (For instance, availability of water or soap). Third, behavior should be salient to the person. Finally, experience performing the behavior may make it habitual, so that intention becomes less important in determining behavioral performance for that individual, as cited from Triandis (1980), and Becker (1974).

The theory suggests that audience intent to adopt hand washing behaviour is a function of attitude and subjective norms toward HWWS practices. That is, if the audience believes that the outcomes of HWWS are desirable, such as a decrease in infection of diseases, a positive attitude toward HWWS may result. Conversely, if the outcomes are assessed as undesirable, such as damaged or dry hands, a negative attitude toward HWWS may result. The audience who hold positive attitude toward HWWS may be more inclined to perform it.

There are perceived behavior controls which refers to the audience perception about the external factors that may limit their ability to practice good HWWS. These external factors may supersede the audience positive intentions, attitudes, and motivation to conform to HWWS guidelines, ultimately resulting in poor practice of HWWS. The audience may perceive that they have little control over external factors such as availability of water, soaps, sinks, or time constraints which may lead them to believe that they have little control over their HWWS practices.

Study Method and Instrument

A triangulation method of survey and focus group discussion was employed for the study. The strength of using the mixed method lies in the fact that the weakness of one method will be strengthened by the strength of the other. The 2006 National Population Census figure for females in Anambra State is 2,007,391. Since the population for the study was limited to females of child-bearing age in Anambra State, the population of women of reproductive age which is 49% (983,622) of all female population (Ukibe, Mbanugo,Ukibe & Ikeakor, 2013) was used for the study.

A sample size of 384 respondents was determined by employing the Philip Meyer's (1973) published table, while 30 participants participated in the focus group discussion. The multi-stage sampling technique was adopted in the selection of study respondents from the 3 senatorial zones which consist of an average of seven local government areas per senatorial zone in Anambra State. With the use of simple random sampling technique (lucky dip), three local government areas were selected from the three senatorial zones.

The same process (lucky dip) was employed in selecting three communities from the LGAs. The next stage required the use of systematic sampling method in administering the questionnaires to the respondents. This entailed the numbering of the streets/villages. From the list of the streets/villages numbered, 24 houses were sampled from the streets. Every 3rd house was chosen with a random starting point of 2. For households that were lacking in women of child-bearing age, the next household as provided for in the design was used. By adopting this procedure, a larger number of participants within the chosen locality were involved in the study, thereby assuring a reasonable degree of reliability. The instrument made up of 40 closed ended items was self-administered. This presented the researcher and the assistants the opportunity to interpret the difficult-to-understand areas in the questionnaire, particularly to those who were illiterates. The statistical package for social sciences (SPSS) was used to process the data. The FGD was conducted with an FGD guide. It was held at the three LGAs in the state with the help of research assistants using tape recorder and field note books for easy transcription. The subjects that participated in the sessions numbered 10 persons per session.

Data Presentation and Analysis

The response rate for the study was 98 percent (376) within the three communities of the sampled population. Table 1 below shows that 38(10%) of the respondents were between the age range of 15-20, 139(37%) were within the ages of 21-29, 113(30%) of the respondents were within the ages of 30-39, while 86(23) of the respondents were within the ages of 40-49. This implies that majority of the women were of child-bearing age and are likely to reflect the existing situation of hand washing in the state. Also, about 154(41%) of the respondents were civil servants, 98(26%) were traders, 49(13%) were unemployed, 45(12%) were artisans while 30(8%) were housewives. This shows that majority of the respondents in this study are of average economic income level. Again data show that about 143(38%) respondents were HND/first degree holders, 128(34%) were NCE/OND holders, 71(19%) were WASC/GCE holders while 34(9%) were holders of FSLC. This suggests that a large number of the respondents had high level of education. The table also shows that 38(10%) of the respondents were single, 319(85%) were married while 19(5%) were widowed. This shows that most of the women sampled are within the reproductive age. Also, the table shows that majority (96%) of the respondents are Christians.

This finding is sustained in the FGD sessions, as the participants unanimously agreed to have been exposed to HWWS media campaign messages. Television, radio, the Internet, billboards, were frequently mentioned as their media of exposure to HWWS campaigns with television being the most preferred media of exposure. This claim is further substantiated with the various reasons given by the participants: “Television has audio-visual advantage which makes it easier to learn basic hand washing skills”; “I mostly watch television when I come back from work. And most of these messages always pop up unannounced. I have no option than to watch them”; “Most people here have television; You can hardly see any household now without a television set”; “I hardly have time for radio but always relax with my children to watch television”; “I listen to radio sometimes but I prefer television because of its visual attribute”, and so on

Table 1: DEMOGRAPHIC DATA OF RESPONDENTS

Respondents' Age Distribution	Variable	Frequency	Percent
	15-20	38	10
	21-29	139	37
	30-39	113	30
	40-49	86	23
	Total	**376**	**100**
Respondents' Occupation Distribution	Civil Servants	154	41
	Traders	98	26
	Unemployed	49	13
	Artisans	45	12
	Housewives	30	8
	Total	**376**	**100**
Respondents' level of education distribution	HND/First degree	143	38
	NCE/OND	128	34
	WASC/GCE	71	19
	FSLS/	34	9
	Total	**376**	**100**
Respondents' marital status distribution	Single	38	10
	Married	319	85
	Widowed	19	5
	Total	**376**	**100**
Respondents' Religion distribution	Christians	361	96
	Muslims	15	4
	Total	**376**	**100**

The data table 2 below shows that majority of the respondents (93%) are exposed to hand washing with soap campaign messages in the mass media while a fewer number (7%) indicated they are not aware of hand washing with soap campaigns. This suggests that there is high level of awareness of hand washing with soap in the media. This awareness was further buttressed by respondents' familiarity of hand washing with soap campaign in the media. The data show that 95 percent of respondents indicated that they are familiar with hand washing with soap campaign in the media while only 5 percent are not familiar.

TABLE 2: RESPONDENTS' EXPOSURE AND FAMILIARITY TO HAND WASHING WITH SOAP CAMPAIGNS

Variables	**Exposure/awareness to any hand washing campaign messages through the mass media**	**Familiarity with any hand washing with soap campaign media**

No	7%	5%
Yes	93%	95%
Total	**100% (n=376)**	**100% (n=376)**

TABLE 3: RESPONDENTS' MAIN SOURCE OF INFORMATION ON HAND WASHING WITH SOAP CAMPAIGNS

Variable	Frequency	Percent
Mass media	252	67
Church	75	20
Friends and associates	49	13
Total	**376**	**100**

Table 3 displays the respondent's main source of information on hand washing with soap. The figure shows that two-thirds (67 percent) of the respondents use the mass media as their main source of information. This was followed by 20 percent of the respondents who indicated that they get their information from the church while 13 percent of the respondents indicated getting their information from families and associates. This suggests that mass media is largely the respondents main source of information. This is further buttressed from the FGD were participant maintain that the mass media are very instrumental in disseminating information and raising awareness about issues. The mothers engaged in the discussion were also found to be mainly familiar with Dettol soap hand washing with soap campaign in the media.

TABLE 4: RESPONDENT'S KNOWLEDGE OF ACTIVITIES THAT REQUIRE HAND WASHING WITH SOAP

Variables Germs can be acquired (by hands) through:	**No of respondents n=376 True**	**Percent 100%**	**No of respondents False**	**Percent**
Using the toilet	376	100%	-	-
Changing baby's diapers	318	85%	58	15%
Treating wounds	367	98%	9	2%
Attending to sick person	339	90%	37	10%
Waste disposal	367	98%	9	2%
Handling raw meat/poultry	355	94%	21	6%
Contact with domestic pets	360	96%	16	4%

Hand washing can remove acquired germs	351	93%	25	7%
Unwashed hands can cause sickness in children	348	93%	28	7%

The table presents data on the level of respondent's knowledge of activities that require hand washing with soap. Questions were asked whether germs could be acquired (by hands) through several ways, the result presented in the table above showed that majority of the respondents displayed a high level of knowledge on how the hands could be contaminated with germs thus requiring hand washing with soap. The views of the FGD participants in relation to knowledge of HWWS through several means are similar to the data from the survey which indicated that there is a high knowledge of HWWS among the participants. In reference to how germs could be acquired through the hands by using the toilet, changing baby's diapers, disposing waste, contact with domestic pets and so on, over ninety percent of the survey respondents agreed that germs could be acquired through several means mentioned and all the participants in the three of the FGD sessions also concurred with the survey response.

TABLE 5: RESPONDENT'S PRACTICE ON HAND WASHING WITH SOAP

Variables	**Always**	**Sometimes**	**Rarely**	**Never**	**Total (n=376)**
HWWS before feeding the child	52%	38%	10%	_	**100%**
HWWS after cleaning child's bottom	63%	27%	9%	1%	**100%**
HWWS after using the toilet	62%	33%	5%	_	**100%**
HWWS before cooking	56%	30%	13%	1%	**100%**
HWWS after attending a sick person	45%	23%	27%	5%	**100%**
HWWS after waste disposal	55%	35%	9%	1%	**100%**
HWWS after eating	46%	42%	10%	2%	**100%**
Children wash their hands with soap and water?	50%	38%	10%	2%	**100%**

Table 5 presents data on the respondent's practice of hand washing with soap. The result suggests that majority of the respondents actually practice hand washing with soap. It can

be argued that most communities in Anambra State have a number of dishes which are eaten using the hands. This may explain the high priority of washing hands before meals. However, FGD participants declared their irregularity in the use of soap to wash their hands at critical times. Some of the respondents claimed to use only water to wash their hands; some of their explanations include: "I would like to wash my hands with soap at all times but when soap is not available; I make do with only water". Another participant noted "I can't be washing my hands with soap and water all the time because of my kind of business but I try to wash my hands with soap whenever I get the chance." For some other FGD participants they have a more positive attitude towards hand washing: "I always wash my hands with soap and water before handling anything in my house." **"**I always wash my hands immediately I get back from work. I also ensure my children wash their hands immediately they come back from school or before eating." While the survey data show a high practice of HWWS, the FGD responses indicate minimal practice. This may be as a result of the fact that in FGD, there is face to face interaction and as such, makes it more difficult to lie. Against this backdrop, research question two has been shown that there is minimal practice of hand washing practice among the respondents.

TABLE 6: PERCENTAGE DISTRIBUTION OF BARRIER(S) TO HAND WASHING WITH SOAP

Barriers to hand washing with soap	**Frequency**	**Percent**
Lack of soap	83	22%
Poor placement of soap	15	4%
Lack of designated place for hand washing	91	24%
Distance between the toilet and source of water	37	10%
Total	**226**	**60%**

The data show that the most common barrier the respondents encounter in hand washing with soap indicated by 24 percent of the respondents' is lack of designated place for hand washing while 22 percent indicated lack of soap as their major barrier to hand washing with soap. Further, 10 percent of the respondents claim that the distance between the toilet and source of water is their major barrier, 4 percent constitute those that indicated that placing soap wrongly where their hands cannot reach them easily for use is their barrier to hand washing with soap practice. In this regard, most of the FGD participants referred to a number of reasons including distance between toilet and source of water as an inhibiting factor, lack of designated place for hand washing, lack of soap, poor placement of soap, as major hindrances to hand washing with soap practice as reflected in the study.

Discussion of Findings

The study found that respondents are highly exposed (93%) to hand washing with soap campaign messages through different media of mass communication in Anambra State.

The study respondents also demonstrated good knowledge of hand washing and good attitude towards hand washing as majority of them declared a good knowledge of how germs could be acquired through the hands from different sources. This agreed with findings from another study that reported good knowledge, attitude and practice to hand washing (Nwabueze, Amah, Azuike, Anene, Kadiri-Eneh, Anameje & Akudu, 2016; Ray, Dobe, Majhi, Chakraborty, Sinha & Basu, 2006). The assumption was that the high prevalence of diarrhea disease was due to low exposure and knowledge levels but the opposite seems to be the case here. These findings point to an obvious consistency towards HWWS practice.

Results emanating from this study points directly to the negative influence of environmental constraints on hand washing with soap practices among the respondents. The finding showed that majority of the respondents (60%) had barriers to hand washing with soap practice. The most recurrent barriers among the respondents include lack of designated place for hand washing, lack of soap, distance between the toilet and source of water and poorly placed soap. These barriers make behavioral performance of hand washing with soap very difficult to carry out as intended. From the years of researches, it was known that hand washing with soap is one of the simple and effective means to improve human health. The challenge as reported by HBS, 2008 is to find effective ways of getting people to wash their hands appropriately and habitually with soap. In this situation, bridging the gap would entail careful health intervention plan through integrating media content and media channels that will address these barriers.

The high practice of HWWS may indicate the impact of the media campaigns on hand washing with soap which is being carried out. At the time of this study, there was still ongoing awareness creation through the media sponsored by dettol. Although the study respondents demonstrated a relatively good degree of knowledge and practice of hand washing with soap yet much are to be done in tackling barriers hindering the practice. Like Ejemot, Ehiri & Meremikwu (2008) rightly stated in their research findings, hand washing may require infrastructural, cultural, and behavioral changes, which take time to develop, as well as substantial resources (e.g., trained personnel, community organization, provision of water supply and soap) confirmed through several research conducted in the field. As Glanz, Rimer & Viswanath (2008) describes the components of IBM that environmental constraints that make behavioral performance very difficult or impossible are important in determining whether behavioral intentions can result in behavioral performance. Against this backdrop, these results underscore the imperative of designing health intervention messages which will aim at addressing these barriers using the respondent's medium of preference which is the mass media

Conclusion

Analysis of audience awareness and response to hand washing with soap media campaign messages as shown from literature characterize the importance of hand washing with soap practice and also demonstrated mass media as an important source of message dissemination especially through the respondents' medium of preference which is Television. The results of this evaluation show that the mass media intervention was

effective in reaching the targeted audience with the hand washing messages and has therefore, improved the hand washing knowledge of mothers of child bearing age in the state as well as generated a behavior change towards the practice. Increased exposure to the campaign translated into increased knowledge about best hand washing practice. Television though expensive, have an audio-visual advantage which will help in improving the skill of hand washing with soap as well as help in addressing the barriers identified in this study.

Recommendations

To optimally realize the health benefits of hand washing with soap based on the findings of this study, the following recommendations were made: (a) The media were found through the study to be an active player in the dissemination of information about hand washing with soap; more efforts are still needed to improve hand washing practices using properly designed health intervention messages like effective hand washing education and provision of water supply and soap which will aim at addressing the identified barrier. The messages would be tailored specifically to caretakers of young children in the communities. (b) Media campaigns should adopt an integrated approach to incorporate the Ministry of Education, teachers, and parents. This will ensure that soap is incorporated in the school budgets or a provision is made where the parents can be encouraged to contribute and also support this behavior at home. (c) Community-based campaign should consider using interpersonal communication to reaching mothers effectively in order to promote hand washing behaviour at different junctures. (d) For long-term impacts, government through the Ministry of Housing and Urban Development should seek to influence the design of sanitation facilities in modern building plans to incorporate appropriate hand washing facilities which will be conveniently located.

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