

Effective Communication Strategy and Sustainable Health Management in the Rural Environment of Akwa Ibom State, Nigeria

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Date Received: May 16, 2015; Date Revised: July 1, 2015

Abstract - Research works reveal that 70% of Nigerian population lives in rural areas. In many cases, rural health sustainability and maintenance of environment variation due to climatic change remain largely untapped by reason of rural ignorance. Tree planting is unpracticed in rural areas. Again, all round rural defecation attitudes, manually dug shallow wells etc. turnout as water ponds which breed mosquitoes particularly during wet seasons. These place considerable strain on natural material resources, impacting negatively on economic growth as well as health management. The researchers see effective communication strategy using media broadcast as a tool for awareness campaigns in communities on laudable government interventions on the maintenance of healthy lifestyles. Taking the above as a base, the study used a descriptive survey design to investigate the rural dwellers health habits under climatic changing conditions. The population comprised rural dwellers in Akwa Ibom State riverine areas. The sample also comprised 100 rural dwellers from the four local government areas that make up the riverine areas. The study was postulated on one research question and one hypothesis. The result revealed that the mean score ratings for problem cases reported by the health workers indicated the cases of malaria and diarrhea as the highest. It further indicated that there was no significant difference between rural dwellers in most of their healthy living habits based on their exposure or lack of exposure to government's interventions on the creation of awareness. The study recommends the utilization of broadcast media to effectively create the required changes.

Keywords: Rural Dwellers, Health Management, Sustainability, Broadcast Media, Effective Communication

INTRODUCTION

Human activities at an increased tempo and encroachment on the physical environment have contributed gravely to climatic change. Population pressure denies us buffer frontiers such as large forest regions rich in resources and other antecedents for healthy living. Apart from deforestation/desertification, ozone layer depletion, drought, flooding and fire influence climatic change. In all these, human activities create unique health problems especially for children, being disproportionately vulnerable, suffering most of the effects (Gracy, 2003).

All round rural defecation attitudes for instance pose serious health challenges to rural people especially during the wet seasons. In some places good measures of human habitation occur on elevated terrains near running streams. Pit latrines and the so called ventilated improved pit latrines (VIPs) built within the periphery of the streams either crack or collapse, emptying some quantity of their contents into the surroundings. These find their way during the rains into the running streams which form one source of water supply to the whole of that community.

Industrial or exploration activities particularly in some rural areas in Akwa Ibom State generate increased energy production, resource extraction, air and environmental pollution. This could be seen in the mega activities of multinational companies prospecting for crude oil, petroleum related products and other minerals. Gas flaring activities in Ibeno and attendant gas emissions have taken their toll on rural health. Rain water being another major source of rural drinking water absorbs in the first place, the emitted harmful gases before dropping on contaminated rusted zinc sheets on the roofs of most buildings. This before is then consumed by rural humans, unchecked and untreated.

Several air borne disease through air pollution were responsible for over 13, 234 cases of sickness from which 29 deaths had been recorded “within the period of review” Nwanchukwu and Ugwuanyi, (2010). Global warming generates direct health impacts of climatic change which include: Air pollution related sickness; Water – borne diseases; Vector – borne illness e.g malaria; and Cold related deaths etc, (Bunyavanich et al., 2003). “the relationship between climate change and child (human) health, has unfortunately not been well investigated.” There is a broad scientific consensus that global climate is warming... and that human activities are very likely (>90% probability) the main cause and that children will experience both the direct/indirect effects of climate change. “it is against this background that a case is made for the intensification of environmental education especially among rural dwellers.”

The researchers see effective communication strategy using media (Radio) broadcast as a tool for awareness creation campaigns in communities particularly as laudable government interventions on the maintenance of healthy lifestyles in rural areas of Akwa Ibom State seem prioritized. The radio, from its beginning has proven to be a very feasible and apt instrument for science communication and is regarded as a very innovative way to connect people and promote education and health development and particularly so in the rural setting as opined by Shea (2007) and Bunyavanich et al. (2003). Radio is identified as what “should be used more effectively to communicate science and technology in Africa.” He stressed the need for setting up a rural development agenda with the radio as the main source of communication in Africa because according to him, science and technology developments affect rural population and activities (Ngubane, 2002).

Awareness information dissemination and exchange of ideas towards preventing the resultant effects of air pollution, water pollution, which result in communicable diseases, poor hygiene and indiscriminate refuse disposal, cannot be achieved without effective communication. Highly industrialized societies, especially in the societies of Western Europe and United States, communication at the grassroot may involve some of the Old Media (TV) and a variety of new interactive media but in Nigeria, the oral and radio are still in use. DFRRRI in Tolorunleke (2003) identified a number of channels for information diffusion to the rural areas. Those are formal information media – radio, television,

newspapers, pamphlets, posters, etc.; local communication channels – local leaders, town criers, market places, local musicians; development of associations and cooperatives; traditional rulers and local institutions; adult education programs; the urban elites; and Local governments and other government agencies. Amongst the channels aforementioned for information diffusion to the rural areas, radio stands out to be an effective rural information dissemination (Tolorunleke, 2003).

The following are some of the advantages of radio in Education:

- Inexpensive: All of the audio/radio voice technologies are relatively inexpensive.
- Easily accessible: Almost every home in Nigeria has radio. In addition, most students have access to audio tape players, transistor radios, car-radios or cell phones with in-built radio in their homes, hostels, or in a car.
- Easy to use: Almost everyone is comfortable with the use of radio, with radio, audio or voice technologies. They are also easy to repair or maintain.
- Radio enables the rural dwellers to listen to experts, the historians, the author and the scientist.
- Reflects on – the – spot current events (like cut one tree and plant two), in the radio, the running commentary of some inauguration ceremony, lectures delivery on health care, at conference, workshops and so on have an attraction of its own. Omoniyi, (2005) & Falade, (2010)

President Olusegun Obasanjo provides the National Economic Empowerment and Development Strategy (NEEDS) on Sustainable Health management in the rural environment. These include: *Community action, basic sanitation principles, offering farmers methods to improve irrigation, ways of improving significantly the lives of at least 100 million slum dwellers by 2020, ways to reduce maternal mortality by three-quarters and child survival interventions such as breastfeeding, vitamin A supplement, adequate use of insecticide-treated net (ITNs) and immunization NPC (2004).*

STATEMENT OF THE PROBLEM

“Health is wealth” as they say it in Akwa Ibom State of Nigeria but health watch attitudes of the rural people, betray caution and discipline. Additionally, climatic and environmental variations are indices which impact more severely on the health of rural people. Apart from changing climatic conditions, high

fertility rate and dependency ratio place considerable strain on natural and material resources, impacting negatively on economic growth as well as health development. The once vibrant and active sanitary inspectors that transversed rural areas to enforce hygienic health attitudes are no more hence sustained all round rural defecation habits continue to pose serious health challenges to rural health particularly during rainy seasons. Pit latrines and so called Ventilated Improved Pit (VIPs) latrines built within the periphery of nearby streams either crack or collapse emptying some quantity of their contents into the surroundings. These find their way during the rains into running streams, the major source of community water supply. The health outcome need not be debated. Amazingly, manually dug wells or pits are considered prized possessions of families as they catch up and store rainstorm water flowing into them on raw ground. They drink from those pits also. Therefore government has duty to remedy critical rural health situation through instructional radio awareness creation.

Purpose of the study

This study was designed specifically to determine the rural dwellers' awareness of healthy living habits under climatic variations.

Research Question

What are the health reports from rural dwellers in health centres from March 2011 to February 2012 as compared to March 2012 to February 2013?

Hypothesis

A null hypothesis was postulated and tested at 0.5 level of significance

H₀: There is no significant difference between rural dwellers living habits based on their awareness of healthy living habits through government interventions.

METHOD

The design for the study was a descriptive survey, aimed at soliciting the opinions of rural dwellers and also assessing records of Health Centres to determine the impact government's awareness of healthy living habits in the rural community.

Participants

The population for the study comprised all adult dwellers of these local government areas. The

population of the four local governments put together would be estimated at about 183,508 (March 2006 census data). A total of 200 rural dwellers were randomly selected from 200 rural households. This comprised of 50 rural dwellers from each of the local governments. The study was carried out in the rural communities of four local government area of Akwalbom State: Oron, Ibeno, Eket, and Onna.

Instrument

The instrument tagged 'Rural Dwellers Healthy Living habits' had two section A and B. section A, sought for information on their exposure to governments awareness on healthy living habits while section B sought information on rural dwellers healthy living habits based on government's intervention for improved living conditions was designed using a five-point Likert scale format to obtain information from the subjects of this study. The responses scale and value point are: It's my habit (5 points), it was my habit (4 points), Undecided (3 points), it will be my habit (2 points) and it is not important to me (1 point).

The instrument for this study was subjected to content validity by three experts. One of the experts was drawn from the department of the Health Inspectorate division of the Ministry of Health, Akwalbom State Secretariat. The other was drawn from the physical and Health Department of the University of Uyo. The third was drawn from the Department of Educational Foundations, a lecturer in Test and measurement.

The internal consistency of the instrument was established using 20 rural dwellers of two other rural communities that were not selected for the main study. The reliability index was found to be 0.75. The researchers adopted the split-half method to determine the reliability of the instrument by administering the structured interview schedule (RDHLHUCCC) to the respondents. The items were then split into even and odd groups and correlated using Kuder Richardson Formular 20 to obtain $r = (-0.75)$ which shows that the instrument is adequately reliable.

Procedure

Six trained research assistants helped in the administration and collection of interview schedule. Considering the fact that the collection of data involved a one interaction with the respondents, the researchers took time to provide the research assistants with adequate information on how to carry out the interview.

Data Analysis

The responses from the questionnaire were analyzed by computing the mean and standard deviation of each item, which was obtained from responses on the five point Likert type scale. Each mean of an item was interpreted in relation to the real limits of the normal value of the scale used for data collection. A cut-off point of 3.50 was used to determine which item was accepted or rejected. Based on this cut-off, any item with a mean score equal to or greater than 3.50 were accepted as rural dwellers habits and any item with less than 3.50 were rejected. A t-test statistic (for independents samples) was used to test the null hypothesis at 0.05 α level of significance. The result of analysis of section A revealed that out of a total of 200 rural dwellers interviewed from 200 household, 113 respondents agreed that they were fully aware of government's healthy living conditions on the issues raised in the question while 87 indicated that they were not fully aware. The researchers also collected data from four health centres relating to the first 150 health related cases of school age children (3-10 years old).

RESULTS

Table 1 shows the health reports from rural dwellers in health centres from March 2011 to February 2012 as compared to March 2012 to February 2013. Out of the first 150 of school age children health related cases reported in community centres in each of the rural areas of the four Local Government Areas of the state Malaria (39.00%) topped the list followed by Diarrhea (23.33%), Cough, Cold Related Complications, Measles, Snake bites and Burns. Then between the two seasons, the wet season

had a greater number of Malaria cases, Diarrhea and Cold related complications. On the other hand, the dry season had the greater number of Snake bites and Cough. The issue is that the health conditions have not reduced significantly despite the governments' awareness on healthy living habits as can be seen in the difference between the total figure for both wet and dry seasons – 57(23+34) for 2011 and 60(19+41) for 2012 reported malaria cases with an overall mean score of 59(39.33%). Even for diarrhea the figure is almost the same 34 for 2011 and 36 for 2012, with an overall mean score of 35(23.33%).

Table 2 shows that the respondents, agreed that their rural living habits under varying climatic conditions included: clearing their environment of bushy shrubs and weeds($X=3.93^*$); filling pot holes to avoid ponds of water around their house during the rainy season ($x=3.56^*$); sweeping and keeping their environment free from all refuse to rid it of bacteria and germs ($x=4.13$); sweeping all refuse into an open pit near your house ($x= 4.45$); out of 20 listed items, only 4 items were rated as the rural dwellers healthy living habits under varying climatic conditions.

Table 2 also revealed that most of the items ranging from 0.14 to -1.87 fell below the critical value of 1.96 indicating by the decision rule that the mean responses of the two groups of rural dwellers (who accepted and those who denied knowledge of governments awareness on healthy living habits) was therefore upheld for 16 out of 20 items. The calculated $-t$ was greater than the critical $-t$. Thus, there was no significant difference between the responses of rural dwellers exposed and those not exposed to awareness on healthy living habits by government.

Table 1: Analysis of Weighted Mean Scores of Reported cases from Rural Dwellers among Children (N = 150)

Health Related Cases	2011		2012		Mean Score Total
	Dry season	Wet Season	Dry season	Wet Season	
1. Malaria	23	34	19	41	59(39.33)
2. Diarrhea	15	19	10	26	35(23.33)
3. Cough	18	11	12	9	25(33.33)
4. Cold related complication	9	24	7	21	31(20.00)
5. Measles	3	0	2	0	2(1.66)
6. Snake Bite	2	0	0	0	1(0.66)
7. Burns	1	0	2	1	2(1.66)
Total	62	89	52	97	
N(Per Score)	150		150		

Community Health Centres; in rural areas of Eket, Oron, Onna, Ibeno (June, 2013).

Table 2: Rural Dwellers Living Habits under Climatic Variations Based on Governments Intensified Awareness on Healthy Living habits

Living Habits under Climatic Variations	\bar{X}	SD	Decision
1. You clear your environment of bushy shrubs and weeds	3.93*	0.08	1.98
2. You fill pot holes to avoid ponds of water around your house during the rainy season	3.56*	0.78	2.83*
3. You check and control bush burning round your house to avoid fire outbreak.	2.20	0.41	2.18*
4. You sweep and keep your environment free from all refuse to rid it of bacteria and germs	4.13*	0.52	2.46*
5. There maintain a distance between your farm and house	2.58	0.67	-0.87
6. You plant new trees as you uproot and trim the old ones.	3.34	0.87	-0.71
7. During rainy season you do not prepare your firewood furnace inside your houses.	3.47	0.39	-0.48
8. You rely on rain water during the rainy season.	3.19	0.43	-0.36
9. You boil the rain water before drinking.	3.32	0.43	-0.45
10. You depend on borehole water both in rainy and dry season.	3.45	0.36	-0.47
11. You have erected hygienic pit latrines which are kept covered and clean to avoid.	3.43	0.41	-0.36
12. You open your windows every day to allow fresh air into your houses.	3.65*	0.98	2.46*
13. You do not sweep all refuse into an open pit near you house.	3.45	0.51	-0.58
14. You maintain an open well water quite close to the house	3.36	0.40	-0.70
15. You use sterilizer nets to prevent mosquito bites	2.53	0.39	-0.47
16. You go for general checkups to prevent outbreak of fatal diseases.	3.14	0.98	-0.79
17. You filter your water before drinking.	3.41	0.40	-0.36
18. You do not depend on borehole water during rainy season.	3.30	0.49	-0.14
19. You fetch drinking water and wash your clothes in the same stream.	3.24	0.40	-0.69
20. You do not cut down all trees and plants to observe important traditional rites and ceremonies	3.06	0.28	-0.45

t-critical = 1.96; significant at 0.05 α level of significance.

DISCUSSIONS

The findings from the study reveal that the rural dwellers practices very few healthy living habits and only four items were significantly differed in terms of the healthy living habits between those who claimed that had exposure to government's awareness on healthy living habits and those who did not. This situation is further confirmed by the fact that reported cases of health related cases has not reduced significantly despite government awareness intervention. This is in line with Nwanchukwu and Ugwuanyi (2010) who submits that several air borne diseases through air pollution were responsible for over 13,243 cases of sickness from which 29 deaths had been recorded "within the period of review", in Rivers State. Shea (2007) and Bunyavanich et al. (2003) agree with the fact that there is a broad scientific consensus that global climate is warming...and that human activities are very likely (>90% probability) the main cause and that of children will experience both the direct/indirect effects of climate change. The finding is an indication that the government has to work hard communicate healthy living habits to the rural dwellers.

As Tolorunleke,(2003) observed that in highly industrialized societies, especially in the societies of Western Europe and United States, communication at

the grassroot may involve some of the Old media (TV) and a variety of new interactive media but in Nigeria, the oral and radio are still in use. DFRRI in Tolorunleke (2003) identified a number of channels for information diffusion to the rural areas. Those are Formal information media – radio, television, newspapers, pamphlets, poster, etc; and local communication channels – local leaders, town criers, market places, local musicians.

As such this paper clearly recommends the use of the broadcast media towards where the programmes can be aired in the evening when the rural dwellers are done with the work and return home to rest for the day. The more the listen to the awareness on healthy living habits the more they can imbibe and practice the habits.

CONCLUSION

The study has clearly shown that the rural dwellers need to be adequately educated on the impact of climatic variations particularly in the rural riverine areas. This situation will affect the children's education as their attendance in school could be hampered by climatic variations that would have been managed by the rural dwellers if they had knowledge of healthy living habits. It is based on this that the paper recommends the utilization of broadcast media

considering the benefits that can be tapped by rural dwellers. It is not uncommon to see rural dwellers in their small communities and relaxation spots listening to radio programmes. The radio programmes can be intensified to create greater impact on healthy living habits.

RECOMMENDATION

Government should supply functional radio equipment to Akwa Ibom Broadcasting Cooperation (AKBC) with the focus of making use of them to extend information on weather forecasts through structural radio programmes to rural areas to prepare them to face events that could harm their health and safety. Awareness creation campaign should be heightened through special radio programmes to encourage rural dwellers to plant two trees for anyone cut down. AKBC should run radio documentary jingles to alert rural populace on the damage of continuing poor hygiene and especially indiscriminate refuse disposal during wet seasons to avoid rain water carrying those refuse to their mainstreams where their drinking water comes from. Return of monthly Sanitary Inspectors on basic sanitary capable of eliminating environmental pollution which results in communicable diseases and development of rural water schemes, should be intensified.

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