

Adequate Planning and Effective Delivery Strategies on Environmental Health Education among Rural Dwellers in Imo State.

Oyinyechi Esther, Chukwuemeka,
Department of Health Science
Imo State University, Owerri.

Meg, Oyiesi & Esther Chinasa, Ugochukwu,
Department of Social Science
Imo State University, Owerri.

Email: onyiesther123@gmail.com; megonyiesi@gmail.com;
ugoessy4@gmail.com.
07038869731, 08039679542, 08030921615.

Abstract

This study was to investigate adequate planning and effective delivery strategies on environmental health education among rural dwellers in Imo State. The research design adopted was the descriptive survey. The population of the study comprised of 230 farmers, 187 traders and 104 others. The instrument for the study was a Questionnaire. A total of 521 copies of the questionnaire was administered to the respondents. The reliability of the instrument showed a correlation coefficient index of 0.84 which was considered very reliable using the Cronbach's Alpha. Mean and standard deviation were used to analyze the Research questions based on a four-point rating. The hypotheses were tested at significance level of 0.05. The findings of the study revealed that: goal setting, communication skills, demonstration and practice, teaching aids and instructional materials all have a significant impact on effective delivery strategies on environmental health education among rural dwellers in Imo State. It was recommended that state and local government health authorities work in collaboration with rural community leaders in various parts of the country to ensure that the people are given proper health education while community health bodies integrate the rural community dwellers in their community health education planning so as to help the people receive effective health services.

Keywords: *Planning, Delivery Strategies, Environmental, Health, Education, Rural Dwellers.*

INTRODUCTION

Environmental health is the science and practice of preventing human injury and illness and promoting well-being by identifying and evaluating environmental sources and hazardous agents and limiting exposures to hazardous physical, chemical, and biological agents in air, water, soil, food, and other environmental media or settings that may adversely affect human health (National Environmental Health Association, 2018). Environmental health work will receive a much better response from the community if the people understand why the work is being done and how it is likely to improve their health. For example, by explaining that dog dipping is being done because it will result in less scabies and skin infections. It is very important to teach people about the germ theory, parasites and the way that diseases spread, so that they understand why they should practise good environmental health. Thus, it is also important to teach people how to practise good environmental health so that they know what to do to keep themselves, their homes and their community healthy (Australian

Government Department of Health, 2018). Clean air, water, plants, and food supplies are essential for our personal health and wellbeing. The relationship between the environment and humanity is one of interdependence—each affects the other. Therefore, just as our actions and choices affect the environment, the health of the planet influences our own personal health and wellbeing, as well as our communities, families, and economies.

Statement of the Problem

In rural areas, there is little anonymity; social stigma and privacy concerns are more likely to act as barriers to healthcare access. Rural residents have had concerns about seeking care for mental health, substance abuse, sexual health, pregnancy, or even common chronic illnesses due to unease or privacy concerns. Furthermore, the World Health Organization estimates that as early as 2004, there were 140,000 deaths annually caused by climate change which caused various health challenges ranging from malnutrition (after crop production was affected by global warming) to fatal heat stroke, to increased prevalence of diseases like malaria. Unfortunately, there are reports that those who live in rural communities are often the highest population of people suffering most of the environmental health problems. Rural people and communities are often confronted with more serious health care concerns confronting the rest of the nation (Beef Magazine, 2018). So, the question is: how can rural community dwellers be reached and educated on the risks involved in environmental health problems. What approach must be taken to tackle this problem? Are there effective delivery strategies to get the necessary information and resources across to these people? What steps must be taken to reduce mortality rate caused by environmental health hazards in our rural communities? It is the need to proffer solutions to these aforementioned questions that constitute the major problem of this study.

Purpose of the Study

The purpose of this study is to investigate: Adequate planning and effective delivery strategies on environmental health education among rural dwellers in Imo State

Specifically, the study will seek:

1. To examine the importance of goal setting in the effective delivery of health education among rural dwellers in Imo State.
2. To determine the effects of good communication skills in the effective delivery of health education among rural dwellers in Imo State.
3. To study the effects of teaching aids and instructional materials in the effective delivery of health education among rural dwellers in Imo State.
4. To ascertain the impact of demonstration and practice on the effective delivery of health education among rural dwellers in Imo State.
5. To evaluate the use of good teaching location on the effective delivery of health education among rural dwellers in Imo State.

Research Questions

The following research questions have been posed to guide the study:

1. To what extent does goal setting influence the effective delivery of health education among rural dwellers in Imo State?
2. To what extent do good communication skills effect the effective delivery of health education among rural dwellers in Imo State?
3. To what extent do teaching aids and instructional materials effect the effective delivery of health education among rural dwellers in Imo State?
4. To what extent do demonstration and practice impact on effective delivery of health education among rural dwellers in Imo State?

5. To what extent does good teaching location impact on effective delivery of health education among rural dwellers in Imo State?

Research Hypotheses

The following research hypotheses were formulated for the purpose of this study:

H₀₁: Goal setting does not have a significant influence on the effective delivery of health education among rural dwellers in Imo State.

H₀₂: Good communication skills do not have a significant influence on the effective delivery of health education among rural dwellers in Imo State.

H₀₃: Teaching aids and instructional materials do not have a significant influence on the effective delivery of health education among rural dwellers in Imo State..

H₀₄: Demonstration and practice do not have a significant influence on the effective delivery of health education among rural dwellers in Imo State.

H₀₅: Good teaching location does not have a significant influence on the effective delivery of health education among rural dwellers in Imo State.

Significance of the Study

The enriching literature content of study and its findings would help the government make better policies that will reduce the menace of environmental hazards. The research work is also of vital importance to the community dwellers, bringing to light causes of environmental related illnesses and educating the people on the best way to tackle environmental health problems. The researcher hopes that this study will also help bridge the gap between rural and urban community. The researcher further believes that this study will arouse further interest in related research works which are currently beyond the scope of this study as well as serve as a future reference paper for other researchers who wish to go into related studies.

LITERATURE REVIEW

Concept of Planning

Planning is the process of deciding when, what, when where and how to do a certain activity before starting to work. It is an intellectual process which needs a lot of thinking before a formation of plans. Planning is to set goals and to make certain guidelines achieve the goals. Planning is considered the first primary function of management. In this function, managers define the organizational goals and allocate resources of the organization to achieve such goals. Planning is the process of thinking about the activities required to achieve a desired goal. It is the first and foremost activity to achieve desired results. It involves the creation and maintenance of a plan, such as psychological aspects that require conceptual skills. Planning is preparing a sequence of action steps to achieve some specific goal. If a person does it effectively, they can reduce much the necessary time and effort of achieving the goal. A plan is like a map. When following a plan, a person can see how much they have progressed towards their project goal and how far they are from their destination.

Concept of Environmental Health Education

The concept of health, like that of the environment, covers a polymorphous, complex, and changing reality. Bantuelle et al. (2015) identified a number of different dominant approaches to health: the biomedical approach focuses on the diagnosis and cure of health problems; the psychosomatic approach deals with the relationship between physiological and psychological factors; the anthropological approach conceives of health or disease as a cultural construct; finally, in the ecological approach, health is viewed as a state of equilibrium between individuals and their environment. This last approach, enhanced by the anthropological

perspective, is in tune with the ecosystem approach and thus seems to us to be an appropriate one to take in the context of environmental health education (Godmaire and helen, 2018).

Goal Setting and Delivery of Environmental Health Education

Goal setting involves the development of an action plan designed to motivate and guide a person or group toward a goal. The goals should be specific, time constrained and sometimes difficult. Difficult goals should be set ideally at the 90th percentile of performance assuming that motivation and not ability is limiting attainment of that level of performance. As long as the person accepts the goal, has the ability to attain it, and does not have conflicting goals, there is a positive linear relationship between goal difficulty and task performance. People perform better when they are committed to achieving certain goals. Through an understanding of the effect of goal setting on individual performance, organizations are able to use goal setting to benefit organizational performance. In addition, another aspect that goes with goal commitment is also goal acceptance. This is an individual's willingness to pursue their specific goal. Locke and Latham (2012) have indicated that goal setting can indeed influence goal attainment and self-efficacy in the delivery of health services. Goal setting can strongly improve commitment to others. Goal setting can encourage setting the standard for the person to achieve or perform. This influences the level of commitment by how compliant the individual is with the one assigning the goal. An external factor can also be the role models of the individual. For example, say a public health service looks up to and cares about the people in the rural communities, the tendency is that the people become more likely to listen to goal-setting strategies from public health service, and ultimately become more committed to their desired goal. Also, according to Anderson, Ochoa, Sullivan and Maxwell (2018) goal setting encourages participants to access services in diverse ways (according to their survey analysis), working with participants to set goals is associated with participants receiving effective services.

Good Communication Skills and Delivery of Environmental Health Education

Being able to communicate effectively is perhaps the most important of all life skills. It is what enables us to pass information to other people, and to understand what is said to us. You only have to watch a baby listening intently to its mother and trying to repeat the sounds that she makes to understand how fundamental the urge to communicate is. Communication, at its simplest, is the act of transferring information from one place to another. It may be vocally (using voice), written (using printed or digital media such as books, magazines, websites or emails), visually (using logos, maps, charts or graphs) or non-verbally (using body language, gestures and the tone and pitch of voice). In practice, it is often a combination of several of these. Communication skills may take a lifetime to master—if indeed anyone can ever claim to have mastered them. There are, however, many things that one can do fairly easily to improve one's communication skills and ensure that one is able to transmit and receive information effectively. Akaa (2016) argued that communication is indeed the bloodline of effective service delivery. In order to attain its main goal of effective service delivery, health workers need to judiciously employ the principles of effective service delivery by applying effective communication skills. To further corroborate this findings (2018), effective environmental health education can only be carried out through effective communication, utilizing all methods of communication, tools and media of communication.

Instructional materials and teaching aids for Delivery of Environmental Health Education

The process of teaching - learning depends upon the different type of equipment available in the classroom. There are many aids available these days like, audio, visual and audio- visual

aids. They have very much importance in TLP (Teaching Learning Process). Instructional materials are defined as resources that organize and support instruction, such as textbooks, tasks, and supplementary resources (Remillard & Heck, 2014). It refers to the human and non-human materials and facilities that can be used to ease, encourage, improve and promote teaching and learning activities. Broadly speaking, any device that helps teach can be called a teaching aid. These devices can be traditional items such as blackboards and flannel boards as well as modern devices such as tablets and projectors. Community health providers and leaders should expect that teaching with instructional materials and teaching aids will help improve health outcomes for the people. Community health outcomes can be influenced by high quality health instruction and utilization of curricula that reflect the characteristics of effective health education. Health education teacher preparation programs should include instruction that helps future health instructors improve curriculum selection and delivery (Centre for Disease Control, 2019).

Demonstration and Practice Method and Delivery of Environmental Health Education

The word demonstration means to give demos or to perform the particular activity or concept. In demonstration method, the teaching-learning process is carried in a systematic way. Demonstration often occurs when the intended learners have a hard time connecting theories to actual practice or when the learners are unable to understand applications of theories. In order to make a success of demonstration method, for effective health delivery, three things are necessary: The object being displayed during demonstration should not be so small; During the demonstration, the clear language should be used so that learners may understand concept easily; The learners should be able to question the instructor in order to remove their difficulties. It helps a learners have a deeper understanding of the topic. It helps students remain active in teaching -learning process. It leads to permanent learning. It accounts for the principles of reflective thinking. It helps to create interest for topics among students. It helps in arousing the spirit of discovery among students (Physicscatalysts, 2017).

Good Teaching Environment and Delivery of Environmental Health Education

Classroom environment is one of the most important factors affecting student learning. Simply put, students learn better when they view the learning environment as positive and supportive (Dorman, Aldridge, & Fraser, 2006). A positive environment is one in which students feel a sense of belonging, trust others, and feel encouraged to tackle challenges, take risks, and ask questions (Bucholz & Sheffler, 2009). Such an environment provides relevant content, clear learning goals and feedback, opportunities to build social skills, and strategies to help students succeed (Weimer, 2009).

Methodology

Research Design

This study takes the form of a descriptive survey because of its interest in extracting data from the field without manipulating any factor or variable. Descriptive research is a study designed to depict the participants in an accurate way. More simply put, descriptive research is all about describing people who take part in the study (Kowalczyk, 2018).

Population

The research population here is defined as the identification of total set of elements of interest being investigated (Okwandu, 2004). The population of this study comprises of 5,558 participants (rural dwellers) from 27 local governments in Imo state.

Sample and Sampling Technique

The researcher adopted the systematic sampling technique by selecting every 3rd local government on the list of 27 local governments in Imo State. Subsequently, only 9 local governments were selected for the study. Subsequently, the sample size used for the study was 521 consisting only of rural dwellers.

Research Instrument

The instrument for the study was the questionnaire. In this study, a questionnaire titled: Adequate planning and effective delivery strategies on environmental health education Scale (APAEDSOEHES) was administered to the participants. The instrument contains 30 items. The instrument was divided into three parts: part A contains researcher's letter of introduction to the respondents, part B comprises the demographic data, while part C contains the questions. Furthermore, in part C, the questions were divided into sections for easy understanding and interpretation of the questions. The respondents were instructed and guided on how to fill the questionnaire using a 4 point rating scale: very high extent, high extent, low extent, very high extent.

Method of Data Collection

The instrument was validated by the research supervisor and two other experts in the field of statistical research methods who took their time to scrutinize it, gave their corrections and inputs before the final production and administration to the respondents. In order to ascertain the reliability of the instrument, the researcher used the Cronbach's Alpha reliability test statistical tool. The instrument was distributed to a selected group of 20 rural dwellers in Abia State. A reliability coefficient of 0.81 was obtained which showed that the instrument was reliable. A structured questionnaire was used as instrument for collecting information from the managers. The researcher approached the target respondents (rural dwellers) personally in their homes after receiving an approval letter from the Community Head to obtain data from the participants. Afterwards, copies of the questionnaire were administered to the participants to fill and return within immediately. With the help of well-trained research assistants, the questionnaires were filled and returned on the spot. The data generated from the questionnaire were later used for inferences and final analysis of the study.

Table 1. Questionnaire Distribution and Retrieval Table

Participants	QUESTIONNAIRE DISTRIBUTION DATA					
	Distributed	% Distributed	Returned	% Returned	Used	% Used
Farmers	230	42.23	220	42.23	220	42.2
Traders	187	33.59	175	33.59	175	33.5
Others	104	19.74	99	19.74	99	19.7
TOTAL	521	95.56	494	95.56	494	95.56

Source: Researcher's Field Survey, 2019.

Data Analysis Technique

Mean and standard deviations were used for the analysis of the research questions, while the Pearson Product Moment Correlation Coefficient analytical tool in Statistical Package for

Social Sciences (SPSS version 22) software was used to analyze the hypotheses. The results were interpreted accordingly.

RESULTS AND DISCUSSION

Analysis of Research Question 1: To what extent does goal setting influence the effective delivery of health education among rural dwellers in Imo State?

Table 2.0 Mean responses of rural dwellers on influence of goal setting on the effective delivery of health education among rural dwellers in Imo State.

Items	Variables					
	Male participants			Female participants		
	X	SD	Remark	X	SD	Remarks
1 Makes the people appreciate the purpose of health education	3.22	0.01	Accepted	2.98	0.07	Accepted
2 Gives positive impression on the learners	3.08	0.04	Accepted	2.92	0.09	Accepted
3 Helps to facilitate the teaching and learning process	3.08	0.04	Accepted	3.06	0.04	Accepted
4 Prevents unnecessary waste of time	3.08	0.04	Accepted	2.96	0.08	Accepted
5 Prepares the instructors on the best delivery method	3.10	0.03	Accepted	3.10	0.03	Accepted
6 Helps to ensure full cooperation from community dwellers	3.15	0.01	Accepted	3.22	0.01	Accepted
7 Ensures maximum utilization of resources	3.09	0.03	Accepted	3.25	0.02	Accepted
8 Makes the whole process result-oriented	3.12	0.02	Accepted	3.18	0.00	Accepted
Grand Mean/Std dev.	3.11	0.03		3.08	0.04	

From the result in table 2 above, in response to research question 1 in items 1,2,3, 4,5,6,7 and 8, the mean scores show that goal setting influences the effective delivery of health education among rural dwellers in Imo State.

Analysis of Research Question 2: To what extent do good communication skills effect the effective delivery of health education among rural dwellers in Imo State?

Table 3.0 Mean responses of influence of good communication skills on effective delivery of health education among rural dwellers in Imo State.

Items	Variables						
	Male participants			Female participants			
	X	SD	Remark	X	SD	Remarks	
1	Makes the people understand the purpose of health education	3.17	0.00	Accepted	3.18	3.18	Accepted
2	Makes learning easy for the learners	3.23	0.02	Accepted	3.02	3.02	Accepted
3	Helps to create a good relationship between the learners and the teachers.	3.19	0.00	Accepted	3.16	3.16	Accepted
4	Increases appreciation of lesson taught	3.21	0.01	Accepted	3.33	3.33	Accepted
5	Helps to achieve purpose of lesson taught	2.99	0.07	Accepted	3.14	3.14	Accepted
6	Motivation is more effective	3.11	0.03	Accepted	2.89	2.89	Accepted
7	Information is well disseminated	3.13	0.02	Accepted	3.20	3.20	Accepted
8	Makes the community understand the need for hygiene in a better way.	3.35	0.06	Accepted	3.30	3.30	Accepted
Grand Mean/Std dev.		3.17	0.03		3.15	0.04	

From the result in table 3 above, in response to research question 2 in items 1,2,3, 4,5,6,7 and 8, the mean scores show that good communication skills can effect effective delivery of health education among rural dwellers in Imo State.

Analysis of Research Question 3: To what extent does instructional materials influence the effective delivery of health education among rural dwellers in Imo State?

Table 4.0 Mean responses of rural dwellers on influence of instructional materials on effective delivery of health education among rural dwellers in Imo State.

Items	Variables						
	Male participants			Female participants			
	X	SD	Remark	X	SD	Remarks	
1	Aids better understanding of intended message	3.10	0.06	Accepted	3.12	0.02	Accepted
2	Motivate the hearers to listen more	3.22	0.11	Accepted	3.24	0.02	Accepted
3	Encourages positive interaction between instructors and learners	3.29	0.11	Accepted	3.16	0.01	Accepted
4	Communication becomes easier and more effective.	3.28	0.11	Accepted	3.06	0.04	Accepted
5	Makes the information less complex	3.15	0.10	Accepted	3.10	0.03	Accepted
6	Encourages more community participation	3.19	0.06	Accepted	3.28	0.03	Accepted

7	Learners become more health conscious	3.37	0.11	Accepted	3.31	0.04	Accepted
8	Ensures valuable time is not wasted	3.15	0.11	Accepted	3.14	0.02	Accepted
Grand Mean/Std dev.		3.22	0.03		3.18	0.03	

From the result in table 4 above, in response to research question 3 in items 1, 2, 3, 4,5,6,7 and 8, the mean scores show that instructional materials can influence effective health education among rural dwellers.

Analysis of Research Question 4: To what extent does demonstration and practice impact on effective delivery of health education among rural dwellers in Imo State?

Table 5.0 Mean responses of rural dwellers on impact of demonstration and practice on effective delivery of health education among rural dwellers in Imo State.

Items	Variables						
	Male participants			Female participants			
	X	SD	Remark	X	SD	Remarks	
1	Encourages community participation	3.08	0.04	Accepted	3.11	0.13	Accepted
2	Arouses curiosity and interest	3.13	0.02	Accepted	2.99	0.16	Accepted
3	Makes the information less complex	3.03	0.05	Accepted	3.07	0.08	Accepted
4	Learners become more health conscious	3.12	0.02	Accepted	3.33	0.08	Accepted
5	Even the uneducated understand the message	3.15	0.01	Accepted	3.02	0.09	Accepted
6	Community become more hygiene conscious	3.34	0.06	Accepted	3.46	0.07	Accepted
7	Encourages positive interaction between instructors and learners	3.39	0.07	Accepted	3.20	0.03	Accepted
8	Instils confidence among dwellers on the health tips discussed.	3.23	0.02	Accepted	3.16	0.12	Accepted
Grand Mean/Std dev.		3.18	0.04		3.17	0.04	

From the result in table 4 above, in response to research question 3 in items 1,2,3, 4,5,6,7 and 8, the mean scores show that demonstration and practice impact on effective delivery of health education among rural dwellers in Imo State.

Analysis of Research Question 5: To what extent does demonstration and practice impact on effective delivery of health education among rural dwellers in Imo State?

Table 6.0 Mean responses of rural dwellers on impact of good teaching location on effective delivery of health education among rural dwellers in Imo State.

Items	Variables						
	Male participants			Female participants			
	X	SD	Remark	X	SD	Remarks	
1 Encourages community participation	3.20	0.01	Accepted	3.16	0.13	Accepted	
2 Arouses curiosity and interest	3.12	0.02	Accepted	3.19	0.16	Accepted	
3 Makes the information less complex	3.10	0.03	Accepted	3.08	0.08	Accepted	
4 Learners become more health conscious	3.17	0.00	Accepted	3.06	0.08	Accepted	
5 Even the uneducated understand the message	3.08	0.04	Accepted	3.11	0.09	Accepted	
6 Community become more hygiene conscious	3.09	0.03	Accepted	3.14	0.07	Accepted	
7 Encourages positive interaction between instructors and learners	3.13	0.02	Accepted	3.20	0.03	Accepted	
8 Instils confidence among dwellers on the health tips discussed.	3.23	0.02	Accepted	3.19	0.12	Accepted	
Grand Mean/Std dev.	3.14	0.02		3.08	0.11		

From the result in table 5 above, in response to research question 5 in items 1,2,3, 4,5,6,7 and 8, the mean scores show that good teaching location impact on effective delivery of health education among rural dwellers in Imo State. The previously stated hypotheses for the study are hereby tested below.

Test for Hypothesis 1. Goal setting does not have a significant influence on the effective delivery of health education among rural dwellers in Imo State

Table 7.0 Z-Test: Two Sample for Mean Scores in Hypothesis 1

Variable	Mean Scores	Std.dev.	Obsrvn. N	Df	z-calculated	z-Critical two-tail	Remark
Male participants	3.11	0.10	494	492	0.245	1.960	
Female participants	3.07	0.11					

Since the value of the z critical (two tail =1.959964) is greater than the calculated z-value (= 0.245) it affirms that there is no significant difference between mean scores of male and female participants. Hence, we reject the null hypothesis and conclude that goal setting has a significant influence on the effective delivery of health education among rural dwellers in Imo State.

Test for Hypothesis 2

Table 8.0 Z-Test: Two Sample for Mean Scores in Hypothesis 2

Variable	Mean Scores	Std.dev.	Obsrvn. N	Df	z-calculated	z-Critical two-tail	Remark
Male participants	3.06	0.11	494	492	0.081	1.960	
Female participants	3.00	0.13					

Since the value of the z critical (two tail =1.959964) is greater than the calculated z-value (= 0.081) it affirms that there is no significant difference between the mean scores of male and female participants. Hence, we reject the null hypothesis and conclude that good communication skills has a significant influence on the effective delivery of health education among rural dwellers in Imo State.

Test for Hypothesis 3. Instructional materials does not have a significant influence on the effective delivery of health education among rural dwellers in Imo State

Table 9.0 Z-Test: Two Sample for Mean Scores in Hypothesis 3

Variable	Mean Scores	Std.dev.	Obsrvn. N	Df.	z-calculated	z-Critical two-tail	Remark
Male participants	3.03	0.12	494	492	0.744	1.960	
Female participants	2.93	0.16					

Since the value of the z critical (two tail =1.959964) is greater than the calculated z-value (= 0.744) it affirms that there is no significant difference between the mean scores of male and female participants. Hence, we reject the null hypothesis and conclude that instructional materials have significant influence on the effective delivery of health education among rural dwellers in Imo State.

Test for Hypothesis 4. Demonstration and practice does not have a significant influence on the effective delivery of health education among rural dwellers in Imo State.

Table 10.0 Z-Test: Two Sample for Mean Scores in Hypothesis 4

Variable	Mean Scores	Std.dev.	Obsrvn. N	Df	z-calculated	z-Critical two-tail	Remark
Male participants	3.08	0.11	494	492	0.523	1.960	
Female participants	2.95	0.15					

Since the value of the z critical (two tail =1.959964) is greater than the calculated z-value (= 0.523) it affirms that there is no significant difference between the mean scores of male and female participants. Hence, we reject the null hypothesis and conclude that demonstration and practice have significant influence on the effective delivery of health education among rural dwellers in Imo State.

Test for Hypothesis 5. Good teaching location does not have a significant influence on the effective delivery of health education among rural dwellers in Imo State.

Table 11.0 Z-Test: Two Sample for Mean Scores in Hypothesis 5

Male participants	Mean Scores	Std.dev.	Obsrvn. N	Df	z-calculated	z-Critical two-tail	Remark
Female participants	3.01	0.13	494	492	0.012	1.960	
Male participants	3.05	0.12					

Since the value of the z critical (two tail =1.959964) is greater than the calculated z-value (= 0.012) it affirms that there is no significant difference between the mean scores of male and female participants. Hence, we reject the null hypothesis and conclude that good teaching location have significant influence on the effective delivery of health education among rural dwellers in Imo State.

Discussion of Findings

This study has critically examined and analyzed five research questions and five hypotheses and as a result appropriate conclusions and findings have been deduced. After subjecting the data collected to appropriate statistical tests and analyses, the results were observed and recorded as seen below.

To what extent does goal setting influence the effective delivery of health education among rural dwellers in Imo State?

Thus, in response to research question 1, the majority of the respondents agreed that: goal setting influence the effective delivery of health education among rural dwellers in Imo State. (see results on Table 2.0). Also in the test of Hypothesis 1, as shown in Table 7.0, the result revealed there is no significant difference between mean scores of male and female participants. Hence, the null hypothesis was rejected and it was concluded that goal setting has a significant influence on the effective delivery of health education among rural dwellers in Imo State. This result is actually in line with that of Locke and Latham (2012) who indicated that goal setting can indeed influence goal attainment and self-efficacy in the delivery of health services. They also added that goal setting strongly improves commitment to others. Also, according to Anderson, Ochoa, Sullivan and Maxwell (2018), goal setting encourages participants to access services in diverse ways (according to their survey analysis), working with participants to set goals is associated has a way of helping participants receive effective health services.

To what extent does good communication skills effect the effective delivery of health education among rural dwellers in Imo State?

In response to research question 2, the majority of the respondents agreed that: good communication skills influence the effective delivery of health education among rural dwellers in Imo State. (see results on Table 3.0). Also in the test of Hypothesis 2, as shown in Table 8.0, the result revealed there is no significant difference between mean scores of male and female participants. Hence, the null hypothesis was rejected and it was concluded that good communication skills have significant influence on the effective delivery of health education among rural dwellers in Imo State. This result is actually in line with that of Akaa (2016) who

argued that communication is indeed the bloodline of effective service delivery. He further emphasized that in order to attain its main goal of effective service delivery, health workers need to judiciously employ the principles of effective service delivery by applying effective communication skills.

To what extent does teaching aids and instructional materials effect the effective delivery of health education among rural dwellers in Imo State?

In response to research question 3, the majority of the respondents agreed that: instructional materials influence the effective delivery of health education among rural dwellers in Imo State. (see results on Table 4.0). Also in the test of Hypothesis 3, as shown in Table 9.0, the result revealed there is no significant difference between mean scores of male and female participants. Hence, the null hypothesis was rejected and it was concluded that teaching aid and instructional materials have significant influence on the effective delivery of health education among rural dwellers in Imo State. This result is actually in collaboration with that of Remillard & Heck (2014) who referred to teaching aids and instructional materials as having the capacity to ease, encourage, improve and promote teaching and learning activities. According to Centre for Disease Control, (CDC, 2019), community health providers and leaders should expect that teaching with instructional materials and teaching aids will help improve health outcomes for the people. To further buttress the point, it was added that community health outcomes can be improved by high quality health instruction and utilization of curricula that reflect the characteristics of effective health education. Thus, health education teacher preparation programs should include instruction that helps future health instructors improve curriculum selection and delivery (Centre for Disease Control, 2019).

To what extent does demonstration and practice impact on effective delivery of health education among rural dwellers in Imo State?

In response to research question 4, the majority of the respondents agreed that: demonstration and practice can influence the effective delivery of health education among rural dwellers in Imo State. (see results on Table 5.0). Also in the test of Hypothesis 4, as shown in Table 10.0, the result revealed there is no significant difference between mean scores of male and female participants. Hence, the null hypothesis was rejected and it was concluded that demonstration and practice have significant influence on the effective delivery of health education among rural dwellers in Imo State. This result is actually in collaboration with that Physicscatalysts, (2017) who revealed that through demonstration and practice, students remain active in teaching -learning process. He also added that demonstration and practice leads to permanent learning adding that it accounts for the principles of reflective thinking while helping to create interest for topics among students as well as arousing the spirit of discovery among students

To what extent does good teaching environment impact on effective delivery of health education among rural dwellers in Imo State?

In response to research question 5, the majority of the respondents agreed that: demonstration and practice can influence the effective delivery of health education among rural dwellers in Imo State. (see results on Table 6.0). Also in the test of Hypothesis 4, as shown in Table 11.0, the result revealed there is no significant difference between mean scores of male and female participants. Hence, the null hypothesis was rejected and it was concluded that demonstration and practice have significant influence on the effective delivery of health education among rural dwellers in Imo State. This result is actually in agreement with that of Dorman, Aldridge, & Fraser, (2006) who revealed that classroom environment is one of the most important factors affecting student learning. They went further to state that students learn better when they view the learning environment as positive and supportive. To further corroborate this finding ,

Bucholz & Sheffler, (2009) and Weimer (2009) added that a good teaching environment provides relevant content, clear learning goals and feedback, opportunities to build social skills, and strategies to help learners succeed .

Implication to Education

The implication of the study include that community dwellers can access information on health education as a way of improving community health and preventing a possible communicable disease outbreak. As a matter of fact, the health delivery strategies outlined in this study can be applied to gain high level of individual health with reduction in mortality rate especially among children and women in the rural communities. Community and local government authorities can also benefit a lot if they apply the principles recommended in the findings of this study to enhance community development. The researcher also believes that this study will find relevance in the pursuit of excellence in health education teaching practices in the higher institutions. This material can also as serve as a vital resource material for future references in other related works.

Contribution to Knowledge

This study has contributed to knowledge in the sense that it has brought to limelight the importance of addressing community health education among the least educated in the rural areas. This study has also filled the gap of dearth in research papers as it concerns the field of health education, also because only very few scholars and researchers have truly investigated health delivery strategies for rural community dwellers in Nigeria.

Conclusion

Based on the findings of the study, the researcher has concluded that: State and local government health authorities should work in collaboration with rural community leaders in various parts of the country to ensure that the people are given proper health education. The study also concluded that to achieve health service delivery efficiency it is necessary that health care givers apply these processes to improve community health as well as reduce communicable disease transmission among rural dwellers. Conclusively, the findings of the study reveal that there is a significant correlation between planning and effective delivery strategies and environmental health education.

Recommendations

Based on the findings of this study, the following are recommended.

- (1) State and local government health authorities should work in collaboration with rural community leaders in various parts of the country to ensure that the people are given proper health education.
- (2) Community health bodies should include the rural community dwellers in their goal setting so as to help them receive effective health services.
- (3) Health workers should employ the principles of effective service delivery by applying effective communication skills.
- (4) Health care instructors and health care givers should adopt the method of demonstration and practice so that their learners who have only little or no formal education can benefit maximally from the health education being rendered.
- (5) The community health care instructors should ensure that their learners learn in a positive and learning friendly environment to increase assimilative capacity.