



## HEALTH MESSAGES AND COMPLIANCE BY UNDERGRADUATE CONSUMERS OF ROADSIDE FOOD AROUND UNIVERSITY CAMPUSES IN ANAMBRA STATE

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### Abstract

The overall purpose of this study was to ascertain the level that undergraduate students in universities around Anambra State comply with health messages on the dangers of patronizing roadside food outlets. The study was guided by four research questions which include the following: To what extent are university undergraduate students in Anambra State exposed to messages on health implications of patronizing roadside food outlets? To what extent are the undergraduate students knowledgeable on the implication of patronizing roadside food outlets? To what extent do these students comply with messages of health implication of eating at roadside food outlets? What demographic factors affect the undergraduate students' compliance with the health messages on the implications of eating at roadside food outlets? Anchored on the Health belief Model, the study adopted the survey research method. Findings suggest that: undergraduate students in universities around Anambra State were exposed to health messages on the implication of patronizing roadside food outlets. The research further reveals that majority of the undergraduate students were knowledgeable on the implication of patronizing roadside food outlets. Surprisingly, irrespective of the undergraduate students' exposure and knowledge of the dangers of eating at roadside food outlets, it was discovered that they did not comply with health messages on the dangers of eating at roadside food outlets. Furthermore, the findings also reveal that such demographic factors like: age and class level of the undergraduate students' had influence on their compliance with dangers of patronizing roadside food outlet, gender however did not. The researchers therefore recommended that communication experts get fully involved in the development of health-behaviour change messages. They should look from within and identify factors that would negatively affect strategic health media messages intended to bring about sustainable health behavior change for a better living.

**Keywords:** Compliance, Exposure, Knowledge, Health Messages, Roadside food outlets

### INTRODUCTION

Research has shown that over 3 million of acute cases of food poisoning and 20, 000 deaths occur annually as a result of exposure, poor and careless handling of food items prepared for public consumption (WHO, 2010, Malangu, 2015). Recent studies have also demonstrated that over 200, 000 people die annually from food borne pathogens (Fashae, Ognisola & Haastrup 2013; Adebukola & Opeyemi, 2015; Murad, Baydoun & Dagher, 2017; WHO 2020). This statistics no doubt presents a worrisome situation and therefore increasingly calls



for an investigation. On the other hand, research has shown that when people become aware of certain health issues through exposure to health messages that emphasize such issues and as much as possible comply with the messages, a more healthy living is promoted. This study therefore takes a look at the level that undergraduate students, who are consumers of roadside food around university campuses in Anambra State, comply with health messages on the dangers of eating roadside food.

### **STATEMENT OF PROBLEM**

A very common and regular sight in many Nigerian universities is the heavy presence of what is usually referred to as “*mama-put-joints* in the Nigerian local parlance. These joints or eateries are usually built in scruffy and make-shift stalls around these universities (Adum, Ekwenchi, Orjiakor & Nwosu, 2019). A close look at these food stalls reveal a number of facts – they are usually scattered around the environment, looking shabby and dirty and besieged by hungry universities students who request for assorted types of food. Sadly, a large number of these eateries, research have shown, are implicated as having little or no decent handling of food items they serve ((Adum, Ekwenchi, Orjiakor & Nwosu, 2019). They most times, carry out their businesses in an unhygienic environment. The implication of the foregoing is that undergraduate students who patronize these food joints are frequently exposed to outbreak of food borne diseases – and as it were, endangered to serious health risks.

The above is certainly a serious problem. On the other hand, research (Heldman, Schindelar, & Weaver 2013; Farmula, 2014) has also demonstrated that in Nigeria today, a number of health message campaigns are sent out through different media channels to different target audience. Obviously, the essence of these health messages, which include: emphasis on healthy eating habits, avoidance of junk food, proper handling of food items for public consumption among others, is particularly to educate consumers on the importance of being careful of what they eat in order to avoid health risks associated with such eating habits (Nwabueze & Nwakor, 2015; Adedoyin & Oyewusi, 2015). Yet, irrespective of these health campaign messages undergraduate students of universities are seen to heavily patronize road side food vendors. The questions that thus come to mind in the face of this challenge are: do these university undergraduate students really have access to health campaign messages that harp on implication of eating at roadside food outlets? If they do, to what extent do they actually understand the contents of the messages and accordingly, comply with them? Or are there variables that affect their compliance with these messages? These are the core problems that this research work sought to investigate.

### **RESEARCH OBJECTIVES**

The goal of this study is to investigate the undergraduates’ compliance with health messages on the implication of patronizing roadside food outlets around university campuses in Anambra State. In more precise terms, the study pursued the following specific objectives:

- To discover the extent that university undergraduate students in Anambra State are exposed to messages on health implication of patronizing roadside food outlets
- To investigate the extent that these undergraduate students are knowledgeable on the implication of patronizing roadside food outlets.
- To discover the medium that undergraduate students in Anambra State prefer most in assessing health messages.
- To identify the extent that these undergraduate students comply with the messages of health implications of eating at roadside food outlets.



- To discover demographic factors that affect the undergraduates' compliance with the health messages on the implications of eating at roadside food outlets.

### **RESEARCH QUESTIONS**

The following are the research questions of the study:

- To what extent are university undergraduate students in Anambra State exposed to messages on health implications of patronizing roadside food outlets?
- To what extent are the undergraduate students knowledgeable on the implication of patronizing roadside food outlets?
- What medium do undergraduate students in Anambra State prefer most in assessing health messages?
- To what extent do these students comply with messages of health implication of eating at roadside food outlets?
- What demographic factors affect the undergraduate students' compliance with the health messages on the implications of eating at roadside food outlets?

### **LITERATURE REVIEW**

#### **Health Communication: Quick Conceptual and Historical Overview**

Diseases remain one of the very daunting challenges affecting humanity today. It is indisputably a growing threat. From time to time, just like the world is witnessing the Corona virus pandemic, diseases that threaten the life and existence of humans emerge. Stake holders therefore understand that diseases cannot be wished away. For this reason, strategies are carefully mapped out to confront them. Health communication is one of the strategies often employed to combat diseases, whether at the epidemic or pandemic level (Okoro, Nwachukwu and Ajeoro, 2015). This area of study has emerged as a distinct and specialized discipline in recognition of the indispensability in not only fighting diseases, but communicating the implication of some bad health practices to the public. Although people have always communicated about health in the past, the field of health communication is a relatively new area (Qui, Rutherford, Chu, Mao and Hu, 2016, p.123).

The interest in health communication particularly began in the 1970s. Julie (2018) notes that: "In 1972, health communication was used to mitigate smallpox epidemic in Boston (USA)" That year, Cotton Matter, a political leader made use of pamphlets and speeches to promote inoculation of small pox." Furthermore, in the beginning of the 19th century The Women's Temperance Union led a movement against alcohol abuse, using extensive health communication strategy as a major tool to communicate their message to the masses. These efforts marked the early use of health communication in America as a field of scientific research (Julie, 2018). Health communication is also fairly new in the third world countries like Nigeria, where it has been utilized severally in carrying out strategic health developmental efforts (Okoro, Nwachukwu & Ajaero, 2015, p.63).

Health communication is defined by Center for Disease and Control as: "The study and use of communication strategies to inform and influence individuals and community's decisions



that enhance health” (CDC, 2011). Friemuth, Cole and Kirby (2000, p.120) define health communication as “the study and use of methods to inform and influence individual community decisions that enhance health, such methods are used to create and increase awareness, educate the public about a disease, its causes and treatment; change individual behavior to prevent or control a disease, advocate for policy changes in favour of disease prevention and control and create social norms that favour healthy living.” Viewed from the foregoing, it becomes clear why health communication theories, according to Friemuth, Linnan and Porter (2000, p.122), “make use of the four key elements of communication process: audience, message, source and channel” The ultimate aim being to reach intended audiences with all inclusive interventions and messages that will ultimately protect public health outcomes. Furthermore, communication is a vital component of health care delivery. Current research on health communication clearly illustrates the powerful influences of communication on health care. Today, mass media health campaigns can raise awareness of an issue, enhance knowledge and beliefs and also reinforce existing attitudes (Okpoko, 2013, p.124)

The outcomes of health communication Okpoko (2013) notes, “can include increasing audience knowledge and awareness of health issues, influencing behaviours and attitudes towards health issue, demonstrating healthy practices, showing benefits of behavior changes of public health issues or policies, increasing demand or support of health services and arguing myths and misconceptions related to health.” Interestingly, health communication is a hybrid field that derives from communication studies, marketing, journalism and public relations and also overlaps with health education and health promotions (Glik, 2005, p.8). Scholars in the field are often trained in disciplines such as: sociology, psychology, public health or medicine and then focus in their field on either health or communication (Maibach, 2008).

### **The State of Local Eateries and Roadside Food in Nigeria**

The rate at which fast food shops and what is usually referred to as road side food outlets is growing in Nigeria today is alarming (Majara, 2010, p.10). Although literature has clearly shown that these fast-food shops have continued to boost the economy of different regions of the country (2004), they have been identified to pose health challenges sometimes, to people that patronize it (Bamidele, Adebimpe, Oladele & Adeoye, 2004, p.124). Westernization, urbanization and the need to struggle for survival on daily bases have remained one particular factor that has made Nigerians to abandon the culture of cooking at home, while besieging roadside food vendors and local eateries in order to satisfy their need for hunger (Bamidele, Adebimpe, Oladele & Adeoye, 2004, p.127). However, it is instructive to note that the health safety of customers that patronize roadside food outlets is of great importance. This in other words, behooves the handlers of roadside food to prepare their food in an extremely hygienic manner. But today, a large number of roadside food outlets have been implicated as being careless in their handling and preparation of food items for consumption (Adum et.al 2019).

A number of factors, ranging from ignorance (Walker, Pritchard & Forsythe, 2003), uncaring and poor attitude towards personal hygiene, lack of basic hygiene infrastructure and sanitary facilities such as: water, soap and toilets, lack of food storage and preservative facilities all contribute to poor attitude toward food hygiene practices among roadside food handlers in Nigeria (Okojie, Wagbatsoma, & Ighorege 2005).

The situation is not different in Nigeria universities. A study carried out among Nigerian food handlers in some Nigerian universities revealed poor level of food hygiene practice



among roadside food vendors who are patronized by Nigerian undergraduate students – the handlers of these food shops were identified to have low level of personal hygiene (Okojie, Wagbatsoma, & Ighorege 2005).

Regrettably today, the agency of government whose responsibility it is to regulate food sale and marketing, the National Agency for Food, Drug Administration and Control (NAFDAC) acts centrally and as such, has failed to effectively curtail the excesses witnessed in the regional, state and local council levels. Extant literature has also shown that before now, food regulatory agencies in Nigeria have failed to focus on the local and some community's food handlers, irrespective of the fact that some of them have been implicated as carriers of infectious disease (Adum et.al. 2019). The above scenario is the picture of local eateries and roadside food in Nigeria – the picture painted here is also reflective of what is witnessed in university campuses around the country, especially as it concerns roadside food vendors.

### **Health Message Campaigns and Consumers Compliance**

In spite of the high level advancement in healthcare services, challenges of food borne diseases have remained a worrying issue (Adum et al. 2019). This challenge has led to the emergence of health communication as a vital tool for achieving public health objectives of the 21st century (Bernhardt, 2004, p109). In periods of health risks, the media through their campaigns have always served as an outlet for intervening in modifying health behaviours. They have done this by not only creating awareness but mobilizing the public for prevention of health hazards (Salawu, 2016, p.22). Literature dominantly recognize the role of the media as the society's watchdog and sensitizer, with the capability to enlighten heterogeneous audience about certain conditions that could predispose one to disease (Okorie, Oyesomi & Olusola 2014). The media employs single or multiple media and conventional strategies that use television, radio and print media, and recently, the new media, such as internet websites in reaching their diverse audience with health messages (Okorie, Oyesomi & Olusola 2014). Interestingly, these media campaign exercises are prominent because of their ability to reach out to vast and diverse audiences cost effectively (Salawu & Okorie, 2016, p.24).

### **Exposure, Awareness, Knowledge and Compliance to Health Messages:**

The term exposure means the process of seeing, hearing or reading a message. The message can be political, educational, financial or health messages (Nwosu, 2019). Studies have shown that exposure to certain media messages do not only increase awareness of the audience toward such messages, but also increases the depth of knowledge and understanding about the issue under focus. Again, being exposed to certain media messages may change attitudes, social norms and behaviours that lead to positive public health outcomes (Gustav, Patterson, Sandberg, Kabakvenger & Agardh, 2014). In other words, increased media exposure to such health behaviours like patronizing roadside food outlets would apparently reduce health risks that is associated with such patronage.

Okunna and Omenugha (2012, p.247) argues that “a mass media message which an individual has not been exposed to, either directly or indirectly, can hardly be expected to have any effect on the person” Therefore, it becomes instructive to note that when an individual is exposed to a health message, such individual is bound to become aware of the cues emphasized by that health message (Gustav, Patterson, Sandberg, Kabakvenger & Agardh, 2014).

Valkenburg, Peter and Walther (2016), agree with the above position when they note that “researchers have always examined an audience after a media exposure for changes in



cognition, belief system, and attitude, as well as emotional, psychological and behavioural effects” Such studies have often revealed the effect that media exposure leaves on the audience after. In addition, Adum et.al (2019) citing Maibach and Maccoby (1989), note that “the media have always played a very vital role as primary health change agent through educating, supporting, helping as program promoter and supplement” The above roles are particularly achieved when the target audience are exposed to media messages. The above therefore, underscores the importance of “exposure” in fostering health messages that can help change behavior”.

Awareness on the other hand is another important factor that enhances health promotion. It is a necessary step for persuasion to occur (Don, 2002, p. 189). Awareness is the state of being conscious of something. More specifically, it is the ability to directly know and perceive, to feel, or be cognizant of events (Don, 2002, p.186). Awareness is a state where a subject is conscious of some information and when that information is available to bring to bear in the direction of a wide range of behavioural actions (Chalmers 1997, p.122).

The concept of awareness is often synonymous to consciousness. The ability to generate awareness among large numbers of people is considered one of the strengths of the mass media (Don, 2002, p.127). Basically for audience awareness to occur the audience must be exposed to information, they must attend to such information and also remember it (Flay & Sobel, 1983, cited in Don, 2002). Therefore, media campaigns that fail to raise awareness generally do not achieve the necessary preconditions like messages being aired or distributed so that the target audience is exposed adequately, or messages constructed in a manner to capture attention.

Knowledge transmission to large numbers of individuals is another strong point of the mass media. Knowledge expansion is an important outcome to the extent that it leads to desirable attitudes; it is a necessary condition for subsequent health behaviors. Communication persuasion models posit that attitude change is contingent on knowledge gain (Peart 2013). Knowledge, however, is not a single domain. There are a variety of cognitive and affective components to knowledge (Peart 2013), and different types of learning may differentially effect subsequent change. Furthermore, the type of information presented, and the situation in which information is presented can influence what people learn and how they apply it. Knowledge can influence the attitudes and behaviors of people that are highly involved with a health issue but may fail to affect people with low issue involvement (Peart, 2013).

In fact, level of knowledge (recall, comprehension, analysis, and synthesis), audience information needs and audience involvement are clearly important to the knowledge definition process. Considerations of media channels and message formats within channels e.g. special programs on television, doctors' columns or ads in newspapers) are particularly important for knowledge gain. From the foregoing, it is clear that exposure, awareness and knowledge are important variables that help in fostering health behaviour change – this is so because when one is exposed to media contents that educate one on the importance of certain health practices, it consequently increases the awareness of that person toward being more knowledgeable about such health practices. There is strong research evidence that exposure, awareness and knowledge lead to behaviour change, which is the main focus of every health intervention programme (Ngigi, & Busolo, 2018; Yaya, Uthman, Amouzou, Bishwajit, 2018).



Similarly, studies have also shown that exposure and knowledge correlates significantly with compliance to health messages which particularly aims at encouraging adaptive preventive health behaviours (Gordon, 2002; Yaya, Uthman, Amouzou, Bishwajit, 2018). This explains the reason health advocates spend much time and effort optimizing message design, presentation and distribution to share knowledge effectively with the target audience. However, many cases exist in which exposure and knowledge do not result in adoption of healthful behaviours, as well as compliance to health messages. In other words, when exposure to health messages, awareness and knowledge of the target audience fails to translate to logical behavioural outcomes, it becomes difficult and frustrating. However, a number of factors have been identified to influence preventive health behavior adoption or compliance to precautionary health messages (Gordon, 2002). We are going to look at these factors below:

### **Factors that Affect Compliance to Health Messages**

The major purpose of every health message is to effect change in behaviour; this change can be from a harmful health practice to a precautionary and safe health practice. When viewed from the prism of the present study, the above submission would mean that when an effective health message campaign is directed to a group of people who patronize roadside food outlets that are considered to operate under poor sanitary environment, it is mainly to make such group of people aware and knowledgeable regarding the implication of exposing themselves to such health risk and consequently having their behavior changed towards such practice. However, studies have shown that most times, a number of health messages and campaigns fail completely to achieve their main purpose (Gordon, 2002). Gordon outlines some factors that have been identified as causes for the failure of health messages as: “perception of risks; perception of self; environmental conditions (physical and social) and perception of cost and benefit”

Commenting further on militating factors to effective health messages passage, Gordon (2002) notes:

Perception of risk is an established factor associated with preventive health behavior. Here when risk perception is low, people are usually unenthusiastic to change preexisting behavioural patterns. In perception of self, a number of personal characteristics have been identified as factors influencing compliance to health messages. More so, environmental factors, both physical and social in which individuals operate affect the likelihood of adopting health behaviours. Availability of health services, costs, and transportation needs, for example, have long been recognized as barriers to adoption of beneficial health behaviours. Such considerations are particularly pivotal in rural locations or low-income areas. Availability of health services, costs, and transportation needs, for example, have long been recognized as barriers to adoption of beneficial health behaviours. Such considerations are particularly pivotal in rural locations or low-income areas. Another factor that affects the likelihood of complying with health messages that helps people adopt a healthy living is that of the perceived cost and benefit. Here, if one expects the benefits to exceed costs, then one is more likely to adopt recommended.

### **THEORETICAL FRAMEWORK**

This study is anchored on the Health belief model (HBM). The model was developed in the 1960s by social psychologists to help explain and predict certain health behaviours by focusing on the attitude and beliefs of individuals. As an aspect of change theories, the model stipulates that an individual’s health behavior is guided by the following:



- Perceived susceptibility – one’s opinion of changes of getting a condition.
- Perceived severity – one’s opinion of how serious a condition and its sequence are.
- Perceived benefits - one’s opinion of the efficacy of the advised action to reduce risk or seriousness of impact.
- Perceived barriers – one’s opinion of the twist and psychological cost of the advised action.
- Demographic, socio-psychological and structural variables that affect individual’s perception and thus indirectly influence health related behavior.
- Cues to action – events, either bodily (e.g. health symptom) or environment e.g. (media messages) that motivate people to take action.
- Self efficacy – confidence in one’s ability to take action (Mboho & Batta 2008, p.18).

The theory maintains that people’s health behavior are a product of what they perceive and think about the threat to themselves, the benefits to be obtained if a suggested action is adopted, the cost of action, the impact of external forces such as age, status, education, family etc, other motivating factors and self confidence.

The theory also notes two important facts that are relevant to health communication – the first is that a highly credible message can stretch the hearer’s latitude of acceptance and the second is that people who are dogmatic of every issue have had their minds made up or have chronically wide latitude rejection (Mboho & Batta, 2008, p.18). The import of this theory for health communication is that it is very important to study the audience’s knowledge, attitude and perception of health issues before designing messages. Therefore, in relation to this study, this paper hypothesizes that the extent an individual who is exposed to the dangers of eating in roadside food outlets complies with health messages that focus on the implications of patronizing poor sanitary roadside food outlets will largely depend on the competence of the health campaigners. In other words, when health messages are properly disseminated with the right cues, there is the tendency that the target audience (students who patronize roadside food outlets) will be motivated to take healthful actions.

## **METHODOLOGY**

The methodology adopted in this study was the survey design. Babbie (2010, p.85) describes the survey design as “an excellent method for measurement of attitude and opinion of people within a large population.” This design therefore adopted entails asking the respondents about their opinion on the subject matter.

## **POPULATION OF THE STUDY**

The population of study comprise of undergraduate students of Nnamdi Azikiwe University Awka (NAU) Chukwuemeka Odumegwu University Igbariam (COOU) and Paul University Awka (PU), all in Anambra State The researchers decided to use this population given that the three universities, which cover both the federal, state and private institutions of the population have undergraduates who heavily patronize roadside food outlets in the different schools. The population of these universities put together is about 48,600 students. This is according to the records obtained from the Registry Department of each of the universities.

## **SAMPLE SIZE AND SAMPLING TECHNIQUE**

The sample size of the study is 400. This is in line with Taro Yamane formula for determining sample size. Therefore 400 copies of the questionnaires were distributed to the randomly selected students, and 381 were successfully retrieved and analysed. The multi stage sampling technique was used to select the respondents across faculties, departments and



levels of study for the purpose of instrument administration. In other to achieve the above sampling, the researcher used the multi stage sapling procedure to select the three universities (NAU, COOU and PU) studied at the first stage. At the second stage, two faculties were randomly selected from each of the three universities. The procedure yielded for NAU: faculties of Social Sciences and Arts, for OOU: faculties of Law and Management and for PU: faculties of Social Sciences and Management. At the third stage, the researchers also randomly selected two departments from each of the faculties. This procedure yielded Mass Communication and Psychology, English Language and Music departments from the faculties of Social Sciences and Arts NAU, Criminal Law and Civil Law, Accountancy and Banking and Finance from COOU, and philosophy and Sociology, Marketing and Accountancy from PU. Using the proportionate sampling allocation technique, 296 sampling size was allocated to NAU, 100 sampling size was allocated to COOU and 4 sampling size allocated to PU, bringing the total sampling size to 400.

**DATA PRESENTATION AND ANALYSIS**

In presenting and analyzing the data gathered for this study, the researchers made use of Statistical Package for Social Sciences (SPSS) in obtaining frequencies and percentages. Statistical tables were also employed in presenting the data. This method became important in order to interpret the relationships between different variables.

**Demographic Variables**

The data analysed in the demographic section of the questionnaire indicates that a greater percentage of the respondents were males (257) 65.5%, while females were 124 representing (32.5%) of the respondents. Also, the respondents were categorised under three age brackets. The data shows that 19.9% of the respondents were in the age bracket of 16-20 years, 43.40% of them were in the age bracket of 21 -25 years, while 37.0% were in the age bracket of 26 and above. The data in table 1 suggests that that the students in the age bracket of 21-25 years constitute the highest population sampled. With regards to their level of study, 24 respondents representing (6.3%) are in their 100 level, 284 of them representing (74.5%) are in their 200 level, 36 (9.4) are in their 300 level, 12 (3.1%) are in their 400 level while 25 (6.6%) are in their 500 level.

**Research Question 1: To what extent are university undergraduate students in Anambra State exposed to messages on health implications of patronizing roadside food outlets?**

Table 1: Undergraduates’ Exposure to Health Messages on Patronizing Roadside Food Outlets

	Access to advertised messages	Encounter to Health messages	Encounter on health messages on the implication of patronizing roadside food
<b>Yes</b>	76.6%	93.7%	65.7%
	N=292	N=357	N=257



<b>No</b>	23.4%	6.3%	34.3%
	N=89	N=24	N=124
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
	<b>(N=381)</b>	<b>(381)</b>	<b>(381)</b>

Table1 above shows that 76.6% of the respondents have access to advertised messages on different media platforms, while only 23.4% of them indicated that they have not heard such access. Again, 97.3% of the respondents indicated that they have in one way or the other encountered health messages on different media platforms, while 6.3% of them noted that they have not. Furthermore, 65.7% of the respondents said that they have encountered health messages on the implication of patronizing roadside food vendors while only 34.3% said that they have not. The deduction here based on the above data is that undergraduate students of the selected universities in Anambra state were exposed to health messages on patronizing roadside food outlets.

**Research Question 2: To what extent are the undergraduate students knowledgeable on the implication of eating at roadside food outlets?**

Table 2: Undergraduate students’ knowledge on the implication of patronizing roadside food outlets

	Knowledge of dangers associated with patronizing roadside food	Knowledge of contacting food poison from roadside food	Knowledge of poor sanitary environment of roadside food outlets	Knowledge of hospitalization that results from consumption of roadside food	Knowledge of deaths that results from consumption of roadside food
<b>Yes</b>	61.2%	75.5%	70.3%	33.9%	19.9%
	N=233	N=284	N=268	N=129	N=76
<b>No</b>	38.8%	24.5%	29.7%	66.1%	80.1%
	N=148	N=97	N=113	N=252	N=305
<b>Total</b>	<b>N=381</b>	<b>N=381</b>	<b>N=381</b>	<b>N=381</b>	<b>N=381</b>

Data in table 2 shows the respondents’ view on the extent that undergraduate students in universities around Anambra State are knowledgeable on the implication of roadside food consumption. From the table, 233 respondents which represent 61.2% agree that they are knowledgeable of the dangers associated with roadside food patronage, while 148 of them representing 38.8% of the respondents said that they are not. 75.5% of the respondents attested that they know that one can contaminate food poisoning from roadside food outlets, while only 24.5% of them said that they don’t. Again, 70.3% of the respondents said that they know about the poor sanitary condition of roadside food outlets, while 29.7% said they don’t. Only 33.9% of the respondents indicated that they know that a large number of people get



hospitalized yearly for being infected for patronizing roadside food outlets, while 66.1% of them said that they don't. Similarly, only 19.9% of the respondents showed that they have knowledge about the level of deaths that occur annually from food poisoning, while 80.1% of them did not know about this. The foregoing data therefore suggests that majority of the respondents are knowledgeable on the implication of patronizing roadside food outlets.

**Research Question 3: What medium do undergraduate students in Anambra State prefer most in assessing health messages?**

Most preferred medium for assessing health messages on dangers of patronizing roadside food outlets	Percentage.	Number
Newspaper	3.8%	N =10
Radio	17.1%	N= 45
Television	13.3%	N= 35
Outdoor adverts (fliers, handouts etc)	11.4%	N= 30
Social media	32.2%	N= 200
Interpersonal medium	13.3%	N= 35
Others	8.9%	N= 26
<b>Total</b>	<b>100%</b>	<b>N= 381</b>

Data in table 3 shows that 10 respondents representing a 3.8% preferred newspaper to any other medium in assessing health messages. 45 of them representing 17.1% preferred radio, 35 of the respondents representing 13.3% said they preferred television to any other medium, 11.4% of the respondents had preference for outdoor adverts, 200 of the respondents representing 32.2% said that they preferred the social media to any other medium, about 13.3% of them had preference for interpersonal medium and 8.9% of them fell into the category of "others". From the foregoing analysis, it is evident that the social media had the highest preference as a medium that the undergraduate students used most in assessing health messages on the dangers of patronizing roadside food outlets. This is followed by radio, then radio and interpersonal medium. The category for others was the least preferred medium that the students used in assessing health messages.

**Research Question 4: To what extent do students comply with messages of health implication of eating at roadside food outlets?**

Table 4: Undergraduate students' compliance with messages of health implication of eating roadside food outlets?

<b>Agree with media campaign messages that encourage avoidance of roadside food</b>		
Response	Percentage	Number



<b>Yes</b>	23.4%	N= 89
<b>No</b>	76.6%	N= 292
<b>Total</b>	<b>100</b>	<b>N= 381</b>

<b>Reason you disagree</b>		
The food is tasty	54.6%	N= 208
Can't buy food from big restaurants	26.2%	N= 100
Government should provide alternative	6.3%	N= 24
Have not died since I have been taking roadside food	12.9%	N = 49
Others		
<b>Total</b>	<b>100%</b>	<b>N= 381</b>

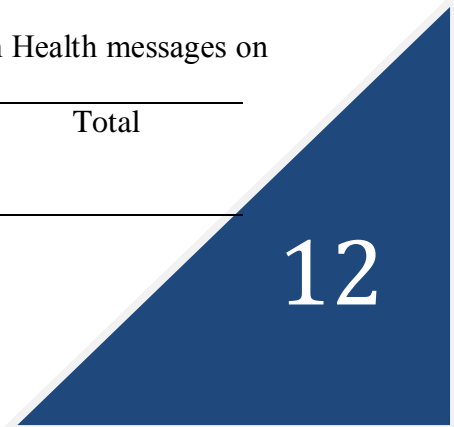
<b>Compliance with Messages that discourage the patronage of roadside food outlets</b>		
Yes	16.8%	N= 64
No	83.2%	N= 372
<b>Total</b>	<b>100%</b>	<b>N= 381</b>

Data in table 4 shows that 89 respondents, representing 23.4% indicated that they agree with media campaign messages that encourage avoidance of eating at roadside food, while 76.6% of them disagreed. On the reason for disagreement on the messages of compliance 54.6 % of the respondents said that roadside food is tasty, 26.6% said that they can't afford to pay for food in bigger restaurants, 6.3% of them said that the government should provide alternative, while 12.9% were of the view that they have not died from eating in roadside food outlets. Furthermore, while only 16.8% of the respondents complied with messages of health implication on eating at roadside food outlet, only 83.2% of them did not comply. It is based on the data supplied here that the researcher infer that undergraduate students around universities in Anambra State did not comply with the health messages on the dangers of eating at roadside food outlets.

**Research Question 5: What demographic factors affect the undergraduates' compliance with the messages of health implications of patronizing roadside food outlets?**

Table: 5 Cross Tabulation of Respondents' Gender and compliance with Health messages on implication of patronizing roadside food outlets.

Compliance with health messages on roadside food consumption	Respondents' Gender		Total
	Male	Female	





Yes	25.3% N=65	19.4% N=24	23.4% N=89
No	74.7% N=192	80.6% N=100	76.6% N = 292
<b>Total</b>	<b>100%</b> <b>N=257</b>	<b>100%</b> <b>N=124</b>	<b>100%</b> <b>N = 381</b>

$X^2 = 381.200$ ;  $df = 1$ ;  $p < .199$

Table 5 above shows that 25.3% of male respondents complied with health messages on the implication of patronizing roadside food, while 74.7% of them did not comply. On the other hand, only 19.4% of the respondents who are females complied with health messages, while 80.6% of them did not comply. From the data here, it is clear that male respondents complied more with health messages on the implications of patronizing roadside food outlets than their female counterparts. However, it is obvious that the relationship between the respondent's gender and their compliance with health messages on the implications of patronizing roadside food is not statistically significant at (0.999) level. This data consequently tends to suggest that gender as a demographic factor did not affect the respondent's compliance with health messages on the implication of patronizing roadside food outlets.

**Table 6: Cross Tabulation of Respondents' Age and compliance with Health messages on implication of patronizing roadside food outlets.**

Compliance with health messages on patronizing roadside food outlets	Respondents' Age			Total
	16-20	21-26	26 and above	
Yes	0.0% N=0	39.0% N=64	17.7% N=25	23.4% N=89
No	100% N=76	61.0% N=100	82.3% N=116	76.6% N=292
<b>Total</b>	<b>100%</b> <b>N=76</b>	<b>100%</b> <b>N=164</b>	<b>100%</b> <b>N=141</b>	<b>100%</b> <b>N=381</b>

$X^2 = 48.139$ ;  $df = 2$ ;  $p < .0000$

Table 6 shows that 0.0% of the respondents who fell between the ages of 16-20 years did not comply with health messages on the dangers of patronizing roadside food outlets. However, 39.0% of them within the age brackets of 21-26 years complied with the health messages, while 61.1% of them did not. Furthermore, 17.7% of the respondents who were between 26 years and above complied with the health messages, while 82.3% of them did not. Going by the outcome of the data in table 5, there seems to be higher compliance with respondents within the age bracket of 21-26 years. This relationship is found to be statistically significant at 0.000 level. From the foregoing therefore, it is evident that the undergraduate students appear to have complied more with the health messages on implication of patronizing roadside food as they advanced in age. For this reason, it could be stated that age of the undergraduate students influenced compliance with health messages on the implication of patronizing roadside food outlets.

**Table: 7 Cross Tabulation of Respondents' Level compliance with Health messages on implication of patronizing roadside food outlets.**

Compliance with the implication of health messages on patronizing roadside food	Respondents' Level					Total
	100 level	200 level	300 level	400 level	500 level	



outlets						
Yes	50.0%	22.5%	0.0%	0.0%	52.0%	23.4%
	N=12	N=64	N=0	N=0	N=13	N=89
No	50.0%	77.5%	100%	100%	48.0%	76.6%
	N=12	N=220	N=36	N=12	N=12	N=293
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
	<b>N=24</b>	<b>N=284</b>	<b>N=36</b>	<b>N=12</b>	<b>N=25</b>	<b>N381</b>

$X^2 = 35.707$ ;  $df = 2$ ;  $p < 0.000$

Table 7 shows that among the different class levels of undergraduate students, 50.0% complied with the health messages on implication of patronizing roadside food outlets, while another 50.0% of the same level did not. About 22.5% of respondents in 200 level complied with the messages, while 77.5% of the same class did not. No respondent complied with the health messages in 300 and 400 levels, while 52.2% of them in 500 level complied with the messages. It is therefore clear from the present data that students in 100 level, 200 level and 500 level complied with the health messages as against the ones in 300 and 400 levels who did not. The relationship between the respondents' level and their compliance with health messages on the implication of patronizing roadside food outlets here is found to be statistically significant at (0.000) level. As a result of this, while it could be stated that the class level of the undergraduate students is found to influence compliance with health messages on the implication of patronizing roadside food outlets, the distribution does not follow a regular pattern that would have precisely revealed the exact ranking of each level in terms of the extent it influence the compliance.

### DISCUSSION OF FINDINGS

Generally the findings of this study suggest that the undergraduate students in around Nnamdi Azikiwe University Awka, Odumegwu Ojukwu University Igbariam and Paul University Awka were exposed to health messages on the implication of patronizing roadside food outlets. This position is in line with Chowdhury, Zaman and Bari (2014) who argue that “consumer knowledge influences food safety behaviour and that this knowledge is usually successfully passed on to the audience through their exposure to health messages on different media platforms like the radio, newspaper, social media, fliers and television”

In addition, the researchers also discovered that majority of the undergraduate students were knowledgeable on the implication of patronizing roadside food outlets. Ma, Chen, Yan, Wu and Zhang (2019) also made similar observation in their study “that the media have continued to emphasise on the dangers of eating from roadside vendors and that this health messages have helped in exposing, and therefore increasing the knowledge of people on the dangers of eating at roadside food outlets”

Again from the findings of the study, it was evident that the undergraduate students preferred the social media as a platform for assessing health media messages than other forms of media platforms. This finding to a large extent lends credence to the emerging trend of the social media becoming increasingly important as a preferred medium for assessing media messages; this is especially among young people (Uzuegbunam, 2019)

Surprisingly, irrespective of the undergraduate students' exposure and knowledge of the dangers of patronizing roadside food outlets, it was discovered that they did not comply with the health messages. Gordon (2002) had similar finding where he reported that, “there were



factors that affected the respondent's compliance to health messages even after their exposure to health messages – factors like: environmental problem, cost benefit and self perception.” As a result of this, one could extrapolate that similar factors would have come to play here.

Furthermore, the findings also indicate that such demographic factors like age and class level influenced the undergraduate student's compliance to dangers of patronizing roadside food outlet. However, gender did not. Based on the above findings one could extrapolate that such demographic factors like age and level of studies became influencing factors to the undergraduates' compliance to the health message on implications of patronizing roadside food outlets because it is natural that as individual grow in age and level of education, they develop a better maturity and experience toward their attitude to health matters (Emily & Woolf, 2014; Tilicia, Gamble & Mouton, 2019).

### **CONCLUSION AND RECOMMENDATIONS**

The result of this study shows that through different media platforms, different health messages might be exposed to a target audience. This audience most times, becomes not only aware but knowledgeable about the health message focused on. However, the target audience of such messages might fail to comply with the content of such messages and as such fail to have his or behavior changed. What this signifies is that sometimes, health media messages on either television, radio, outdoor adverts or even interpersonal mediums sometimes, might not ultimately achieve the aim it intends to achieve – that is, change behavior; this somewhat portends danger and therefore requires that communication experts get fully involved in development of health-behaviour-change messages. They should look from within and identify factors that would negatively affect strategic health media messages intended to bring about sustainable health behavior change for a better living. The framing of these messages should not be left for ordinary radio/TV advertisers or social media blog owners but health communication professionals who understand the intricacies and dynamics of coming up with effective health messages that will precipitate behavior change.

Furthermore, such strategies like health message framing, the type of media channel employed to disseminate health messages and strategic plans to reach the target audience to comply with health messages should be top priority for health message planers. This is so because when these variables are not put into the right perspective, there is the possibility that health messages might not be complied with, even when the audience are exposed to it.

### **REFERENCES**

- Adedoyin, S.O., & Oyewusi, F.O. (2015). A survey of needs and utilization of health information among young adults in Abeokuta, Ogun State Nigeria. *Journal of Library Philosophy and Practice*. 12 (9), 12-20
- Adebukola, O.C., Opeyemi, O.A., & Awoshika I.A. (2016). Knowledge of food borne infection and food safety practices among local food handlers in Ijebu-Ode Local Government Area of Ogun State. *Journal of Health Communication*, 7(9), 268-273
- Adum, A.N., Ekwenchi, O., Orjiakor, O. & Nwosu, J. (2019). Health information and sanitary conditions around local eateries: Nigerian South Eastern Universities perspectives. *International Journal of Communication and Media Science*, 6 (1), 34-42



- Bamidele, J.O., Adebimpe, W.O., Oladele, E.A., & Adeoye, O.A. (2004). Hygiene practices among workers in local eateries of Orolu community in South Western Nigeria. *Annals of Medical and Health Science Research* 2 (12).
- Bernhardt, J.M. (2004). Communication at the core of effective public health. *Journal of Public Health* 1 (2), 2051- 2052.
- Center of Disease Control (2011). Health Communication Basics. Retrieved From [www.cdc.gov/healthcommunication/healthbasics/whatishc.htm](http://www.cdc.gov/healthcommunication/healthbasics/whatishc.htm).
- Chalmers, D. (1997). *The Conscious Mind: In Search of Fundamental Theory*. Oxford: Oxford University Press.
- Charlmers, D. (1997). *The conscious mind: In search of a fundamental theory*. Oxford: Oxford University Press.
- Chowdhury , Zaman and Bari (2014). Food safety challenges towards safe, healthy and nutritious street food in Bangladesh. *Journal of Health Communication*1 (19), 19-28.
- Chukwuocha, U.M., Dozie, I.N., Amadi, A.N., Nwankwo, B.O., Ukaga, C.N., & Aguwa, O.C. (2009). The knowledge, attitude and practices of food handlers in food sanitation in a metropolis in South Eastern Nigeria. *East African Journal of Public Health*. (6), 240-243
- Clayton, D.A., Griffith, C.J., Price, P., & Peters, A. C. (2002). Food handlers' beliefs and self-reported practices. *International Journal of Environmental Health Research*. (12), 25-39.
- Don, L. (2002). *Perception and our knowledge of the external world* (Third edition). London: Psychology Press.
- Emmanuel, C., & Uzuegbunam, C. (2015). Young people's engagement of social media for social transformation: Study of Nigeria university students. *Online Journal of Communication and Media Studies*. September Issue.
- Emily, Z., & Woolf S.H. (2014). Understanding the relationship between education and health. *Journal of National Academy of Sciences*, 12 (1), 39-52
- Fashea, O., Ogunsola, E., & Hastrup, E. (2013). Assessment of food safety practices in rural community in south west Nigeria. *Journal of Food and Public Health* 6 (3), 2-9.
- Farmular, J. (2014). Effectively Sending Messages to Different Target Audiences Through Social Media. Retrieved from <https://digitalcommons.calpoly.edu/cgi/viewcontent.cgi?article=1122&context=grcsp>
- Freimuth, V., Cole, G., and Kirby S. (2000). Issues in evaluating mass mediated health campaigns. In WHO Monograph "Evaluation in Health Promotion: Principles and perspectives. Copenhagen: WHO Regional Office for Europe.
- Glik, D. (2005). Health communication in popular media formats. Retrieved From <http://www.medscape.org/viewarticle466709>.



- Gordon, J.C. (2002). Beyond knowledge: Guidelines for effective health promotion. *Journal of Extension* 40 (6).
- Gustav, A., Patterson K.O., Sandberg, J., Kabakvenger, J., & Agardh, A. (2014). Association between mass media exposure and birth preparedness among women in south western Uganda: a community based survey. *Global Health Action* 7 (1), 200-213.
- Heldman, A.M., Schindelar, J., & Weaver, J.B. (2013). Social Media Engagement and Public Health Communication: Implications for Public Health Organizations Being Truly “Social”. *Public Health Reviews*, 35 (1), 127.
- Julie, O. (2018). *When Cotton Mather Fought the Small Pox*. New Jersey: American Heritage Publishing Company.
- Locke, D. (2002). Perception and Our Knowledge of the External World. *Journal of Psychology Research*, 3 (33), 682-698.
- Ma, L., Chen, H., Yan, H., & Wu, L. (2019). Food safety knowledge, attitudes and behaviour of street food vendors and consumers in Handan, a third tier city in Chin. *BMC Public Health* 1 (19), 123-141
- Majara, O. (2010). Food safety and knowledge of hygienic practices among hoteliers. In: Daily Mirror. *International Journal of Health Research*, 26, 3-6.
- Malungu, N. (2015). Risk factors and outcome of food poisoning in Africa. *Journal of Public Health* 5 (1), 123-135
- Mboho, M., & Batta, H. (2008). Theorizing health client’s therapeutic decision system: Implications for health communication. In I.E. Nwosu, E.O. Soola & L.E. Nwodu (Eds). *Communication for health and sustainable development in Nigeria*. Enugu: Rhyce Kerex Publishers.
- Murad, S., Baydoun, E., & Dagher, N. (2017). Foodborne disease in the Middle East. *Nature Public Health Emergency Collection*. 1 (25), 389-440.
- Nelson, O., & Salawu, A. (2016). Effective use of media awareness campaigns for breast cancer care among women: A comparative study. *Journal of International Women's Studies*, 17, 160-173.
- Ngigi, S., & Busolo, D. (2018). Behaviour change communication in health promotion: Appropriate practices and promising approaches. *International Journal of Innovative Research and Development*, 9 (7), 10 – 21.
- Ngigi, S., & Busolo, D.N.(2018). Behaviour change communication in health promotion: Appropriate practices and promising approaches. *BMC Pregnancy Childbirth*, 7 (9), 234.
- Nwabueze, N.O., Nwakor, P.U. (2015). Media accessibility and utilization of health messages by Imo rural women: A study of Owerri Province. *Journal of Communication and Media Research* 1 (1), 129-139.



- Okojie, O.H., Wagbatsoma, V.A., & Ighoroge, A.D. (2005). An assessment of food hygiene among food handlers in a Nigerian university campus. *Nigeria Postgraduate Medical Journal*, 5 (12), 93-96.
- Okojie, O.H., Wagbatsoma, V.A., & Ighorege, A.D. (2008). An assessment of food hygiene among food handlers in a Nigerian university campus. *The Nigerian Postgraduate Medical Journal*, 2 (12), 112-123.
- Okolo, N., Nwachukwu, C., & Ajeoro, I. (2015), Health communication strategies. In O.S. Ike and S.E. Udeze (Eds.). *Emerging Trends in Gender, Health and Political Communication in Africa*. Enugu: Rhyce Kerex Publishers.
- Okorie, N., Oyesomi, K., & Olusola, O. (2014), Effective use of information sources for breast cancer care: interplay of mass media and interpersonal channels. *JARBT* 1-2.
- Okpoko, C. (2013). Issues in health communication in third world countries. In N Okoro (ed.) *Contemporary readings in media communication studies*. Lagos: Benedette Publishers Ltd.
- Okunna, C.S. & Omenugha, K. A. (2012). *Introduction to Mass communication* (Third Edition). Enugu: New Generation Ventures Ltd.
- Peart, B. (2013). Impact of exhibit type on knowledge gain, attitudes and behavior. *The Museum Journal* 1 (27), 220-237.
- Salawu, A., & Okorie, N. (2016). Effective use of media awareness campaigns for breast cancer among women: A comparative study. *Journal of International Women Studies*, 1 (2), 45.
- Tilicia, L., Gamble, M., & Mouton, C. (2019). Examining association between health literacy and adherence to medication, *Journal of Health Science* 1 (2), 1124-1130.
- Uzuegbunam, C. (2019). A child-centered study of teens' digital lifeworlds from a Nigerian perspective. Retrieved from <https://blogs.lse.ac.uk/parenting4digitalfuture/2019/10/16/a-child-centred-study-of-teens-digital-lifeworlds-from-a-nigerian-perspective/>
- Valkenburg, I., Peter, A., & Walther, O. (2016). Media effects: Theory and Research. *Annual Review of Psychology*, 67, 315-338.
- Walker, E., Pritchard, C., & Forsythe, S. (2003). Food handlers' hygiene knowledge in small food businesses. *Journal of Food Control*, 1 (14), 339-343.
- World Health Organisation (2010). *Prevention of food born diseases: Five keys to safer food*: WHO Publications.
- World Health Organisation (2020). *Food Safety*. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/food-safety>



Yaya, S., Uthman, O.A., Amouzou, A., Ekhoulouenetale, M., & Bishwajit, G. (2018). Inequalities in maternal health care utilization in Benin: A population based cross sectional study. *BMC Pregnancy Childbirth*, 18 (1), 194.