

Assessment of Consumers' Awareness and Exposure Levels to NAFDAC Media Campaign in South East Nigeria

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Abstract

The National Agency for Food and Drug Administration and Control (NAFDAC) is a Nigerian Agency charged with the responsibility of quality control in the production and consumption of food and medication drugs. NAFDAC has initiated and is carrying out media campaign against counterfeit (fake) and substandard medication drugs and food. NAFDAC media campaign is targeted at correcting consumers' attitudes and behaviours towards the purchase and consumption of these products. In spite of this long standing campaign, the existence of fake and substandard products is still high in the market with their inherent dangers. Apparently, their purchase and consumption are still high among consumers in the country. This study is to assess the consumers' awareness and exposure levels to NAFDAC media campaign as the probable causes of the continued persistence of this ugly situation. The study was designed as a survey and interview schedule served as the measuring instrument. For the data analysis, Statistical Packages for Social Sciences (SPSS) was used. The study showed that consumers were quite aware and exposed to the different NAFDAC media campaign messages mainly through radio and television. Based on the findings, the researcher recommends that the Agency intensifies its campaign messages and surveillance to detect and close illegal drug markets in Nigeria and ensure that only the genuine drugs are sold at a cheaper rate to really prevent consumers from patronizing fakers consciously or unconsciously. Commensurate penal sanctions should also be meted on offenders as stipulated in the drug law to serve as a deterrent to others. Also, unlicensed drug vendors, should be licensed, trained and monitored to really force them to adhere to basic pharmacy code of conduct.

Keywords: Media Campaign, Awareness, Assessment, Consumers

DOI: 10.7176/RHSS/10-4-04

Publication date: February 29th 2020

Introduction

There is a seemed unending global outcry over the prevalence of fake and substandard medication drugs and food products in the market and the inherent dangers that accompany it. Medication drugs, here, mean all conventional medicines in the market that are meant to prevent or treat illnesses. Prevalence of fake and substandard medication drugs and food products and its inherent dangers is a particular problem in Nigeria as all efforts being made by NAFDAC to curb it is not yielding much positive results. This view is supported by Adebayo (2017) when she asserts thus:

The counterfeiting of many products is on the rise globally, and in Nigeria today items counterfeited include documents, currency, software and electronics among others. However, no other product has as much capacity to kill consumers as illicit pharmaceuticals. The prevalence of counterfeit drugs in the Nigerian market has long been a source of embarrassment to Nigerian healthcare delivery system. Fake drug proliferation has led to treatment failures, organ dysfunction or damage, worsening of chronic disease conditions and the death of many Nigerians.

NAFDAC is a Nigerian Agency charged with the responsibility of checkmating illicit and counterfeit products in Nigeria. Established by Decree No. 15 of 1993, the prime role of NAFDAC is to assure quality, safety, and efficacy of drugs and wholeness of foods and other regulated products (NAFDAC, 2005). The high cost of drugs allows for the proliferation of counterfeit drugs in Nigeria and poses a major challenge to public health. Most genuine drugs are expensive and counterfeiters take advantage to supply cheap fake drugs to consumers... (Akinyandenu, 2013). In carrying out this arduous task, NAFDAC has placed great emphasis on mobilization of the public in the war against substandard, fake and counterfeit drugs and food products in the country. In this regard, the Agency initiated national mass media health communication campaigns on the production, sale and consumption of quality food products and genuine medication drugs. Communication campaigns are intended to generate specific outcomes in a relatively large number of individuals within a specified time and through an organized set of communication activities (Wakefield et al 2010).

Media campaign is believed to lead to a positive change in attitudes and behaviours of consumers towards the campaigned products, services or ideas. The first goal of campaign is awareness creation or to achieve high

level of awareness among the target audience (Huhman et al, 1985) as cited in (Ono, 2015). Luthor (2019) supports this view when he writes: 'In general, an awareness campaign as its name implies, is a campaign meant to raise awareness about something that an organization favours. The aims of an awareness campaign include reaching out to the public regularly, measuring that outreach accurately, and motivating the public to take action'.

1. Statement of the Problem

Consumption of fake and substandard medication drugs and food is a significant cause of avoidable morbidity and mortality. Death rate due to consumption of these products is still high (Akinyandenu, 2013). Counterfeit drugs Adebayo (2017) writes pose great threats to the reduction in infant mortality, improved maternal health and the combating of HIV/AIDS, malaria and other diseases, all aims of the WHO. Adebayo continues that counterfeit drugs deny Nigerian people the right to safe, effective and quality medicines and rob the country of valued manpower resources and economic benefits. NAFDAC through its media campaign seems to be applying regulatory, professional and educational interventions aimed at combating substandard food and fake medication drugs production, sale, and of course, consumption.

NAFDAC, research shows, has recorded some achievements in its effort to eradicate counterfeit medication drugs and substandard food products in Nigeria but unfortunately fake and substandard products are still prevalent in our markets. Akpunonu (2019) cites the current Director General of NAFDAC as saying that the Agency has put a lot in place to checkmate substandard drugs by partnership with relevant agencies, provision of scanners and some digital innovations that can help Nigerians confirm the authenticity of drugs using mobile phones. Importation of counterfeit medication drugs and substandard food products by businessmen and local manufacture of fake drugs continue. Their dangerous effects are apparently even on the increase. Atabong (2018) writes:

Last August, a team of five teenage Nigerian girls won a Silicon Valley prize for an app called FD Detector (Fake Drug Detector) which tackles the problem of counterfeit pharmaceutical products in Nigeria. Nigeria's regulator, NAFDAC, has struggled for years to close in on rampant fake drug markets. Though the exact number of counterfeit drugs is contested, many malaria deaths in Nigeria have been linked to the use of fake medicines.

To restore the authenticity of NAFDAC numbers, the former Director General of NAFDAC says:

We have the text message system since we discovered that 70 million Nigerians use cell phones. Any product that we approve apart from NAFDAC number has something like a scratch card or recharge card on it. It has proven to be effective. We have the same short code for all the medicines so that customers will not be confused.... You scratch and text within a minute you will get a response. It will tell you whether the drug has been approved by NAFDAC, what the NAFDAC registration number on the product is, the company that manufactured the product, the batch number, when it is supposed to expire and the address of the manufacturer. The message will also give you a number to report to if you have a problem (Ogundipe, 2011).

These are innovations and measures which the agency believes will help in combating the production, sale and consumption of fake products. These measures can only be effective if the target audience yields to the campaign appeals. The researcher then began to wonder why fake and substandard drugs and food products are still prevalent in Nigeria upon all the effort NAFDAC is making towards its eradication and with the obviously increased number of Nigerians who use the cell phones. The persistence of these products in the market and the consequent high death due to their consumption inspired the study. In consideration of the above, this research therefore interrogates the extent or the levels of awareness and exposure to NAFDAC media campaign messages among food and medication drugs consumers that make these products still prevalent in our market. Are consumers of these products in South East Nigeria quite aware and exposed to NAFDAC media campaign's recommended preventive health actions or measures and the drugs are still prevalent in our markets? Being prevalent in our markets implies that the producers still enjoy high patronage from the consumers. The recommended preventive measures are that consumers should check for products' quality or genuineness before purchase and consumption; buy drugs only from pharmacy; report fake drugs etc. Why does existence of fake and counterfeit drugs and food products continue?

Arguably, the existence or prevalent of fake and substandard products in the market can only be combated if consumers support the war against it by heeding to NAFDAC media campaign's recommended preventive health actions. Consumers cannot support the war if they are not quite aware and exposed to the campaign messages. The study will address the probable knowledge gap that fake and substandard products still exist in our market because consumers are not quite aware and exposed to the campaign messages and, therefore, still buy the products anyhow and anywhere. The following objectives are carried out:

- to find out consumers' awareness and exposure levels to the different NAFDAC media campaign messages;
- to ascertain the consumers' media sources of awareness and exposure to the campaign messages; to investigate the consumers' frequency of exposure to the different campaign messages.

2. Literature Review

NAFDAC and Media Awareness Campaigns

Media awareness campaigns can be said to mean using the media to raise people's awareness of something in order to achieve a specific goal; using the media to positively canvass for issues. It can mean a marketing effort to build public recognition of a problem through media, messaging, and an organized set of communication tactics (Keuntjes, 2019). Media campaigns target a larger number of people over a specific period of time to try and achieve predetermined goals. They are widely used to expose high proportions of large population to messages through routine uses of existing media, such as television, radio and newspaper (Wakefield et al., 2010). They are great assets in health communications and can help motivate, educate and inform their target audience about different health discourses. They are critical in disseminating public health information, improving health knowledge and changing health behaviours (Zamawe et al. 2016). No wonder NAFDAC insists on using media awareness campaigns to get people aware of fake drugs' menace. Zamawe and his colleagues added that many people needlessly die every day due to lack of access to health information which would have allowed them or health workers to make appropriate decision. This is extolling the usefulness of media awareness campaigns in providing people access to health information which obviously help them in making good decisions.

Media campaigns are meant to have positive effects or bring about positive changes in attitudes and behaviours of the target audiences. They are major sources of information for the public and can be influential in health decisions. They are the biggest educators in today's society. Davies, (1993) cited in Yates, (1999) concurs this when he asserts thus: 'By age 18, a young person will have seen 350,000 commercials and spent more time being entertained by the media than any other activity except sleeping'

Relating it to the present advancement in media technology and media evolvement, the reverse seems to be the case. Young persons now spend less time sleeping and more time browsing and chatting with friends online. This assertion is supported by Sharma and Gupta (2018) finding that in today's technology driven world, an individual who uses these gadgets spends more time with these gadgets than he spends in sleeping or for his works or business. The truth is that people are using the media more and are being more informed, entertained and educated by the media. This is because media give prominence to issues they feel their audience should be educated on. It would appear that much of what people know about health comes from the media going by what Sharma and Gupta (2018) write thus: 'Media not only spread awareness but also inform and educate people over a period of time'. They continue that media information and education help in the change of attitudes and behaviours of audience for achieving better health.

Mass media awareness campaigns do not only play crucial roles in health information dissemination and in increasing awareness about health, they go further in persuading people to elicit the desired behavior change needed to combat the social ill so canvassed. This view is corroborated by Christiano and Neimand (2017) when they advised that:

Because abundant research shows that people who are simply given more information are unlikely to change their beliefs or behavior, it's time for activists and organizations seeking to drive change in the public interest to move beyond just raising awareness. --
-. Instead, social change activists need to use behavioural science to craft campaigns that use messaging and concrete calls to action that get people to change how they feel, think, or act, and as a result create long-lasting change

Keuntjes (2019) puts this extra role of media awareness campaigns in perspective by asserting thus: 'Awareness campaigns can inform the community about a current problem by highlighting and drawing attention to it in such a way that the information and education provided can solicit action to make changes'. Soliciting action and making changes implies going beyond awareness creation. These crucial roles of media campaigns must have inspired NAFDAC to use all forms of media to campaign against the ills of fake and substandard products in Nigeria and proffer solutions to combat the ills believing that the media can influence the behaviour of people for the sake of better health. Prior to this, Nigerians had died in numbers due to the consumption of counterfeit medication drugs and substandard food products. For example, research show that in 1989, poorly compounded chloroquine syrup killed several children in UNTH, Enugu, in 1990, 109 children died in Ibadan and Jos after taking paracetamol syrup produced with toxic ethylene glycol solvent (Akunyili, 2005). Many other examples abound to show fake drugs devastating effects on people.

The health system in Nigeria and the health status of Nigerians were in a deplorable state. Nigeria's overall health system performance was ranked 187th among the 191 member states of the United Nations by the WHO in 2000 (Akunyili, 2005). The situation in Nigeria mirrored what obtained in most Africa countries. NAFDAC, therefore, seemed to face an enormous task of reactivating a failed regulatory environment. According to Akunyili (2006):

Fake/counterfeit medication drugs, substandard cosmetics, unwholesome food products and other unregulated products were reported to have been dumped in Nigeria. Nigeria was rated as one of the countries with the highest incidence of fake/counterfeit drugs. Drugs produced in Nigeria were

reported to be officially unacceptable in other West African countries. Fake drugs were said to have embarrassed our healthcare providers and eroded the confidence of the public on our healthcare system.

Consumption of substandard food products and counterfeit drugs is a threat to good health. NAFDAC, therefore, resolved to use the media to bring these health threats to people’s attention. The Agency carries out media awareness campaigns advocating for good public health. Billboards have been erected in strategic locations of the country. Several posters and stickers warning against the inherent health hazards of production and consumption of fake drugs and other substandard products have been produced and circulated nation-wide. The agency publishes a Bi-annual NAFDAC NEWS magazine and consumers safety Bulletin. It has recently introduced ‘Truscan’ technology and ‘Black Eye’ technology. The Truscan technology is said to quickly scan imported products at the seaports and release them on time without compromising their quality and that the technology can quickly tell whether the product is genuine or fake. The ‘Black Eye’ technology, he says, works like the Truscan technology. It breaks medicine into components and tells what it contains (Ogundipe, 2011).

3. Methodology

The research design used in this study was survey. Data were collected on the consumers’ awareness and exposure levels of NAFDAC media campaigns; consumers’ media sources of awareness and exposure to the different campaign messages and consumers’ frequency of exposure to the different campaign messages. The area of study is the five South East States of Nigeria. The five South East States were chosen as the study area because research shows that two out of the four biggest/largest drug markets in Nigeria and the most notorious counterfeit medication drugs markets are based in the geo political zone (Muoneke, 2003). The four biggest and most notorious fake drug markets are Onitsha, Aba, Port Harcourt and Lagos. Onitsha and Aba are in the South East while PortHarcourt is in the South South and Lagos in the South West zone. From the five South East States, two States were purposively selected (Anambra and Abia States) based on the place of most prevalence of drug markets.

Adults from 25 years and above rather than from 18 years are chosen as respondents because there are no data on the census of adults from 18 years and above but there are such data on adults aged 25 years and above; this can be illustrated with the 2010 State Population Projections (Medium Variant), of two South East States as shown in Table 1 thus:

Table 1: State Population Projections (Medium Variants), 2010

S/N	State	Age 0-24years	Age 25 and above
1	Abia	2,232,498	1,096,445
2	Anambra	3,068,156	1,795,990
Total		5,300,654	2,892,435

Source: National Population Commission

Also, this category of adults is believed to be the ones who often buy food and medication drugs for the family. Again, they are believed to be more mature in reasoning and might have been exposed to NAFDAC media campaign. Overall, a study sample size of six hundred (600) was drawn from the population of the study which was made up of three hundred (300) respondents per State using multi-stage sampling technique. This sample size was purposively determined by looking at the different sample sizes worked out by Meyer (1973) for populations ranging from 1000 to infinity at 95 percent confidence level, Taro Yamane’s formula for determining sample size, the suggestion by Stacks and Hocking (1999) that “the larger the sample, the more representative of the population the sample will be and smaller your error will be”, and the suggestion by Nwuneli (1991) that “the bigger the sample, the better for statistical inference”.

From the calculations of Meyer (1973), the suggestion is that a sample size of 384 could do for an infinite population. Also, using Taro Yamane’s formula, we have a sample size of 399. The interview schedule and in-depth interview served as the measuring instruments. The interview schedule was administered by trained interviewers and the researcher. The data were collected and analysed using frequency tables, simple percentages, pie charts, bar charts, histograms and Pearson’s chi square statistics.

4. Analysis

A total of 600 copies of the interview schedule were administered to the respondents and 580 were properly and fully completed. Twenty (20) copies were not fully completed because the respondents were not patient enough to answer all the questions and so, the twenty cards were discarded. This represented approximately 97 percent return rate which was good enough and in line with Meyer’s sample size of 384, Taro Yamane’s calculated sample size of 399.

4.1 General Media Access and Exposure

Respondents’ general media access and exposure were measured to determine their level of access to the various media of communication and how often they used the media. Data generated were presented in the Tables 2 and

3:

Table 2 Respondents' general media access to various media of mass communication in numbers

Variable	Radio	Television	Newspapers	Magazine	Billboard	Internet
Yes	538	378	297	178	330	135
No	42	202	283	402	250	445
Total	(N=580)	(N=580)	(N=580)	(N=580)	(N=580)	(N=580)

Table 3 Respondents' general media access to various media of mass communication in percentages

	Radio	Television	Newspapers	Magazine	Billboard	Internet
Yes	93%	65%	51%	31%	57%	23%
No	7%	35%	49%	69%	43%	77%
Total	100% (N=580)	100% (N=580)	100% (N=580)	100% (N=580)	100% (N=580)	100% (N=580)

It can be seen from the tables that majority of the respondents had access to radio, television, newspaper and billboard with radio as having the greatest access of 93 percent (i.e. 538 out of 580). Access to radio, television, newspaper, and billboard ranged from a high of 51 percent to 93 percent. Internet had the least access of 23 percent, followed by magazine, 31 percent.

4.2 Awareness and Exposure Levels To NAFDAC Media Campaign (NMC) Messages

NAFDAC campaign message contents are stated thus:

- Nigerian people shine your eyes, shine am shine am well well
- No buy sugar, flour wey no get vitamin A eye logo
- Fake products dey cause nyamanyama disease
- Fake products dey cause adverse reaction
- Do not buy products without NAFDAC number and date
- Buy drugs only from pharmacies
- Join NAFDAC to fight fakers
- Report fake products to NAFDAC

Here, the attention was on establishing and measuring the respondents' general awareness and exposure to NAFDAC media campaign messages to find out whether they were actually aware and exposed to the campaign messages. Questions were asked to this effect and data generated were presented below using matrix tables, bar charts, descriptive statistics, goodness of fit test, histogram with normal curve and correlation.

Table 5: Respondents' Fake Products Campaign Awareness and Exposure

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	580	100.0	100.0	100.0

Table 5 shows that all the respondents were aware of NAFDAC fake products media campaign. There is 100 percent awareness. This indicates that the campaign had wide publicity.

Next, was a bar chart showing the respondents' sources of awareness and exposure to NAFDAC campaign in Fig. 1

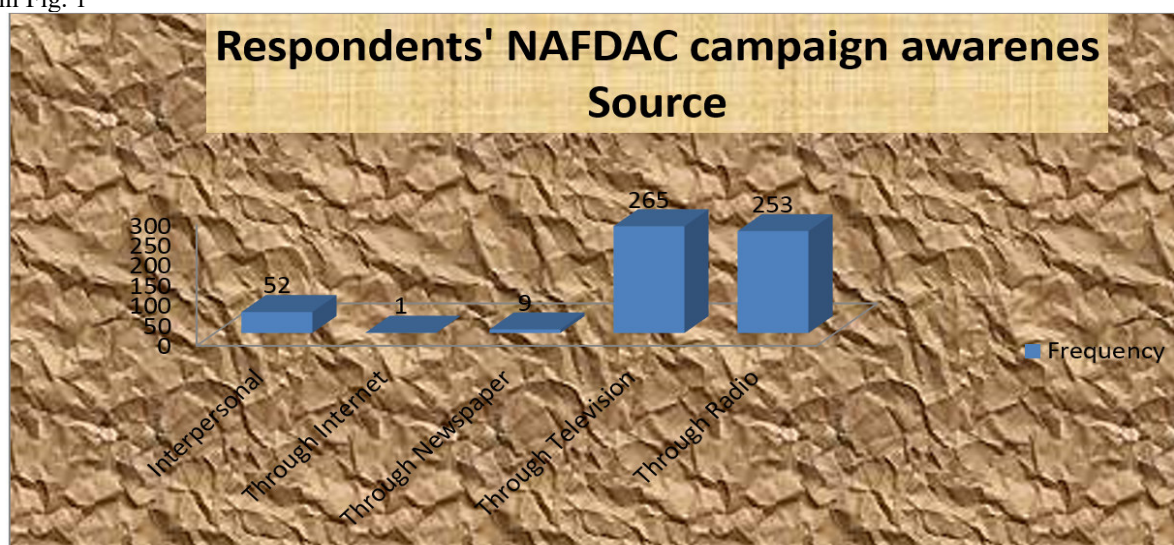


Fig. 1 Respondents' sources of awareness and exposure to NAFDAC campaign in number

Figure 1 indicates that the respondents were mainly aware and exposed to NAFDAC campaign through television and radio. The figure shows that 265 respondents out of 580 were mainly aware and exposed to the campaign through television and 253 respondents out of 580 said radio. Interpersonal had 52 out of 580 respondents; newspaper had 9 out of 580 while internet had only 1 out of 580 respondents.

Next, a table matrix of respondents' awareness and exposure to all the various NAFDAC media campaign messages is presented in Table 6. The respondents were asked to give a yes or no answer to their awareness and exposure to the different NAFDAC media campaign messages.

Table 6: Awareness and exposure to the different NAFDAC media campaign messages

	Shine your Eye	No buy Sugar/Flour Heard	Nyamanyama Disease	Adverse Drug Campaign	Join Fight Corruption	Buy Drugs Only from Pharmacy	Do not buy without Number/Date	Report Fake Drugs
Yes	79%	80%	88%	81.9%	75.5%	74%	89.7%	56%
No	21%	20%	12%	18.1%	24.5%	26%	10.3%	44%
Total	100% (N=578)	100% (N=479)	100% (N=580)	100% (N=548)	100% (N=573)	100% (565)	100% (N=578)	100% (N=577)

It is seen from the table that the respondents were quite aware and exposed to the different campaign messages. The Table 6 shows a high level of awareness and exposure of 74 percent and over for practically all the campaigns except for the last campaign, 'Report fake drugs campaign' which showed 56 percent awareness. Less than one-third of the respondents were not aware and exposed to each of the first seven campaign messages while over one-third (44 percent) was not aware and exposed to the last campaign, 'Report fake drugs'.

The respondents' media source of awareness and exposure to the various campaign messages then followed. The sources of awareness and exposure included both the mass media and interpersonal channels of communication (IPC).

Table 7: Respondents' media sources of awareness and exposure to the various NAFDAC campaign messages

	Shine your Eye	No buy Sugar/Flour Heard	Nyamanyama Disease	Adverse Drugs	Join fight corruption	Buy only from pharmacy	Do not buy without num/date	Report Fake drugs
Radio	32%	41%	50%	43%	39%	41%	50%	41%
Television	42%	36%	22%	29%	41%	46%	37%	42%
Interpersonal	5%	3%	8%	9%	3%	6%	9%	5.1%
Newspaper	6%	9.7%	3.8%	12%	2%	2.7%	1%	2%
Magazine	4%	2%	5%	0%	1.7%	0%	0%	2%
Billboard	1%	0.7%	2%	2%	5.3%	0.3%	0%	3.9%
Internet	10%	7.6%	9.2%	5%	8%	4%	3%	4%
Total	100% (N=578)	100% (N=481)	100% (N=571)	100% (N=551)	100% (N=573)	100% (N=565)	100% (N=579)	100% (N=577)

Table 7 shows the media through which the respondents said that they were made aware and exposed to the different NAFDAC campaign messages. It is seen that the respondents' sources of media awareness and exposure to the campaign messages showed a high of 50 percent to a low of 0 percent. Radio was the highest source of media awareness and exposure to the various campaign messages followed by television. This implies that the respondents were aware and exposed to the different campaign messages mainly through radio and television. Interpersonal, newspaper, magazine, billboard and internet recorded 10 percent and below.

Table 8: Respondents' frequency of awareness and exposure to campaign messages in the last six months

	Shine your Eye	No buy Sugar/Flour	Nyamanyama Disease	Adverse Drugs	Join fight corruption	Buy only from pharmacy	Do not buy without number/date	Report Fake drugs
Under 5 times	27%	33%	27%	33%	14%	15%	13%	16%
6-10 times	27%	32%	20%	36%	22%	21%	19%	24%
11-20 times	25%	23%	36%	15%	34%	32%	35%	31%
Over 20 times	21%	12%	17%	16%	30%	32%	33%	29%
Total	100% (N=578)	100% (N=481)	100% (N=591)	100% (N=551)	100% (N=573)	100% (N=565)	100% (N=597)	100% (N=577)

Respondents' frequency of awareness and exposure to the various campaign messages in the last six months

is shown in Table 8. The Table shows that about one-third of the respondents were more regularly exposed to the last four campaign messages: 'Join NAFDAC to fight corruption campaign'; 'Buy drugs only from pharmacy campaign'; 'Do not buy drug without number and date campaign' and 'Report fake drugs campaign' while about one-fifth were regularly exposed to the first four campaigns: 'Nigerian people shine your eyes campaign'; 'Do not buy sugar/flour without vitamin A eye logo campaign'; 'Fake drugs dey cause nyamanyama diseases campaign' and 'Adverse drugs' campaign messages.

Conclusion

The main purpose of the study was to establish the possibility that consumers' awareness and exposure levels to NAFDAC media campaign might possibly be the reason behind counterfeit medication drugs and substandard food products' continuous existence or persistency in our markets using South East Nigeria as the area of study. The survey research design was used for the study. Data were collected from medication drugs and food products consumers in South East Nigeria by both the hired interviewers and the researchers. The interview schedule served as the measuring instrument and was administered to a sample of 600 respondents while 580 copies were fully completed and recovered. The study, therefore, found a high level of awareness and exposure to NAFDAC media campaign among the target audience or the respondents. This implies that fake and substandard food and medication drugs' prevalence in our markets and the consequent high death rate due to their consumption is not because the consumers are not aware and exposed to the campaign different messages.

Research showed that they are quite aware and exposed to the campaign's different messages and still do not adhere to the campaign's preventive health actions. This explains the continued existence of fake and substandard drugs and food products in our market. Based on the findings, the researchers recommend that the Agency intensifies its campaign messages and surveillance to detect and close illegal drug markets in Nigeria and ensure that only the genuine drugs are sold at a cheaper rate to really prevent consumers from patronizing fakers consciously or unconsciously. One thing is to be aware and exposed to the campaign; another is to find the genuine drugs to buy. Consumers may be aware and exposed to the beautifully designed campaign messages but would be forced to still buy fake ones if they do not find the genuine drugs alternative in the market. Unlicensed drug vendors, should be licensed, trained and monitored to really force them to adhere to basic pharmacy code of conduct. Also, more research should be carried out to really find out why consumers do not adhere to the preventive health actions appealed by the campaign as solution to curb the continued existence of these products in our markets.

References

- Adebayo, A. (2017). Fake medicine in Nigeria-when the drugs don't work. Retrieved from <https://www.lexology.com> 3-12-2019.
- Akpunonu, S. (2019). Why NAFDAC is still battling fake drugs. Retrieved from <https://www.guardian.ng> 6-12-2019.
- Akinyandenu, O. (2013). Counterfeit drugs in Nigeria: A threat to public health. Retrieved from www.academicjournal.org 20- 11- 2019.
- Akunyili, D. N. (2005). Counterfeit and substandard drugs, Nigeria experience: Implications, challenges, actions and recommendations (unpublished paper presented at a meeting for key interest groups on health organized by the World Bank), Washington D.C. 3-11-2019.
- Akunyili, D.N. (2006). Lessons from Nigeria: The fight against counterfeit drugs in Africa. *Diabetes Voice*, vol.51, Issue3 p.41-43.
- Atabong, A. B. (2019). African healthcare systems are in arms race with a rising fake medicine problem. *Quartz Africa*. Retrieved from <https://www.qz.com> 26-11-2019.
- Christiano, A. and Neimand, A. (2017). Stop raising awareness already. Retrieved from <https://ssir.org> 14-2-2020.
- Keuntjes, K. (2019). What is a public awareness campaign? Retrieved from <https://rasmussen.libanswers.com> 14-2-2020.
- Luthor, J. (2019). Awareness campaign objectives. <https://www.yourbusiness.azcentral.com> Retrieved 28-11-2019.
- Ogundipe, S. (2011). Nigeria leads in the fight against fake drugs. Retrieved from <http://www.vanguardngr.com/2011/07/nigeria>. 20-11-2019.
- Ono, G. N. (2015). Assessment of NAFDAC media campaign to change consumers' attitudes and behaviours towards food and medication drugs in South East Nigeria. An unpublished dissertation.
- Sharma, S. K. and Gupta, Y. K. (2018). Mass media for health education. Retrieved from <https://www.researchgate.net> 30-11-2019.
- Wakefield, M. A., Loken, B. and Hornik, R. C. (2010). Use of mass media campaigns to change health behaviour. Retrieved from <https://www.ncbi.nlm.nih.gov> 30-10-2019.
- Yates, B. L. (1999). Media literacy: A health education perspective. *Journal of Health Education*, 30 {3}, 183-187. Retrieved from <http://www.westga.edu/~byates/mediaand.htm> 19-11-2019.