

## **Investigation of Consumers' Knowledge about NAFDAC Media Campaign on Consuming Counterfeit Drugs and Substandard Food in South East Nigeria**

**Ono Gloria Nneka**

Mass Communication department  
Nnamdi Azikiwe University, Awka  
Anambra State, Nigeria  
E-mail: nne\_ka07@yahoo.com

**Okeke Adaobi Olivia**

Mass Communication Department  
Nnamdi Azikiwe University, Awka  
Anambra State, Nigeria  
E-mail: findolivia2k3@gmail.com

---

### **Abstract**

*Drugs are meant to treat, prevent, relieve symptoms of diseases or cure diseases when manufactured using correct active ingredients and in their right proportion and when used as prescribed by doctors or health experts. They cause injury to the physical and mental health of users when counterfeited or abused. Counterfeit drugs and substandard food products still proliferate Nigerian markets in spite of the incessant enlightenment media campaign by Nigerian Agency for Food, Drug Administration and Control (NAFDAC) on the inherent dangers of consuming the products. The study was aimed at investigating consumers' knowledge about the inherent dangers of consuming counterfeit and substandard products vis-à-vis their continuous existence in Nigerian markets and the consequent high death rate. The study design was survey and interview schedule served as the measuring instrument. For the data analysis, Statistical Packages for Social Sciences (SPSS) was used. The findings showed among others that consumers were quite knowledgeable about the inherent dangers of consuming fake and substandard products. The researchers therefore recommend that NAFDAC should come up with stiffer punishments for drug and food offenders to really force these products out of the markets and also the prices of drugs and food products should be brought down for poor consumers to comfortably afford them because the two products are basic needs of man.*

---

**Keywords:** *Media campaign; counterfeit; inherent dangers; medication drugs; food products*

---

## Introduction

Drugs are meant to treat, prevent, relieve symptoms of diseases or cure diseases when manufactured using correct active ingredients and in their right proportions and when used as recommended or as prescribed by doctors or health experts. Drugs can cause injury or harm to the physical or mental health of users when counterfeited or abused. Abuse of drugs runs counter to the original prescription intentions of doctors and health experts.

Different types of drug exist ranging from herbal to illicit or illegal drugs and to prescription or medication drugs. The herbal drugs are such drugs made from herbs, shrubs, plants parts such as barks, roots, leaves, and every other plant related substances which are used as supplements to improve health and well being and may be used for other therapeutic purposes. The herbal drugs are produced by herbalists. Illicit drugs are all contraband drugs by different governments because of their perceived excessive danger to health. They are used to produce other drugs and advised not to be taken in their raw state. When taken raw, they distort the body system and lead to more complicated adverse drug reactions.

Medication or prescription drugs are the orthodox drugs manufactured in laboratories by pharmacists such as pain relievers, syrups, antibiotics, analgesics, drops, injections, laxatives, drops etc and prescribed by doctors or health experts for prevention, treatment and cure of diseases. Our concentration in this study was on medication or prescription drugs recommended by orthodox doctors, pharmacists and nurses to patients. These drugs are often counterfeited or faked by manufacturers and they are more prevalent in Nigerian markets than the certified ones as can be interpreted from this statement:

The first phase of the baseline study by NAFDAC in six major 'drug markets' across the country in early 2002, to measure the level of compliance to drug registration, revealed that 67.95 (approximately 68) percent of the drugs were fake and unregistered by NAFDAC (Anyebe, 2015).

Counterfeit drugs are mainly sold by quarks in open markets, chemist shops, mobile drug vehicles and even on the internet. Blackstone *et al* (2014) says: 'The prevalence of counterfeit drugs is increasing, especially with the expansion of the internet'. Consumers keep patronizing the products especially as they are sold at cheaper prices. Anyebe, (2015) notes: 'According to a report, most of the drugs are sold at low prices and are usually offered by hawkers who are more or less quarks with no medical orientation'. Still on the low prices of counterfeit products, Anyebe continues by quoting a dealer as saying: 'I think it is because Nigerians like buying cheap things that is why fake products are everywhere. There are still original ones, but because their prices are on the high side, many people cannot afford them'. It seems not right to have said that Nigerians like buying cheap things. It is obvious that poor people buy poor quality cheap things because of poverty and it raises this question: How many rich and affluent men buy poor quality cheap things? Nigerians buy cheap products simply because they cannot afford the good and costly ones due to poverty as concurred: 'Indeed as long as poverty remains a

challenge for the average Nigerian, he will continue to patronize sellers of such products' (Anyebe, 2015).

The counterfeit problem is especially very serious in less developing countries. The prevalence increases in alarming rate in the countries because our local dealers go to the developed countries and dictate the amount of ingredients or the quality of drugs they would produce and import to the developing countries. Reacting to an alarm raised by a Director General of Standard Organization of Nigeria (SON) on the revelation that 80 percent of products imported into Nigeria are either fake or substandard, China responded that it did not deliberately dump inferior goods on Nigeria but that Nigerian businessmen were culpable because they imported the products (Anyebe, 2015). China said the obvious truth. Counterfeit and substandard products are masterminded and imported into Nigeria by unscrupulous Nigerian dealers. The quality is usually poor when compared with the ones produced for consumption in the developed countries. There are cases of some drugs being labeled as '*for exports only*' (Akunyili, 2005), implying that such drugs are obviously fake and not to be consumed in the country of manufacture. These drugs together with substandard food products cause a lot of danger to human health.

The substandard food products production has a very long history especially in Nigeria. Food products are often produced with poor ingredients or fall short of some prescribed standard or norm contrary to the products' claims. Omojokun (2013) writes: 'Many health problems encountered today arising from consumption of unsafe food are not new as they date far back in history'. As the prevalence is increasing, so do their inherent dangers on human health. The increase of the inherent dangers of consuming fake and substandard products necessitated Nigerian government to establish a body to look into drugs, food, and cosmetics manufacturing to contain the prevalence of these products in the markets. That body is Nigerian Agency for Food, Drug Administration and Control (NAFDAC). NAFDAC is a Nigerian Agency saddled with the responsibility of quality control in the production and consumption of food, drugs and cosmetics.

To carry out this assiduous and difficult task of quality products control, NAFDAC resorted to utilization of various media enlightenment campaigns having been aware of the unquantifiable roles media campaigns play in awareness creation, sensitization and mobilization of people to change their bad attitudes and behaviours towards things. NAFDAC media campaigns enlighten consumers on the inherent dangers of consuming counterfeit (fake) and substandard products in order to discourage their production, sale and consumption. NAFDAC carries the campaign even to schools advocating that consumers should cease to purchase and consume these products in order to contain the consequent harmful effects. Onyenucheya (2018) puts it in perspective: 'NAFDAC intensifies efforts, introduces nationwide campaign in schools, plans to expand mobile technology approach, and takes fight to grassroots'.

Keuntjes (2019) extols the role of media awareness campaigns in this assertion: '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.' Zamawe *et al.* (2016) adds that media

campaigns are critical in disseminating public health information, improving health knowledge and changing health behaviours. No wonder NAFDAC adopts various media enlightenment campaigns to combat proliferation of fake and substandard products in Nigerian markets.

Counterfeiting of drugs is an age long practice just like substandard food production and a torn on the flesh of nations. Shetty (2011) writes: ‘Counterfeiting is as old as industrialization. For as long as the idea of intellectual property or branding has existed, counterfeiters have schemed to cheaply mimic products for profit’ and Blackstone (2014) adds: ‘controlling the availability of counterfeit drugs is not simple, but necessary, given the serious public health issues they pose.’ Controlling the availability of counterfeit drugs cannot be easy because it involves controlling the human mind. Human mind is perhaps the hardest thing to control given our individual differences or traits and environment.

Counterfeiting of drugs is illegal and harmful to health but people counterfeit or substandardize drugs and food products for personal economic gains. It is a booming business globally. It is estimated that counterfeit drugs provide approximately \$75 billion in revenue annually to illegal operators and have caused more than 100,000 deaths worldwide (Blackstone *et al*, 2014). National Academy of Sciences (2013) puts it succinctly thus:

The United Nations Office on Development and Crime (UNODC) reckons that in West Africa, the scale in falsified medicines may be worth as much as the billion-dollar oil and cocaine trafficking industries; their estimate of the worth of anti-malarial alone is more than \$400 million

Also one expert estimates that a \$1,000 investment in counterfeit prescription drugs can result in \$30,000 return which is 10 times the profit rate of trafficking heroin (Blackstone *et al*, 2014). Blackstone *et al* goes further to give an example: ‘... one source reported selling counterfeit sildenafil can be as much as 2000 times more profitable than selling cocaine’. They added that the risk of being caught is much lower because detection is much more difficult and that the criminal penalties for the sale of counterfeit medications can be far less than the criminal penalties for the sale of illegal narcotics, thus making it more profitable and less for criminals to sell counterfeits.

### **Statement of Problem**

As earlier stated, the inherent dangers associated with consumption of fake medication drugs and substandard food products necessitated the establishment of NAFDAC which resorts to various media enlightenment campaign strategy to fight the production, sale and consumption of these products. The occurrence of food borne disease remains a significant health issue in developed and developing countries despite the efforts being made by governments all over the world to improve the safety of the food supply (Omojokun, 2013). NAFDAC uses all kinds of media; the mass media, traditional and even the internet to campaign for positive behaviour change to fight the scourge of fake products consumption. Research shows that NAFDAC has done much in a bid to win this war but

unfortunately, the prevalence of fake and substandard medication drugs and food products remain unmitigated in Nigeria.

Research also shows a high level of awareness and exposure to the various NAFDAC enlightenment media campaign messages among Nigerians but instead of containing the prevalence of fake and substandard products, the reverse is the case as Beargie *et al* (2019) rightly assert: ‘Despite efforts by NAFDAC to manage the supply chain and regulate medicine quality, substandard and falsified medicines continue to proliferate in the Nigerian markets’ and Adebayo (2017): ‘despite NAFDAC’s reported successes, counterfeit pharmaceuticals remain prevalent’. Omojokun (2013) on food products adds: ‘The specific goals of the National Policy of Food Safety include among others...to improve the quality of healthcare delivery by ensuring that only foods that are safe, wholesome and of good quality are produced and/or marketed in Nigeria...’. The consequent death rate keeps increasing as concurred by Onyenucheya (2018): ‘...Africa records at least 100,000 deaths, arising from fake drug-related ailments, yearly, as counterfeit drugs account for 17 percent of the generic drugs in supply in Nigeria.’

One then begins to ask questions about this continued prevalence of fake medication drugs and substandard food products. Are these products persisting because the consumers are not quite knowledgeable about the inherent dangers associated with their purchase and consumption? In fact, the assertions made by Blackstone *et al* (2014) and Omojokun (2013) heightened the interest in this study. Blackstone *et al* assert:

Consumers (or patients) in the United States are largely unaware of the dangers of purchasing counterfeit drugs from Internet pharmacies. Their lack of knowledge is contributing to what is becoming a major public health issue.

And Omojokun adds: ‘The issue of food safety and food borne toxicants in sub Saharan Africa, including Nigeria, is exacerbated by public ignorance on the subject...’.

By inference, it can be argued that fake and substandard products proliferate in Nigerian markets because the consumers are unaware or ignorant of the inherent dangers of purchasing and consuming these products. Arguably too, it is most expected that consumers should desist from purchasing and consuming fake medication drugs and substandard food products if they are quite knowledgeable about their inherent dangers which include among others drugs failure, economic waste and untimely death. Naturally, fear of death or being vulnerable and susceptible to issues (as extolled by the theory of Health Belief Model) is expected to compel consumers to avoid anything that will lead to such danger.

Naturally too, prevalence of these products is expected to cease or at least reduce drastically if consumers cease to patronize the producers because of perceived fear threats to their lives. This also heightens the question of whether the consumers are quite knowledgeable about this danger to their lives. This study would therefore provide the probable knowledge gap that consumers’ knowledge lack about these dangers might be

the reason why they still buy and consume fake and substandard products and hence their proliferation in Nigerian markets. The study has the following objectives:

- To find out whether consumers of medication drugs and substandard food products in South East Nigeria are knowledgeable about the existence of counterfeit medication drugs and substandard food products in Nigerian market;
- To find out their sources of knowledge about the existence of these products in our market;
- To investigate whether these consumers have bought and consumed fake and substandard products before;
- To ascertain whether the consumers are knowledgeable about the inherent dangers of purchasing and consuming these products

These objectives formed the following research questions:

- Are medication drugs and food products consumers in South East Nigeria knowledgeable about the existence of fake and substandard medication drugs and substandard food products in Nigerian markets?
- What are their sources of knowledge about the existence of these products in the markets?
- Have they bought fake medication drugs and substandard food products before?
- Are they knowledgeable about the inherent dangers of purchasing and consuming these products?

## Literature Review

FDA U. S. Food and drugs (2019) writes:

Counterfeit medicine is fake medicine. It may be contaminated or contain the wrong or no active ingredients. They could have the right active ingredients but at the wrong dose. Counterfeit drugs are illegal and may be harmful to your health

National Academy of Sciences (2013) on its part states: 'A safe medicines supply is fundamental for public health.' These assertions go a long way to enlighten on what constitutes or makes a drug counterfeit and the resultant effect it causes to human health. Particularizing it to Nigeria, Adebayo (2017) has this to say:

Counterfeiting in Nigeria include preparations without active ingredients, toxic preparations, expired drugs that are relabeled, drugs issued without complete manufacturing information and drugs that are not registered with NAFDAC

There is nothing to compare with, in the health sector, like producing quality drugs for human consumption. Buckley (2013) says: 'A reliable, good quality medicine supply is essential for health, but it is often missing in countries with weak regulatory system'. Quality drugs consumption is fundamental to speedy healing of diseases. National Academy of Sciences (2013) concurs: 'Scientists and policy makers in developing countries are aware of the toll

falsified and substandard drugs take on their health system.’ This is true but it is very unfortunate that weak regulatory system common in the developing countries, Nigeria inclusive, keeps encouraging counterfeiting of drugs and subs standardizing of food products. Adebayo (2017) concurs:

The major factors facilitating the preponderance of fake drugs in Nigeria have been reported to include the **ineffective enforcement of existing laws**, unqualified vendors, **loose control system**, high cost of genuine drugs, greed, ignorance, corruption, illegal drug importation, chaotic drug distribution network, and demand exceeding supply among many others.

The National Academy of Sciences (2013) continues: ‘Qualitative research in China suggests that patients view the loosely regulated private health care system poorly, seeing it as rife with ‘fake doctors’ and ‘fake drugs.’ This assertion goes a long way into affirming that loose regulation encourages faking of drugs not only in China and in the private health care system but also in Nigeria and in both our private and public health care system. Sequel to this is low price of some of the counterfeited and substandard products. The genuine products are often costly forcing the poor consumers to go for the cheaper ones at least to have something at hand since they cannot afford the genuine ones as affirmed by Blackstones *et al* (2014): ‘Because these medicines (genuine medicines) are expensive, buyers are attracted by lower prices.’

Punishment meted on offenders is another factor because it is not commensurate with the magnitude of offence committed and the resultant adverse effects the products have on users. Onyenucheya (2018) states: ‘With nearly \$1 trillion in drug sales yearly, the penalty for counterfeiting is punishable by imprisonment for between three months to five years or alternatively a fine of ₦100,000 is imposed.’ Can this kind of punishment ever discourage faking? Paying this kind of fine by someone who deliberately counterfeits drugs and causes harms especially loss of life on users is not even a scratch on the money he makes from the business. If death penalty or death sentence is to be pronounced on drug fakers, many would shun the business but unfortunately the environment is very fertile for the business.

Even fakers know the adverse effects of purchasing and consuming fake products and still go ahead with the business for purely economic or monetary gains. It is unfortunate that these fake producers and dealers protect their children and family members from consuming the fake drugs made by them showing that they are knowledgeable about the adverse effects of consuming such products. Cases abound where these fakers and their relations would have fallen victims of adverse drug effects but for their quick intervention. An adverse effect of drugs here simply means the contrary or harmful effects consumption of fake drugs or substandard food products can have on the products consumers. Lack of alternatives or place to buy the genuine drugs also encourages purchase and consumption of fake drugs.

The continuous proliferation of counterfeit and substandard products in Nigerian markets has generated an unending outcry among concerned stakeholders and very difficult for NAFDAC to contain even with its laudable media enlightenment campaign. Commenting on the proliferation of counterfeit products in Nigeria, Adebayo (2017) writes:

The counterfeiting of many products is on 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

Illicit pharmaceuticals are same as counterfeit medication drugs. Thousands of Nigerians have died due to consumption of fake drugs and the World Health Organization (WHO) maintains that proliferation of fake and substandard drugs in Nigeria has affected the credibility of our healthcare system (Onyenucheya, 2018). Nigeria is one of the countries of the world where medicine is second to food as a household demand because many diseases particularly the terminal ones abound. Drugs are in high demand and needed to combat the diseases but consumption of the fake ones leads to treatment failures. As a result, many who are sick resort to buying and consuming herbal drugs which they believe are produced with plants around us and also seem more efficacious than medication drugs only that they worry about their correct dosages. The saying that every medication drug is a poison also adds to people's disillusionment that herbal drugs are more efficacious. A herbal medicine is the oldest and still the most widely used system of medicine in the world today (Naturopaths & Herbalists Association of Australia, n. d.).

Apart from untimely death and disregard for our health care system, counterfeiting and substandardization of products lead to unnecessary waste of money, poisoning, treatment failure, drug resistance, untreated disease, organ failure or organ dysfunction, worsening of chronic disease conditions, disease progression, disability among others. NAFDAC, worried about these dangers of consuming fake and substandard products, uses different media to appeal to consumers to stop patronizing fakers. NAFDAC was created in 1993 and given the responsibility to regulate and control the importation, exportation, manufacture, advertisement, distribution, sale and use of food, drugs, cosmetics, medical devices, bottled water and chemicals (Adebayo, 2017). NAFDAC campaign begins with such slogan as '*Nigerian people shine your eyes, shine am, shine am wel wel*' and contains such dangers of fake and substandard products messages as fake drugs dey cause:

- nyamanya disease;
- adverse drug reaction;
- allergic reaction;
- death
- worsen health reaction;
- contain harmful substances;
- unhygienic water leads to water diseases;
- fake beverages cause liver/kidney diseases

### **Methodology**

Survey research design was used for this study. Data were collected on consumers' knowledge about the existence of counterfeit medication drugs and substandard food products in Nigerian markets; consumers sources of knowledge about the existence of these products in the markets; whether consumers have bought and consumed fake and substandard medication drugs and food products and their knowledge about the inherent



dangers of purchasing and consuming these products. The study area is South East Nigeria which is made up of five states. Two out of the five states, Anambra and Abia, were purposively selected based on the fact that the two states harbor two of the biggest and well-known drug markets in Nigeria as confirmed by Anyebe (2015):

NAFDAC observed that counterfeit drug is one the greatest problems of the industry with an estimated 50 percent of drugs and food drinks sold in ‘Ariaria’ market in Aba, Onitsha market, ‘Alaba’ market, Lagos and other markets across the country were counterfeits.

Aba and Onitsha are towns in Abia and Anambra States respectively. Adults from 25 years and above rather than from 18 years were chosen as respondents because there were no data on the census of adults from 18 years and above. The data for 25 years and above for Anambra and Abia States according to 2010 State Population Projections (Medium Variant) is shown in Table I:

**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 (2010)

Table 1 shows that the population of adults from 25 years and above in the two States is 2,892,435. A study sample size of six hundred (600) was drawn from this population. Three hundred (300) respondents were selected from each of the two States using multi-stage sampling technique. This sample size was purposively determined by looking at the sample size worked out by Meyer (1973) for populations ranging from 1000 to infinity at 95 percent confidence level. Meyer suggests that a sample size of 384 can do for an infinite population. The sample size is also determined using Nwuneli (1991) suggestion that “the bigger the sample, the better for statistical inference” (Ono, 2015).

Measuring instrument used for the study was interview schedule. Both structured and unstructured questions were asked based on the research questions earlier developed for this study. The structured questions were used to reduce the incidence of deviation from the basic issue. The interview schedule was administered by the researchers. Data collected were analysed using frequency tables, simple percentages, pie charts, and Pearson’s chi square statistics.

### Analysis

The researchers administered 600 copies of the interview schedule. Twenty copies were lost while 580 copies were recovered and fully completed. The 580 copies represents 97 percent return rate which was assessed to be good for the study based on Meyer’s (1973) suggestion that a sample size of 384 can do for an infinite population.

### Consumers’ Knowledge about the Existence of fake Medication Drugs in Nigerian Markets

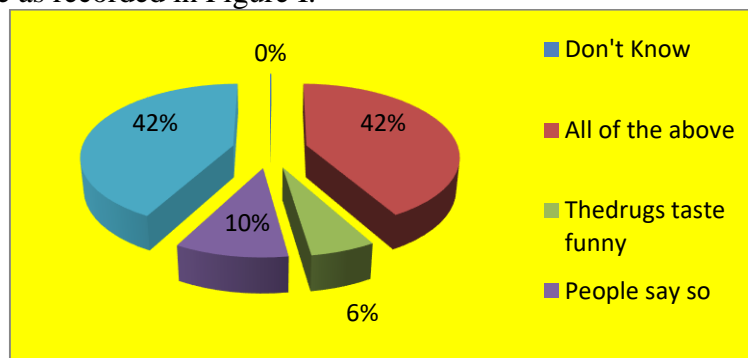
Here, the researchers asked the respondents whether they knew that fake drugs existed in our markets with this question: ‘Do you know that fake medication drugs exist in Nigerian market?’ All of them indicated 100 percent knowledge as shown in Table 2.

**Table 2: Respondents' knowledge of existence of fake medication drugs**

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

### Consumers' Sources of Knowledge about the Existence of Fake Medication Drugs in the Markets

Next, was a question on how the respondents got to know about fake drugs' existence in our markets: ‘How do you know that fake drugs exist in Nigerian markets?’ Their responses were as recorded in Figure I.

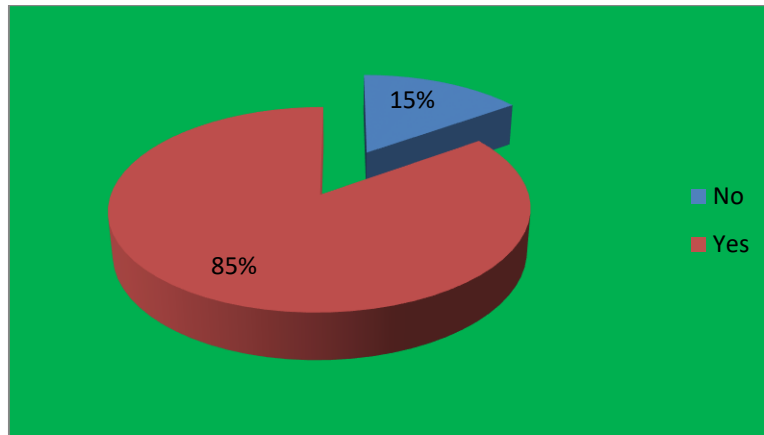


**Fig. 1 Respondents' sources of knowledge about fake drugs**

Fig. 1 shows that 42 percent of the respondents indicated that they knew about the existence of fake products in the markets through ‘NAFDAC says so’ and ‘All of the above’ respectively. It also shows that 10 percent of the respondents and below knew about fake drugs existence through people and from the funny taste of the drugs. It is interesting to note that nobody indicated ‘Don’t know’.

### Consumers' Purchase of Fake Medication Drugs Before

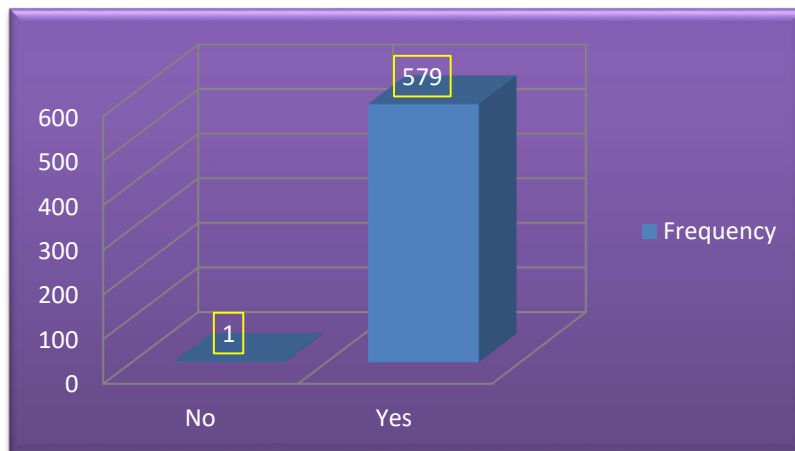
Next question was on whether the respondents had bought fake medication drugs before: ‘Have you bought fake medication drugs before?’ Their responses were as presented in Fig. 2



**Fig. 2: Respondents' buying of fake drug before in percentages**

Fig.2 shows that over four-fifths (85 percent) of the respondents had bought fake drugs before while less than one-fifth (15 percent) indicated that they had not. The Figure 3 suggests that an appreciable number of the respondents had at one time or the other bought fake drugs before.

Having done with medication drugs, the researchers asked the respondents similar questions on food products bearing in mind that the study was on medication drugs and food products. They were asked whether they were knowledgeable about the existence of substandard food products in Nigerian markets thus: ‘Do you know that substandard food products exist in our markets?’ Their responses were as recorded in Figure 3:



**Fig. 3: Respondents’ knowledgeable about substandard food products in Nigerian markets**

Respondents’ knowledge about the existence of substandard food products in the market in Fig. 3 shows that almost all of them, 579 respondents, were knowledgeable about the existence of substandard food products in the markets. Only one person was not aware of this existence. The data imply that the respondents were quite knowledgeable about the existence of substandard food products in the Nigerian markets.

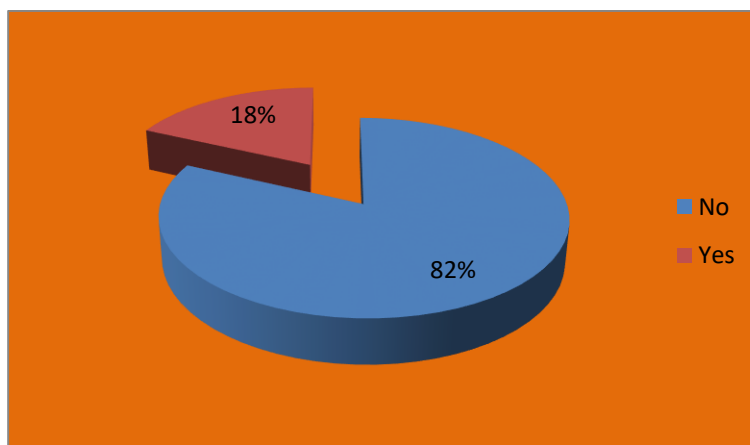
Next, was a question on the respondents’ sources of knowledge about the existence of substandard food products in the Nigerian markets thus: ‘How do you know that substandard food products are sold in the Nigerian markets?’ This question was asked to actually ascertain whether the respondents were sure of their responses to the last question. Their responses were as shown in Figure 4:



**Fig. 4: Respondents' Sources of Knowledge about the existence of substandard food products in markets**

Fig. 4 shows that about one-third, 39 and 35 percent, of the respondents knew about the existence of substandard food products through NAFDAC media campaigns and from all the sources respectively. Less than one-fifth, 14 percent, knew about the existence of substandard food products from the foods' funny or bad taste while 12 percent knew about it from people saying so. It can be rightly said that NAFDAC is actually campaigning about substandard food product in the markets.

Next, the respondents were asked whether they had bought substandard food products before to justify their claimed knowledge of the existence of substandard food products in the markets. They were asked: 'Have you bought substandard food products before?' Their responses were recorded in Figure. 5:



**Fig. 5: Respondents' buying of substandard food products before**

Fig. 5 shows that over four-fifths (82 percent) of the respondents had bought substandard food products before while less than one-fifth (18 percent) had not. This implies that most of the respondents were not only knowledgeable about the existence of substandard food products in the markets but had also bought them.

### Respondents’ Knowledge about the Inherent Dangers of Consuming Fake and substandard Products

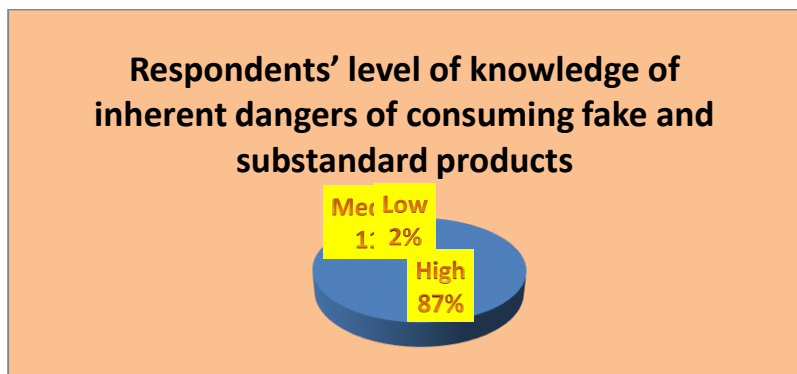
The question on consumers’ knowledge about the inherent dangers of purchasing and consuming fake and substandard products became so pertinent because it dealt with the main aim of carrying out this study. This is the major issue the study was set to find out. The respondents were asked this question: ‘Do you know that fake medication drugs and substandard food products have inherent dangers to human health?’ They were asked to give a true or false answer to their knowledge about the inherent dangers of consuming these products. Their responses were as recorded in Table 3.

**Table 3: Knowledge about the Inherent Dangers of Consuming Counterfeit Medication Drugs and Substandard Food Products.**

	fake drugs lead to allergic reaction	fake drugs consumption lead to death	fake drugs can worsen health condition	fake food contain harmful substances	fake food consumption can lead to death	unhygienic water lead to water diseases	fake beverages lead to liver/kidney diseases
True	76%	90%	81%	74%	65%	79%	87%
False	24%	10%	19%	26%	35%	21%	13%
Total	100% (580)	100% (580)	100% (580)	100% (580)	100% (580)	100% (580)	100% (580)

Table 3 shows some of the inherent dangers of consuming counterfeit and substandard products in the rows. The results show that more than two-thirds of the respondents indicated that they were knowledgeable about the inherent dangers while about one-third and below said that they were not. This implies that majority of the respondents were quite knowledgeable about the inherent dangers of consuming counterfeit medication drugs and substandard food products.

Further, respondents’ level of knowledge about the inherent dangers of consuming fake and substandard products was grouped and analyzed together. Each of the respondents was scored over 7 marks. Those who scored 0-2 over 7 (0-2/7) were rated ‘low’ and labeled ‘Low’; those who scored 3-5 over 7 (3-5/7) were rated ‘medium’ and labeled ‘Medium’ while those who scored 6-7 over 7 (6-7/7) were rated ‘high’ and labeled ‘High’. Later, the respondents’ scores were added up and the totals were recorded in Fig. 6.



### **Fig. 6: Respondents' level of knowledge about the inherent dangers of consuming fake and substandard products**

The result showed that 87 percent of the respondents had high level of knowledge about the inherent dangers of consuming fake and substandard products, 11 percent of the respondents had medium knowledge while only 2 percent had low knowledge about the inherent dangers of consuming fake and substandard products. The fig. 6, therefore, shows that a good number of the respondents had high level of knowledge about the inherent dangers of consuming fake and substandard products.

### **Conclusion**

The main problem the study is the persistent proliferation of counterfeit medication drugs and substandard food products in the Nigerian markets. It is very natural to believe that these products are prevalent in the market because the fake producers and dealers still enjoy high patronage from the consumers because the law of demand/supply has it that high demand of a product leads to high product supply and high profit while low demand of a product leads to low supply and consequently low profit.

The study through the use of articulated questions in the interview schedule tried to ascertain whether the target audiences of NAFDAC media campaign messages (the products' consumers) were knowledgeable about the persistent proliferation of counterfeit medication drugs and substandard food products in the Nigerian markets. The paper also sought to investigate the probable knowledge gap that perhaps the persistent proliferation of these products in Nigerian markets could be as a result of the products consumers' lack of knowledge about the inherent dangers of purchasing and consuming these products to human health. The major findings of the study were that the medication drugs and food products consumers were knowledgeable about the existence or prevalence of counterfeit medication drugs and substandard food products in the Nigerian markets. They were knowledgeable about these products prevalence mainly from NAFDAC enlightenment media campaigns, the funny/bad taste of the products, and from what other people say about the products. This implies that NAFDAC is really campaigning about the products and that consumers were in the know of the campaign messages.

On whether the consumers were knowledgeable about the inherent dangers of purchasing and consuming the fake products, the findings revealed that they were quite knowledgeable about the dangers but continue to patronize the fakers and dealers because they seem not to have alternatives. From the findings, it can be concluded that the continuous proliferation of counterfeit medication drugs and substandard food products in the Nigerian markets is not because the consumers are not knowledgeable about the inherent dangers of consuming the products. They are quite knowledgeable but since all of us cannot be drugs producers, we buy the ones we see on the ground and that we can afford. At times, low cost of some the counterfeit and substandard products attract buyers to them. Consumers' inability to differentiate between genuine and fake products is also a factor with the high sophistication in drug production and packaging. The technology used in detecting fake drugs is grossly inadequate and is not attached to all drugs for consumers to scratch and detect fake drugs before purchase. NAFDAC can hardly win the

war against faking and sub standardization of products as long as faking environment remains fertile in Nigeria. No amount of media campaign against faking can do the magic.

### **Recommendation**

The researchers recommend that stiffer punishment should be meted on drug and food products fakers to really force the products out of markets. Also, the high cost of medication drugs and food products should be brought low to make them affordable to consumers knowing full well that medicines rank second only to food as a household expenses because people are bound to be sick and need drugs for treatment and cure. There should be designated pharmacies and authorized distribution centers in various communities where consumers should be directed to buy their drugs. NAFDAC and other policy makers should strengthen regulatory capacity to ensure good production practices and better quality control of drugs and food products. NAFDAC should also sustain its enlightenment media campaigns while government should make funds available and supervise how the fund is used in purchasing equipment necessary for testing and analyzing drugs.

### **References**

- Adebayo, A. (2017). Fake medicine in Nigeria-when the drugs don't work. Retrieved from <https://www.lexology.com> 11-04-2020.
- 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. 3-4-2009.
- Anyebe, G. (2015). How fake and substandard products threaten the economy. Retrieved from <https://conomicconfidential.com> 22-04-2020
- Beargie, S. et al (2019). The economic impact of substandard and falsified antimalarial medications in Nigeria. Retrieved from <https://journals.plos.org> 11-04-2020
- Blackstone, E. A. *et al* (2014). The health and economic effects of counterfeit drugs. Retrieved from <https://ncbi.nlm.nih.gov> 30-03-2020
- FDA U. S. Food and drug (2019). Counterfeit medicine. Retrieved from <https://fda.gov> 07-04-2020
- Keuntjes, K. (2019). What is a public awareness campaign? Retrieved from <https://rasmussen.libanswers.com> 11-04-2020.
- National Academy of Sciences (2013). Countering the problems of falsified and substandard drugs. Retrieved from <https://ncbi.nlm.nih.gov> 07-04-2020
- Naturopaths & Herbalists Association of Australia (n. d.). What is herbal medicine? Retrieved from <https://nhaa.org.au> 15-04-2020
- Omojokun, J. (2013). Regulation and enforcement of legislation of food safety in Nigeria. Retrieved from <https://www.intechopen.com> 22-04-2020
- 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.
- Onyenucheya, A. (2018). Tackling fake medicines, food products. Retrieved from



<https://guardian.ng> 11-04-2020

Shetty, P. (2011). Counterfeit drugs: Facts and figures. Retrieved from <http://scidev.net>  
26-03-2020

Zamawe et al (2016). The impact of a community driven mass media campaign on the  
utilization of maternal health care services on rural Malawi. Retrieved from  
<https://researchgate.net> 02-04-2020