

INFLUENCE OF PATIENT TOWARD NAFDAC IDENTIFIED COUNTERFEIT DRUGS IN PORT HARCOURT CITY LOCAL GOVERNMENT AREA OF RIVERS STATE. IMPLICATION FOR COUNSELLING

SUNDAY NSIRIMOBİ ORDU, PhD.

Department of Educational Psychology, Guidance and Counselling
Ignatius Ajuru University of Education
Port Harcourt

Abstract

The study investigated the perceived attitude of patient towards NAFDAC identified counterfeit drugs in Port Harcourt City Local government area of Rivers State. Three hypotheses were raised to guide the study. The study adopted a descriptive survey design using three hundred (300) patients drawn from four (4) healthcare centres through a purposive random sampling technique. Instrument for data collection was a self-developed questionnaire of 10 items questionnaire scale with responses anchored on the modified four likert points of strongly agree, agree, strongly disagree and disagree. The instrument was validated by the experts in measurement and evaluation in Department of educational psychology Guidance and Counselling in Ignatius Ajuru University of Education Port Harcourt. Independent t-test was used to test hypotheses at 0.05 level of significance. The findings of the study revealed that gender, level of education and socio-economic status significantly influenced the attitude of patients towards counterfeit drugs. Therefore, the study recommended that all health workers especially non doctors and the less educated ones in the private sector must be made to mandatorily undergo regular trainings on counterfeit drugs detection conclusion were made.

Introduction

A good health care delivery system to any given society cannot be over emphasized. A healthy person is a valuable asset not only to himself, to his family, but is also to his society. To achieve an overall health, we need health care delivery systems (HCDS) that can provide high quality medical care, that are responsive to the health needs and expectations of the populations they are intended to serve, and at affordable costs. On the other hand, the efforts geared toward achieving overall health, that is, health care delivery is the prevention, treatment, and management of illness and the preservation of mental and physical well-being through the services offered by the medical, nursing, pharmaceutical, dental, clinical laboratory sciences and allied health professions (Wikipedia, 2009).

Counterfeit drug is understood to be a central challenge to the integrity of public health systems around the globe, as well as a direct threat to individual health and welfare (Finlay, 2011). Until recently, the most infamous internationally recognized dealings in fake drugs was Grahams Greens fictional account of a British fake penicillin peddler who was eliminated in the sewers of post war Vienna in the Third man (Greene, 1950). Unfortunately, hostile dealings are very much a contemporary reality (Newton et al, 2002). The prevalence of counterfeit drugs appears to be raising and has not been countered by close cooperation between pharmaceutical

companies, government and international organizations concerned with trade, health, customs and excise, and counterfeiting. The issue of drug counterfeiting has been reported mostly in local newspapers (Kelesidis, et al 2007).

There is little published medical research assessing their prevalence, public health impact, probable countermeasures (Newton et al, 2002). Studies have reported a high incidence on the availability of counterfeit drugs, however, majority of these reports do not contain quantitative data supporting these claims. The World Health Organization (WHO) defines counterfeit drugs as “drugs that have been deliberately or fraudulently mislabelled with respect to identity and/or source” (WHO, 2011). The products could include incorrect ingredients, mistake the amount of the active ingredients, or are manufactured under circumstances that lack quality control. Counterfeit drugs in Nigeria include reparations without active ingredients, toxic preparations, expired drugs that are relabelled, drugs issued without complete manufacturing information and drugs that are unregistered with the National Agency for Food and Drug Administration and Control (NAFDAC). Current estimate suggests that 10% of prescription drugs sold worldwide is counterfeits, fake or contaminated drugs, especially in parts of Africa and Asia, Nigeria inclusive the figures exceed 50% (Newton et al, 2001; Cockburn, 2002).

Counterfeit pharmaceuticals remain one of the world’s fastest growing industries. Recent trends suggest an increase in counterfeit drug sale to over \$70billion in 2010, an increase of over 90% from 2005. A report by Pfizer, a global pharmaceutical firm, on counterfeit drugs states that profits from counterfeiting today surpasses gains made from heroin and cocaine (PGS, 2007). While the issue of counterfeit drugs has long been treated as an illicit case of intellectual property infringement, the view has often masked what is in fact a public health crisis. This counter drug has in recent time affected the life and property of male and female individuals living in the glob especially those living port Harcourt Local government Area of Rivers State. Both educated and illiterate view counterfeit identified drugs at different perspectives. Most illiterate individuals in Port Harcourt Local government Area view sound and counterfeit drugs as the same due to lack of knowledge, till the counterfeit drugs starts manifesting or reacting negatively in their body system. Although the educated ones do not wish to take counterfeit drugs are identified by the NAFDAC due to the fear of its adverse implications.

Persons from high or low social economics status view counterfeit identified drugs as evil to the society. Although, those from low socioeconomic status due to poverty refuses to a large extent its health implication hence try to management it. Whereas their high socioeconomic status counterparts view it as handful to life and property of the society hence refuse to come close to it. In light of this study aimed to discuss the influence of counterfeit drugs on health delivery in Port Harcourt City Local Government Area, Rivers State. It highlights strategies which may influence policy to help eliminate the public health threat posed by counterfeit pharmaceuticals.

Hypotheses

The following hypotheses guided the conduct of this study:

- H₁: Gender does not significantly influence the attitude of patients towards NAFDAC identified counterfeit drugs.
- H₂: Educational qualification does not significantly influence the attitude of patients towards NAFDAC identified counterfeit drugs.
- H₃: Socio-economic status does not significantly influence the attitude of patients towards NAFDAC identified counterfeit drugs.

Methodology

The design of the study used here is descriptive survey design because it intends to identify and describes the current status of the problem of study and also seeks among other things, to find out the opinion held and the condition that exists in the society (Willi 2001).

The study population comprised of all patients attending primary healthcare Borikiri, Allen's Pharmacy Marine Base, medical laboratories Braithwaite Memorial Hospital Port Harcourt and primary healthcare Rumukwurushi all in Port Harcourt City Local Government Area of Rivers State. An estimate member of 2000 patients (source: medical lab attendance register BMH port Harcourt).

The study used 200 respondents as sample size. To obtain the sample for each primary health care, the stratified random sampling method (lottery method) was used. All attendance registers was collected and names given serial numbers. The numbers were put in a container and a number picked at random at a time. Numbers that were drawn constituted the sample size for the study. From each primary health care, fifty patients (50) were randomly selected. This gave every patient equal chance of being selected.

The sample size is 200 hundred patients randomly selected from primary healthcare Borokiri, Allen's Pharmacy Marine Base, medical laboratories in Braithwaite Memorial Hospital Port Harcourt and primary healthcare Rumukwurusi all in Port Harcourt City Local Government Area of rivers State, these are selected to serve as representative of the whole groups.

A self-made questionnaire was used for the study. It contained 20 items. The response format adopted for the instrument is the 4-point likert scale format of strongly agrees 4points, agree 3 points, strongly disagree 2 point and disagree 1 point.

Ten senior lecturers in the area of Measurement and Evaluation in the Department of Guidance and Counselling, Faculty of educational Psychology, Ignatius Ajuru University of Education, Port Harcourt were given the questionnaire to assess its validity independently. Of 37 items in the questionnaire, the 10 lecturers agreed that 32 items in the measure appeared to reflect the true dimensions of the variables. Also, 80% of them felt the items in the questionnaire appeared to actually measure the variables. The 32 items were used in the reliability test and in the survey study.

The result obtained through test – retest is 67 and 76 respectively which shows that the instrument is reliable for the study

All testing took place in Primary healthcare Borikiri, Allen's Pharmacy Marine Base, medical laboratories Braithwaite Memorial Hospital Port Harcourt and primary healthcare, Rumukwurusi. Participants were informed that they would complete the questionnaire, and to

follow carefully the instructions written on the first page of the questionnaire. Participants take the questionnaire home in order to have good time to fill it. Following completion of the questionnaire, participants will be a briefed and thanked for their time.

The data collected for the study were analyzed using independent t-test to test the hypothesis at .05 level of significance.

Results

Hypotheses One

H01: Gender does not significantly influence the attitude of patients towards NAFDAC identified counterfeit drugs.

Table 1: t-test statistics on the attitudinal influence of male and female patients towards NACDAC identified counterfeit drug.

Variables	N	X	SD	Calculated T-value	Critical t-value P.05	Remark
Male	150	12.62	1.94	2.2	1.96	Reject Ho
Female	150	6.69	1.45			

The table 1 above shows the mean scores, standard deviation, t-calculated and t-tabulated at the probability level of 0.05. The t-cal (2.2) is greater than the t-tab (1.96). Thus the hypothesis that “there is no significant difference between the influence of counterfeit drug on health delivery between male and female patients in Port Harcourt City Local Government Area” is rejected.

H₂: Educational qualification does not significantly influence the attitude of patients towards NAFDAC identified counterfeit drugs in Port Harcourt City Local Government Area.

Table 2: t-test of the influence of counterfeit drug on health care delivery between educated and illiterate patients

Variables	X	SD	Calculated T-value	Critical t-value P.05	Remark
Educated	150	0.47	6.7	1.96	Reject Ho
Uneducated	150	0.91			

The table 2 above shows that the calculated value of t (i.e. 6.7) is higher than the critical value (1.96). Therefore, there is a significant difference between the influence of counterfeit drug on health delivery between educated and illiterate patients in Port Harcourt City Local Government Area. The Null hypothesis is rejected.

H₀₃: Socio-economic status does not significantly influence the attitude of patients towards NAFDAC identified counterfeit drugs.

Table 3: t-test of the influence of counterfeit drug on health delivery between low and high status of patients

Variables	N	X	SD	Calculated T-value	Critical t-value P.05	Remark
Low	150	15.65	2.55	2.4	1.96	Reject Ho
High	150	10.56	0.90			

The table 3 above shows that the calculated value of t (2.4) is higher than the critical value (1.96), therefore there is a significant difference between the influence of counterfeit drug on health delivery between low and high socio-economic status of patients in Port Harcourt City Local Government Area. The null hypothesis is hereby rejected.

Discussion of findings

The hypothesis one revealed that there is a significant difference on the influence of counterfeit drug on health delivery between male and female patients in Port Harcourt City Local Government Area, with the t-cal 2.2) greater than the t-tab (1.96) which indicated that 'age' and 'gender' factor influence decision of buying counterfeits drug.

Hypothesis two in the same vein showed a significant difference between the influence of counterfeit drug on health delivery between educated and illiterate patients in Port Harcourt City Local Government Area. This finding falls in agreement that of Nia and Zaichkowsky (2000) who stated that educated consumers are often able to distinguish counterfeits from genuine brands based on differences in price, the distribution channels, and the inferior quality of the product itself.

Hypothesis three showed that socio-economic status influenced the attitude of patients towards counterfeit drugs. This finding is supported by the finding of Norum and Cuno (2011) that the consumption of counterfeit products is influenced by demographic and socio-economic variables. Therefore, understanding the factors influencing consumers' attitude toward counterfeit drugs is important, especially as studies have shown that up to half of respondents would knowingly buy counterfeit goods when available.

Conclusion

Solving the counterfeit drugs problem is important to ensure that patients do not lose faith in the benefits of pharmaceuticals and become non-adherent with their treatments. The findings from this study extend the understanding of the perceived attitude of patients towards NAFDAC identified counterfeit drugs among patients and they point out the need for designing and implementing continuing educational programs among them. It can be concluded that an intensive public awareness campaign is needed regarding the potential dangers represented by medicines purchased from illegal sources and to emphasize the important of purchasing medicine from professional reliable sources. In addition, it is also necessary to draw the attention of the health care professionals (physicians, pharmacists) on these present and pressing issues.

Recommendations

In the light of the findings made in this study, it was recommended that:

- 1) Early intervention is provided by doctors and other health care professional with the necessary tools to detect counterfeit drugs.

- 2) All health workers especially non doctors and the less educated ones in the private sector must be forced to mandatorily undergo regular trainings on counterfeit drugs detection. To increase accessibility to such trainings, they could be organized at the trade union levels and then invite qualified resource persons to conduct the trainings.
- 3) Education and knowledge go beyond spreading the word about the dangers of using counterfeit drugs for non-medial purposes. Accumulated data on counterfeit drugs should be analyzed to provide trend information to health care professionals and to the public.
- 4) Public health initiatives should be introduced to disseminating information, the government should be interested in taking an active role in creating public health initiatives that can reduce counterfeit drugs.
- 5) Counterfeit drugs monitoring programs should be designed to help law enforcement officials. Databases should be set up to help with information and evidence gathering. Illegal activities associated with prescription drug abuse can be tracked and prosecute, when appropriate.

Implications of the Study for Counselling

The study demonstrated the vulnerability of pharmacists and patients in their ability to detect counterfeit drugs, and their reliability on a system that would control the safety and quality of available medicine. Additionally, the study demonstrated the need for regulatory authorities to reactivate the central laboratory in order to regularly and randomly sample the medicines at appoint of entry into the country and randomly at different locations where medicines are available. Collaboration between the NAFDAC, pharmacists, pharmaceutical companies, and parties involved in the pharmaceutical supply chain would be considered a necessity, to control the influx of counterfeit drugs in order to prevent it from reaching patients. The collaboration between NAFDAC and all stakeholders should be on three main areas: prevention, incident handling and investigation. Educating the public and pharmacists, and all stakeholders would be considered essential; to control and prevent counterfeit drugs. Future campaigns may need to put more efforts on using different approaches than what was used before, to reach more people. Furthermore, the results demonstrated the need to establish a well-structured reporting system for the public, and the need for the government and regulatory authorities to implement and enforce the counterfeiting law.

The educational programmes would need to be organized on regular bases, as conferences, training sessions, e-learning programmes, and workshops. Official sites could be referred to for practical advice on identifying and preventing distribution of counterfeit drugs such as WHO (World Health Organization, 2015), Royal Society of Great Britain (Royal Pharmaceutical Society of Great Britain, 2009), and the International Pharmaceutical Federation (International Pharmaceutical Federation, 2015a). Pharmacists are expected to be aware of counterfeit drugs, responsible and vigilant, especially in choosing the most reputable and reliable sources for the medicine supply. Moreso wisdom has shown, it is less expensive to buy genuine or original products than the fake once and much more expensive when you buy

cheap counterfeit drugs or pre-cuts. Therefore, male and female, the poor and the rich, educated and uneducated should develop the attitude, and desire for genuine drugs.

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