

PUBLIC SERVICE CAMPAIGNS AND CITIZENS' AWARENESS OF FAKE DRUGS AMONG RESIDENTS OF UYO METROPOLIS

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Abstract

This study examines the role of public service campaigns in raising awareness about fake drugs among residents of Uyo metropolis. The objectives were to assess residents' exposure to these campaigns, evaluate their impact on awareness, and identify other factors that shape citizens' understanding of fake drug problems in Uyo metropolis. Using a survey method, 384 copies of questionnaire were distributed to residents of Uyo metropolis, with 353 valid responses analysed. Results revealed high exposure to NAFDAC campaigns, with the "NAFDAC and your Health" initiative being most prominent (Mean = 3.87, SD = 0.39). Respondents demonstrated good knowledge of fake drug identification methods, particularly recognising NAFDAC registration numbers (Mean = 2.74, SD = 0.52). Factors such as access to social media, internet, and constant electricity significantly influenced awareness levels. The study concludes that while public service campaigns have effectively raised basic awareness, challenges remain in translating this knowledge into safe purchasing behaviours. Recommendations include diversifying communication channels, emphasising practical identification methods, and addressing infrastructural challenges.

Keywords: Fake drugs, Public service campaigns, Health awareness, Practical identification method, Communication channels

1.0 Introduction

Fake drugs pose a significant threat to public health globally, with particularly severe consequences in developing countries like Nigeria. The World Health Organisation (2006) defines fake drugs as medicines that are deliberately and fraudulently mislabelled with respect to identity and/or source. These counterfeit products often contain insufficient quantities of active ingredients, toxic substances, or no active ingredients at all. As a result, consumers do not receive the full treatment benefits, leading to delayed recovery or even fatalities.

In Nigeria, the prevalence of fake drugs has been a persistent challenge, prompting the establishment of the National Agency for Food and Drug Administration and Control (NAFDAC) to regulate and control counterfeit drugs. Despite NAFDAC's efforts, the circulation of fake drugs remains a critical issue, especially in grassroots areas where access to information and quality healthcare is limited. This study focuses on examining the role of public service campaigns in raising citizens' awareness about fake drugs among residents of Uyo, the capital city of Akwa Ibom State in Nigeria.

Public service campaigns have long been recognised as an effective tool for disseminating health information and influencing public behaviour. Atkin (2001) argues that the effectiveness of such campaigns depends not only on the quantity and quality of messages but also on the difficulty of achieving the intended outcome and the receptivity of the audience. In the context of fake drugs, these campaigns aim to educate the public about the dangers of counterfeit medications and promote safe drug consumption practices.

Uzochukwu and Chinedu-Okeke (2017) reveals several factors contributing to the proliferation of fake drugs in Nigeria. Uzochukwu and Chinedu-Okeke (2017) identify economic factors, poor health-seeking behaviour, and a chaotic drug distribution system as key drivers. The adverse economic situation in the country has led to a preference for cheaper, often counterfeit drugs. Additionally, self-medication practices and the patronage of unlicensed drug vendors increase the risk of consuming fake drugs.

NAFDAC has employed various communication strategies to combat the menace of fake drugs, including television and radio programs, posters, and community outreach efforts. However, Ude-Akpeh, Onyima, and Job (2019) argue that these campaigns may not effectively reach vulnerable populations, particularly those in rural areas with limited access to media and low literacy levels. They suggest that more targeted and context-specific communication approaches are needed to address the issue effectively.

The Health Belief Model (HBM) provides a useful framework for understanding how individuals perceive health threats and make decisions about health behaviours. Applied to the context of fake drugs, the model suggests that individuals' awareness and actions are influenced by their perceived susceptibility to the risks of fake drugs, the perceived severity of the consequences, and their belief in the effectiveness of preventive measures (Widodo & Suharmiati, 2021).

While previous studies have examined the prevalence of fake drugs and the general impact of public health campaigns, there is limited research specifically addressing the effectiveness of public service campaigns on fake drug awareness in Uyo. This study aims to fill this gap by investigating how residents of Uyo respond to and are influenced by NAFDAC's public service campaigns on fake drugs.

1.1 Objectives

The objectives of this study were to:

- i. Assess the level of exposure of Uyo residents to public service campaigns on fake drugs.
- ii. evaluate the extent to which the public service campaigns have contributed to shaping awareness of fake drugs among residents of Uyo metropolis.
- iii. identify other factors that influence Uyo residents' awareness of fake drugs.

1.2 Research Questions

To guide this investigation, the following research questions were formulated:

- i. What is the level of exposure of residents of Uyo to public service campaigns on fake drugs?
- ii. To what extent have the public service campaigns contributed to shaping awareness of fake drugs among residents of Uyo metropolis?
- iii. What are the other factors that influence awareness of fake drugs among residents of Uyo metropolis?

2.0 Conceptual Clarifications

2.1 Exposure to public service campaigns on fake drugs: The concept of public service campaigns refers to the educational and informational initiatives undertaken by government agencies, such as the National Agency for Food and Drug Administration and Control (NAFDAC), to raise awareness about the dangers of counterfeit or substandard pharmaceutical products among the general public (Uzochukwu et al., 2012). These campaigns are designed to disseminate information through various communication channels, including radio, television, print media, and community outreach programs, with the aim of informing and empowering citizens to recognise and avoid fake drugs (Salihu et al., 2014).

2.2 Impact of public service campaigns on citizens' awareness: Citizens' awareness denotes the level of knowledge, understanding, and recognition that residents of Uyo metropolis have regarding the issue of fake drugs (Ude-Akpeh et al., 2019). This awareness encompasses individuals' ability to identify the characteristics of counterfeit medicines, the risks associated with their consumption, and the recommended strategies for avoiding such products (Isah et al., 2018). Public service campaigns play a crucial role in shaping this awareness by providing citizens with the necessary information and tools to make informed decisions about their healthcare purchases.

2.3 Factors influencing awareness of fake drugs: In addition to public service campaigns, various other factors can influence citizens' awareness of fake drugs. These include access to social media and the internet, as well as the availability of reliable electricity supply within the community (Salihu et al., 2014; Uzochukwu & Chinedu-Okeke, 2017). The accessibility and quality of these infrastructural and technological resources can either facilitate or hinder the dissemination and reception of information about counterfeit

medicines, thereby impacting the overall awareness levels among Uyo residents.

2.4 Fake drugs: Fake drugs, also known as counterfeit or substandard drugs, are pharmaceutical products that are deliberately and fraudulently mislabelled with respect to their identity, composition, or source (Isah et al., 2018). These illicit products pose a significant threat to public health, as they may contain harmful substances, lack the active ingredients necessary for treatment, or be completely ineffective, potentially leading to adverse health consequences for consumers (Ude-Akpeh et al., 2019). Understanding the concept of fake drugs is crucial in the context of this study, as it forms the basis for examining the role of public service campaigns in raising awareness and promoting safe purchasing practices among residents of Uyo metropolis.

3.0 Review of Related Literature

The existing body of literature has extensively explored the role of public service campaigns in addressing public health issues, including the menace of fake drugs. Uzochukwu et al. (2012) emphasised the importance of using a multi-channel communication strategy, incorporating various media platforms such as radio, television, and community outreach programs, to effectively reach and educate the target population about health-related topics. The researchers argued that the use of diverse communication channels increases the likelihood of the message being received and internalised by the audience, ultimately enhancing the campaigns' impact (Uzochukwu et al., 2012).

Building on this notion, Ude-Akpeh et al. (2019) advocated for the need to adopt context-specific communication approaches that resonate with the local community. The researchers posited that public health campaigns should be tailored to the unique cultural, social, and economic factors prevalent in the target region to ensure the message's relevance and effectiveness (Ude-Akpeh et al., 2019). This is particularly relevant in the case of addressing the fake drug problem, as the challenges and perceptions surrounding counterfeit medicines may vary across different geographical and socioeconomic contexts.

Regarding the impact of public service campaigns on citizens' awareness, Isah et al. (2018) found that general public knowledge about counterfeit medicines was high. Their study, conducted in Nigeria, revealed that the majority of respondents were aware of the existence of fake drugs and could identify some common characteristics associated with these products. However, the researchers noted that despite this widespread awareness, translating this knowledge into safe purchasing behaviours remained a challenge (Isah et al., 2018). This suggests that while public service campaigns may be effective in raising basic awareness, there are additional factors that influence the translation of this awareness into tangible actions.

In line with this observation, Salihu et al. (2014) highlighted the role of digital platforms, such as social media and the internet, in disseminating health information and influencing awareness levels. The researchers emphasised the growing importance of leveraging these contemporary communication channels to reach and engage with the target audience, particularly the younger demographic (Salihu et al., 2014). This is especially relevant in the context of the current study, as access to digital technologies and the internet may play a significant role in shaping Uyo residents' awareness and understanding of the fake drug problem.

Furthermore, the literature suggests that factors beyond public service campaigns can shape citizens' awareness of fake drugs. Uzochukwu and Chinedu-Okeke (2017) identified economic factors, such as affordability and accessibility, as contributors to the proliferation of counterfeit medicines. These economic barriers may indirectly impact awareness levels, as individuals' purchasing decisions and perceptions of fake drugs could be influenced by their financial constraints and the availability of affordable healthcare options (Uzochukwu & Chinedu-Okeke, 2017). This underscores the need to consider the broader socioeconomic context when examining the factors shaping citizens' awareness and behaviours regarding counterfeit pharmaceuticals.

4.0 Relevant Theories

This study draws on the Health Belief Model (HBM) to understand the factors influencing citizens' awareness of fake drugs. The HBM, proposed by

Rosenstock (1974), is a widely used theoretical framework in public health research and practice. The model posits that an individual's likelihood of engaging in a health-related behaviour is determined by their perceived susceptibility to the health threat, the perceived severity of the threat, the perceived benefits of the recommended action, and the perceived barriers to taking the action (Marks, Kalaitzandonakes, Wilkins, & Zakharova, 2016).

In the context of this study, the HBM suggests that residents' awareness and subsequent actions to avoid fake drugs are influenced by their perceptions of the risks associated with counterfeit medicines and the benefits of adopting safe purchasing practices. For example, if Uyo residents perceive themselves as susceptible to the dangers of fake drugs and believe the consequences to be severe, they may be more likely to heed the recommendations from public service campaigns. Similarly, if they recognise the benefits of purchasing medication from registered pharmacies or healthcare facilities, and perceive minimal barriers to doing so, they may be more inclined to engage in these safer behaviours (Jones et al., 2015; Carpenter, 2010). The HBM provides a valuable theoretical lens through which to examine the cognitive and perceptual factors shaping citizens' awareness and protective actions regarding counterfeit pharmaceuticals.

5.0 Materials and Methods

This study employs a survey method to investigate the role of public service campaigns on citizens' awareness of fake drugs among Uyo residents, Akwa Ibom State. The population comprises all 1,329,000 Uyo residents (Macrotrends, 2022). Using the Phillip Meyer sampling method, a sample size of 384 respondents was determined. Purposive sampling was utilised to select respondents meeting the criteria of being residents of Uyo metropolis and are exposed to public service campaigns about fake drugs.

Self-administered questionnaires were designed based on the research objectives and questions. The questionnaire contained two sections - section A with items related to the research variables and questions, and section B with demographic items. Copies of questionnaire were hand-distributed to respondents in Uyo metropolis and collected back when completed. This approach enabled researchers to access the target population of residents of

Uyo metropolis, as well as explaining the survey and instructions to participants.

The questionnaire was structured to gather information on respondents' level of exposure to public service campaigns on fake drugs, their awareness and understanding of the issue, and other factors influencing their knowledge about fake drugs. Questions were designed to assess the effectiveness of various campaign channels, including radio, television, posters, and community outreach programmes. Collected data was analysed statistically using SPSS software.

6.0 Results of Findings

The researchers distributed 384 copies of questionnaire to residents of Uyo metropolis. Out of these, three hundred and fifty-three (353) copies were successfully retrieved, representing a return rate of 92%. This high response rate ensures that the data collected is representative of the target population.

Table 1: Knowledge of fake or counterfeit drugs

Response	Frequency	Percentage
Yes	353	100%
No	0	0%
Total	353	100%

The above data indicate unanimous awareness of fake or counterfeit drugs among the respondents. This portrays that all participants (100%) have heard of fake or counterfeit drugs, suggesting a high level of basic awareness about the issue in the surveyed population.

Table 2: Level of exposure to public service campaigns on fake drugs

Campaign Type	Always	Sometimes	Rarely	Never	Mean	SD
NAFDAC and your Health	315	31	7	0	3.87	0.39
NAFDAC consumer safety club	266	77	10	0	3.73	0.49
Enlightenment campaign on fake drugs	242	61	50	0	3.54	0.72
NAFDAC Bulletin	264	71	18	0	3.70	0.54
Town Hall Meetings	271	51	31	0	3.68	0.63
Email marketing	281	62	10	0	3.77	0.48
Pop up messages	258	74	21	0	3.67	0.57

The weighted mean scores range from 3.54 to 3.87, indicating a high level of exposure to various NAFDAC campaigns on fake drugs. The "NAFDAC and your Health" campaign had the highest mean score (3.87), suggesting it was the most frequently encountered campaign. The standard deviations (0.39 to 0.72) indicate relatively low variability in responses, with the "Enlightenment campaign on fake drugs" showing the most diverse responses (SD = 0.72).

Table 3: Ways to identify fake drugs

Identification Method	Yes	No	Can't Say	Mean	SD
NAFDAC registration number	271	71	11	2.74	0.52
Expiry date	229	109	15	2.61	0.59
Taste of drug	303	32	18	2.81	0.49
Mobile Authentication Service (QR code)	255	87	11	2.69	0.54
Appearance of drug	232	100	21	2.60	0.62

The weighted mean scores range from 2.60 to 2.81, indicating a moderate to high level of awareness of various methods to identify fake drugs. The taste of the drug was the most recognized method (Mean = 2.81, SD = 0.49), followed by the NAFDAC registration number (Mean = 2.74, SD = 0.52). The relatively low standard deviations suggest consistency in responses across the sample.

Table 4: Factors influencing awareness of fake drugs

Factor	Always	Sometimes	Rarely	Never	Mean	SD
Access to social media	232	62	38	21	3.43	0.88
Access to the internet	209	81	16	47	3.28	1.02
Exposure to NAFDAC campaigns	237	73	26	17	3.50	0.83
Constant electricity in community	254	57	17	25	3.53	0.88
Knowledge of medical personnel	204	76	47	26	3.30	0.96

The weighted mean scores range from 3.28 to 3.53, indicating that these factors have a moderate to high influence on awareness of fake drugs. Constant electricity in the community had the highest mean (3.53, SD = 0.88), followed closely by exposure to NAFDAC campaigns (Mean = 3.50, SD = 0.83). The standard deviations (0.83 to 1.02) suggest some variability in responses, with access to the internet showing the most diverse responses (SD = 1.02).

Table 5: Ways to avoid buying fake drugs

Method	Yes	No	Can't Say	Mean	SD
Patronize registered pharmacy	311	33	9	2.86	0.42
Buy from drug sellers inside bus	39	269	45	1.42	0.65
Check for NAFDAC registration number	298	33	22	2.78	0.53
Go to hospital or primary healthcare	316	25	12	2.86	0.43
Buy from roadside drug sellers	41	273	39	1.44	0.64

The data indicates varying levels of awareness about safe drug purchasing practices. Patronising registered pharmacies (Mean = 2.86, SD = 0.42) and going to hospitals or primary healthcare centres (Mean = 2.86, SD = 0.43) were the most recognised methods to avoid buying fake drugs. Conversely, buying from drug sellers inside buses (Mean = 1.42, SD = 0.65) and roadside drug sellers (Mean = 1.44, SD = 0.64) were correctly identified as risky practices by most respondents. The low standard deviations indicate consistent responses across the sample for most methods, with slightly more variability in opinions about buying from unofficial sellers.

7.0 Discussions of Findings

The findings of this study provide valuable insights into the role of public service campaigns in raising awareness about fake drugs among Uyo residents. The results address the three research questions posed at the outset of the study.

Regarding the level of exposure to public service campaigns on fake drugs, the study reveals a high level of engagement with NAFDAC's initiatives. This aligns with findings from Uzochukwu et al. (2012), who emphasised the importance of multi-channel communication strategies in public health campaigns. The "NAFDAC and your Health" campaign showed the highest exposure (Mean = 3.87, SD = 0.39), suggesting that targeted health-focused messaging may be particularly effective.

Concerning the role of public service campaigns in shaping awareness, the study demonstrates that these campaigns have successfully educated residents about methods to identify fake drugs. This supports Ude-Akpeh et al.'s (2019) argument for the need for context-specific communication approaches. The high recognition of the NAFDAC registration number (Mean = 2.74, SD = 0.52) as an identification method indicates the effectiveness of regulatory-focused messaging.

Other factors influencing awareness of fake drugs included access to social media, internet, and exposure to NAFDAC campaigns. This finding resonates with Salihu et al.'s (2014) study, which highlighted the importance of digital platforms in disseminating health information. The high influence of constant electricity (Mean = 3.53, SD = 0.88) on awareness underscores the role of infrastructure in facilitating access to information.

The unanimous awareness of fake drugs among respondents (100%) suggests that basic knowledge about the issue is widespread, echoing Isah et al.'s (2018) findings on public knowledge of counterfeit medicines. However, the varied responses to safe purchasing practices indicate that while awareness exists, translating this knowledge into safe behaviours remains a challenge.

These findings collectively suggest that while public service campaigns have been effective in raising awareness about fake drugs, there is still room for improvement in guiding safe purchasing behaviours. Future campaigns may benefit from focusing on practical strategies for avoiding counterfeit medications, particularly in light of the persistent economic factors identified by Uzochukwu and Chinedu-Okeke (2017) that contribute to the proliferation of fake drugs.

8.0 Conclusion

This study examined the role of public service campaigns in raising awareness about fake drugs among Uyo residents. The findings reveal a high level of exposure to NAFDAC's campaigns and a general awareness of the issue of counterfeit drugs. The study demonstrates that public service campaigns have been effective in educating residents about methods to identify fake drugs and promoting safe purchasing practices. However, challenges remain in translating this awareness into consistent safe behaviours. The influence of factors such as access to social media, internet, and constant electricity highlights the importance of a multi-faceted approach to public health communication. While the campaigns have successfully raised basic awareness, there is a need for more targeted messaging to address specific behaviours and overcome economic barriers that contribute to the proliferation of fake drugs. Overall, the study underscores the crucial role of public service campaigns in combating the fake drug menace in Uyo and provides insights for future campaign strategies.

9.0 Recommendations

- ✱ NAFDAC should diversify its communication channels, focusing on platforms with high engagement rates like social media and mobile applications, to increase residents' exposure to fake drug awareness campaigns.
- ✱ Future campaigns should emphasise practical, actionable methods for identifying and avoiding fake drugs, moving beyond basic awareness to promote behaviour change in purchasing practices.
- ✱ Public health initiatives should collaborate with relevant sectors to address infrastructural challenges, such as electricity access, that impact residents' ability to receive and act on information about fake drugs.

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