



A Focus on Sellers of Alcohol Based Medicinal Beverages (Home-made Beverages) in Uyo, South-South, Nigeria

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Abstract

The goal of this study was to gain a better understanding of the sellers' characteristics and the practices related to the production and sale of these products. Qualitative data were collected through semi-structured interviews and participant observation. The study adopted the Grounded theory as the theoretical framework to guide the study. The sample for the study were twenty-two (22) sellers of the home-made medicinal beverages, due to the itinerant nature of the business, the purposive-snowball sampling techniques was adopted. Data collected were used to analyse some recent trends in drug dependence situation in Nigeria. Among other things, findings suggested that the consumption of the Home-made beverages was reported to be dependent on the clients' demand rather than on any standardized diagnosis of clients' ailment. It also demonstrated the potential dangers in the sale of the medicinal beverages, leading to potential safety concerns, uncontrolled (unregulated) practices amongst others. The efforts of established government regulatory bodies such as NDLEA (National Drug Law Enforcement Agency) and NAFDAC (National Food Law Administration and Control) seem to focus more on orthodox medicines, to the neglect of the activities of the sellers of Home-made medicinal beverages, this constitutes a significant threat to the health of the citizenry. It was concluded that future researches should focus on better understanding the regulation of these products and exploring potential strategies for improving safety.

Key words: Medicinal Drugs, Home-made beverages, Local remedies, Medicinal beverages, Self-prescription

1) Introduction

Several researchers (Olatunde, 1979; Sogunro & Ogunremi, 1980; Braide & Udoh, 1986; Ojiji & Okediji, 2004; Nwaiwu et al., 2020) have studied the increased incidence of self-medication in contemporary Nigerian society. Self-medication as an aspect of drug abuse *has* been attributed to the apparent collapse of primary/public health infrastructure, and also the decrease in the effort of successive government towards improving health infrastructure. The problem is compounded by the geometrical population increase (according to the *2022 U.N Revision*, rational population estimate has been estimated at Two Hundred and twenty-four million, two- hundred and twenty-two and the growth rate of 3% as (United Nations Data, n.d). There is a problem relating to mass illiteracy and poverty of knowledge about the potential dangers associated with self-medication. Additionally, the high cost of accessing orthodox medicine has resulted in many of the people relying on alternatives to solving their various problems, particularly health-related ones.

In recent times, herbal remedies have enjoyed the publicity and sometimes sponsored advertisement to promote local substitutes as an alternative to Western medicines which has brought about a new lease of life for hundreds of people who depend on folk remedies for various sicknesses. As a result of this, the age-old controversy as to whether the traditional medicinal practices should cohabit with Western medical practice is being revisited. Usually, the home-made remedies are prepared as herbs, which are consumed in many ways, such as, in teas, decoctions, tinctures, and poultices. Teas are made by pouring boiling water over an herb, while decoctions made from such things as herbal roots and barks are boiled in water to release their active ingredients. Tinctures are herbs extractions made with the help of pure or diluted spirits of alcohol, or brandy, or vodka. Then, there are poultices, which can be prepared in various ways. Usually, they are applied to a diseased or painful body part (Sofowora, 2008).

The consumers of most of the home-made remedies depend solely on the information and conviction about the potency and efficacy by the sellers (sellers' prescription). The ingredients from which the seller claimed their beverages are made from; include herbal barks and roots, spirits/ethanol, water, citrus species (lime, grapes), garlic and ginger. The home-made remedies when ready, are sold based on complaints explained by the consumers to the sellers. Most of the ailments, which the sellers claimed the home- made remedies had been used to cure, include headache, fever, stomachaches, pile, backache, migraine, and impotence.

In discussing the dangers involved in the use of these home-made medicinal beverages, researchers (Olatunde, 1979; Ojiji & Okediji, 2004) asserted that many people had attempted suicide because of their ignorance. They continued that we take it for granted that apart from those with disturbed minds, nobody wants an early death'. To buttress this assertion, Olatunde (1979) have also observed that the over-enthusiastic medications without medical advice or completely wrong medication that does comply with the doctor's diagnosis and prescription has killed, or nearly, killed many.

Certainly, the Home-made remedies or herbal medicines as they are commonly called might have benefited many people, as a result of the structural collapse of the health care delivery system. It is important to emphasize that, what remains puzzling is not in the use of the home-made remedies, but the concern lies in the social cost of the misuse/abuse of the home-made beverages. According to Mabadeje and Bawole (1979), the distasteful fact remains that some herbs are downright dangerous, as some people do

not just give any herb- dangerous or benign - the appropriate respect. Chemical compounds in herbs can alter the physiology of the body, such as a change in heart rate, blood pressure, and glucose levels. Hence, people with cardiac problems, high blood pressure or blood-sugar disorders such as diabetes must be especially cautious. The side effects of herbs are usually limited to allergic-type reactions.

These include headaches, dizziness, nausea, or rash. Herbs are also said to prompt a "healing crisis" by producing flulike or other symptoms such that the one taking herbs may appear to get worse before getting better. It is generally claimed that this reaction is caused by toxic wastes being removed from the body during the early stages of herbal therapy. The mortality occasionally related to certain herbal products underscores the need for caution and sound guidance where such exist at all.

Obot (1999) observed that many of the drug-related studies had discussed the aetiology, causes, medical, and psychological factors associated with the initiation and maintenance of the self-administered drugs. However, according to researchers (Odejide, 1982; Sogunro & Ogunremi, 1980), the findings of most of the studies remain equivocal. Therefore, the objective of this study is to provide more useful information in addition to the pool of data available on the use of drugs without qualified professional help and the implications of this for public safety. Most of the studies on drug use and misuse in Nigeria appears to be dominated by concerns with drugs of western origin and those well documented in western literature. Thus, an array of illicit drugs used for recreative purposes which include Cannabis, ecstasy (*methylenedioxy-methamphetamine* or *MDMA*), *LSD* (*Lysergic acid diethylamide*), Uppers (stimulants like *amphetamine* and *cocaine*, downers, (depressants like tranquillizers), *heroin* and *Tobacco* among others, have been reported to be abused by some segments of the Nigerian population (Obot, 1993; Obot et al., 2001; Obot et al., 2003; Usoro et al., 2017).

In many cases, studies of drug use and misuse also rely on self-report of use by respondents. The usual practice is that respondents are presented with a list of substances and asked to indicate which ones they take and the quantity consumed at a sitting. For instance, Achuen and Ojiji (2001) in their study, asked construction workers to indicate their use of common substances including *alcohol*, *tobacco*, *cannabis* and other hard drugs. They found the use of these drugs by these construction workers to be widespread and consequently warned of the dangers to the society, particularly the workplace. Similarly, Ebie (1990) investigated the use of different alcoholic beverages in two urban areas, Benin City and Ibadan, in Nigeria. Using a random sample of school boys and girls respectively from both cities, though heavy drinking was rare in either city, alcohol consumption was found to be common among the young people, with the majority of respondents having their first drink of an alcoholic beverage between the ages of 11 and 15 years. This finding led to the conclusion that preventive programs should start early.

For a comprehensive collection of past studies (see for instance, Adelekan et al., 1993; Dunne & Schipperheign, 1989; Harris et al., 1986; Obot 1990; Nelson, 2016; Akinawo & Uzonwanne, 2016) on the Nigerian drug problem, the majority of which focused on western drugs (licit and illicit drugs). The major problem with some of these studies is that most of the researchers studied drugs that have been recognized in medical literature as substances frequently abused with their intent to uncover the epidemiology, morbidity, mortality and public safety in Nigeria.

A significant shift in literature from studies of drugs (Okoye & Neal, 1988; Nwaiwu et al., 2020) of a western origin was the study of, which studied the effects of the

bark of *Sacoglottis gabonensis*, which is commonly used as an additive to the indigenous alcoholic beverage palm wine. Okoye and Neal's study revealed that the ingestion of ethanol alone or with bark extract for 8 days depressed the level of dietary aflatoxin B sub 1 (*AFB sub1*) bound to serum albumin, although unbound aflatoxin in the serum was depressed only by ingestion of ethanol and the bark extract together. The bark extracts with or without ethanol enhanced *AFB 1* binding to hepatic deoxyribonucleic acid (*DNA*), with concurrent ingestion causing the most significant effect and suggesting synergism. It was also found that bark extract, ethanol, and extract-ethanol together interfered with the daily excretion pattern and level of aflatoxin in the urine and enhanced *AFB sb1*-induction of liver gamma - glut amyl/Tran peptidase activity, suggesting a potentiation of toxic response *AFB sub 1*. The data from the study suggest that the addition of the bark extract to alcoholic beverages may affect the response to dietary *AFB. sub 1*. More importantly, it is evident from Okoye and Neal's study that substances not included in drugs misused or abused are also consumed and abused by the people. Of particular interest, for the present study are the lists of local substances, which do not make or documented in the list of substances by western literatures, but are consumed in Nigeria, as substitutes (alternatives/herbal medicines).

Similarly, Nwaiwu et al. (2020) conducted a thorough review of approximately 90 articles focused on microorganisms in traditional Nigerian beverages which revealed key findings. These articles shed light on the dominant microorganisms found in various drinks like soymilk, *nono*, tiger nut milk, yoghurt, *kunu*, *zobo*, palm wine, *pito*, and *brukutu*. Bacterial genera such as *Bacillus*, *Escherichia*, *Lactobacillus*, *Staphylococcus*, and *Streptococcus* were consistently detected in all nine beverages. Conversely, eukaryotic microorganisms like *Saccharomyces*, *Aspergillus*, *Candida*, and *Penicillium* were consistently present, raising concerns due to their potential mycotoxin production, emphasizing the need for post-production testing. The survey also indicated interesting trends. Notably, alcoholic beverages like palm wine, *pito*, and *brukutu* showed a limited presence of hygiene-associated bacteria, especially the *Escherichia* genus, likely due to their low acidity and high ethanol content. In contrast, nonalcoholic drinks exhibited a higher prevalence of hygiene indicator genera, possibly linked to improper processing practices. Given the significant production and distribution of unregulated local beverages in Nigeria, there is an urgent need for substantial regulations and food safety standards to safeguard public health. Utilizing molecular methods for continuous monitoring and characterization of the microbial composition in artisanal beverages throughout production and storage presents an opportunity for improvement.

Furthermore, Hossain and Shahidi (2023) emphasized the importance of persimmons and their leaves in various sectors like food, beverages, pharmaceuticals, and cosmetics. Traditionally, *persimmon* leaves (PL) are used in Asian culture as a therapeutic functional tea and are also incorporated into numerous food and cosmetic products. These leaves are rich in *flavonoids*, *terpenoids*, *polysaccharides*, as well as other components like *carotenoids*, organic acids, *chlorophylls*, vitamin C, and minerals. Primary *phenolic* compounds in PL include *proanthocyanidins*, *quercetin*, *isoquercetin*, *catechin*, *flavonol glucosides*, and *kaempferol*. Prominent terpenoids comprise *ursolic* acid, *rotingenic* acid, *barbinervic* acid, and *uvaol*. These compounds possess diverse pharmacological properties, including antioxidant, anticancer, antihypertensive, antidiabetic, anti-obesity, anti-tyrosinase, antiallergic, and antiglaucoma activities. This review provides a comprehensive summary of the latest insights regarding PL, covering aspects such as its

distribution, traditional uses, industrial applications, and bioactive compounds. It also explores the potential mechanisms underlying the biological activities of these biomolecules, while considering the influence of seasonality and geographical factors on their content and functionality.

Estimates of deaths/ mortality resulting from the abuse /consumption of drugs of Western origin are often cited. It is difficult, however, to obtain a reliable estimate of deaths resulting from consumption of the local/herbal remedies and the total contribution of the herbal remedies and the total contribution of drugs to social problems in Nigeria. From the preceding, it is clear that research in this area is one in which scholarly research is long overdue. There is, thus, an urgent need for this kind of investigation of the use of home-made/local remedies in Nigeria.

2) Objective of Study

The main objective of this study was to determine the pattern of use of the home-made medicinal/herbal remedies among the population of the study and to delineate the demographic variables associated with the use and abuse of the remedies.

3) Materials and Methods

Design

The study was a survey which adopted the cross-sectional (explanatory) design. The justification for the choice of this design was because it permits a one-time observation geared collecting data to answer research questions.

Participants

The participants in the study were twenty- two (22) women drawn from Uyo township, Akwa Ibom State, Nigeria. The smallness of the sample was because the majority of the home-made/herbal beverage sellers declined participation even after they were assured of the confidentiality of the information supplied. The age of the participants ranged between 17 and 55 years, with a mean of 33.9 years and a Standard Deviation of 17.8 years. Twenty-one or 95.5% of the respondents were from Ibibio ethnic group in Akwa Ibom State with 21(95.5%) having formal education. Furthermore, 11 (50%) of the respondents were married. This study was a field survey using a multistage sampling method; the sellers of home-made medicinal in and around motor parks were selected using the purposive sampling method. Snowball sampling technique was also used to identify other sellers in other motor parks of Uyo metropolis through chain referrals.

Instrument

An in-depth interview schedule was developed by the researchers as the primary instrument used for data collection. The 12- item schedule contained the questions from which the interviewers asked sellers of home-made/herbal beverages during the face-to-face interviews. The interview format was divided into two sections (A and B): Section A was used to present the interview schedule it had questions relating to the type of medicines sold, dosage, patronage, continuity of trade, knowledge of customer's need, self-use of medicine, knowledge of efficacy, and mode of conduct of business. Section B sought demographic information relating to the participants' age and educational qualification attainment of the respondents.

Procedure

The interview sessions were conducted by the researchers and also assisted by trained interpreters as were necessary for the already mentioned settings for the study. The interviews were conducted in English or in the language of respondents for those who were not fluent in English. The researchers took cognizance of the fact that the population of the sellers was primarily made up of illiterates which informed the decision to engage interpreters who efficiently used the native language to interpret and communicate with the sellers of the home-made beverages. The questions in the interview schedule were orally read to the participants after explaining the purpose of the research to each of the participants. The responses obtained from the participants were recorded on a separate sheet of paper for each participant and later collated for all for ease of analysis. Informed consent was obtained from the participants in this study before the commencement of the interview with the participants. The participants were also informed of the fact that they could withdraw their participation any time they felt that they could no longer participate in the research.

4) Results and Discussion

The responses collected from the participants about the activities of the home-made medicinal beverages around motor parks and other itinerant sellers in Uyo Metropolis were analysed and presented in this section in line with the critical questions formulated to guide the study.

A useful starting point in the analysis of the activities of sellers of the home-made remedies is to ascertain if the activity is a recent development or an age-old practice that is only enjoying a resurgence.

i. Motivational Reasons for Involvement in Trade

Aside from the perception competition between orthodox and western medicine institutions, it was an issue to understand what motivates sellers who engaged in the trade or sale of Home-made medicines. In Table 1, the results showed that the frequency and percentages of motivational reasons why the participants are involved in the trade are presented.

Table 4.1: Frequency of motivational reasons for involvement in trade ($n = 22$)

Motivational factors	Frequency (n)	Percentage (%)
I needed money	5	22.7
Profit	6	27.3
Helping others	2	9.1
Do not know	3	13.6
Passion	1	4.6
Sake of doing something	2	9.1
Cheap business	3	13.6
Total	22	100

The table shows that the most important reason for starting the business was to make a profit (27.3%), whereas, the least motivational reason for the involvement in the trade was passion of the business 4.6% claimed they developed a likeness for the trade.

ii. Occupational categories of users of Homemade medicines

It of interest in this study to enquire about who the consumers of the homemade medicinal beverages are from the sellers. Among the occupational categories mentioned are the artisans, Blue collar jobs, cyclists, divers, and Traders. Table 4.2 presents occupational categories of clients who consume Homemade medicines

Table 4.2: Occupational Categories of Clients who consume Homemade medicines

Categories of users of home-made remedies	Frequency (<i>n</i>)	Percentage (%)
Artisans	5	11.6
Blue collar jobs	8	18.6
Cyclists	16	37.2
Drivers	10	23.3
Traders	4	9.3
Total	43	100

Table 4.2 revealed that from the list of the occupational categories mentioned the cyclists has the highest frequency (16 or 37.2%), while traders were 4 or 9.3%. of those mentioned to patronize the consumption of the homemade medicinal beverages.

iii. Reasons Why Users use Home-made Remedies

Table 4.3 highlights information about the frequency and the percentages of reasons given by participants as to why clients and majorly drivers and commercial motorcyclists consume the remedies. In the order of magnitude of the frequencies.

Table 4.3: Frequencies of reasons why users use Homemade remedies

Reasons why clients use the medicines	Frequency (<i>n</i>)	Percentage (%)
To cope with the Weather	5	22.7
For Pleasure	4	18.2
To prevent/ treat Illness	6	27.3
Other reasons	7	31.8
Total	22	100

About 7 or 31.8%) of the respondents associated consumption to others reasons; 6 or 27.3% claimed users consume the remedies to prevent or treat illness; 5 or 22.7% reported that users consume the beverage in other to cope with the weather; it also necessary also to investigate further the additional given by the users for consuming the homemade medicinal beverages, about 4 or 18.2% which was the least reason given claimed those who patronize them use it for the sake of pleasure.

iv. Common Sicknesses for which Medicinal beverages are used

The results for the various common sicknesses/ailments for which the participants in this study have prescribed their remedies to their customers are shown in Table 4.4. The result

indicate that the respondents claimed they had administered their remedies to treat common sicknesses including Headache, Body pains, Ulcer, Stomach aches and pains, Pile, malaria, Cough, Cold, Gonorrhea, and Sore Throat.

Table 4.4: Frequency of common sicknesses for which Homemade remedies are used

Name of Sickness	Frequency (n)	Percentage (%)
Headache	8	14.28
Body pains and aches	10	17.86
Ulcer/Stomachaches/pains	8	14.28
Pile	3	5.36
Malaria	16	28.57
Cough	3	5.36
Cold	4	7.14
Gonorrhoea	3	5.36
Sore Throat	1	1.79
Total	56	100

Amongst the list of the sicknesses for which Home-made remedies are used the following sicknesses which include: The highest in the magnitude of the frequency was 16 (28.57%) for malaria; while the least was sore throat 1 or 1.79%.

v. Commonly Prescribed Medicines/Remedies

The frequencies and associated percentages of the medicines for commonly prescribed medicines by sellers of Home-made medicines are presented in Table 5.

Table 4.5: Frequency of Remedies commonly prescribed by sellers to Customers

List of Homemade medicinal beverages	Frequency (n)	Percentage (%)
<i>Utasi (Gongronema latifodium)</i>	13	27.1
<i>Neem (Azadirachta indica)</i>	6	12.5
<i>Ibok Akim (Strophantus sarmenthosus)</i>	1	2.1
<i>Anio (Enantia chlorantha)</i>	1	2.1
<i>Onio eto (Allium cepa)</i>	2	4.2
<i>Ikon (Cucumis melo)</i>	1	2.1
<i>Wonderful Cola (Buccholzia coricea)</i>	2	4.2
<i>Lipton Tea (Hyptis suaveolens)</i> and Lime (<i>Cirus aurantifolia</i>)	14	29.2
<i>Nyand (Cyclicodiscus gabunensis)</i>	3	6.3
<i>Nkarika Ikot (Uvaria chamae)</i>	3	6.3
<i>Nyayaga (Oxytenoanthra ahyssstnica)</i>	2	4.2
Total	48	100

In the list of commonly prescribed remedies, the participants in this study listed 12 remedies. The following commonly prescribed remedies had the highest frequencies in the order of presentation: *Lime* and *Lipton Tea* 14 (29.2%), *Utasi* 13 (27.1%), and *Neem* 6 (12.5%) had the highest frequencies. The following medicinal beverages had low frequencies because they were not frequently consumed; these include *Ibok akim* 1 (2.1%), *Anio* 1 (2.1%), and *Ikon* 1 (2.1%). The list presented here is not exhaustive as it does not include the list of other substances that customers often request from the respondents. These are the medicines which customers have requested on the average as claimed by the participants.

vi. Knowledge of efficacy of Home-made Remedies

The result presented in Table 4.6 emphasized about how the participants claimed they get information about the efficacy of the Home-made remedy.

Table 4.6: Frequency of Knowledge about the efficacy of Homemade medicine

Reasons for overdose	Frequency (n)	Percentage (%)
Conducting test on clients	0	0
Self-administration	2	9.1
Feedback from customers	20	90.9
Total	22	100

Furthermore, the result show that sellers of home-made remedies/medicines claimed that they gained knowledge of efficacy through the following sources: Conducting test on clients 0 (0%), Self-use to observe the reaction 2 (9.1%), and feedback from customers 20 (90.9%).

vii. Reasons why clients use an overdose of Home-made Remedies

As a result of the reported abuse/misuse of local remedies, it was necessary to find out why people overdose local medicine. The frequencies of reasons given by the respondents as to why consumers overdose the medicines are presented in Table 4.7.

Table 4.7: Reasons are given as to why some clients overdose Homemade remedies

Reasons for overdose	Frequency (n)	Percentage (%)
Depends on customer need	3	13.6
Family Problem	2	9.1
Severity/nature of the illness	6	27.3
Status of the client	4	18.2
Pleasure	3	13.6
Do not know	4	18.1
Total	22	100

The study relied on responses to questions about reasons why clients overdose Home-made remedies. The sellers claimed quantity sold to a client is mostly determined

by the perceived intuitive severity or client's reported severity of clients' illness. The analysis indicates that 6 (27.3%) to be the highest for perceived severity and the lowest frequency was 2 (9.1%) for those having family problems.

viii. Knowledge of Customers Need

The study explored how the participants determined the need of their clients. Fourteen or 63.6% of the respondents reported that the sales of the medicines were based on clients' self-prescription while eight (36.4%) reported that clients sometimes buy following seller's prescription. It was essential to know if the clients' self-prescription was frequently experienced. Only seven (31.8%) indicated that self-prescription was frequent, while 15 (68.2%) reported it was not frequent among their clients. Instead, a majority of the respondents 21 or 95.55% stated the sales of home-made remedies were based on their (sellers) prescription following the analysis of the problem presented by the clients while only one (4.6%) of the respondents indicated she "rarely" prescribes the medicines to her clients.

ix. Choice of Business Location

A common trend in the dispensing of the local medicines was also established in this study. A majority of the sellers interviewed (18 or 63.6%) stated that their choice of location for the sale of the home-made beverages was the motor parks because a more significant number of their customers were found there, while only four (18.2%) respondents sell the medicines by the roadsides usually at entrances into streets. Furthermore, four (18.2%) reported that they sold the medicines in front of their houses where they would not have to pay for rent.

x. Range of Home-made Remedies/Medicines sold

Data on the type of medicines sold showed that for each of the participants, the medicines ranged between six and 17 bottles of different local remedies with a mode of 13 bottles occurring four times. In other words, there is very little spread concerning illness that each seller sells local medicines to treat. Instead, the medicines are sold for a wide variety of illnesses, which is why some of them sell up to 17 bottles of their beverages.

xi. How the medicines are produced

It was revealed, that the participants produced the medicines by cutting the ingredients into bits and by pounding to make them into bits that could quickly be filled into bottles. Furthermore, the majority 15 (68.2%) reported that once the ingredients are filled into bottles, ethanol is added, while four (18.2%) reported that some of the ingredients were soaked in water, three (13.6%) reported they extract the active ingredients from leaves which are drunk or a mixture with liquor. Further investigation to find out who prepared the medicines that are sold revealed that all the sellers claimed to produce the medicines by themselves. The analysis also revealed that 20 (90.91%) of the sellers buy the ingredients for the medicines from the designated market, and only two (9.09%) buy them from hawkers. The analysis also showed how widespread the sale of local medicine is, 21 (95.5%) stated they knew other buyers who buy from the same designated market as themselves, while only one (4.55%) reported lack of knowledge of whether other people come to buy from the same designated market.

xii. Issues relating to Dosage

It was an issue to establish how participants get the measurement of their remedies needed at any particular time. The participants reported that they measured the drugs with standard measures such as drinking glasses or spoonful to guide against underdose and overdose of the medicines. The most frequently used measure was the shot glass used in the sale of hot drinks in bars, while 7(31.8%) claimed that they used a half bottle as the standard measure and four respondents said they used a glass cup to measure the medicine for their clients. The data on the possible abuse/misuse of home-made remedies revealed that a substantial number of the respondents 11(50%) claimed that the clients underdose the medicines, while all the 22 or 100% of the participants stated the clients often overdose the medicine.

5) Conclusion and Recommendations

The findings of this study have revealed information on the intricate world of home-made medicinal beverage sellers in the Uyo Metropolis, uncovering motivations, consumer behaviors, and operational practices. The study confirms the increasing prevalence of self-medication, as previously reported in existing literature (Olatunde, 1979; Sogunro & Ogunremi, 1980; Braide & Udoh, 1986; Ojiji & Okediji, 2004; Nwaiwu et al., 2020) within contemporary Nigerian society. It also underscores the urgency of a nationwide epidemiological survey to assess the impact on health expenditure resulting from unregulated patronage of homemade remedies, in line with earlier suggestions (Ojiji & Okediji, 2004). These insights are crucial for understanding this informal sector's dynamics and informing further research and policymaking efforts.

The study primarily shows that a significant proportion of homemade medicinal beverage sellers are primarily driven by the pursuit of profit, highlighting the role of economic incentives in this trade. Interestingly, a smaller percentage are motivated by a passion for the business, emphasizing the presence of individuals genuinely dedicated to crafting and selling these remedies, possibly due to belief in their efficacy or cultural ties to traditional healing practices. The study also uncovers the occupational demographics of consumers, with cyclists and drivers forming a substantial portion of consumers. This prompts questions about the unique health needs and challenges faced by these occupations, suggesting potential health risks like fatigue and exposure to weather conditions that may explain their higher consumption. Understanding these demographics can aid in tailoring marketing strategies and outreach efforts to specific groups.

Consumer motivations for using homemade remedies vary, including coping with weather conditions, preventing or treating illness, and seeking pleasure. These findings highlight the multifaceted nature of consumption, where traditional medicine addresses not only health concerns but also cultural and social aspects. The study also identified prevalent ailments, such as malaria, body pains and aches, and headaches, for which consumers seek homemade remedies, underscoring their role in everyday health management. Furthermore, the study identifies the most commonly prescribed remedies, including *Lime* and *Lipton Tea*, *Utasi*, and *Neem*. The diversity in remedies suggests that there is no one-size-fits-all approach in traditional medicine, emphasizing the need for safety and efficacy research to protect consumers. This aligns with the findings of Hossain and Shahidi (2023), who explored the potential mechanisms underlying the

biological activities of biomolecules in persimmon leaves (PL), considering seasonality and geographical factors.

Moreover, the study suggests that sellers primarily acquire knowledge about the efficacy of homemade remedies through customer feedback, resembling an informal peer review within the traditional medicine community. However, the absence of client testing suggests a lack of systematic scientific evaluation, highlighting an area for potential research and collaboration between traditional healers and healthcare professionals. Clients' reported overdosing due to illness severity or client status underscores the need for proper dosage education. Additionally, a majority of sellers base their sales on prescribed remedies after analyzing the client's problem, indicating a level of expertise and responsibility among sellers. These findings echo the assertions of Okoye and Neal (1988), emphasizing the consumption and abuse of substances not documented in western literature.

The preference for motor parks as a business location reflects strategic positioning for a larger customer base, emphasizing the importance of convenience and accessibility in consumer behavior. The variety of remedies sold caters to a wide spectrum of health needs, emphasizing the importance of ensuring the safety and efficacy of these remedies. Finally, the study reveals that sellers typically produce remedies by manually preparing ingredients and sometimes adding ethanol or liquor, indicating a lack of standardized production methods. These findings align with the concerns raised by Nwaiwu et al. (2020) regarding unregulated local beverages in Nigeria, emphasizing the need for substantial regulations and food safety standards to protect public health.

The study underscores several key implications for public health and regulatory policies in Nigeria:

- i. **Regulation and Oversight:** The informal nature of this market, coupled with self-prescription practices, highlights the need for regulatory measures to ensure the safety and efficacy of these homemade remedies. Government agencies should consider establishing guidelines and quality standards for the production and sale of such products.
- ii. **Health Literacy:** There is a pressing need for public health campaigns to improve health literacy, particularly regarding the risks associated with self-medication and the misuse of homemade remedies. Raising awareness about the potential dangers of inappropriate dosing and unregulated products is crucial.
- iii. **Professional Guidance:** Encouraging individuals to seek professional medical advice for their health concerns can mitigate the risks associated with self-prescription. Promoting the role of qualified healthcare practitioners can lead to safer healthcare practices.
- iv. **Monitoring and Evaluation:** Regular monitoring and evaluation of the sale and consumption of homemade remedies can provide valuable data for policymakers. Understanding trends, consumer behaviors, and emerging health issues in this sector can inform targeted interventions.
- v. **Collaboration with Traditional Healers:** Traditional healers and herbalists are integral parts of many African societies. Collaborative efforts between traditional healers and the formal healthcare system can promote the safe use of traditional remedies while ensuring adherence to established safety standards.

This study had some limitations, for instance, following the researchers' instruction, many participants declined participation, because they were not too sure if the

information obtained would be used by established government authorities (NAFDAC/NDLEA) in use and abuse prevention/control. Many of the participants also withheld some information which resulted in incomplete data on some of the variables investigated. The researchers are sure that the estimates given are lower or at times higher than the reality. Hence, caution is suggested in the use of some of these estimates. Despite all the reported shortcomings, the study is believed to be a significant step at providing information about the activities about the health care system. It is also a step towards understanding the different ramifications of the growing use and abuse of substances among the Nigerian population. The findings in this and other similar studies, in this area, is needed to be intensified to obtain relevant data for the spectrum of misuse/abuse of substances among the population.

In conclusion, this study provides valuable insights into the use and sale of home-made medicinal/herbal remedies in Nigeria. It highlights the importance of understanding the motivations, practices, and challenges associated with this informal healthcare sector. To ensure the safety and efficacy of these remedies, there is a need for further research, regulation, and public health education aimed at both sellers and consumers. Additionally, efforts should be made to bridge the gap between traditional remedies and modern healthcare practices while acknowledging the cultural significance of these remedies in Nigeria.

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