

# Perception of Use of Herbal and Orthodox Medicines in Parts of Abuja: A Pilot Study

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## ABSTRACT

This study assessed respondents' perception on packaging, affordability, availability, efficacy, and safety of use of herbal and orthodox medicine in the treatment of common diseases in Abuja. Structured questionnaires were administered to elicit information from 200 residents selected from five locations through a purposive sampling method and data were analyzed using descriptive statistics. Orthodox medicines were rated higher than herbal medicine in term of preference, packaging, first-aid and uses. While in terms of affordability, adverse effect, natural and efficacious to the body, the respondents preferred herbal medicine. About Seventy percentage chose orthodox medicine as their first drug of choice while 28% preferred herbal medicine as their first drug of choice. 72.96% of the respondents have used herbal medicines without any side effect while 10.77% had experienced adverse effects from its use and 16.33% claimed they have never used herbal medicines for treatment before. The differences in the means of attributes of herbal and orthodox medicines were not statistically significant at  $P > 0.05$ . The information obtained is in agreement with WHO statement that over 80% of the world's population depends on traditional medicine for its primary health care.

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## INTRODUCTION

Herbal and Orthodox medicines are two main types of medicines that are well known and widely used in Nigeria. Herbal medicines are products made from plant, plants or part of plant which can be in the form of juices, gums, fatty oil, stem and root bark, leaves, fruits, etc (Elujoba, 1998) and they can be purchased in bulk in the crude form or as refined pharmaceutical dosage form such as Capsules, tablets, concentrated extracts, teas, tinctures and decoction (Barnes, 2003). According to WHO herbal medicine is defined as finished labeled medicinal products that contains as active ingredient aerial or underground parts of plants or other plant materials or combinations there of

whether in the crude state or as plant preparations (WHO,1996). On the other hand, Orthodox medicine may be defined as any substance of vegetable animal or mineral origin or any preparation or admixture thereof or chemical compounds which are used for internal or external application to the human body in the treatment of diseases (Bodecker, 1995). The current global interest in herbal medicines and high dependence on it is perhaps a measure of the realistic perception of the limitations of orthodox medicines in terms of cost, accessibility, effectiveness and safety (Moody, 2007).

And the use of herbal medicines in the treatment and prevention of diseases is attracting attention by scientists all over the world which is also corroborated by World Health Organization in its quest to bring primary health care to the people. Herbal products have been reported to be less concentrated, less toxic and more natural. They are unlike orthodox medicines which are concentrated drug formulations.

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Also, in African setting, herbal medicines are generally said to remedy disrupted physiological processes in the body rather than targeting diseases whereas orthodox medicines are designed to target and reverse specific pathologies in the minimum time (Oluabun, 1998 & Moody, 2007).

There are several publications on the estimated percentage of people in the developing world using traditional medicine (Bodecker, 1995) but there have not been any study to document the actual number in Nigeria. Also the perceptions and preference of orthodox and traditional medicine usage in Nigeria have also not been documented locally despite several referrals to developing countries when discussing the issue in literatures. This study assessed the perceptions and preference of use of herbal and orthodox medicines in Abuja.

## MATERIALS AND METHODS

### Description of Study Site

Abuja is the Federal Capital of Nigeria that is strategically situated in the center of the country. It lies above the hot and humid low lands of the Niger and Benue rivers. Abuja is made up of six Areas Councils namely; Abaji, Abuja Municipal, Bwari, Gwagwalada, Kuje and Kwali. The inhabitants of the Abuja countryside are predominantly farmers. Their main language is Gwandara. The FCT has borders on the north with Kaduna State, on south-east with Nasarawa State, on the south-west by Kogi State and on the west by Niger state. The entire Federal Capital Territory occupies an approximate land area of 8,000 square kilometers (AGIS, 2004).

### Study site

The Study covered five major areas in Abuja municipal area council (AMAC). These areas were Area 10 (Garki), Central Business District, Idu Industrial Area, Lugbe and Wuse Zone 5 (Table 1).

**Table 1:** List of Study sites, Number of questionnaires administered and percentage of response.

Study Sites in FCT	No of Questionnaire Administered	No of Response and % Response
Area 10, Garki	50	50 (100%)
Central Business district	50	50 (100%)
Idu Industrial Area	30	26 (86.67%)
Lugbe	50	50 (100%)
Wuse, Zone 5	20	20 (100%)
<b>Total</b>	<b>200</b>	<b>196 (98.0%)</b>

### Administration of Questionnaires

Questionnaires were administered to respondents and the questionnaire comprises questions on Personal data (age range and sex, etc.) and core issues like preferences, reasons for the choice of medicine, affordability, packaging, first-aid, recommendation, advertisement, diseases treated, adverse effect and efficacy.

Questions were also raised on whether the respondents used herbal medications alongside orthodox medicines at one time or the other; whether the diseases treated with herbal medicines were partially or completely cured and if any adverse effects. For

the purpose of some respondents who can neither read nor write, oral interview was conducted for them in order to get their own opinion. Prior Informed Consent of the respondents was obtained before the commencement of the interview or administering of the questionnaires.

Two hundred questionnaires were administered with fifty respondents each from Garki Area 10, Central Business Area and Lugbe; while thirty respondents from Idu Industrial Area and twenty from Wuse Zone 5 (Table 1).

Out of the 200 questionnaires administered, four were not returned by the respondents, hence a total of one hundred and ninety-six were eventually analysed for the study. The Respondents includes passengers in buses, market women, civil-servants, National Youth Service Corp members, students and traders.

Data were analyzed using descriptive statistics while the t- test statistic which is an inferential tool (SPSS 19) was employed to test the significant different between the means of the variables that were tested to do a comparative assessment of some of the attributes of herbal and orthodox medicines at 5% level.

## RESULTS AND DISCUSSION

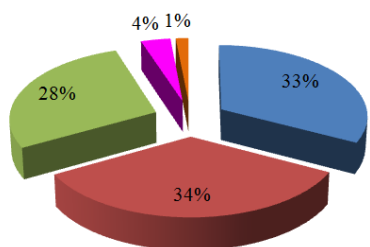
The study sites, number of questionnaires and the percentage response for the use of herbal products and orthodox medicine for the studied population are illustrated in table 1. Table 2 showed the gender, age, frequency and the percentage distribution of population. 98% of the questionnaire were responded to, while four respondents from Idu Industrial area did not return the questionnaires as showed in table 2.

From the 196 respondents, 112 (57.14%) were males while 77 (39.29%) were females and 7 (3.57%) did not indicate their sex. The highest number (118) of respondents is within the age range of 21-35 which is about 60.28%, followed by those in the age range of 36 years and above, which is 52 (26.28%), then 15-20years had 19 (9.69%) while the least number of respondents was from the age range of 15years and below (Table 2).

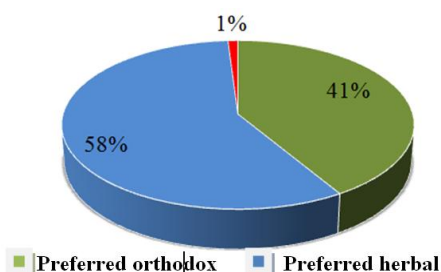
**Table 2:** Demographic Variable Frequency and Percentage.

Gender	Frequency	Percentage (%)
Male	112	57.14
Female	77	39.29
Not indicated	7	3.57
<b>Total</b>	<b>196</b>	<b>100</b>
Age(Years)	Frequency	Percentage (%)
Below 15	6	3.06
15-20	19	9.69
21-35	118	60.28
36 & above	52	26.53
Not indicated	1	0.51
<b>Total</b>	<b>196</b>	<b>100</b>

Figure 1 depicts the preference of the use of herbal product and orthodox medicine, more so, 41.33% of the respondents liked the packaging of herbal medicines, 57.65% disliked it and 1.02% did not indicate either as shown in Fig.2.



**Fig. 1:** Percentage Response for the Use of Herbal Products and Orthodox Medicine.



**Fig.2:** Respondents opinion on the packaging of herbal and orthodox medicines

The respondents' opinion on affordability of herbal products and orthodox medicine are illustrated in figure 3. The Respondent First Choice of Medicine for Treatment of an Ailment is illustrated in figure 4 while figure 5 showed the respondents choice on the medicine that can be recommended for use.

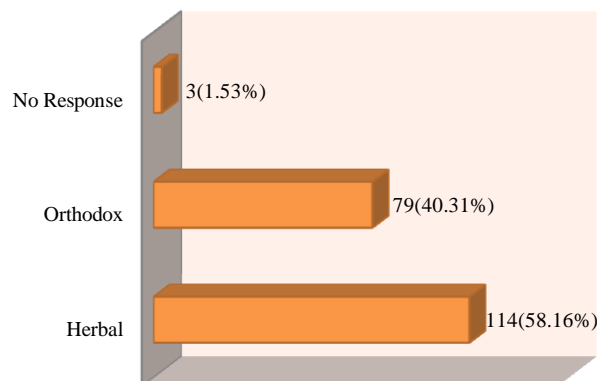
In terms of adverse effect, 10.77% of the respondents reported that they experienced adverse effect after taken herbal product but 72.96% said they didn't experience any adverse effect, while 16.31% said they haven't used herbal medicines before (Fig. 8). Out of the 200 questionnaires administered, four were not returned by the respondents, hence a total of one hundred and ninety-six were eventually analyzed for the study. The Respondents includes passengers in buses, market women, civil-servants, NYSC members, students and traders. The overall rate at which the Respondents responded to the questionnaire was 98% (Table 1): The four respondents who did not return the questionnaires were all from one location (Idu Industrial area). Out of the 196 respondents, 112 (57.14%) were males while 77 (39.29%) were females and 7 (3.57%) did not indicate their sex (Table 2).

Also, respondents within the age range of 21-35 years have the highest number of 118(60.28%), followed by those in the age range of 36 years and above 52 (26.58%), then 15-20 years had 19 (9.69%) while the least number of respondents was from the age range of 15 years and below (Table 2).

More so, 41.33% of the respondents liked the packaging of herbal medicines, 57.65% disliked it and 1.02% did not indicate either (Fig. 1). 33% of the respondents prefer herbal medicines alone, 34% indicated that they prefer orthodox medicines whereas 28% prefer both herbal and orthodox medicines for treatment. However, 4% said they neither take orthodox medicines or herbal medicine and 1% did not indicate (Fig.2).

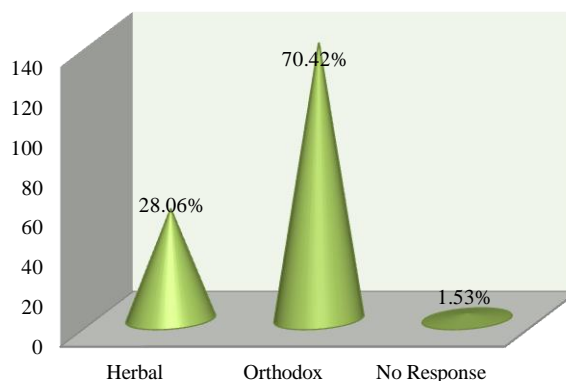
Some comparisons were made between herbal and orthodox medicines in terms of affordability with 58.16%

respondents said herbal product is more affordable, 40.31% said orthodox medicines are more affordable while 1.53% did not respond (Fig. 3).



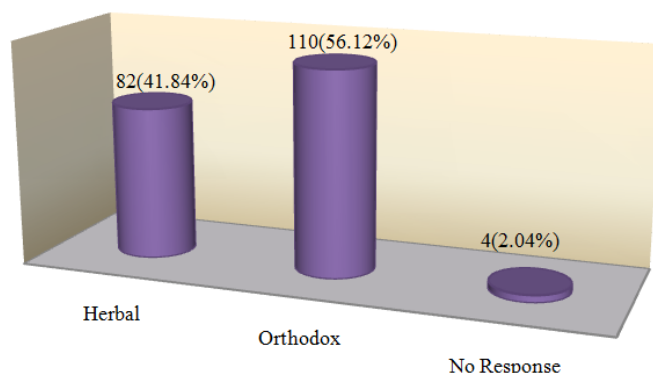
**Fig. 3:** Respondents' opinion on the medicine more readily affordable.

In response to the question of what type of medicine will occur to the respondent to use in terms of first-aid for emergencies, 28.06% indicated that they will go for herbal medicines, 70.41% said orthodox medicines, 1.53% did not indicate if they will go for anyone in times of emergencies (Fig. 4).



**Fig. 4:** Respondent First Choice of Medicine for Treatment of an Ailment.

More so, 41.48% were of the opinion that they will recommend herbal medicines for their family and friends while 56.12% said they would rather recommend orthodox medicines and 2.04% did not indicate which they will recommend (Fig.5).



**Fig. 5:** Respondents choice on the medicine that can be recommended for use

**Table 3:** T-Test Pairs = Herbal with Orthodox (PAIRED).**Table 3a:** Paired Samples Statistics.

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Herbal	78.75	4	26.043	13.022
	Orthodox	96.00	4	34.303	17.151

**Table 3b:** Paired Samples Correlations.

		N	Correlation	Sig.
Pair 1	Herbal & Orthodox	4	-0.551	0.449

**Table 3c:** Paired Samples Test.

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Herbal - Orthodox	-17.250	53.281	26.641	-102.033	67.533	-0.648	3	0.563

With respect to the level of advertisement both in the print and electronic media, 40.82% said the level of advertisement is very low, 42.86 % said it's high, whereas 14.80% indicated that it was very high (Fig. 6).

Also in term of the degree at which herbal medicines cures, 17.35% of the respondents indicates that they were partially cured or relieved of the symptoms of the ailments while 65.82% indicated that they were completely cured of the symptoms of the ailments. 16.84% said they have never used herbal medicines for treatment of any ailments and therefore cannot give a specific answer (Fig.7). In terms of adverse effect, 10.77% of the respondents testified that after their use of herbal medicines, they experienced adverse effect but 72.96% said they didn't experience any adverse effect, while 16.31% said they haven't used herbal medicines before (Fig. 8). Contrary to the widespread view that because herbal medicine is natural and therefore very safe: Vickers (1999) and Anonymous (1986) believed that herbal therapy probably carries more risks and causes more side-effects than any other form of alternative therapy. Unfortunately, there are scanty information on the incidence of acute/ severe side-effects, such as liver failure, mutagenicity and carcinogenicity after certain herbal medications have been used (Langmead and Rampton, 2001).

From the results above, it was observed that higher percentage of respondents rated orthodox medicines higher than herbal medicines in terms of first-aid packaging and recommendation. Their opinion was backed up with reasons being that orthodox medicines are well prepared, their purity was ascertained and that have specific dosage form and hence stops overdose of drugs which are general opinions. On the other hand, respondents prefer herbal medicines in the sense that they are of natural origin and hence do not have much effect on the body's chemistry they also believe that herbal medicines cure illness completely and even go extra miles in nourishing the body (Contable et al, 2007 and King, et al, 2009). The poor perceptions of packaging of herbal medicines have been a major problem in the use of herbal medicines especially in the developing world. This is an area that needs serious improvement if herbal medicines have to be accepted by a large number of the population. This perception was also confirmed in this study where only about 41%

of the respondents liked the packaging of herbal medicine whereas over 58% like packaging of orthodox medicines better (Fig.2). Another issues plaguing the developing World including Nigeria is the over exaggeration of Traditional Medicine Practitioners (TMPs) or herbal medicine producers on their product being able to cure all ailments. This will also affect the level of acceptance of any medicine especially by the elites of the society who believed that one drug cannot cure all ailments. According to the WHO, over 80% of the world's population depends on traditional medicines for its primary health care (Bodecker, 1995). The result obtained from this work also showed that about 61% (33% of those who preferred herbal medicine and 28% that preferred both) of the total study group can be said to use herbal medicines for treatment of ailments. The percentage might even be close to WHO estimate or higher if a larger population was used for this study, and the rural areas covered as the locations for this study were mainly of urban settings. The statistical paired sample test for Differences in the means of attributes of herbal and orthodox medicines survey indicates that the means were not Significant at  $P > 0.05$ , the significant (2-tailed) value in the result of the test is 0.563 which was greater than 0.05 (Table 3c).

## CONCLUSION

In conclusion, even though orthodox medicines are widely used, some people still prefer herbal medicines because of their natural states. But as a result of some reasons such as packaging, method of preparation and awareness campaign, they prefer to continue with the use of orthodox medicines. Although the study was conducted in a community where residents are mainly elites, the high percentage of respondents using herbal medicines in preference to orthodox medicine is a supporter to the acclaimed statement that 80% of developing countries populace depends on herbal medicine for treatment of ailments. This work is an eye opener for the herbal medicines practitioners' to improve on packaging and standardization of their products in order to increase the level of trust on their product. The regulatory bodies should also regulate the traditional medicine practitioners in terms of where the herbal products are prepared and packaged. The

0.563 value is greater than 0.05, we therefore concluded that there was no statistically significant difference between the herbal and the orthodox survey.

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**Conflict of Interests:** There are no conflicts of interest.

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