

## Original Article

# Attitude towards the use of herbal medicine among traders: A moderating effect of gender and socio-economic status

Abamara, Nnaemeka Chukwudum\*, Anazodo Nkechi Nneamaka\* and Okonkwo, Ifeyinwa Cordelia

Department of Psychology, Faculty of Social Sciences, Nnamdi Azikiwe University, Awka Anambra State, Nigeria.

### \*Corresponding Author

**Abamara, Nnaemeka C**  
Department of Psychology,  
Faculty of Social Sciences,  
Nnamdi Azikiwe University,  
Awka Anambra State, Nigeria  
E-mail: [abamaranc@yahoo.com](mailto:abamaranc@yahoo.com)

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### Abstract

This study examined the Attitude towards the use of herbal medicine among traders: a moderating effect of gender and socio-economic status. A total of 180 participants were used for the study. They comprised of 90 males and 90 females. Their ages ranged from 30-70 years with the mean age of 50 and a standard deviation (SD) of 11.9. They were selected through stratified random sampling techniques from Eke Awka, central market in Awka, Anambra state. The result of the study showed that there was no significant difference on attitude of traders towards the use of herbal medicine across gender. The result also showed that there was no significant difference on attitude of traders towards the use of herbal medicine across the three levels of socio-economic statuses. The result finally showed that there was no significant interactive effect of gender and socio-economic status on attitude of traders towards the use of herbal medicine. Based on the above findings, this study recommends that the federal government through the ministry of establishment should encourage the administration and the use of herbal medicine in Nigeria as alternative to orthodox medicine.

## 1. Introduction

Herbs can be seen as a plant which lacks permanent woody stem that produce seeds and flower and dies after a particular season. They are medicinal in nature and can also be used for horticultural purposes. However, the traditional herbal method denotes that an herb is a small non-woody, plant treasured for its medicinal savoury or aromatic functions. The herbal medicine or herbalism is a natural remedy derived from herbaceous plants. It can also be known as botanical medicine or phytomedicine which denotes the use of plants seeds berries, roots, leaves, flowers and barks for medicine.

Herbalism is a traditional medicinal or folk medicine practice, based on the use of plants and plant extracts. It can be called herb medicine, botanical medicine, medica herbalism, herbology and phytotherapy. The scope of herbal medicine is sometimes extended to include fungal and the bacterial product as well as minerals, shells and certain animal parts [1].

Studies have shown that plants have been used either directly or indirectly. Directly, the plants parts like leaves, fruits, stem, bark root, etc or even the whole plant are themselves used in the treatment of illness. While indirectly, the plants form a biochemical template for the eventual development of what is referred to as orthodox medicines. Statistics have shown that global trends towards the use of herbal medicines have also had an impact of the young generation of African (especially in Nigeria and Cameroon), who have accepted the strong yet safe healing power of herbal medicines are enormous. The value of the total herbal medicine market has significantly increased creating a good market for indigenous pharmaceutical industries to strive most of who are engaged in the cultivation, preparation and marketing of herbal medicines.

The World Health Organisation (WHO) defined a medicine plant as a plant in which some or all of its parts can be used directly in the management of diseases [2]. A drug is any chemical used as a medicine. The word drug (via French word: Progue) which means 'dried plant'. Phytochemistry is in the real sense of the other use of

phytochemical. These are chemicals derived from plants. Many of these metabolic compounds found in plants are known to provide protection against insect attacks and plants diseases. They also exhibit a number of protective functions for human consumers [3].

Previous studies showed that most men patronize herbal medicine than women. Most women who are passing through some kinds of illness and those of them who are looking for the fruit of the womb patronize herbal medicine dealers at one time or the other. Studies have also shown that people from low socio-economic status patronize the traditional medicine dealers more than people from medium and high socio-economic status. The present study will ascertain the degree of influence of these variables on the attitude of traders towards the use of herbal medicine in Awka Anambra State Nigeria.

Theoretically, the Cognitive dissonance theory suggests that people tend to regret new information that contradicts ideas that they already hold in a sort of don't bother me with the facts my mind is a made up strategy. Cognitive dissonance underlies attempt to convince ourselves that we have done the right thing. For instance, when people use herbal medicine to treat illness or to prevent illness most of the time they feel they have done the right thing. This explains the willingness of consumers of herbal medicine to purchase herbal medicine irrespective of its condemnation by some people in orthodox health care delivery. In social learning theory, Bandura (1977)[4] portrays us as playing an active role in our lives by stating that social learning is an example of reciprocal determination. Not only is a person's behaviour learned but the social learning environment is altered by the person's behavior. For instance, most Nigerians have learned to use herbal medicine in health care delivery and it has been very effective in curing their various illnesses. The clamour for herbal medicine in Nigeria is on increase that it is gradually replacing the use of orthodox medicine.

Empirically, due to the economic predicament of the African countries, people resort to the traditional herbal system for primary health care. In Africa, particularly, West Africa, new drugs are not open affordable, thus up to 80% of the population use medicinal plants as remedies [5][6].

For instance, nuclear Latifobia is therapeutically useful in dental cares [7]. The World Bank data on African development indicators (2003) revealed that the ratio of medical doctors to total population of 1990-2000 in Nigeria was 1:5208. Thus this pointed to the fact that international commercial orthodox medicines are becoming increasingly out of reach for most Nigerians and this contributed to the dependence of a large percentage of the Nigerians on local herbal medicine [8].

The frequency of utilization of Complementary and Alternative Medicine (CAM) is increasing worldwide and is well documented in both African and global populations to be between 20-80% [9]. The persuasive appeal of complementary and alternative medicines (CAM) is premised on the fundamental assumption and principles by which the system operates. These include the presumption that CAM are "natural" and it provides the user with a connection to life supporting force (vitalism) which have a "scientific basis", and promote "spirituality".

Many medical practitioners entreat caution in the use of CAM specifically, in chronic conditions in which health outcomes are closely linked to adherence to treatment (e.g. hypertension). The use of CAM and multiple therapy practices involving combined use of CAM (particularly, herbal medicines) and prescription medications have also been identified as being common in some population [9].

The problem statements of this study is that most illness in the tropical Africa have aborted the efficacy of the orthodox medicine and now relying on the use of herbal medicine to treat illnesses. The problem is that most of these herbal medicines do not have dosage and people cannot quantify what they take at any given time. This issue of dosage has become a serious problem in the administration of the herbal medicine in Nigeria.

Most Nigerians many have favourable attitude towards the use of herbal medicine for its acclaimed curative measures. Previous researchers found that men patronize herbal medicine more than women from the inventory of herbal medicine. In Nigeria, researchers have found out that people from low socio-economic status have favourable attitude towards the use of herbal medicine than people from middle and high socio-economic statuses. In view of the above, the following research questions were answered in this study:

- i. Would there be any statistically significant difference on attitude of traders towards the use of herbal medicine across gender?
- ii. Would there be any statistically significant difference on attitude of traders towards the use of herbal medicine across the three levels of socio-economic status?

The purpose of this study is to ascertain the attitude towards the use of herbal medicine based on moderating effect of gender and socio-economic status among traders in Awka. Hence, the specific objectives would be:

- i. To determine the frequency of utilization of Complementary and Alternative Medicine (CAM) in our hypertensive population.
- ii. To determine if there are any socio-demographic, clinical or treatments related characteristics that determined CAM use in our patient populations; and
- iii. To examine the impact of CAM use on blood pressure control.

This study will help to widen the horizon of our knowledge as regards the importance of herbal medicines in curing some ailments especially those that have developed some degree of resistance to orthodox drugs. For instances, the increasing resistance of malaria parasites to chloroquine which is the cheapest and the most commonly used drugs for treating malaria in Nigeria [11].

The inability of western orthodox medicine to provide cure for some diseases and infections (e.g. HIV/AIDS) is a possible reason also. The ascendancy of the human immune deficiency virus has spurred intensive investigation into plant derivatives which may be effective especially for use in developing and underdeveloped nations.

## 1.1 Operational Definition of Key Variables of the Study

### Herbal medicine:

It is the type of natural medicine derived from herbs grown in the African soil.

### Gender:

It is the psychological expenses of being male or female

### Socio-economic statuses:

It means the social class in which the participants belong.

### Attitude:

It is a learned tendency to respond to people, objects or institutions in a positive or negative way.

## 1.2 Hypotheses

- i. There would be no statistically significant difference on attitude of traders towards the use of herbal medicine across gender.
- ii. There would be no statistically significant difference on attitude of traders towards the use of herbal medicine across the three levels of socio-economic status.

## 2. Method

### 2.1 Participants

A total of 180 participants were used in this study. They were randomly selected through stratified group sampling techniques from the population of traders in the central "Eke Awka" market Awka, Anambra state. The participants comprised of 90 males and 90 females. Their ages ranged from 30 to 70 years with the mean ( $\bar{x}$ ) age of 50 and a standard deviation (SD) of 11.9.

### 2.2 Instruments

A carefully designed questionnaire by the researchers used in this study was divided into two sections. The first section contains the demographic variables of age, gender and socio-economic status, while the second section contains 20 items measuring the attitude of traders towards the use of herbal medicine.

### 2.3 Validity

The researchers used a face validity to validate the questionnaire. In ensuring the face validity of the items, the items were presented to test experts in the Department of Psychology for evaluation. After the necessary perusal and corrections, the items received 85% support in terms of measuring what it is set out to measure.

### 2.4 Reliability

The reliability for the 20 test items of the questionnaire for male m (n = 30) was  $r = .65$  while female f (n = 50) was  $r = .68$ . The reliability of the whole questionnaire stood at Cronbach coefficient alpha of .74. This showed that the whole (scale) questionnaire was quite reliable for the study.

### 2.5 Procedure

The data collection was done by the means of questionnaire administered to the volunteered participants from the population of traders in Eke (central) market in Awka. The administration of the questionnaires posed some difficulties because some traders were not predisposed to respond to the questionnaires. However, the respondents were not compelled to fill the questionnaires, but rather the researchers persuaded them gently to respond to the questionnaires. On getting the consent of the traders to respond to the items in the questionnaires, they were given free hands to respond to the questionnaire on what they feel about the use of herbal medicine.

A total of 200 questionnaires were administered to the participants. At the end, a total of 180 filled questionnaires were selected for the process of data analysis because they were properly and successfully completed.

### 2.6 Design/Statistics

This study is a survey study and the researchers adopted a 2 x 3 factorial design. A 2-way analysis of variance was employed to analyze the data of this study.

### 3. Results

**Table 1: Showed the mean (x̄) and standard deviation (SD) of gender and socio-economic status on attitude of traders towards the use of herbal medicine.**

Participants Variables	Mean (x̄)	Standard Deviation (SD)	N
Male high SES	63.1	6.97	30
Male medium SES	63.4	7.70	30
Male low SES	62.7	5.75	30
<b>Total</b>	<b>63.06</b>	<b>6.80</b>	<b>90</b>
Female high SES	63.6	6.69	30
Female medium SES	61.2	5.99	30
Female low SES	61.4	7.74	90
<b>Total</b>	<b>62.06</b>	<b>6.84</b>	<b>90</b>
Grand total	62.265	6.82	180

Based on the above table, the mean (x̄) of male traders in medium socio-economic status was greater than the mean (x̄) of male traders in high socio-economic status and the mean (x̄) of traders in low socio-economic status. The mean result shows that male traders in medium socio-economic status have favourable attitude towards the use of herbal medicine than other traders in other socio-economic status.

It was also observed that the mean (x̄) of male traders in high socio-economic status was greater than the mean (x̄) of male traders in low socio-economic status. This result shows that the (mean) male traders in high socio-economic status have favourable attitude towards herbal medicine than male traders in low socio-economic status. It also shows that female traders in high socio-economic status have favourable attitude towards the use of herbal medicine than female traders under medium and low socio-economic status.

The female traders under low socio-economic status have favourable attitude towards the use of herbal medicine than female traders under the medium socio-economic status.

Above all, male traders have favourable attitude towards the use of herbal medicine than the female traders and the traders on high socio-economic status have favourable attitude towards the use of herbal medicine than the traders on medium and low socio-economic status. And traders on low socio-economic status have favourable attitudes towards the use of herbal medicine than the traders on medium socio-economic status.

**Table 2 showed a 2-way analysis of variance (ANOVA) on the use of Herbal Medicine: a moderating Effect of Gender and Socio-economic Status.**

Source	SS	df	Ms	F	P
Total	8380.8	179	-	-	-
Gender	43.04	1	43.04	0.92	>.001
Socio-economic status	56.06	2	28.03	0.60	>.001
Gender & SES	158.85	2	79.42	1.70	>.001
Error	8122.85	174	46.68	-	-

The result showed in hypothesis one that the calculated F-ratio value of 0.92 was less than tabulated F-ratio at 0.001 level of significance. This result showed that there is no significant difference on the attitude of trader towards the use of herbal medicine across gender.

The result also showed in hypothesis two that the calculated F-ratio value which is 0.60 was less than the tabulated F-ratio value of 19.18 at 0.001 level of significance. This result showed that there is no significant difference on the attitude of traders towards the use of herbal medicine across the three levels of socio-economic status.

Finally, the result showed that there is no significant interactive effect of gender and socio-economic status on the attitude of traders towards the use of herbal medicines. This is based on the

fact that the calculated F-ratio value which is 1.70 was less than the tabulated F-ratio value of 19.25.

### 4. Discussion

The first hypothesis that stated that there would be no significant difference on the attitude of traders towards the use of herbal medicine across gender was confirmed. This finding is in line with the findings of Obuikwe (2014)[12], that gender difference does not affect people patronage to comparative alternative medicine. This finding also revealed that gender should not be used as a yardstick to measure people's attitudes towards the use of herbal medicine in Nigeria. Therefore, the use of herbal medicine is a thing of choice or preference to orthodox medicine.

The second hypothesis that stated that there would be no significant difference on the attitude of traders towards the use of herbal medicine across the three levels of socio-economic status was also confirmed. This finding is in line with the findings of Eginye (2015)[13]. He found out that the use of alternative medicine does not depend on the people's social status. Therefore, the use of herbal medicine cut across different levels of social economic status. The result of the study finally showed that there was no significant interactive effect of gender and socio-economic status on the attitude of traders towards the use of herbal medicine. The result revealed that gender interacting with socio-economic status did not actually influence the attitude of people towards the use of herbal medicine in Nigeria.

This study further revealed that male traders on medium socio-economic status have favourable attitude towards the use of herbal medicine than male traders on high socio-economic status and the male traders on low socio-economic status. The male traders on high socio-economic status have favourable attitude towards the use of herbal medicine than male traders on low socio-economic status.

On the other category, female traders on high socio-economic status have favourable attitude towards the use of herbal medicine than female traders on low socio-economic status and female traders on medium social economic status. Above all, male traders have favourable attitude towards the use of herbal medicine than female traders. The traders that belong to high socio-economic status have favourable attitude towards the use of herbal medicine than the traders that belong to medium and low socio-economic status. And the traders that belong to medium socio-economic status have favourable attitude towards the use of herbal medicine than traders that belong to low socio-economic status.

Despite the fact that herbal supplement use is increasing, there is a lack of rigorous evidence to support their efficacy. Some supplements (e.g ephedra) have serious devastating side effects [14]. The problems with alternative medicine are the lack of standardization of doses, possible drug interaction with conventional medicines and side effects. Some herbs including garlic, ginkgo, ginseng etc can have a significant influence on concurrently administered drugs. Many herbal medicines have not undergone careful scientific assessment and some have the potential to cause serious toxic effects and major drug-to-drug interactions.

### 5. Conclusion

Based on the findings, the researchers therefore conclude that herbal medicine in Africa have come to stay and will continue to metamorphose into different stages and concepts. The wide distribution of herbal medicinal plants in the tropics especially in Africa, need to be explored and researched upon to the high economic and socio-cultural advantages they tend to attract to developing countries. Finally, the regulation and standardization of herbal medicines in this nation will need to be monitored and controlled.

## Implication of the Study

The upsurge of herbal medicine in Africa especially in Nigeria has bright prospects. The market prediction is great. This growth of herbal medicine would accelerate faster with promotional plans and government funding for biotechnology industry development of scientific herbal medicine, training and retraining of herbal medicine practitioners and the establishment and implementation of good police framework for the regulation and standardization of herbal medicine.

## Recommendations

The following recommendations arose from this study;

- I. The federal government through the ministry of health should encourage the administration and the use of herbal medicine in Nigeria as alternative to orthodox medicine.
- II. There should be regulatory body that should regulate the training and the activities of practitioners in administration of herbal medicine in Nigeria, so that quacks will not be allowed to infiltrate the practice.
- III. Illiterates should not be allowed to monopolize the practice of traditional herbal medicine because it will pose a great danger to health of people in various Nigerian communities.
- IV. The traditional herbal medicine should not be seen as rivalry to orthodox medicine. But it should be seen as an alternative medicine to complement the efficacy of orthodox medicine in the healthcare delivery in Nigeria.

## Limitations of the Study

One of the limitations of this study is that the study was carried out only in Awka, Anambra State. This did not provide a good geographical representation of all traders in Nigeria.

Finally, the researchers encountered a lot of problems during the distribution and retrieval of the questionnaires of this study because some traders were reluctant in responding to the questionnaires.

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