

**Research Paper**

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HERBS IN ORTHODOX PRACTICE: A VIEW BY MEDICAL STUDENTS

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Abstract

Use and opinion of herbs among medical students of Imo State University Nigeria was assessed. Information on herb use, indication and opinion from returned self-administered questionnaire was analyzed. A total of 114 students (91.2%) of 125 responded. 32 (28.1%) students had used herbs before, a significant proportion being males (OR 3.7). Herbal tea was the most popular herb used; maintaining good health and treating malaria were the only indications (50% each). Most students (>90%) believe herbs to be harmful, and generally unsafe especially in pregnancy. Most students (73%) who had used herbs consider them effective in treating hypertension or diabetes mellitus (OR 3.5 & 6.0 respectively). Most students (89.1%) believe there's a lot of misinformation about herbs. Most students view use of herbs with skepticism. Inculcating study of herbs in medical curriculum will provide better information on herbs.

Keywords: Herbs, students, opinion, medical, eastern Nigeria.**Introduction**

The use of herbs is common among many peoples of the world. In China, herbal preparations account for 30-50% of the total medicinal consumption, while in Ghana, Mali, Nigeria and Zambia, about 60% of children with high fever resulting from malaria are given herbal medicine as a first line of treatment (WHO, 2003). These herbs which are obtained from the wild and sometimes cultivated exist as hundreds of species in Nigeria (Ibe and Nwafo, 2005; Aiyelaja and Bello, 2006). Herbs are thought to be safe because they are "natural", yet herbs may contain hundreds of components that can cause ill effects directly or through interaction with orthodox drugs (Zink and Chaffin, 1998). The prevalence of herbal use for various medical conditions by patients in Nigeria is largely unknown. It is not uncommon for patients to use herbs for conditions as hypertension, diabetes mellitus and weight loss despite a demonstrated lack of effect on lowering blood sugar (Famuyiwa, 1993). However, a multicentre controlled trial in France showed Chinese herbs are well-tolerated and effective in type 2 diabetes (Vary and Attali, 1995). Herb content and efficacy may vary among different manufacturers due to a lack of standardization (Ernst, 1998). The study of herbs is excluded from the medical training in Nigeria while some medical students and doctors are known to use them. It is not uncommon for orthodox doctors to be asked by patients their knowledge on herbs and whether or not they can use them. In this light, this study aims at exploring the use of herbs among the Imo State University clinical medical students and their opinion on its use.

Method

This study was conducted at the College of Medicine, Imo State University, Orlu, Imo State, a young medical school with the highest set of medical students in their 5th year. The study population comprised two classes of clinical medical students in the 5th and 4th year giving a total of 125 students (54 and 71 respectively). The study was carried out in November 2007.

For the purpose of this study, the interest was in the use of herbs/herbal products taken orally (i.e. as tablets, capsules, extracts, tinctures, and teas). A herbal product therefore was defined as extracted preparations of parts of vegetables, trees, shrubs, grasses and herbs. Skin and hair preparations were excluded from this study. A self administered questionnaire was distributed to the students at the end of their regular lectures by the investigator. It took approximately ten (10) minutes to complete the questionnaire. Participation in the study was absolutely voluntary and names were not required. The questionnaire was modified from the Minnesota Herbal Product survey (Harnack et al., 2003). It was pre-tested and readjusted to suit the study objective. Information from returned questionnaires was entered into a computer and analyzed using SPSS 11.0. Odds ratio and confidence intervals were used to test associations between variables. P value <0.05 was considered statistically significant.

Results

There were 125 students administered the questionnaire of which 114 responded. Eleven students did not respond to the questionnaire giving a response rate of 91.2%. There were 70 (61.4%) males compared to 44 (38.6%) females. The male students (27.9 ±3.9yrs) were significantly older than the female students (24.9 ±1.7yrs), (p=<0.001; 95%CI 1.7, 4.3). The students' age ranged from 22yrs to 39yrs. All respondents belonged to the Ibo tribe while 110 (96.5%) of the students were unmarried. Only 32 (28.1%) students had used herbs in the last 1 year. Males (37.1%) were significantly more likely to have used herbs compared to their female (13.6%) counterparts (OR 3.7; 95%CI 1.4, 10.1; Table 1). The use of herbal tea comprised 56.3% of the products used followed by herbal concoction in 25% of those who had used herbs.

The herbs were used for maintenance of general health and treatment of illness, mostly malaria, in equal proportions (50% each). Only two ladies used them as culinary supplements. Garlic and ginger were the most commonly used herbs comprising 40% of all herbs (22.5% & 17.5% respectively). Others as shown in Table 2 were, Aloe vera (12.5%), lemon grass (10%) and leaves from the *Azadirachta indica* tree (Neem tree or dogoyaro) (7.5%). The herbs were mostly used occasionally (93.8%) while only 2 (6.3%) students used it monthly. Families, friends or colleagues (77.8%) comprised the greatest source of recommendation for herbal use among those who had used herbs compared to 11.1% from books/magazines/newspapers and 5.6% each from herbalists and television/radio adverts. Only 4 (8.7%) of those who had used herbs combined its use with orthodox drugs.

Table 1: Association between the sexes and the use of herbs and willingness to prescribe them.

		Male	Female	OR (95%CI)	χ^2 p value
Herbal use in last 1yr	Yes	26 (37.1%)	6 (13.6%)	3.7 (1.4, 10.1)	0.007
	No	44 (62.9%)	38 (86.4%)		
Willingness to prescribe herbs	Yes	14 (38.9%)	6 (37.5%)	1.1 (0.3, 3.6)	0.9
	No	22 (61.1%)	10 (62.5%)		

61.5% (70) of the students will not prescribe herbs to others. However, 66.7% (16) of those who had used herbs will significantly prescribe herbs over 14.3% (4) of those who had not used herbs (OR 12; 95%CI 3.1, 46.6). But no significant difference exists between the sexes and the tendency to prescribe herbs (OR 1.1; 95%CI 0.3, 3.6; Table 1). Most students believe use of herbs may be harmful, generally not safer than orthodox drugs and also unsafe in pregnancy (92.2%, 90.7% and 90.7% respectively). A significant proportion, 73.3% (22) of students who had used herbs consider some herbs to be safe compared to 43.9% (36) of those who had not used herbs (OR 3.5; 95%CI 1.4, 8.8). A large proportion (98%) believe the physician must be told when taking herbs and 81.5% believe herbs should not be used along with orthodox drugs. 94.2% and 94.1% of students disagree that herbs work faster than orthodox drugs and herbs complement medical treatment respectively. A significant proportion of students, 66.7% (20), who had used herbs believe herbs are effective in treatment of hypertension, diabetes mellitus or kidney disease compared

to 25% (8) of students who had not used herbs (OR 6.0; 95%CI 2.4, 15.2). While 89.1% of students believe there is a lot of misinformation about herbs. A doctor, nurse or pharmacists are most likely (61.1%) to be approached by students whenever they have questions about herbs.

Table 2: List of herbs used by IMSUTH medical students

Herb	N= 80 (%)
Garlic	18 (22.5%)
Ginger	14 (17.5%)
Aloe vera	10 (12.5%)
Lemon grass	8 (10%)
Azadirachta indica (Dogoyaro)	6 (7.5%)
GNLD products	4 (5%)
Carica papaya leaf/root	4 (5%)
Herbal tea	4 (5%)
Mistletoe	4 (5%)
Tujah 1000	2 (2.5%)
Frutta vida	2 (2.5%)
Ginseng	2 (2.5%)
Garcinia kola (Bitter kola)	2 (2.5%)

Discussion

The use of herbs in Nigeria is not uncommon (WHO, 2003). However, among young medical students the incidence is unknown. All respondents were of the Ibo tribe due to the study location. It is exciting to note that a greater proportion of male students use herbs compared to their female counterparts of over a quarter of students who had used herbs. At their age it is mainly used for treatment of illness, mainly malaria, and maintaining good health. Due to their young age, they are not expected to have chronic illnesses as hypertension and diabetes mellitus as is common among the older population in Nigeria (Famuyiwa, 1993). Use of herbs among the population in the USA is also varied (Harnack et al., 2003). Garlic and ginger comprise the most popular herbs used as obtains also in the USA (Harnack et al., 2003). Their regular use in cooking by 2 female students in addition to their use for medicinal purposes indicates that they may improve the culinary value of their meals.

It is not surprising that most students who were willing to prescribe herbs had used it. Their perceived benefits may be the reason for this. Since majority of students had not used herbs, their consideration of herbs as being harmful, not safer than orthodox drugs and also unsafe in pregnancy is not surprising. Again only those who had used them thought herbs to be safe. Their confidence in orthodox drugs over herbs is obvious as most consider herbs to have a slower onset of action than orthodox drugs. Also their training in orthodox pharmacology which excludes study of herbs may contribute to their lack of confidence in herbs. The proportion of students who believe herbs to be effective against systemic diseases may have been influenced by information handed them from parents, relatives and peers as they have little or no personal experience in the efficacy of herbs for hypertension or diabetes mellitus.

Herbal study is presently excluded from the medical curriculum. Unsubstantiated claims and the poorly regulated herbal product industry contribute to misinformation about herbs perceived by most students. Most students would approach a medical personnel, who themselves have not studied use of herbs, each time they have a query about herbs unlike in the USA (Harnack et al., 2003). This fact makes study of herbs essential among medical personnel to enable them tackle queries about herbs that may arise even from patients.

Conclusion

The use of herbs among medical students is low. Commonly used herbs are garlic and ginger. Most students have a poor opinion about herbs despite admission to a lot of misinformation about herbs. Since medical practitioners are likely to be approached if students have queries about herbs, it is important to have some knowledge about herbs introduced in the medical curriculum.

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