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# Perception, usage and knowledge of herbal medicines by students and academic staff of University of Nigeria: A survey

Original article

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#### Abstract

*Introduction:* Data on perception, knowledge and the use of herbal medicine by an educated population will be helpful for on-going discussions on forming policies to support integrative medicine within the formal healthcare delivery system in Africa. This cross-sectional study aimed to assess the knowledge, perception, and use of herbal medicine by students (n = 1075) and academic staff (n = 177) at the university of Nigeria, Nsukka, Nigeria.

Methods: A validated, self-complete 26-item questionnaire was administered anonymously to university staff and students.

*Results:* Over 50% of the respondents believed that herbal medicines were effective and should be integrated into the modern health care system. Approximately 70% of the students surveyed had used at least one form of herbal therapy for a number of indications, especially malaria (54.2%) and typhoid fever (36.6%). Recommendations for the use of herbal medicines were made by family and friends (54.4%). There was a relationship between the respondent's academic field of study and their perceptions. Whereas majority of respondents in Arts, Humanities, and the Social Sciences faculties viewed herbal medicines as natural and completely safe, the majority of their colleagues in Biological Sciences, Veterinary Medicines, Paramedical Sciences, Medicine, and Pharmacy did not agree that herbal medicines are completely safe. The general opinion and perception of herbal medicines by respondents was positive, with a mean perception index of 2.73 on a 4-Likert scale. The majority of study participants had either used or were using one form of herbal medicine or another. Sources of information on herbal medicine were mainly from the electronic and print mass media, friend, peers, and family. Health professionals like doctors, nurses and pharmacist were not popular sources of information on herbal medicine; however, majority of respondents preferred that prescriptions of herbal medicines were issued by doctors and would like to see their use in hospitals.

*Conclusion:* The results of this study indicated that most of the participants that have used herbal medicines were sufficiently aware of herbal medicine and had a general positive attitude toward their usage.

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Keywords: CAM; Herbal medicines; Perception of herbal medicines; Integrative medicine; Phytomedicines; Health-care

#### Introduction

The World Health Organization has defined herbal medicine as plant-derived material (that contains either raw or processed ingredients from one or more plants) that provides therapeutic or other human health benefits. In some traditions, materials of inorganic or animal origin may also be present. Specific elements

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http://dx.doi.org/10.1016/j.eujim.2015.01.005 1876-3820/© 2015 Elsevier GmbH. All rights reserved. of herbal medicines include the following; parts of herbs (leaves, flowers, stem, wood, bark, roots, rhizomes, seeds, etc.); herbal materials (fresh juice, gum, fixed oils, resins, essential oils, etc.); herbal preparations (powdered herbal materials, extracts, tinctures, etc.) and finished herbal products [1]. In many parts of the world the consumption of herbal products is increasing especially for the management of chronic diseases [2,3]. Estimates of complementary and alternative medicine (CAM) use among U.S. adults and children, using data from the 2007 National Health Interview Survey (NHIS), show that almost 4 out of 10 adults (38.3%) had used some type of Complementary and

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Alternative Medicine in the past 12 months [4]. A related study that examined the prevalence, patterns, and changes in herb and supplement use among the US adults, using the 2002, 2007, and 2012 National Health Interview Surveys (NHIS), reported that an estimated 40.6 million US adults used herbs and supplements in 2012. However, the rate of herb and supplement use dropped from 18.9% in 2002 to 17.9% in 2007 and 2012 [5]. This decline in use was more pronounced among women, racial or ethnic minorities, and adults with low incomes [5]. It is now estimated that 30–50% of the population in developed countries are using complementary and alternative medicine products, and nearly USD 4 billion are spent on purchasing herbal products annually [6,7]. Despite this high rate of use, fewer than half of patients who use herbal products discuss the use of them with their clinicians [8,9]. These patients often do not consider these agents to be medicines because of their natural source. Most patients believe that their health care providers are not knowledgeable about herbal medicines and may have negative attitudes toward herbal products. In addition health care providers may neglect to ask about use of herbal products [10]. Some of the reasons for the increased use of herbal medicine are thought to include accessibility [1,11], affordability [12,13], perceived safety [14] and potential for treating diseases [15,16]. The general belief is that because herbal medications are "natural", or have been used in some parts of the world for generations, they must be safe. But, like modern pharmaceuticals, herbal medications can cause adverse effects [17]. The causes of such adverse reactions are diverse, and may include the use of inherently toxic herbal medicines or an overdose of herbs, conventional drug-herbal medicine interactions, and idiosyncratic reactions such as allergies. In most countries herbal medicines are excluded from the adverse drug reaction surveillance (pharmacovigilance) system. Several of risks are associated with herbal medicines. These include: poor quality [18,19]; incorrect usage [20,21] and lack of information [22].

Over 80% of the population in some Asian and African countries depends on traditional/herbal medicine for primary healthcare [23]. The World Health Organization (WHO) estimates that in many developed countries 70-80% of the population has used some form of alternative or complementary medicine. It is also recognized by WHO that herbal medicines are the most popular forms of traditional medicines [1]. Herbal medicines are highly lucrative in the international market with estimated annual revenues of USD 5 billion, USD 14 billion and USD 160 million for Western Europe (2003–04); China (2005) and Brazil (2007) respectively [23]. In spite of this, national policies and regulation are lacking for traditional/herbal medicine in many countries and where they are available; it is difficult to fully regulate traditional/herbal medicine products, practices and practitioners owing to variations in definitions and categorizations [24].

Most Nigerians, especially those living in rural communities do not have access to orthodox medicine and it is estimated that about 75% of the populace still prefer to solve their health problems consulting traditional healers. Where access to orthodox therapies exists, the rising costs of these medications, which are to a large extent imported, have posed a big challenge. Besides, many rural communities have great faith in traditional herbal medicine, particularly the "inexplicable" aspects of the practices with the general belief that these practices are powered by the native wisdom of their forefathers. The general acceptance of traditional herbal therapies also stems from the fact that these practices recognize the socio-cultural and religious background of the people which orthodox medicine seems to neglect.

The study was aimed at assessing the knowledge, perception, attitude, and level of use of herbal medicines among students and academic staff of the University of Nigeria. The study also evaluated the opinions of participants on the need to integrate herbal medicines into the formal health sector. The study will, hopefully, provide information on how much this "enlightened" segment of the society know about herbal medicine, their perception and actual usage of herbal medicine in Nigeria. This data will be relevant to regulatory authorities in formulating a comprehensive integrative medicine policy for the country.

#### Methods

#### Study setting, population size, and sampling

This survey was carried out in the University of Nigeria, Nsukka community with a population ~43,000 which comprises staff, students and children of both residential and non-residential status. However, the present study was focused on academic staff and undergraduate student students at the three campuses of University of Nigeria, Nsukka, Nigeria (UNN). The university is the first indigenous university in Nigeria; a co-educational and non-sectarian institution established in the aftermath of Nigeria Independence from Great Britain and officially opened on 7th October 1960. Participants in this study were chosen at random from the undergraduates students and academic staff in all the 107 departments and 16 faculties of the three campuses. As of June 2012, when the study was conducted, the University had 21,380 regular and full time undergraduate students and 1756 academic staff. A random 5% and 10% sampling of the full-time regular undergraduate students and academic staff of the institution, respectively, were chosen from every department and faculty of the institution to participate in the study. In each department, students were sampled from each study year or class.

### Ethics

The study was approved in accordance to our institutional ethical guidelines and was conducted with high regard for ethics and personal rights of participants. Information was obtained anonymously and each respondent was adequately informed about the aims, methods, and expected benefits of the study. They were also made to be aware that they were at liberty to freely abstain from participation at any time. Questionnaires were given only after obtaining informed consent of participants. Download English Version:

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