

Applications of Natural Medicine (Traditional Medicine/Complementary and Alternative Medicine) in Nigerian Healthcare Delivery System

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Abstract: Natural medicine in form of Traditional Medicine (TM) or Complementary and Alternative Medicine (CAM) have proved to be efficacious in treatment of various diseases for bodily, physical, mental, spiritual and general wellbeing. In Nigeria, natural medicine has been applied to treat sickle cell disease, cancer, musculoskeletal pain, asthma, malaria, typhoid fever, pile, fever, measles, diarrhea, cough, sexually transmitted diseases, stomach ulcers, pneumonia, diabetes, mental disorders, stroke *et cetera*. The Nigeria Natural Medicine Development Agency (NNMDA) is mandated to produce, develop, regulate and integrate natural medicines into the Nigerian healthcare delivery system. The applications of natural medicine (TM/CAM) in the Nigerian healthcare delivery system have been proven to be essential, beneficial, safe and affordable to rural and urban dwellers in Nigeria.

Keywords: Natural Medicine, Traditional Medicine (TM), Complementary and Alternative Medicine (CAM), Nigerian Healthcare Delivery System.

1. INTRODUCTION

Quality health is a fundamental right of all Nigerian citizens (Abdulraheem et al. 2012), but may not be achieved without any form of medicine. Medicine includes various types of health practices to maintain and restore health, and is obtained from natural sources and synthetic chemicals (More, 2016). Nowadays people are taking a more active role in managing their own health. Besides taking regular physical activities they are paying more attention to what they eat in order to maintain their health (Kountur and Huo, 2013). People on all continents have used hundreds to thousands of indigenous plants and traditional systems of medicines for treatment of ailments since prehistoric times, and to meet their primary health care needs (Falodun and Imieje, 2013; Yuan et al. 2016; Kala, 2017). In the Middle East, Latin America, Africa and Asia more than 85 percent of the populations predominantly rely on traditional medicine, especially on herbal medicines, for their healthcare needs (Jamshidi-Kla et al. 2018). The use of herbal drugs and traditional medicine is the oldest and the most assorted form of health care and all therapeutic systems in the world and is used in the prevention, and treatment of physical and mental illnesses (Abdullahi, 2011; Kunle et al. 2012; Mahomoodally, 2013; Yuan et al. 2016), and has been extensively studied in Nigeria among adult and pediatric population with chronic illnesses (Oreagba et al. 2011). In many developing countries especially in Africa, traditional medicine is still the main source of health care delivery in spite of the growth of religious enlightenment and western civilization in the areas of modern technology and orthodox medicine (Ekeopara and Ugoha, 2017). The use of traditional medicine (TM) and complementary and alternative medicine (CAM) has increased significantly over the past few years (WHO, 2004). Traditional medicine is based on knowledge, skills and talents, practices, beliefs, experiences, inexplicable theories and ideas passed from

generations to generations for maintenance of health, prevention and treatment of diseases, and for physical and mental illnesses. A healthcare delivery system is a set of universally accessible services that promote health, prevent disease, and provide diagnostic, curative, rehabilitative, supportive, and palliative services (Shirwaikar et al. 2013), and an organization of people, institutions, and resources that deliver health care services to meet the health needs of target populations (Oyibocho et al. 2014). Natural medicine, interchangeably known as traditional medicine (TM) or complementary and alternative medicine (CAM), has been defined by several researchers as: natural health care system (Adefolaju, 2014); set of healthcare practices (indigenous or imported) that are delivered outside mainstream healthcare system (James et al. 2018); diagnosis, treatment, and/or prevention which complements mainstream medicine by contributing to a common whole, satisfying a demand not met by orthodoxy, or diversifying the conceptual frameworks of medicine (Shirwaikar et al. 2013). Natural medicine has also been referred to as traditional medicine (Iwu and Gbodossou, 2000; Ekeanyanwu, 2011; Abdullahi, 2011; Oreagba et al. 2011; Falodun and Imieje, 2013; Chukwuma et al. 2015; Egharevba et al. 2015; More, 2016; Abubakar et al. 2016; Yuan et al. 2016; Ekeopara and Ugoha, 2017; Kala, 2017; Ohemu et al. 2017). As per the context in which it is practiced or the form of knowledge, traditional system of medicine is often called in various ways such as traditional medicine, alternative medicine, complementary medicine, natural medicine, herbal medicine, phyto-medicine, non-conventional medicine, indigenous medicine, folk medicine, ethno medicine etc. (Payyappallimana, 2009). Traditional medicine (TM) and complementary and alternative medicine (CAM) are growing aspects of medicine that have become very important social phenomena in healthcare delivery (Uzobo and Abasiokong, 2019). According to Idung et al. (2014), Kramlich (2014), Jimoh and Bakare (2019), the United States National Centre for Complementary and Alternative Medicine (NCCAM) defines CAM as a group of diverse medical and health care systems, practices and products that are not presently, considered to be a part of conventional medicine. Complementary medicine is used together with conventional medicine while alternative medicine is used in place of conventional medicine (Gohil and Patel, 2016). Complementary and alternative medicine (CAM) is a growing area of primary care among professionals and population subgroups in both developing and developed countries of the world (Idung et al. 2018).

Complementary and Alternative medicine stemmed from traditional systems of medicine. The World Health Organization (2019) defined traditional medicine as the sum total of knowledge, skill, and practices based on theories, beliefs, and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health as well as in the prevention, diagnosis, improvement or treatment of physical and mental illness, while indigenous traditional medicine is defined as the sum total of knowledge and practices, whether explicable or not, used in diagnosing, preventing or eliminating physical, mental and social diseases. This knowledge or practice may rely exclusively on past experience and observation handed down orally or in writing from generation to generation (WHO, 2019). According to World Health Organization (WHO, 2002) and Oreagba et al. (2011), traditional medicine refers to diverse health practices, approaches, knowledge and beliefs incorporating plant, animal and mineral based medicines, spiritual therapies, manual techniques and exercises, applied singularly or in combination to treat, diagnose and prevent illnesses or maintain well-being. According to Egharevba et al. (2015), traditional (indigenous) medicine describes medical knowledge and practice systems which were developed over centuries within various societies before the era of modern medicine. Natural medicine may therefore be defined as traditionally and locally prepared remedies, medicines, drugs and food products/supplements using medicinal plants and other natural means for effective treatment of ailments and for general wellbeing.

2. CLASSIFICATION OF NATURAL MEDICINE

Kramlich (2014), Idung et al. (2014) and Saeed et al. (2018) classified natural medicine into five categories, namely: (i). Alternative medical systems which include: homeopathic medicine, naturopathic medicine, traditional Chinese medicine, ayurvedic medicine. (ii). Mind-body interventions which include: meditation, prayer, mental healing, and therapies that use creative outlets such as art, music or dance. (iii). Biological based therapies which include: dietary supplements such as vitamins, minerals, herbs or other botanicals, amino acids, and substances such as enzymes, organ tissues, and metabolites. (iv). Manipulative and body-based methods which include: chiropractic, osteopathic and massage. (v). Energy therapies which include: qigong, reiki, therapeutic touch, pulsed fields, and magnetic fields.

3. APPLICATIONS OF NATURAL MEDICINE IN NIGERIA

Natural medicine (traditional medicine/complementary and alternative medicine) has been applied to treat several diseases in Nigeria. According to a research conducted by Abubakar et al (2016), majority of the respondents (85%) used traditional medicine for various health concerns including malaria, typhoid fever, pile, cancer, fever, measles, diarrhea, cough, sexually transmitted diseases, stomach ulcers, pneumonia and diabetes. Kankara et al. (2015) reported that women in Katsina state have been using medicinal plants to cure various ailments associated with maternal health since time immemorial. Busari and Mufutau (2017) found that 88.5% out of 200 patients used CAM in treating sickle cell disease in Lagos state, while 66.3% out of 240 patients used CAM to treat cancer in Sokoto state (Aliyu et al. 2017). Similarly, 65.0% out of 160 patients used CAM to treat cancer in University of Nigeria Teaching Hospital (UNTH) in Enugu state (Ezeome and Anarado, 2007). 84.4% out of 128 respondents had used some form of CAM in Ekiti state (Adesola et al. 2017), while 93.9 % out of 230 rural farmers used natural medicine to treat musculoskeletal pain (MSP) in Oyo state (Mbada et al. 2015). Tor-Anyiin et al. (2018) reported a high prevalence of CAM use by health workers in Benue state. Out of 337 respondents, the most used CAM was spiritual therapy (68.2%), whole-body therapy was 24.9% while the use of biological therapy and manipulative therapy were 54% and 61.4% respectively. According to Adeyeye et al. (2011), CAM has been used by asthma patients in Lagos State University Teaching Hospital. 50.5% out of 190 respondents used CAM to treat ailments. Biological-based therapies were the most widely used form of CAM among the patients. 70.8% used native local herbs mostly, while bitter leaf (*Vermonia amygdalina*) and prayer were used by 60.4% and 47.9% of the respondents respectively. Similarly, Ogunsola and Egbewale (2018) reported that 85% out of 104 respondents used herbs in treating diseases. Onyiatpat et al. (2011) reported that 84.7% out of 732 adult participants used CAM to treat ailments in Enugu. The most commonly used CAM products were biological products (56.0%), followed by prayer/faith healing (49.4%), physical therapy (22.1%), alternative medicine (7.3%), and others (26.6%). Likewise, the research findings of Okoronkwo et al. (2014) revealed that 84.7% out of 732 participants in Enugu used CAM at one time or another. The most commonly used CAM product were biological products and spiritual therapy. According to Jimoh and Bakare (2019), the lifetime prevalence of CAM use among 221 doctors in Usmanu Danfodiyo University Teaching Hospital Sokoto (UDUTH) was 69.3%. The research findings of Jimoh et al. (2018) showed that 64.8% and 53.8% out of 211 psychiatric patients used herbal drinks and prayers in UDUTH, Sokoto and Federal Neuropsychiatric Hospital (FNPH), Kware respectively. The results obtained by Uzobo and Abasiokong (2019) revealed that there were more users of CAM (88%) than non-users (12%) among 325 pregnant women in fourteen (14) selected communities in South-South region of Nigeria. Idung et al. (2014) found that 63.8% out of 574 adult patients used CAM remedies while assessing treatment from University of Uyo Teaching Hospital, Uyo. The report of Ekeh et al. (2015) showed that some stroke patients from Jos University Teaching Hospital (JUTH) were taken to churches or traditional healers for treatment. Oreagba et al. (2011) administered a total of 12 herbal medicines (crude or refined) to 388 respondents, either alone or in combination with other herbal medicines, in Lagos. Results indicated that herbal medicines were reportedly used by 259 (66.8%) respondents. 'Agbo jedi-jedi' (35%) was the most frequently used herbal medicine preparation, followed by 'agbo-iba' (27.5%) and Oroki herbal mixture® (9%). Family and friends had a marked influence on 78.4% of the respondents who used herbal medicine preparations. Herbal medicines were considered safe by half of the respondents. Furthermore, the research findings of Mustapha et al. (2016) revealed that 58.16% out of 196 respondents in Abuja are of the opinion that herbal products are more affordable than orthodox medicines. Furthermore, natural medicines and products such as herbal teas, herbal soaps, mosquito repellent creams, dietary supplements, herbal vaginal wash, poultry additive, etc are currently being produced and developed by the Nigeria Natural Medicine Development Agency (NNMDA) in Lagos.

4. BENEFITS OF INTEGRATING NATURAL AND ORTHODOX MEDICINES

The benefits of integrating natural and orthodox medicines include: (i). Inclusion of indigenous herbal products in the national drug list. (ii). Deployment of better technologies in traditional medicine practices, and development of new drugs for orthodox use. (iii). Exposition and censuring of myths which cannot be scientifically substantiated. (iv). Empowerment of the local populations who are farmers and custodians of medicinal plants and knowledge. (v). Development of medicinal plant plantations and for mass employment. Egharevba et al. (2015) suggested that integration of natural medicines in Nigeria healthcare delivery system is expected to guarantee greater access to healthcare delivery for low-income earners. The usually pleasant patient-specific diagnosis and treatment procedures usually employed by traditional medicine practitioners (TMPs) may improve doctor-patient relations and trust if integrated into the orthodox

practice. Adefolaju (2014) expressed the imperative for a synthesis and convergence of orthodox and traditional medical systems in Nigeria. Resultantly, the research findings of Ogunsola and Egbewale (2018) revealed that 50% of 104 respondents combined herbs and orthodox medicines in treatment of diseases in Ibadan, Oyo state.

5. SUMMARY

Most synthetic and orthodox drugs are substandard and prone to adulteration, unlike natural medicines. Substandard, unwholesome and adulterated orthodox drugs are still in circulation despite national efforts of National Agency for Food and Drug Administration and Control (NAFDAC) to combat the menace. When compared to natural medicine, conventional and orthodox medicines are comparatively costly and sometimes inaccessible. Most rural dwellers cannot access and afford modern healthcare products and services. Natural medicine has been applied to treat several diseases in Nigeria. Hence, inclusion of natural medicine is indispensable in the Nigerian healthcare delivery system.

The applications of natural medicine in Nigerian healthcare delivery system are essential in the following ways:

1. Widen knowledge involved in traditional medicine/complementary and alternative medicine (TM/CAM).
2. Create avenue for research to fill in need gaps in the orthodox system of medicine.
3. Validation of activities of the natural medicine/product to ensure confidence in the practitioner/patient.
4. Ensures standardization and quality of active ingredients in herbal drugs/medicines.
5. Reduce costs and reliance on pharmaceutical drugs thereby ensuring good health for rural dwellers and low-income earners in Nigeria.
6. Serve as measures for utilization of natural resources, e.g. medicinal and aromatic plants (MAPs).
7. Play vital roles in health promotion, sustenance and for general wellbeing of Nigerians.
8. Readily available and affordable especially in rural, semi-urban and urban areas.
9. Effective in treatment of chronic diseases.
10. Provide recognition, motivation and income for traditional medicine practitioners (TMPs).

6. CONCLUSION

Applications of natural medicine is very essential and beneficial to the health of Nigerians. Natural medicine, products and drugs are relatively affordable, effective and safe and divinely approved for the benefit of mankind. The World Health Organization (WHO) recognizes natural medicine (TM/CAM) as integral part of healthcare delivery system. Traditional medicine as well as complementary and alternative medicine have proved to be a great alternative for sustenance of human health, especially among rural and urban dwellers in Nigeria. The Nigeria Natural Medicine Development Agency (NNMDA) is therefore poised to produce, develop, regulate and integrate natural medicines into the Nigerian healthcare delivery system for the wellbeing of Nigerians.

7. RECOMMENDATIONS

The federal government of Nigeria through the Federal Ministry of Health should make and implement adequate policies and regulations and expedite action to integrate natural medicines into Nigerian healthcare delivery system. There should be inclusion of medicinal plants research into academic programmes, and integration of herbal medicine into medical curriculum which will enable future doctors to communicate better with their patients on healthcare system. The federal government of Nigeria should also equip research agencies with modern machines and technologies to produce natural medicines, as well as provision of research grants and funding to researchers. The Nigeria Natural Medicine Development Agency (NNMDA) should be strengthened to produce more natural medicines, drugs and products. Sponsorships, trainings, collaborations and more research work among ethnobotanists, pharmacologists, pharmacists, physicians, chemists, TMPs and other researchers/research agencies are needed to produce and integrate natural medicines, drugs and products into the Nigerian healthcare delivery system. The federal government of Nigeria should therefore intensify efforts towards research, funding and support in production of natural medicines and products, as well as products promotions, exhibitions, and integration of natural medicines into the Nigerian healthcare delivery system.

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