



## **Investigation of the Knowledge of Traditional Medicine Policy by Traditional Medicine Practitioners (TMPs) of Nasarawa State, Nigeria: A Pilot Study**

**Adeola Jegede<sup>1\*</sup>, Jemilat Ibrahim<sup>1</sup>, Henry Egharevba<sup>1</sup>, Grace Ugbabe<sup>1</sup>,  
Ibrahim Muazam<sup>1</sup>, Yemisi Kunle<sup>1</sup> and Karniyus Gamaniel<sup>1</sup>**

<sup>1</sup>*Department of Medicinal Plant Research and Traditional Medicine, National Institute for  
Pharmaceutical Research and Development, Abuja, Nigeria.*

### **Authors' contributions**

*This work was carried out in collaboration between all authors including fund sourcing, study design,  
protocol writing and field work. Author AJ managed the analyses of the study results, discussion/  
conclusion and putting together the final manuscript. All authors read and approved the final  
manuscript.*

### **Article Information**

DOI: 10.9734/JOCAMR/2016/29249

#### Editor(s):

(1) Ahmed Moussa, Pharmacognosy and Api-Phytotherapy Research Laboratory,  
Mostaganem University, Algeria.

#### Reviewers:

(1) Anonymous, The Official College of Psychologists, Madrid, Spain.  
(2) Ashok Pandey, Nepal Health Research Council (NHRC), Kathmandu, Nepal.  
Complete Peer review History: <http://www.sciencedomain.org/review-history/16532>

**Original Research Article**

**Received 30<sup>th</sup> August 2016**  
**Accepted 29<sup>th</sup> September 2016**  
**Published 13<sup>th</sup> October 2016**

### **ABSTRACT**

**Aim:** The effective implementation of traditional medicine policy has been recommended by the World Health Organisation as a way of addressing some of the challenges facing Traditional Medicine practise in many countries. This study was aimed at investigating the knowledge of Traditional Medicine Practitioners in Nassarawa State, about Nigeria's Traditional Medicine Policy and other issues of concern towards provision of evidence based information to support the promotion of the traditional medicine practise and its integration into national health care delivery system.

**Study Methodology, Place and Duration:** Pre - tested study questionnaire and consent forms were employed. Familiarization visits to the selected study sites to introduce the study to the

\*Corresponding author: E-mail: [adeolajegede@yahoo.com](mailto:adeolajegede@yahoo.com);

community to have their buy in and understand their cultural norms carried out. Administration of questionnaire, data collation and analysis were later done. The study was conducted at Lafia and Keffi, both in Nasarawa state in June 2013.

**Results:** The result indicated 38% of respondents were aware of the existence of the Traditional Medicine Policy document while 59% were not. 43% of those aware did not know the content of the policy, while 57% had a faint idea of what the policy was about. On adverse drug reaction, 58% of respondents got feedback from their patients while 38% did not with only 17% of the TMPs referred patients with adverse drug reaction to hospital. However, none of the TMPs reported the reactions to the national regulatory agency with 70% not registering their products with the regulatory agency as required by the policy. Many areas of the policy requiring attention of the TMPs were not been implemented.

**Conclusion:** There is need for greater awareness of the existence of the policy for improved implementations while the document which is due for review needs the input of the practitioners during the review process.

*Keywords: Traditional medicine; traditional medicine policy; adverse drug reaction; evidence based information; Nigeria.*

## 1. INTRODUCTION

The promotion of Traditional Medicine (TM) has been linked to the development and effective implementation of Traditional Medicine Policies in member states of the World Health Organization (WHO), as highlighted in its Traditional Medicine Strategy (2002-2005) document. Development of a national policy and regulations are essential indicators of the level of integration of such medicines into a national health care system [1].

The development of guidelines and policies on TM in Nigeria dates back to the 19<sup>th</sup> century while formal legislation promoting the practise dates back to 1966, when the Ministry of Health authorized the University of Ibadan to conduct research into the medicinal properties of some local herbs. In the 1980s, policies were established to accredit and register Traditional Medicine Practitioners and regulate the practice, the National Investigative Committee on Traditional and Alternative Medicine and a committee to research and develop traditional medicine were also established in country. Laws and regulations for herbal medicines were issued in 1993 and revised in 1999 [2]. The National Institute for Pharmaceutical Research and Development in Abuja founded in 1987 and the Nigeria Natural Medicines Development Agency in Lagos founded in 1992 are the two national research based organisations in Nigeria focusing on TM.

Some of the challenges facing TM practice in the African region include lack of official recognition of TM; lack of regulatory and legal mechanisms;

TM not integrated into national health care systems; Inadequate allocation of resources for TM development and capacity building, slow or non-implementation of the policy due to various factors, absence of or inadequate evidence based data on the role of the practise [3].

Efforts towards regulation of TM practise in Nigeria culminated in the development of a National policy on TM in 2007. The policy document was to address issues of regulation, strategy, system and information management, human resources development, technology, financing, conservation of biodiversity, Intellectual Property Rights, Capacity building, Indigenous Knowledge (IK), and partnering between traditional and conventional medicine practitioners. It was also aimed at facilitating the integration of TM into the national healthcare delivery system of the country. The interest of various stakeholders (e.g Researchers, TMPs, regulatory Agencies, etc.) involved in TM were addressed in the policy. The vision statement of the Policy is to see the practice of Traditional Medicine in Nigeria become a respected mode of treatment, preserving our cultural heritage with respectable practitioners and providers, delivering quality healthcare to all Nigerians, and a situation in which economic potentials of traditional medicine are also actualised to the benefit of all. The situation whereby both conventional and traditional medicine practitioners legally and freely render their services in parallel but in clear understanding of each other in close collaboration at all levels of healthcare delivering system and providing the chance for the patient to make an informed choice was also envisioned [4].

The policy was to act as the guiding document for the development of traditional medicine in the country, even though its implementation had been slow while a review is long overdue. The Traditional Medicine Division in the Department of Food and Drugs in the Federal Ministry of Health currently oversees the implementation of the policy and engagement of relevant stakeholders. The National Association of Nigerian Traditional Medicine Practitioners (NANTMP) is the umbrella body of the practitioners in Nigeria recognised by the Government. There are also State Boards working at State level to regulate the practice. Despite enormous researches carried out on traditional medicine in Nigeria, the country has not been able to integrate traditional medicine into its national health care delivery system due to a variety of reasons including the ineffective implementation of its national policy on traditional medicine [5]. Using a key informant opinion study protocol on selected professionals / key stakeholders, 5 out of 16 respondents (31.2%) said there was no National policy while 11 out of 16 (68.8%) responded yes that there was a national policy [6]. The lack of evidence based data on

the knowledge of TM practitioner as it relates to the policy towards promotion of the practice necessitated this study.

## 2. MATERIALS AND METHODS

### 2.1 Study Site and Population

Nasarawa State as shown in Fig. 1 below was selected for the pilot study because of its proximity to the Federal Capital Abuja, limited logistic challenges, and also being in the middle belt of the country where much information on traditional medicine and medicinal plants had not been well documented. The state also has a well-organised Traditional Medicine Practitioners Association in place, which made accessing and collaboration with them for the study easy and well-coordinated. Sixty TMPs were randomly selected for the interview by the Secretary of the State's National Association of Nigerian Traditional Medicine Practitioners (NANTMP). First group of 30TMPs converged at the TMPs Secretariat in Lafia while the remaining converged in Keffi. The survey took place in June, 2013.

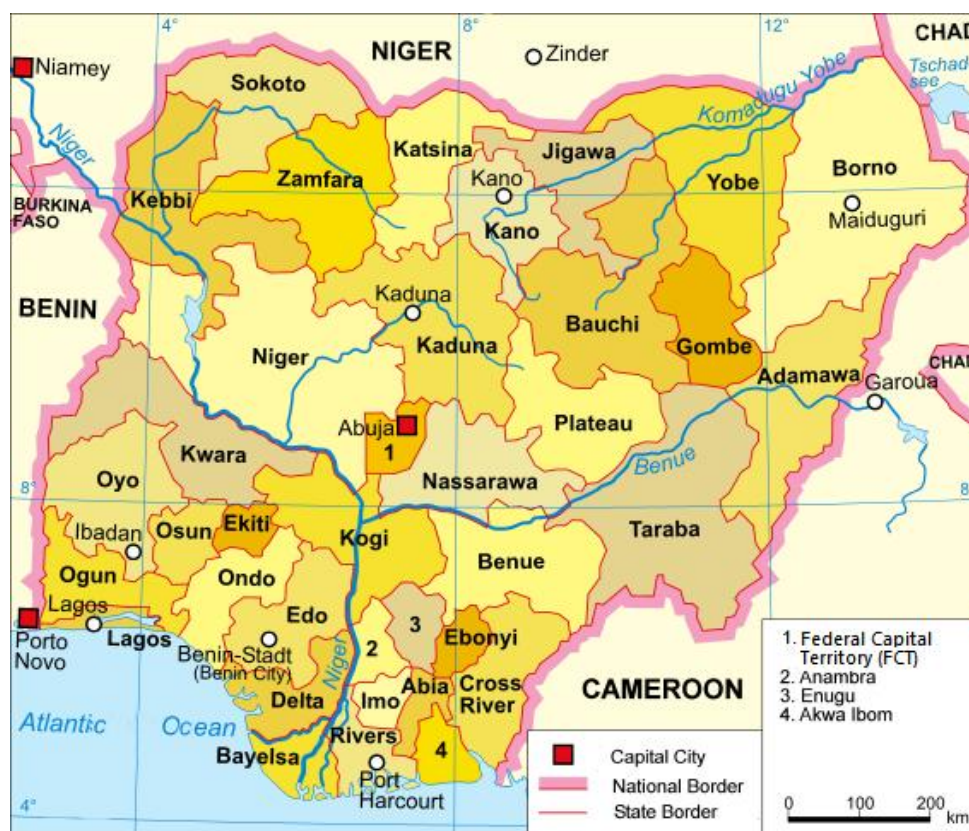


Fig. 1. Map of Nigeria showing Nasarawa State

## 2.2 Study Design and Hypothesis

Pre tested structured questionnaire and Prior Informed Consent (PIC) forms were designed for the study with sections on the Traditional Medicine Policy, registration of products and awareness of National Agency for Foods and Drugs Administration and Control (NAFDAC), activities, and Pharmacovigilance included. Preliminary visits were made to the study site. A letter of introduction from NIPRD was submitted to the State branch of the National Association Nigerian Traditional Medicine Practitioners (NANTMP) through the Secretary of the Association. The team leader explained the purpose of the survey to the Secretary and other officials present. The contents of the questionnaire and the PIC form were also explained to them. Appointments were made with the traditional healers for the actual interview and on the appointed dates, formal introductions were done and the Team Leader explained the purpose of the study to the TMPs present. The contents of the questionnaire and the PIC form were again explained. The TMPs

were intimated of their rights not to respond to any question they were not comfortable with, amongst other issues. After consenting to the study by signing the PIC forms, the questionnaires were administered by oral interview with the help of two assistants and two interpreters. The interview was conducted in English and Hausa languages when appropriate. Focus group discussion sessions were also conducted. What is the knowledge base or gap of TMPs in Nasarawa state about the traditional medicine policy of the government and their contribution to future reviews of the document were pertinent questions the study wanted to find out. The need for evidence based research reports on the challenges, knowledge base and implementation status of the policy from the TMPs in Nasarawa state necessitated this pilot study.

## 2.3 Data Compilation and Analysis

Collected data were analysed using descriptive statistics such as percentages and frequency and expressed in charts.



Fig. 2a and b. Cross section of TMPs during Lafia interview section



Fig. 3a and b. Cross section of TMPs at the Keffi interview section



### 3. RESULTS AND DISCUSSION

#### 3.1 Awareness of Traditional Medicine Policy

A section of the questionnaire was aimed at investigating the level of awareness by the TMPs of the existence of this policy, what it contains, and also to get feedback on the policy including contributions for the review of the document. The result as shown in Fig. 4 indicated that 39% of the respondents were aware of the existence of the Traditional Medicine Policy document while 58% were not aware. Three percent (3%) did not respond to the question. Forty-three percent (43%) of those who said they were aware of the existence of the document did not know what the document was all about or what it contained; the remaining 57% (13 respondents) had a faint idea of what the policy was about (Fig. 5). The WHO through its 2002 document on TM strategy aimed at encouraging member states to develop national policies on TM towards creating a stronger evidence base for the practise and enhancing its promotion. This result above indicates the need for more effort to be placed on the enlightenment of the TMPs about the policy guiding their practise. Those that were aware of the document however recommend inclusion of the names and pictures of plants used in TMP in Nigeria for ease of identification in the policy.

#### 3.2 Membership of National Association and Fake Practitioners

Ninety four percent (94%) of the TMPs who responded were aware of the existence of the association and were members of the umbrella body of the TMPs recognised by the Federal Government, the National Association of Nigerian Traditional Medicine Practitioners (Fig. 6). The TMPs were studied to know their level of awareness of the existence of illegal practitioners among them and how they thought their activities could be curtailed. Concerning this issue, forty-eight percent (48%) of the respondents were not aware of the existence of fake practitioners in the State while forty-eight percent (48%) believed fake TMPs existed. About three percent (3%) did not respond to the question (Fig. 7). The high demand for herbal medicines might have led to the increase in the number of fake practitioners coupled with the lack of a regulatory agency to check the practice.

The menace of fake traditional medicine practitioners was identified as one of the main challenges facing TM practice in the country. A fundamental challenge to TM is the widespread reported cases of fake healers and healing [7]. In view of the current economic climate and amid the concomitant unemployment, there is a marked increase in the ranks of traditional healers, among whom there are, unfortunately,

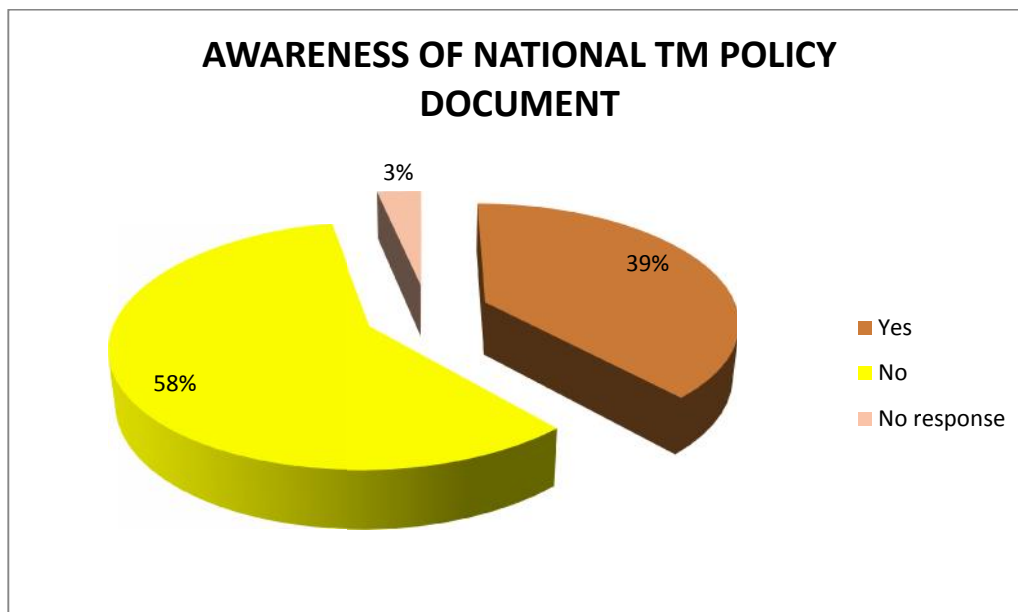
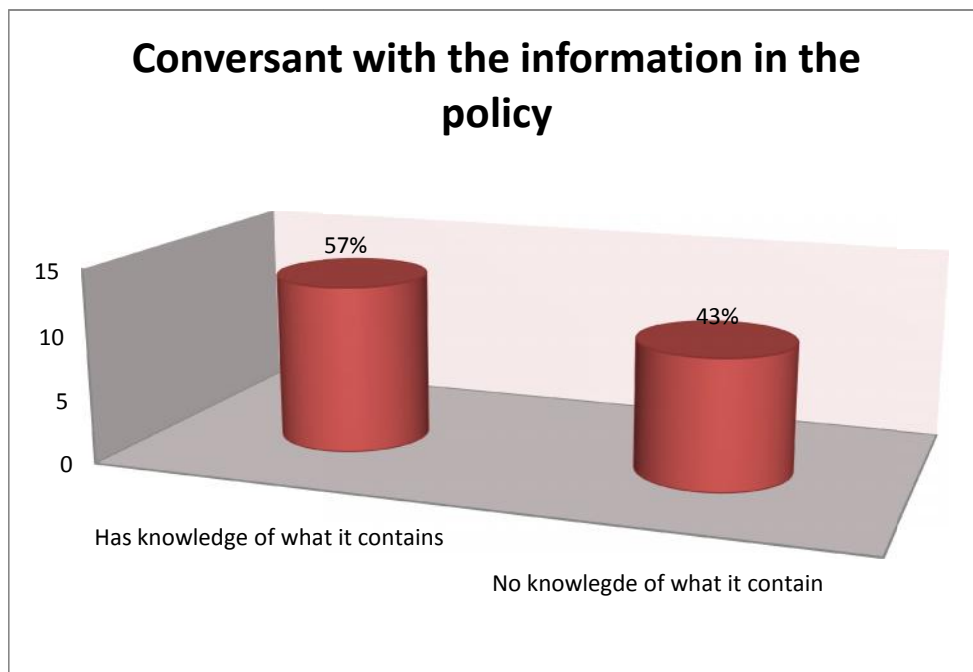


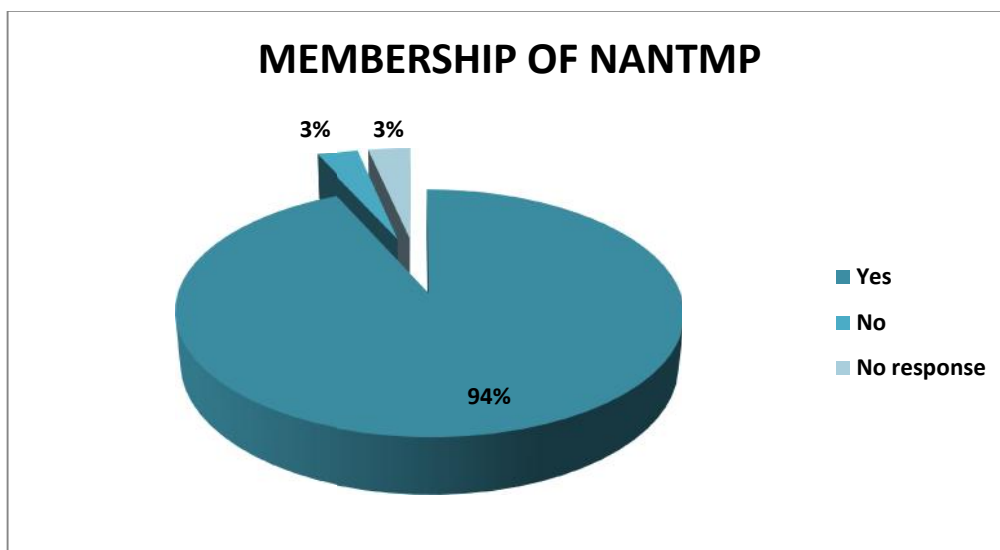
Fig. 4. Percentage of TMPs aware of the traditional medicine policy

quite a number of charlatans [8]. Many of the respondents suggested the following actions to curb the activities of fake practitioners:

1. The association reporting them to the appropriate authorities.
2. Ensuring mandatory registration with NANTMP.
3. Certification and accreditation of practitioners.
4. Arrest, investigate and prosecute illegal practitioners.
5. Sanctions and disciplinary actions.
6. Training of TM practitioners through workshops, seminars, etc
7. Verification of claims by testing recipes and inclusion in national essential drug list.



**Fig. 5. Percentage of TMPs conversant with the content of the traditional medicine policy**



**Fig. 6. Percentage of TMPs that are members of NANTMP**

### 3.3 Adverse Drug Reaction

Adverse drug reaction is an unpleasant or harmful reaction resulting from the use of a medicinal product, which predicts hazard for future administration and warrants prevention,

alteration of the dosage regimen, or withdrawal of the product. Orthodox or herbal drugs can give adverse drug reaction, as the era of beliefs that herbal drugs don't give unwanted reaction effects has passed.

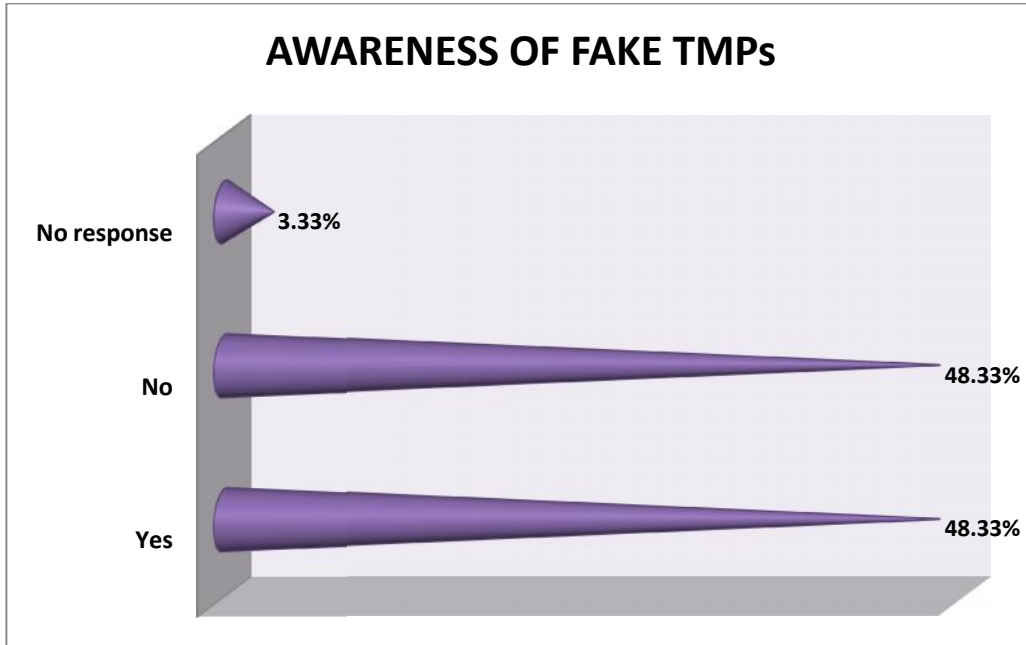


Fig. 7. Percentage of TMPs aware of the existence of Fake TMPs

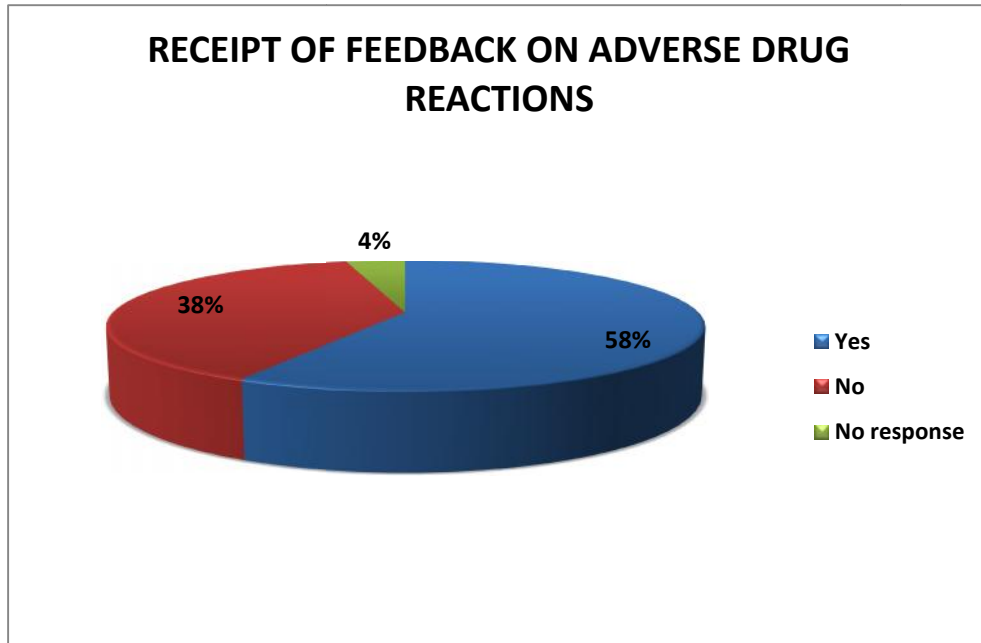


Fig. 8. Percentage of TMPs who get feedback on adverse reaction to their herbal medicine

Fifty-eight percent (58%) of the respondents reported that they got feedback from their patients on adverse reactions of their herbal medicines while thirty-eight percent (38%) did not as shown in Fig. 8 above. The availability of a reporting system for adverse drug reaction for herbal medicinal products is a boost and promotion for traditional medicine practise in Nigeria and this is highly encouraged. Even though 58% of respondents indicated that they report adverse reactions to their products, there is still danger to health care provision by the TMPs in view of the 38% that do not report as

this is a clear case of under reporting. This should be of concern to health care providers and the Ministry of Health.

In the advent of an adverse reaction, about seventeen percent (17%) of the TMPs reported that they referred such patients to an orthodox hospital, five percent (5%) treated the adverse effects, and another five percent (5%) changed the medication. None of the TMPs reported the reactions to NAFDAC or their association. A large number, seventy-three percent (73%), did not respond to the question (Fig. 9). This could

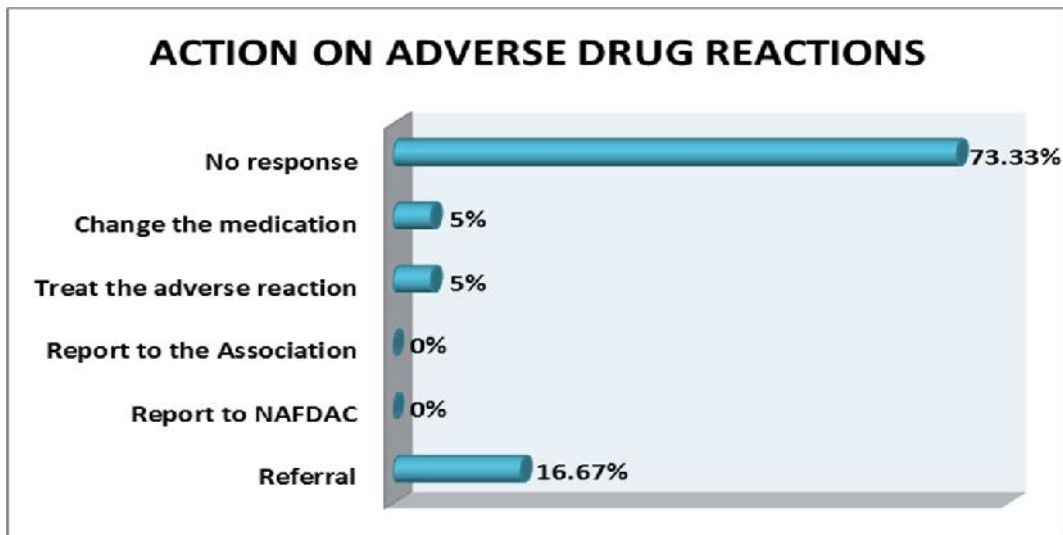


Fig. 9. Actions taken by TMPs in response to adverse reaction to their products

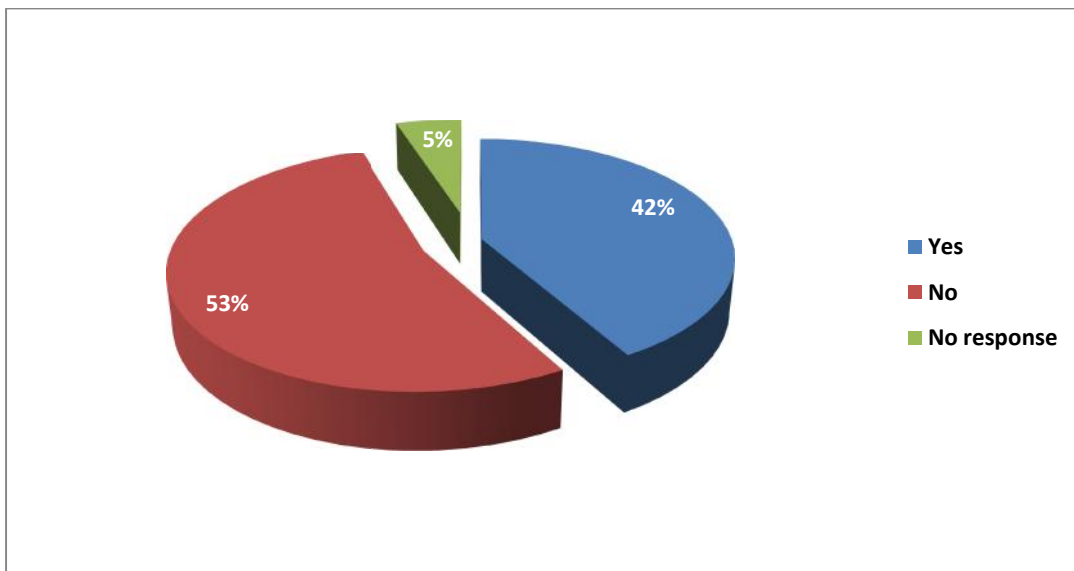
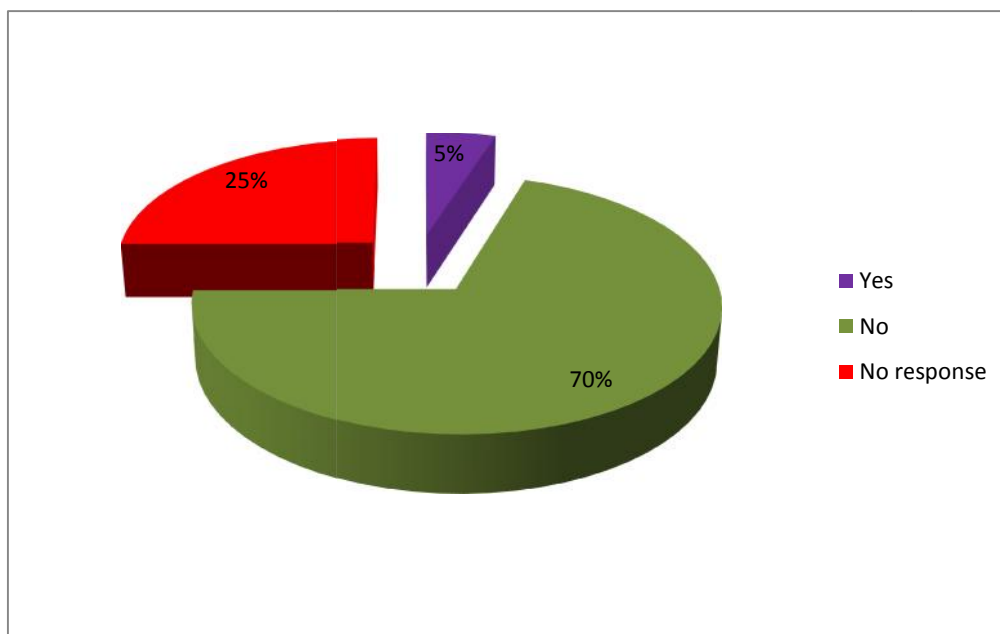


Fig. 10. Percentage of TMPs aware of NAFDAC and its activities





**Fig. 11. Percentage of TMPs who have listed any product with NAFDAC**

be as result of not fully understanding what adverse reactions meant, despite explanation by the interviewer or they intentionally refused to respond to protect themselves since they viewed the interviewers as government agents. This is a major issue that needs to be addressed through enlightenment programs.

The previous response on medicinal products reaction led to the question on testing the level of awareness of the TMPs about NAFDAC and its activities. Forty-two percent (42%) of the TMPs were aware of NAFDAC and its activities while 53% were not (Fig. 10). Only 5% (3) had some of their medicinal products listed with NAFDAC, while 70% did not have any product listed. 25% did not respond to the question (Fig. 10). This result has serious implication for effective safety monitoring of these products as they may likely pose danger if not certified for human use especially since the respondents are registered NANTMP members.

#### **4. CONCLUSION AND RECOMMENDATIONS**

The successful implementation and review of the Nigerian Traditional Medicine Policy (2007) is dependent upon various stakeholders of which the TMPs are a key. This notion aligns with similar conclusion reached at a 2014 pre review meeting on the South African Traditional

medicine policy [9]. This paper has highlighted the feelings of practitioners from Nasarawa State on the policy and provided a feedback for the policy makers to consider when reviewing the current policy. Very few of them were aware of the National Traditional Medicine Policy document and were mainly officials of the NANTMP. The few also did not understand what it was all about and could not make any meaningful contribution to it. Although majority of the TMPs were aware of NAFDAC and its activities, a higher percentage of them did not have their products listed by NAFDAC or was even in the process of doing so. There is need for more presence of the regulatory agencies in the rural areas where majority of these practitioners reside, coupled with improved education and enlightenment.

This study shows that there is a serious policy implication for A adverse drug reaction reporting and post-market surveillance of herbal products in Nasarawa state. Even though NAFDAC has put in place a Pharmacovigilance system, it has not been effective with the TMPs who provide medicinal products to the patients. There is need for improved enlightenment and encouragement for reporting of adverse reactions by the TMPs not yet reporting and government need to take critical look at this. Increasing awareness of the issue is an essential part of improving safety monitoring. Through improved training and

communication, important next steps will be to ensure, that TMPs and consumers understand the true degree of problem and risk involved.

The Ministry of Health and other stakeholders need to carry out awareness campaign to the TMPs on the Traditional Medicine Policy and its benefits to the TMPs. This will empower them to make meaningful contributions towards the review of the policy. A higher percentage of TMPs should be involved in the review of the current policy to improve the implementation of the revised policy to achieve its objectives. The issues raised by the respondents on training, product listing, fake practitioners, etc should form part of the review process of the policy. Stakeholders involved in promoting health systems in the country need to put up training programmes for the TMPs in the areas of sanitation and hygiene, record keeping, proper packaging, good collection practice, sustainable collection, current Good Manufacturing Practise (cGMP), current Good Agricultural Practise (cGAP), etc. as documented from previous studies by the same authors of this paper [10,11]. These trainings are necessary since the TMPs will continue to contribute to health care delivery of the citizens as about 80% of the world population use traditional medicine and Nigeria is not left out of this huge percentage. As practised in advanced countries, there is need for an effective reporting system for adverse reactions to the products of TMPs as this will go a long way to improve their practise and safe the health of Nigerians [12]. The authors realise that the survey should be extended to other states in the other zones of the country towards providing a nationwide database necessary for effective policy review. If the target of integration of traditional medicine into the national health care system as stated in the policy must be achieved, effective implementation and review of the Nigerian Traditional Medicine Policy must be the corner stone. The time to implement a plan for the review of the policy has come in view of the various advances in traditional medicine.

#### CONSENT

It is not applicable.

#### ETHICAL APPROVAL

It is not applicable.

#### ACKNOWLEDGEMENTS

The authors wish to acknowledge the cooperation of leadership and members of the

Nasarawa State branch of NANTMP and provision of study fund by management of the National Institute for Pharmaceutical Research and Development (NIPRD) Abuja.

#### COMPETING INTERESTS

Authors have declared that no competing interests exist.

#### REFERENCES

1. World Health Organisation (WHO). Traditional Medicine Strategy; 2002-2005. WHO/EDM/TRM/2002.1. Geneva, World Health Organization; 2002.
2. World Health Organisation (WHO). Report of a WHO Global Survey National Policy on Traditional Medicine and Regulation of Herbal Medicines; 2005.
3. Gerard B, Kronenber F. A public health agenda for traditional, complementary, and alternative medicine. *American Journal of Public Health.* 2002;92:10.
4. Traditional Medicine Policy for Nigeria. Ministry of Health, Nigeria. 2007;24.
5. Egharevba H, Ibrahim JA, Jegede IA, Ugbabe EG, MI, Kunle OF, Gamaniel KS. Assessment of training needs and practice of Traditional Medicine Practitioners (TMPs) towards integration into Nigerian healthcare system: A case study of Nasarawa State. *International Journal of Life Sciences.* 2015;4(2):147-153.
6. Olufunsho A, Kennedy IA, Noel NW, John CA. Traditional medicine policy and regulation in Nigeria: An Index of Herbal Medicine Safety Current Drug Safety. 2014;9:16-22.
7. Ebomoyi EW. Genomics in traditional African healing and strategies to integrate traditional healers into western-type health care services: A Retrospective Study *Researcher.* 2009;1(6):69-79.
8. Pretorius E. *South African Health Review.* 5<sup>th</sup> Edition. Durban: Health Systems Trust. Traditional Healers. 249–256.
9. Georgios G, Per-Olof O. Evaluating traditional medicine policy in South Africa: Phase 1 development of a policy assessment tool. *Social Medicine and Global Health, Department of Clinical Sciences, Malmo , Lund University;* 2012.
10. Ibrahim JA, Egharevba HO, Jegede IA, Ugbabe GE, Muazzam I, Kunle OF, Gamaniel KS. Medicinal plants used and the perception of plant endangerment by

- the traditional medicine practitioners of Nasarawa State, Nigeria: A pilot study. International Journal of Biodiversity and Conservation. 2016;8(1):8-20.
11. Ibrahim JA, Muazzam I, Jegede IA, Kunle OF, Okogun JI. Ethnomedicinal plants and methods used by Gwandara tribe of Sabo Wuse in Niger State, Nigeria to treat mental illness. African Journal of Traditional, Complem. Alternat. Med. 2007; 4(2):211-218.
  12. Zubin A, Baker GR, Welsh S, Rishma W, Boon H, Barnes J. Adverse event reporting for herbal medicines: A result of market forces. Health Policy. 2009;4(4):77-90.

---

© 2016 Jegede et al.; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

*Peer-review history:*  
*The peer review history for this paper can be accessed here:*  
<http://sciencedomain.org/review-history/16532>