

**Full Length Research Paper****Assessment of Training Needs and Practice of Traditional Medicine Practitioners (TMPs) Towards Integration into Nigerian Healthcare System: A Case Study of Nasarawa State**

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Abstract

The potential role of traditional medicine (TM) in enhancing access to healthcare delivery especially in the developing countries like Nigeria and other countries of West Africa cannot be over-emphasized. However, integrating the TM practice into the formal healthcare systems has continued to elude these countries due to a number of challenges. Some of these challenges are more easily surmountable than others. Most of these countries have not conducted an empirical in-depth analysis of these problems or potential limiting factors and therefore cannot proffer a substantive solution. This survey focused on Nasarawa State of North-Central Nigeria to identify the types and prevailing TM practices, the nature of diseases or ailments managed and the training gaps that could assist in improving the services rendered towards a proper integration process. The study revealed that infertility (50%), infectious parasitic diseases like malaria and typhoid fever (50%), sexually transmitted diseases (STD) like gonorrhoea (48%) and respiratory diseases such as pneumonia and asthma (40%) ranked among the highest treatment services rendered while bone setting (3%) and neurologic diseases like epilepsy (3%) ranked among the lowest. Herbal Medicine (HM) (83%), Traditional Birth Attendant (TBA) (28%) and mental illness (28%) were the major areas of TM practice by the TMPs in Nasarawa State. Treatment of an ailment could cost as low as ₦50 and as high as ₦5,000, and about 30% of the TMPs did not charge specific amount, but accept whatever gratification was given. About 82% of the TMPs never had any form of training on GMP, GAP, GLP, GCP, good collection and sustainable harvest practices, sanitation and hygiene, record keeping/good record keeping practice, good packaging and labelling, etc. The recommendations given would be useful in developing a training programme for the TMPs toward proper integration into the formal healthcare delivery system.

Key words: Integration, Nigeria, Nasarawa State, Traditional medicine, Training need,.

Introduction

It is generally believed that about 80% of the world population uses traditional medicine, and the interest in alternative medicines among developing countries has increased by over 60% since 1989 (Rath, 2005). Consumer use of herbal products was less than 5% in 1991 in the US, but increased to about 50% in 2004 (Rath, 2005). World Health Organisation (WHO) estimated the world market for herbal medicines and herbal products to be worth US\$62 billion and would hit US\$ 5 trillion by 2050 with an annual growth rate of about 7%. This estimate was based on a forecast that put the growth rate of the pharmaceutical industry at 12% per annum (US\$364 billion in 2001), cosmetics industry at more than 6% (US\$108 billion in 2001) and the flavors and fragrance industry at US\$18 billion in 2001 as against US\$7 billion during the same year (Rath, 2005). The successes of China, a country known to be at the forefront of traditional medicine development was based on deliberate and obvious programmes of the Chinese government, which others desirous of such successes must imitate. China started implementing the Good Manufacturing Practice (GMP) policy in Traditional Chinese Medicine (TCM) by early '90s, which greatly helped in the internal development of TCM to meet the export market (Rath, 2005). The Chinese government adopted the 'five 'G' & 'P' policy, which include GAP (Good Agricultural Practices), GMP (Good Manufacturing Practices), GLP (Good Laboratory Practices), GCP (Good Clinical Practices), and GSP (Good Selling Practices) (Rath, 2005). Cultivation was also adequately encouraged resulting in about 450,000 hectares of medicinal plants being cultivated in 2001(Rath, 2005).

There is no doubt that since the 90s there has been a clear paradigm shift in the relationship perception between orthodox and TM practice globally. The clamour for integration of TM in the formal health care systems of developing countries especially African countries like Nigeria started in the 80s after the WHO Alma Ata declaration of 1978 for the use of indigenous traditional practice to increase healthcare access, which was further strengthened by the UNESCO declaration of 2005 on the respect for traditional knowledge (WHO, 1978; WHO & UNICEF, 1978; IBC, 2010). The World Health Organization (WHO) has defined traditional medicine as "the sum total of knowledge, skills and practices based on the theories, beliefs and experiences indigenous to different cultures that are used to maintain health, as well as to prevent, diagnose, improve or treat physical and mental illnesses" (WHO, 2000; IBC, 2010).

Thus TM is a concept that transcends the scope of health and is socio-culturally, religiously, politically and economically significant. It can be regarded as a “system for tending to misfortune (biological or otherwise), drawing on theories about the body, health, illness and remedies that are rooted in the histories of cultures and religions that have built and continue to build a country. Arguably though, there appears to be practically as many TMs as there are cultures (IBC, 2010). These varied practices have complicated the attempt at universal standardization of all the practices. Hence, while some aspects such as Herbal Medicine (HM) could readily be internationalized, others that involve esoteric practices like faith healing and spiritism, remain highly culture-specific (Gill and Akinwunmi, 1986). Standardization and ethical issues remain the most outstanding problem of integrating traditional medicine in the healthcare systems. In the developing countries of Africa, these problems become more pronounced due to other factors bedeviling the process and progress in integration despite the formulation of a National Policy on TM (Lambo, 2007). It was in the light of the above that this empirical survey of Nasarawa State of Nigeria was conducted to ascertain the gaps and training needs of the Traditional Medicine Practitioners (TMPs), and to document their practices with a view towards making appropriate recommendations that may enhance their integration into the formal healthcare system.

Materials and Method

Study Area

Nasarawa State lies between latitude 7° North and longitudes 7° and 10° East and has a land mass of 27,118 square kilometres, with an estimated population of 2.7 million people. The State is made up of about 300 ethnic, sub-ethnic and cultural groups each with a distinct heritage, which constitute the thirteen Local Government Areas of Wamba, Kokona, Keana, Nasarawa-Eggon, Toto, Awe, Akwanga, Keffi, Karu, Lafia, Obi, Doma and Nasarawa.

The major ethnic groups include Eggon, Tiv, Alago, Hausa, Fulani, Mada, Rindre, Gwandara, Koro, Gbagyi, Ebira, Agatu, Bassa, Aho, Ake, Mama, Arum and Kanuri. All these ethnic groups have their individual languages and traditional religions. However, the two leading religions which are Christianity and Islam have made a greater impact on the people. English and Hausa are also widely spoken in the State. Among the many cultural activities of the people of the State are the Umaisha and Oyoore festivals in Toto and Keana Local Government Areas respectively.

Dyeing, weaving, carving and blacksmith are among the traditional industries of the people. The mainstay of Nasarawa State economy is agriculture and it produces varieties of cash crops throughout the year. The State also has deposits of natural mineral resources such as bauxite (which is the source of aluminium), antimony, etc. Nasarawa State is home to the Farin Ruwa Falls in Wamba Local Government Area of the State, which is reputed to be one of the highest falls in the world.

Survey instruments and selection of respondents

Structured questionnaire and informed consent form were designed and used for the study. Preliminary visits were made to the study site, specifically to the National Association of Nigerian Traditional Medicine Practitioners (NANTMP) State Headquarters and the purpose of the survey was explained after presenting an official letter of introduction (Figure 1). The contents of the questionnaire and the prior-informed consent (PIC) form were also explained. Based on the study design, a total of 60 TMPs were randomly selected for the study. Subsequent appointments were made with the selected traditional healers for the actual survey/interview.

Field survey

At the appointed day for the interview, the TMPs were assembled and the purpose of the study was again explained for clarity. The contents of the questionnaire and the PIC form were also explained. The PIC form was administered and thereafter, the questionnaires were also administered by oral interview with the help of interpreters. The interview was conducted in English and Hausa languages as appropriate (Figure 2).



Fig 1: Picture of NANTMP officials and some of the survey team members during familiarization visit



Fig 2: Interview of TMPs in Nasarawa State



Fig 3: Herbal preparation for treatment of ailments

Results and Discussion

Type of TM practices and disease conditions treated

Analysis of the raw data obtained using Microsoft Excel showed that about 83% of practitioners practiced herbal medicine (HM), which appears to be the bedrock of TM practice in the State (Figure 4). The significant number (28%) that practiced traditional birth attendant (TBA) and treatment of mental illness (TMI), was an indication that practitioners in these two areas probably play significant roles in primary healthcare delivery in these communities, and attention should be paid to integrating them properly. About 7% of the TMPs practiced traditional bone-setting (TBS).

Further in-depth analysis revealed that 13% practiced both HM & TMI, 7% practiced HM & TBA, 2% each practiced HM & TBS and TBA & TMI. 7% also practiced HM, TBA and TMI while 2% practiced TBA, TMI and TBS. Only 2% practiced HM, TBA, TMI and TBS together (Figure 5).

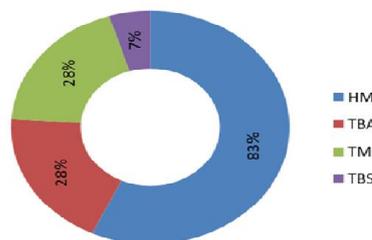


Fig 4: Percentage of TM practice in Nasarawa State

Key: HM: herbal medicine; TBA – Traditional Birth Attendant; TMI – Treatment of mental illness; TBS – Traditional Bone-Setting

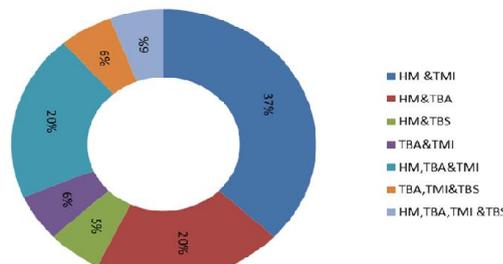


Fig 5: Percentage of TMPs undertaking multiple TM practices in Nasarawa State

Key: HM: herbal medicine; TBA – Traditional Birth Attendant; TMI – Treatment of mental illness; TBS – Traditional Bone-Setting

Table 1 shows the type of illnesses and diseases treated or managed by Nasarawa State TMPs. From the table, it is clear that infertility and sexual dysfunction (50 %), malaria & typhoid fever (50%), sexually transmitted disease (STD) like gonorrhoea (48%), and respiratory problems such as pneumonia and asthma (40%) topped the list of diseases managed by these practitioners. If the trend in the table is an indication of disease prevalence in the State, diseases like cancer (33%), diabetes (30%), hypertension (30%) and mental disorder (27%) should be of major concern to the State's health authorities. The prevalence of these diseases may also be linked to one another. For instance, the high infertility and sexual dysfunction may be as a result of the high prevalence of STDs. The interrelationship of the prevalence of these diseases which may help in developing appropriate intervention strategies in the State should be investigated.

Table 1 also shows that quite a number of TMPs (20%) are still involved in esoteric practices like spiritual conditions, witchcraft and sorcery which science has not been able to explain or standardize. This percentage may be an indication of the sociocultural structure of Nasarawa people, which shows that quite a number of the people believed and practice spiritism and other esoteric practices despite the growing influence of Christianity or Islam as a religion. And most of these types of practices are used for the treatment of socio-cultural problems and mental illness, which are believed mainly in Africa to be caused by spirits or higher being or through sorcery, and such are also required for the treatment (Ibrahim *et. al*, 2007). Due to the unreproducible processes involved in the practice, elimination of these aspects of TM from the process of integration into the formal healthcare system may be necessary.

Table 1: Disease conditions normally treated by TMPs in Nasarawa State

Disease	% Participation
Infertility, sexual malfunction, impotence	50
Malaria, typhoid, fever	50
STDs (Gonorrhoea, HIV/AIDs)	48
Respiratory diseases (Pneumonia, asthma)	40
Skin disease	33
Cancer, fibroid	33
Headaches	33
Convulsions	32
Hypertension	32
Diarrhoea	30
Diabetes	30
Mental disorders	27
Worms	27
Eye & Ear diseases	22
Sleeplessness	20
Spiritual condition, witchcraft, sorcery	20
Stomach disorders	18
Sickle cell anaemia/Anaemia	17
ulcer	15
Pile	12
Snake bite/scorpion bite	5
Back pain	5
Toothache	5
Epilepsy	3
Post-partum bleeding & Child birth complications and related issues	3
Bone setting	3
Breast milk induction	2
Spleen enlargement	2
Rheumatism	2
Oedema	2

Cost of treatment

Affordability is one of the main reasons why traditional medicine is being sought after. It is believed that traditional medicine or herbal medicines are cheaper than orthodox medicines. This study revealed that 30% of TMPs did not charge any specific amount, any gratification given after treatment was acceptable to them. They were also comfortable if nothing was given. About 28% charged between ₦50 to ₦1000 (\$0.25 to \$5) for a treatment or herbal remedy. 30% charged between ₦1000 to ₦5000 (\$5 to \$25) while only about 3% charged above ₦5000 (\$25) (Figure 6). This is also an indication that standardization of cost of treatment may also be a huge challenge in the integration process. This study supports the general belief that herbal medicines are cheaper than orthodox method of treatment. In comparing with orthodox treatment using malaria as an example, the cost of consultation and treatment will be approximately ₦1000 (\$5) in a government hospital which is very high compared to the cost of herbal treatment which can be at no cost at all or at minimal cost of about ₦50 to ₦200 (\$0.25 to \$1). The high percentage of 30% of the TMPs that charged between N1,000 to N5,000 for a treatment might show the level of awareness of claimed benefit of

herbal medicines to orthodox medicine such as minimal side effect and cost of available orthodox medicine or even non-availability of orthodox treatment.

The level of awareness of claimed benefit of herbal medicine also has to do with the educational qualification of the TMPs, and about 60% of the TMPs involved in this study had one form of education or the other ranging from primary school to even first degree (graduate school).

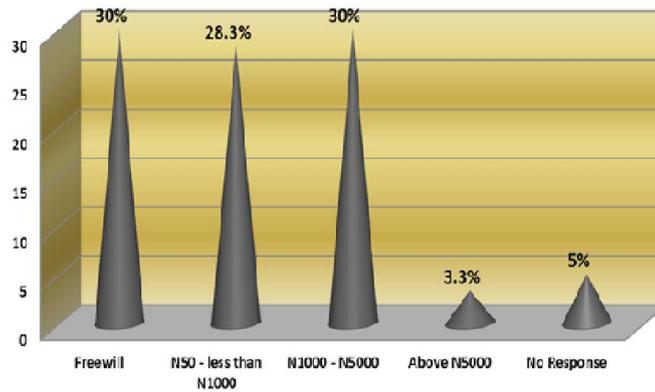


Fig 6: Amount charged by the TMPs for their services

Record keeping and training needs

The result showed that about 22% of the TMPs kept written information of their patients, while 53% did not keep any form of record. 25% did not respond to the question (Figure 7). However, it can be concluded that the 25% who did not respond to this question do not keep any form of record. Because they are not sure of the implication of their answer and due to the apparent mistrust which still exists between TMPs and scientists, they decided to decline the question. If the 25% who did not respond is added to the 53% that did not keep any form of record, then a whopping high percentage of the TMPs would appear not to have any form of record for traceability of their patients and treatment given. This is a very important aspect if TM would be integrated into the formal healthcare system, therefore this should be part of the training gaps to be addressed.

Majority of the respondents, (88%), were not aware of any well-equipped traditional medicine health centre in the State while 7% believed such a centre existed although they could not state where it is located (Figure 8). This question was asked to test the readiness of the TMPs to access or deploy standardized treatment facility for TM in the State in the event of integration into health care system, and the high percentage of 88% which says no such facility exist and the 7% who says such exist but could not tell the location shows another gap in the practice as such facility is mandatory and highly required for consultation and treatment of patients. This will also raise the level of confidence and trust of the patient that will use TM. The absence of such facility is also a pointer to the level of awareness and financial status of the TMPs who are mostly subsistence farmers and very poor and lack access to current information.

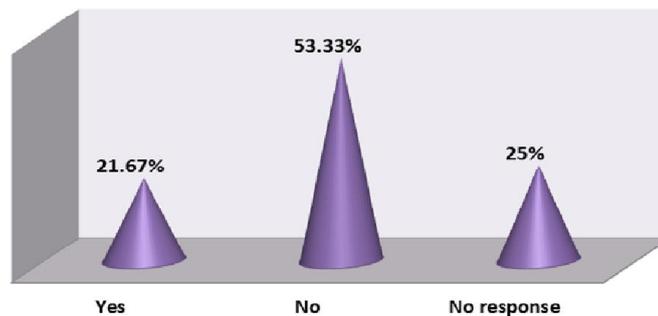


Fig 7: Percentage of TMPs who kept record of their patients

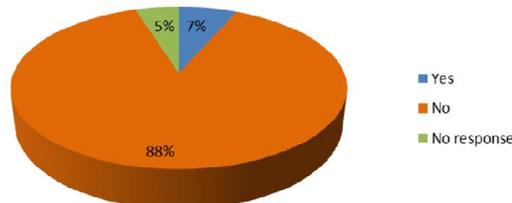


Fig 8: Availability of a well-equipped traditional Health facility centre

In response to the inquiry whether they have received training in Good Manufacturing Practice for medicinal plants (GMP), Good Cultivation Practice (GCP), Record Keeping (RK), Sanitation and Hygiene (SH), Quality Control (QC), Good Collection Practice and Sustainable Harvesting (GCCP) which are important processes in manufacturing of herbal medicines, the response was as follow: only 3% had received one form of training or the other relating to good collection and sustainable harvesting (GCCP); another 2% had been trained on quality control of medicinal plants (QC); 5% received training on sanitation and hygiene (SH), 5% on record keeping (RK), about 2% on Good Collection Practice (GCP) and 2% on Good Manufacturing Practice (GMP). A large number, 82%, had not received any training on any of the mentioned areas (Figure 9), which also points to training need in those areas. Most of the TMPs, including some who claimed to have received one form of training or the other, indicated the desire to be trained in the following areas

- Good Manufacturing Practice.
- Good practice in quality control.
- Good cultivation practice.
- Good Packaging and Labelling practice
- Sanitation and hygiene
- Record-keeping.
- Formulation processes such as tableting, capsulation and syrup formulation.

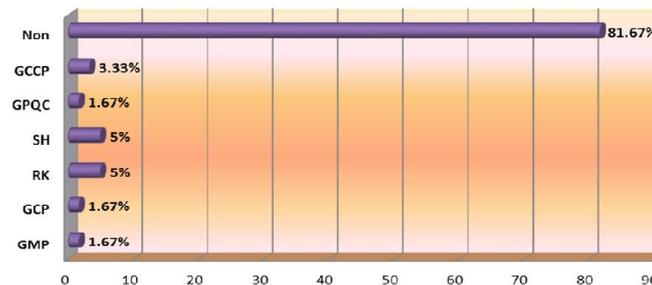


Fig 9: Percentage of TMPs who have received training relevant to their practice

Conclusion

The study revealed that about 82% of the TMPs had not received any form of training in GMP, GCP, Record keeping, sanitation and hygiene, quality control, Good collection practice and sustainable harvesting. Majority of them desired training in the area of proper packaging while the ones with higher educational qualification desired training in packaging and record keeping. The survey also showed that affordability and accessibility are very important criteria for patronage of herbal medicine practitioners and these could be essential factors in the integration process. The results obtained may be an important structural representation of some socio-cultural and trade-medical practices for the healthcare delivery in Nasarawa State of Nigeria. Nasarawa State may just be a perfect microcosm of the larger Nigeria macrocosm.

Recommendation

Strategic stakeholders like the Ministry of Health, National Agency for Food and Drug Administration and Control (NAFDAC), National Institute for Pharmaceutical Research and Development (NIPRD), Non-Governmental Organisations (NGOs), Civil Society Organisation (CSOs) and Community Based Organizations (CBOs) involved in promoting health systems in the country need to put up a continuous and sustained training programme for the training and re-training of TMPs in the areas of sanitation and hygiene, record keeping, proper packaging, good collection practice, sustainable collection, GMP, GAP, good laboratory practice (GLP), as well as documentation of indigenous knowledge and intellectual property protection (Kunle, 2009; Egharevba, 2012). It is also recommended that the government should include trained TM practitioners in the Dental and Medical Council currently saddled with their regulation or immediately establishes autonomous regulatory body to closely regulate the practice and check the activities of quacks. The survey should be extended to other states to acquire data that will help in a nation-wide policy amendment and formulation.

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