

Assessing the Knowledge, Practice and Attitudes (KPA) of Traditional Healers in Malaria Control Programme in Nsukka Zone of Enugu State Nigeria

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Abstract

Background: Malaria remains one of the major public health problems as well as the main cause of mortality among young children in sub Saharan Africa and Nigeria in particular. It is endemic throughout Nigeria with about 97% of the population at risk and an estimated 300,000 deaths annually. Malaria is responsible for 60% of outpatient visits and 30% of hospitalizations in children under five years old and contributes to about 11% of maternal mortality in Nigeria. Traditional Healers play an important role in providing health care in Nigeria with a significant proportion of the population patronizing them for treatment of most of their ailments. The aim of this study was to assess the Knowledge, Practice and Attitudes (KPA) of Traditional Healers in malaria control in Enugu state, Nigeria with a view to developing appropriate intervention strategies aimed at improving collaboration and malaria quality of care in rural community settings.

Design: This is a qualitative study using ethnographic approach carried out in Nsukka district, a rural community in Enugu North senatorial districts in South-east Nigeria, The study involved in-depth interviews of fifty (50) traditional healers selected out of 68 registered traditional healers in the zone. This was complemented by observations of service delivery to determine the quality of care each traditional healer gave to their patients. The fifty (50) selected participants are those who are willing to be part of the research among the registered sixty eight (68) traditional members.

Results/Findings: The male to female ratio of respondents is 9:1, 60 %(30/50) were indigenes and residents of their locality of practice. Each of them see an average of 3-10 patients daily especially those patients whose illness persisted after receiving orthodox treatment. All the respondents believed that herbal medicine is more effective than the orthodox ones in the treatment of malaria. Some traditional healers were familiar with the signs and symptoms of malaria, but perceived malaria to be caused by intensity of sunshine, working hard under the sun for long hours, poor feeding, oily food, cold weather, mosquitoes, insufficient blood, and lack of sleep, severe headache, anxiety and alcoholism. 96% (48/50) of the respondents do not refer cases to health facilities even when the cases are very serious because they believed in the efficacy of their herbal remedies. Only 6% (3/50) of them believe in the use of orthodox medicine in treating severe cases while 50% agreed to the use of LLINs as effective preventive strategies. Majority accepted to collaborate with government especially in the distributions of LLINs; they expressed their feelings of being unrecognized as important contributors to health care delivery in the country. 4% of those that agreed to be trained acquired their skills through apprenticeship. Very worrisome is the observed large quantities of unstandardized concoctions given to patients of different age groups. This preparation is thought to have resulted in the death of six children and an adult reported by four of them with cause of death attributed to late presentations for treatment.

Conclusion: The outcome of this study highlights the fact that traditional healers are important providers of health care in malaria control and vital members of the community health systems. It also underscores the need to enlist their support as an integral part of efforts to improve malaria control at community levels which WHO

considers key to achieving malaria elimination in Nigeria and globally. Collaboration and training of the traditional healers is a matter of urgency considering the deaths resulting from poor referral practices and the effects of high doses of unstandardized herbal preparations given to different age groups.
Keywords: Enugu State, Nsukka, Malaria, Traditional healers, collaboration, community, health systems.

Introduction

Malaria remains one of the major public health problems as well as the main cause of mortality among young children in sub Saharan Africa and Nigeria in particular[1-3]. It is endemic throughout Nigeria with about 97% of the population at risk and an estimated 300,000 deaths annually [4]. Malaria is responsible for 60% of outpatient visits and 30% of hospitalizations in children under five years old and contributes to about 11% of maternal mortality in Nigeria [5]. Traditional Healers play an important role in providing health care in Nigeria with a significant proportion of the population patronizing them for treatment of most of their ailments. The aim of this study was to assess the Knowledge, Practice and Attitudes (KPA) of Traditional Healers in malaria control in Enugu state, Nigeria with a view to developing appropriate intervention strategies aimed at improving collaboration and malaria quality of care in rural community settings.

In the light of the current WHO strategy to promote early identification and treatment of malaria, community understanding and specifically traditional healing practices for malaria have become important agenda for research [6]. Traditional healers play an important role in health care delivery and the majority of the population depends on them for treatment of most of their ailments [1].

In southeast Nigeria, like most other parts of the country early diagnosis and treatment with anti-malaria medication is the main control strategy for malaria. The accessibility of antimalarial medication is so high that one does not need a prescription from the physician to procure anti-malarials. The government has made a good effort to enlighten the people on signs and symptoms of malaria and also have tried to provide health care facilities in the rural `area to enhance early diagnosis and treatment of malaria [8] It is estimated that 92% of childhood deaths occur at home. [9] Mothers and other caregivers are therefore of great importance in recognizing mild or severe malaria infections and seeking treatment for the patient. Most caregivers begin treatment at home with the administration of antimalarial drugs – often alongside antipyretics purchased over the counter from drug sellers without prescription and usually administered in inappropriate doses, especially of chloroquine[10- 12] which often leads to poor quality of care and often fosters the development of ***drug resistance*** [13]. The ultimate resort after the failure of home treatment is the formal health sector which occurs when the caregivers take their relatives to the hospital or clinics after futile home management efforts. In Nigeria, like many Africa countries, symptoms of malaria have been attributed to various causes like cold spirit, bird-like spirit possessing a child. In Nigeria, traditional healers play an important role in health care delivery. Mosquito nets have also been shown to be effective in combatting malaria and preventing transmission. However, when distributed these may be used for other purposes or not used appropriately.

It is also evident that many people resort to the use of various traditional medicines or herbal remedies in the management of malaria. The World Health Organization noted that herbal medicines are the first line of treatment of children with high fever due to malaria in Nigeria, Ghana, Mali and Zambia [14] Herbal Complementary and Alternative Medicine (CAM) therapies are frequently obtained from traditional herbal medicine practitioners. [15-16] A significant proportion of the Nigerian population are known to use and consult traditional healers for healthcare, social, spiritual and psychological benefits because of poverty, deficits in provision and access, and disillusionment with conventional orthodox medical care. In the light of the current WHO strategy to promote early recognition and treatment of malaria, community participation and traditional healing practices have become a focus for proper investigation.[17]

Despite all the effort by the Government and non-governmental organizations on the enlightenment, control and eradication of malaria, the majority of the rural dwellers still patronize traditional healers for the treatment of malaria. These factors have been identified as the reason for the health-seeking behavior for traditional healer medicines: a) the persistence of symptoms of malaria despite use of orthodox medicine, b) scarcity of modern medical facilities, and c) socio-cultural factors in the community. Consequently, the role of traditional healers in malaria treatment is very essential to malaria control in southeast Nigeria since so many seek their healthcare services.

The aim of this study was to assess the Knowledge, Practice and Attitudes (KPA) of Traditional Healers in Malaria Control programme in Enugu state Nigeria with a view to developing appropriate intervention strategies aimed at improving collaboration and quality of care for malaria at rural community settings.

Method: This is a mixed methods (Quantitative and Qualitative) descriptive study using ethnographic approach carried out in Nsukka district of Enugu state. In-depth interviews with fifty (50) registered traditional healers selected from the study communities were audio-recorded. The interviews were complemented by observations of the quality of care each traditional healers gave to their patients met during the interview. This ethnographic approach allowed interviewer to ask open-ended questions in order to elicit in-depth information and explore the

traditional healers' feelings and perspectives in greater depth. This Ethnographical approach was considered important to access the socio-cultural beliefs of the traditional healers. The perceptions and apprehensions of these traditional healers were heightened due to the use of audio recording during the interview which were allayed and minimized by actively building up adequate rapport during the interview period which underscores the appropriateness of the ethnographic approach used in this study.

Development of Interview Guide.

Prior to the interview, the study instruments were piloted through preliminary in-depth interviews to six traditional healers. During preliminary interviews, it was noted that the participants were conscious of information they divulged since they were being careful not to reveal any vital information. Time was spent to learn how to build rapport and trust among them through inter-personal communication and familiarization. The interview was complemented by observations made as they were attending to their customers. Following the pilot study, the study instruments and approach were modified to redefine interview guide to sooth the traditional healer and to use language they understand.

Selection of Participants.

Tradition healers in Nsukka zone are classified into five groups namely Herbalists, Bone setters, Traditional psychiatrists, Diviners and Traditional birth attendants. For the purpose of identifying the appropriate traditional healer for this study, the local authority governing all the registered traditional healer in the zone were contacted and a list of all the traditional healer with expertise in treatment of Malaria (iba) and fever-like illness were identified. Information was also sought from elders in the community regarding the best and most influential traditional healer in various communities to ensure that we did not miss any person.

The inclusion criteria for selecting participants for this study were; participant must be above 18 years, must be known to have good influence and popularity in the community, must have reputable record of treatment of malaria and fever-like illness, must have lived and practised in the village for more than two years, More so, they must be fluent in English, Igbo language or other languages within the communities of abode to facilitate proper understanding and interpretation during interview. Participants with a local dialect for which we could not get an interpreter were excluded from the study. Above all, they must be willing to be part of the research.

A total of 55 were selected from 68 registered traditional healers in the ten communities in the study area .These were contacted through their community leaders for group meeting at the village square, and 53 attended the briefing meeting while one out declined to participate in the study. Data from two participants were discarded due to difficulty in understanding their local dialects - even with the help of interpreter. Finally, 50 participants agreed and were interviewed at their homes at dates very convenience for them.

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Study area

Nsukka district is one of the three districts that make up Enugu State. It is in South East Nigeria located at the northern pole of the state. Nsukka is largely rural with urban setting at the centre. They are predominantly farmers with low economic income. Nsukka zone had an estimated population of 1,377,001 living within an area of 1810 km sq. The indigenous University of Nigeria is located in this area.

It was noted that despite the rapid growth of modern medicine (MM) in Nsukka zone, traditional medicine patronage continues to grow due to uneven distribution of MM health personnel between rural and urban areas as well as inaccessible expensive MM health services for average Nsukka dwellers, resulting in virtually no alternative than to patronize the traditional healers - hence this research

The choice of this district was due to its large population that occupied this rural area. Secondly, we were conversant with the district's culture which offered an advantage in understanding traditional healer beliefs and perspectives.

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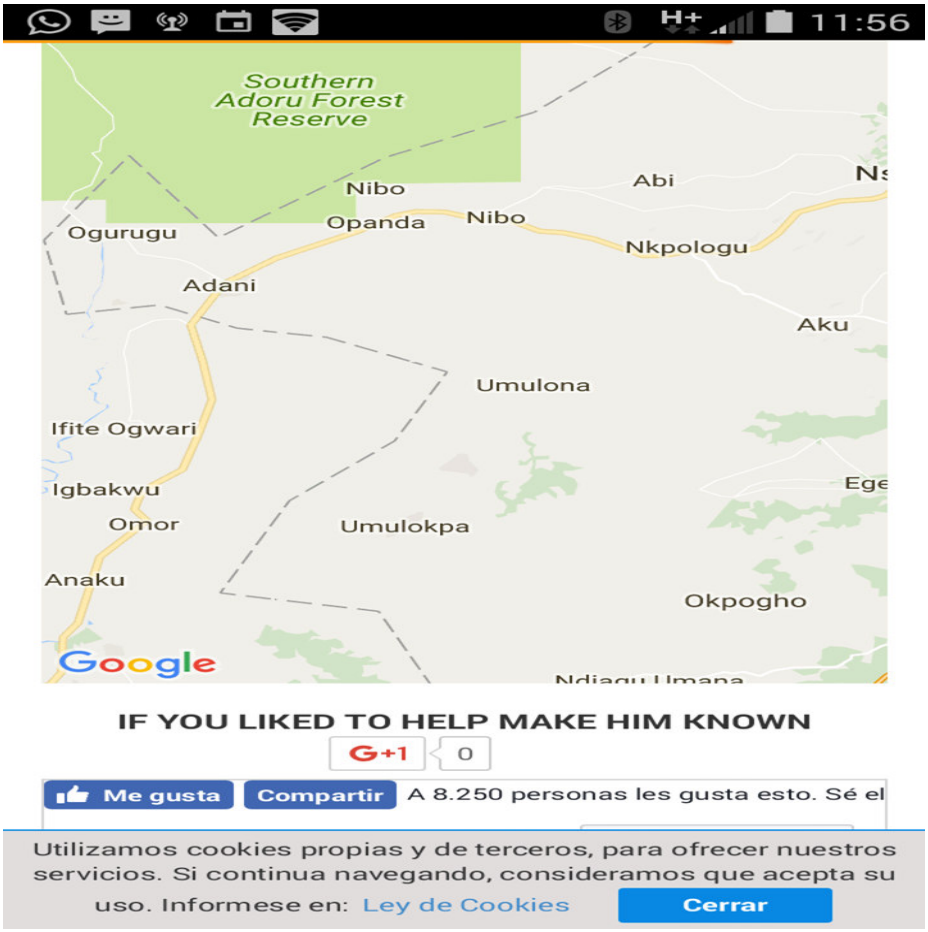


Fig. 1: Map showing Communities in Nsukka District, (Source: http://www.viewphotos.org/nigeria/flat-map-of-Nsukka-116.html)

Data collection:
On the day of the interview, the research team arrived an hour before appointment time to familiarize themselves with the environment. We went with a bottle of wine as the tradition of the community demands when visiting the traditional healers. The research team leader explained every procedure to them and each interview took about 45 to 60 minutes. We tested the tape recorder to ensure that it was in good condition with full battery life. All participants were fully informed of the aim of research. They were also informed that participation was voluntary and they had the option to decline to participate at any time during the interview.

Privacy of the entire interview was discussed with them and they were reassured that at no time will any third party have access to the recording or the transcription. More so, we reassured them that their name will not appear in paperwork or in the final publication. The reason for recording was explained to them - for recollection of the interview. Two types of consent were obtained from participants: written and verbal consent during recording.

The topics explored during the interview included; Traditional healers' knowledge, practice and attitudes towards malaria, their altitude towards MM in malaria treatment, their influence in the community, their opinion about possible partnership/collaboration with MM approaches, referral practices, death of patients, their role in promoting mosquitoes net use and possible advice they could give for malaria control programmes. The interviews were conducted in informal order with a high degree of flexibility to ensure better reflections on the issues. About 27 relevant issues were focused on and detailed enquiry was made to generate more information.

Interviews lasted for about an hour and the audio-recordings were transcribed verbatim and translated simultaneously into English language.

Description of traditional healers who were interviewed.
The male to female ratio of respondents was 9:1, 60 %(30/50) were indigenes of their locality. 72% (36/50) of traditional healers who were educated, only 60% of them speak fluently while 40% that made up the illiterate and semi illiterate among them attended maximum educational level of primary schools with 1% of them dropping out from secondary school. Seventy percent (35/50) of them inherited their practice skills from their

parents who were traditional healers as well, while the rest acquired the skill at certain period of their life time. Almost all were fully self-employed practicing traditional healing. Ninety two percent (46/50) of them were married with children and lived in a semi dilapidated building with their shrine at the back of their house within the community. Some of their wives helped in the farming and herbal preparations.

Each of them see an average of 3-10 patients daily especially those patients whose sickness persisted despite their use of MM. Some of their wives help in the farming and herbal preparations.***(see below tables showing description of traditional healers interviewed.)***

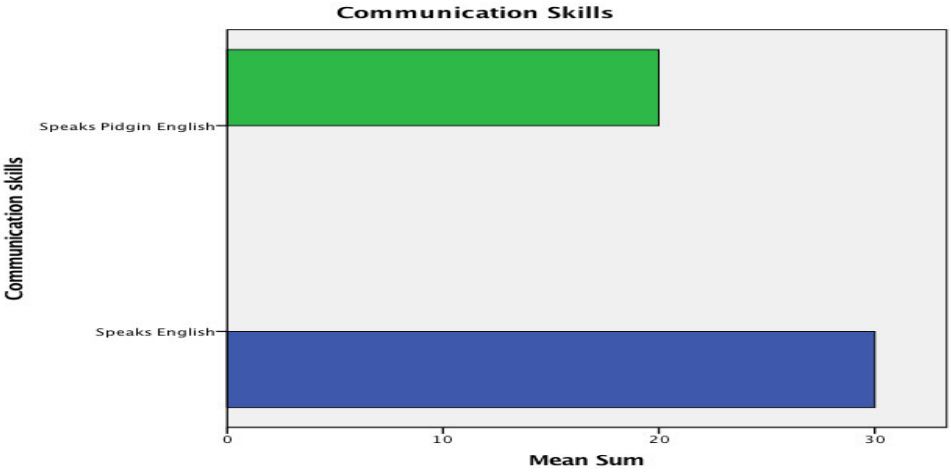
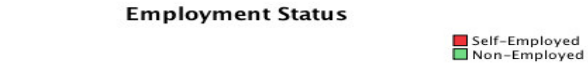


Fig 1: Communication Skill



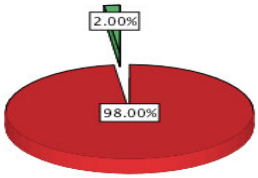


Table 2: Employment status

Table 3: Years of practice

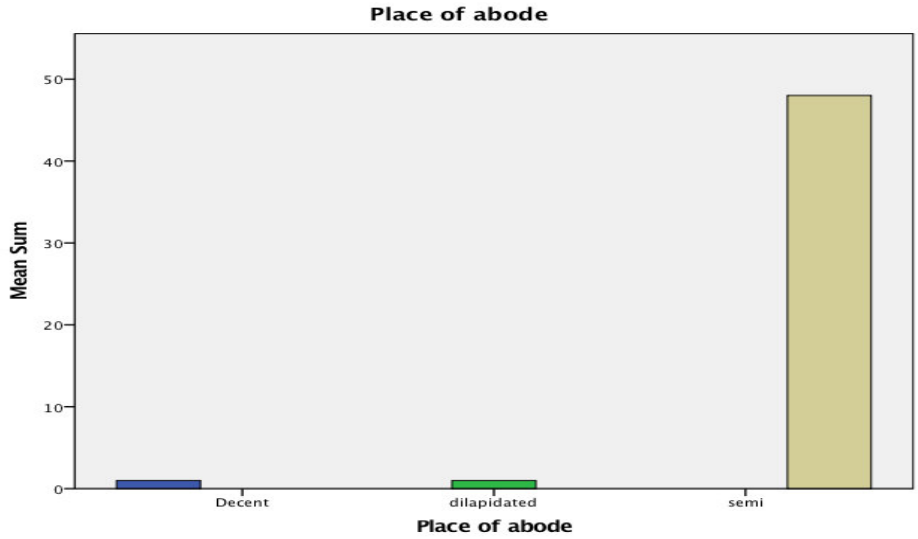


Table 4: Place of Abode

Table 5: Number of patients seen daily

Results/Findings of the interviews:

Summary of finding*:* All of them believed that herbal medicine is more effective than the orthodox drugs in treatment of malaria. Some traditional healers were familiar with the signs and symptoms of malaria, but believed malaria to be caused by intensity of sunshine, working hard under the sun for long hours, poor feeding, oily food, cold weather, mosquitoes, insufficient blood, lack of sleep, strong headache, thinking too much, drinking too much alcohol, poor sleep, and evil spirits. Most, 96% (48/50), of them do not refer cases to a MM facility even when it was very serious because they believed in the efficacy of their herbal remedies. Only 6% (3/50) of them believed in the use of MM in extreme cases, while 50% agreed in the use of LLINs as effective preventive strategies; but the majority were willing to collaborate with government especially in the area of LLINs distributions since they felt neglected in this regards. Only 4% of them who were willing to be trained were traditional healers who got their skills through apprenticeship.

Very worrisome were the observed large concoctions given to patients of different age groups without standardized dosage which could have contributed to the deaths of six children and one adult reported by four of them which they attributed to late presentations for treatment.

> *"Malaria is caused by an evil spirit that made it difficult at times to be treated by use of orthodox medicine, when they come here after several trials at their hospital; we drive the evil out of them through my local herbs and free them"*

All traditional healers agreed that fever is the commonest symptom of malaria. Once the people have a fever; they usually assume it is malaria as a result of the high prevalence of malaria in the area. Some identify convulsion in children as dangerous signs requiring urgent treatment of larger doses.

"once I see a child with fever, vomiting and abdominal pain, I do not wait but to start the patient on three cups of my medicine three times daily for two days, they will run home well and healthy, orthodox drugs cannot treat this type of iba well"

Although they are right in identifying fever as a likely sign of malaria, many other diseases can cause fever. especially in dirty rural settings where infections are rife.

Findings from this study revealed that traditional healers are strongly convinced that herbal medicines or remedies are far better than the MM for malaria (iba) treatment. However, it will be of scientific interest to note that most of the roots and herbs used for treatment of malaria may not be antimalarial in nature. This is because treatment options involve the use of mixtures of roots and herbs put together to prepare concoction given without doses that may lead to serious complications and eventual loss of life. *One of their customers met during the interview had this to say:*

"Orthodox medications and drugs cannot treat my malaria, even if I take it many times. Only chloroquine tries small but reoccurs few days later, but with this man's medicines taken for three days, I will be fine for months without problems"

All assumed that their medications were safe due to their use of them in the treatment of malaria over many years. They did not consider any damage the arbitrary use of the medicines could cause to the body system since dosage is not standardized among them. Those who claimed to measure the herbal mixtures only take arbitrary dosage as there is no uniform dosage among the traditional healers. The so called 'dosage' could be "two or three shots" "once or twice or thrice" a day for as long as one month or if symptom persists. Without standardized doses, harm could be caused.

Almost all admitted that they do not refer cases to hospital even when the patient is very serious, because they believed that their services are more effective than hospital managements.

Four respondents admitted deaths of six children and one adult in their homes but they attributed these to late presentations to their shrine. They never admitted that over-dosage can kill.

"People who will die are those who presented two weeks later after fever associated with convulsion, unless it is the type caused by evil spirits."

Some acknowledged that the use of mosquito nets can prevent mosquito bite and prevent malaria. They agreed that many people cannot use them because it makes them feel hot and sweaty at night. They were also annoyed by being neglected during net distributions.

"I know net can reduce malaria but I will never encourage them to use this since they neglect us during sharing, secondly, if malaria reduces, we will have low patronage "All of them were willing to partner with governments if recognized especially if they will be involved in mosquito distribution in their local settings."

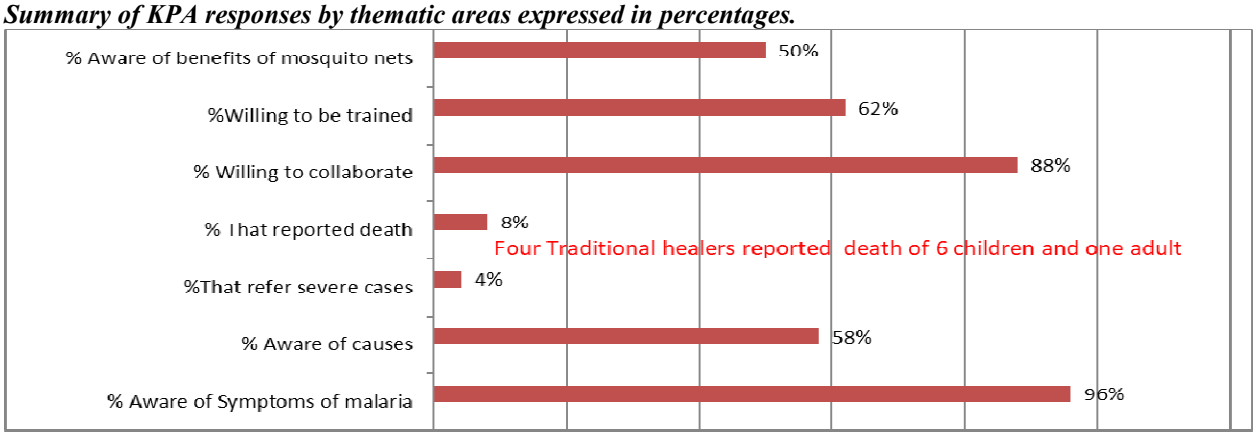
Description of responses from people interviewed.

Initiation into traditional healing practices	*Initiation into traditional healing practice is by inheritance, divine gift from God, through dream, and apprenticeship*
Belief of Traditional Healers about the causes of malaria	*Traditional healers believe that intensity of sunshine, working hard under the sun for long hours, poor feeding, oily food, cold weather, mosquitoes, insufficient blood, lack of sleep, strong headache, thinking too much, drinking too much alcohol, poor sleep and evil spirits cause malaria.*
Traditional healers attitude and belief about MM drugs and its potency in the treatment of malaria in comparison to traditional medicine	*There is strong conviction and belief among traditional healers that herbal remedies are better off than MM drugs. This is because herbal practices are resorted to as last option when the synthetic drugs (MM) have failed to cure malaria symptoms*
Methods of malaria Treatment and management by traditional healers	*Traditional healing practices for malaria varies from oral herbs and roots mixtures, inhalation of steams of the boiled herbs, rubbing mixtures on the skin, fermenting of herbs and root in alcohol, giving a purgative, or consulting ancestors for spiritual assistance.*
Influence of traditional healers in the community and patronage of traditional healers by the community	*The traditional healers command reasonable influence in the Community as it is believed that they can undo ailments ranging from malaria to snake and dog bites, rain making and averting, treatment of piles, strokes. They also record reasonable patronage of treating patients in and outside the Community averaging 3 to 10 patients daily especially during the rainy season*
Willingness to collaborate with Government and expectation from the collaboration	*The traditional healers were willing to collaborate with government. This is evident given their readiness to assist government in distributing mosquito nets among members of their Community. Expectations from such collaborations ranges from rendering selfless services to rewarded services.*
Belief of traditional healers in the use of mosquito nets to prevent malaria and their role in the promotion and distribution of the nets	*The traditional healers believe that there is high level of awareness about the use of mosquito nets to prevent mosquito bites and hence curtail the spread of malaria. They were willing to promote the acceptance of, and use of, mosquito nets among Community members.*
Practice of referral of severe cases	*Most of them do not refer their cases since they believe that they are better. This they justified as they are the last resort when MM fails. Some who attributed severe malaria to evil spirits do not see the reason for referrals.*
Challenges of traditional healers in malaria eradication	*The traditional healers feel neglected by government by non-involvement in the distribution of mosquito nets. They feel that they are not seen as first option for many ailments, and that they are only Consulted in the case of failure of MM worsened sicknesses. Unacceptability of traditional medicine in the treatment of malaria and other ailments is a major challenge*

Table 3: Summary of Healers's responses to the thematic areas of study.

# Aware of Symptoms of malaria		# Aware of causes of malaria		# That refer severe cases		# That reported death at shrine		# Willing to collaborate With governments		# Willing to be trained		# Aware of benefits of mosquito nets.	
Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
48	2	36	14	2	48	4	46	44	6	31	19	25	25
58%		58%		4%		8%		88%		62%		50%	

Summary of KPA responses by thematic areas expressed in percentages.



Discussion

Traditional healers are the main part of the informal health sector supporting disease control and treatement [1].Findings from this study revealed that most of them have good knowledge about the cause of malaria. About 89% of them associated the cause of malaria to mosquito bites and acknowledged its prevention through the use of mosquito nets. However; some of them mentioned some causes that that conflict with MM - like evil spirits. In this study, over a third (40%) of those interviewed mentioned mosquitoes as a cause of malaria and reported that the prevalence of malaria is higher in the rainy season. This is similar to findings from a previous study in Kenya where 36% were reported to be aware of mosquitoes as a cause of malaria [18].. The commonest reported causes of malaria in this study were: heat from too much sun, eating fried food, doing hard work, cold weather. According to [21] heat from the scorching sun and eating fried or oily food was also noted as cause of malaria in the studies conducted in Southern Ghanaand in Ethiopia [21-23].

The implication is that these misconceptions regarding the cause of malaria would definitely have a negative impact on campaigns promoting the various anti-vector measures like insecticide treated nets. Obviously if mosquitoes are not associated with malaria transmission, the need to prevent mosquito bites using bed nets cannot be properly appreciated [24].However, the fact that they all recognized the main causes and interventions is a strength that can be built upon in terms of collaboration.

This study also revealed a relative good knowledge about malaria symptoms by these traditional healers such that most of them recognize at least one classic symptoms of malaria like intermittent fever. Once a patients presents with fever, all traditional healers usually assume it to be malaria which is probably correct – but not always, .This is worrisome since 100% of the traditional healers usually do not carry out any parasitological test to confirm malaria before treatments. Other diseases which may have the same symptoms as malaria could lead to the death [20]. In the same vain, the documented seven deaths reported from four traditional healers would have been caused by wrong diagnosis and treatments using high doses of concussions. However, given that these traditional healers are the only source of help for so many people, if they provide psychological benefits, like a placebo effect, they are better than nothing.

This study shows that all traditional healers are strongly convinced that herbal medicines or remedies are far better than the MM for malaria (iba) treatment. All of the traditional healers believed that traditional medicines are usually resorted to as an option when the synthetic drugs failed to cure the malaria.

About 10% of the traditional healers would be prepared to send patients to medical laboratory to ascertain level of malaria parasite in a patient's body system. While quantifying the potency of herbal medicines in the treatment of malaria, all the traditional healers in our sample claim that no one treated by them comes back with same symptoms and that symptoms could disappear between 2 to 3 days of commencement of treatment. Some of the traditional healers pointed out that though herbal medicines do not usually provide quick relief as MM in treating malaria, they do have lasting curative effects.

There is need to have scientific investigations on the drugs given by the traditional healers. This is because more than three leaves or roots are usually put together to prepare the concoction, and this might mean that not every plant used is antimalarial and yet the traditional healers would assume all the plants to be antimalarial [20] .According to the World Health Organization, the use of traditional medicine in various therapies is widespread, with as many as 80% of the world's indigenous population depending on it for their primary healthcare needs [25-26]. Medicinal plants have been used in the treatment and prevention of malaria in various parts of the world [27].Traditional medicine practice (TMP) is widely practiced in developing countries including Nigeria. It is a readily available, inexpensive method of therapy [28].

Despite the high level of malaria awareness in the communities, traditional healers still recorded good levels of patronage by the communities' resident and non-residents. This contradicts the study of [35] who noted that a few respondents (3.9%) claim to have visited traditional healing centers when they suspect the symptoms of malaria. The use of herbal medicines to treat malaria is in line with the report of [36] where 80% of population in developing countries was reported to rely on the use of medicinal plants to help meet their primary health care needs. Virtually all the traditional healers use herbs indiscriminately without any standard measurement or standard dosage neither do they consider any damage the arbitrary use of the medicines could cause to their body system [20, 34].

According World Health Organization, many people in our society prefer health care seeking with the traditional medicine practitioners because it is affordable and familiar with the culture, beliefs and practices of their culture [29] We are not alone in this trend. The extensive use of Complementary and Alternative Medicine (CAM) by women in more industrialized societies suffering from breast cancer, for example, is well documented in research. A Canadian study reported this to be as high as 80% (A). A German study reported more than 90% of the breast cancer patients used some kind of CAMs (B). Similar trends have been reported in USA, and Asia (C, D).

However, one of the limitations of Traditional medicine practice (TMP) is the non-documentation of the medicinal plant knowledge, given that it is mostly passed on orally by the elderly traditional herbal practitioners from one generation to the next. Hence, there is need to accurately identify, taxonomically classify and scientifically evaluate these traditional indigenous resources. This is the only way to create continued access into facts and skills of phytomedicine and make contributions to primary health care [30]. However, plants such as dogoyaro are generally recognized as being effective in the treatment of malaria but no tested scientific evidence is available to support the claims. Further enquiry into the efficacy of the drugs is necessary since traditional medicine are potentially toxic, mutagenic and carcino-genic which is complicated by large unstandardized doses given to different age groups[31-34] Yet, we must remain aware that effective MM drugs such as Chloroquine and Artemisinin were developed from traditional plant remedies.

Findings from our study show some degree of awareness and acceptance of mosquito net among the traditional healers. Some of them also acknowledged the knowledge of the use of mosquito nets by members of the community and show of willingness to be part of distribution channels if involved by government. This is in conformity with [**37]** that pointed out that the knowledge on the use of bed net as a preventive measure against mosquito bite was high among respondents in rural Communities in Aliero Northern Nigeria. Similar high level of knowledge on preventive use of bed net had been observed in other studies in Ethiopia and in South East Nigeria [33, 38-39]. With the acceptance of the nets and high willingness to be part of distribution channels by some traditional rulers, it will be advantageous to involve them in distribution of nets as a way of recognizing their efforts that will foster holistic stakeholders collaboration malaria requires. [40-41].It is very encouraging and advantageous to use them because of their high regard within their communities and since use of local structures to share net increases access [42].This has become necessary now since net use despite high access in Nigeria remains very low and unacceptable as noted in the work done in Enugu state Nigeria [44]

This studies reveled poor referral practices by traditional healers even when patient are critically ill - which was corroborated by other studies [1].Poor referrals by healers requires advocacy and sensitization to them to change. Thus it may be possible to prevent some deaths like the ones our participants reported.

A formal framework to guide and standardized traditional healers activities within community settings may help to guide and regulate them in Nigeria and provide their enhanced, optimal performance [43]

We therefore recommend to government to develop guidelines and SOPs for the traditional healers that must be monitored strictly while leveraging on their willingness to be recognized as one of RBM partners' that will be involved in all government malaria interventions.

Conclusion

The outcome of this study highlights the fact that traditional healers are important providers of malaria control and treatment programmes and also important parts of health provision at community level. It also underlines the need to enlist their support as an integral part of health systems in the efforts to improve malaria control at community levels which WHO considered as key to achieve malaria elimination in Nigeria and globally.

Training and collaborating with them is a matter of urgency considering the reported deaths resulting from poor referrals practices and high doses of unstandardized concussions' given to different age groups

Regulation and control is a double-edged sword. It can improve knowledge and practice and prevent potentially dangerous practices. However, in a country which is not yet able to provide universal MM care, to take them out of the "Health Equation" would leave the majority of rural dwellers with nothing. At present they have something, and that something is understandable to them and is in accord with their cultural beliefs. The most fruitful approach will be to build bridges and work in partnership with traditional healers, for the government to equip and properly motivate traditional healers in the fight against malaria through training, payment, and also subject their products to laboratory analysis so as to make them safe for consumption. In this way, we have a low-cost layer of health workers who are from their communities, serve their communities and are trusted by their communities. As MM and Traditional Healer services expand to provide for the whole population, it can then be possible – without loss of provision – to formally guide and standardized their practice within community settings.

We therefore recommend that the Government take appropriate, and sensitive, steps to engage with Traditional Healers in the war against malaria and to give them recognition of their value in the community for their potentially valuable contributions in promoting and dispensing anti-malarial net use. This research has shown that they are willing to be an integral part as RBM partners if recognized in the areas of important government interventions.

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