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Utilization of traditional healers for treatment of malaria among female residents in Makurdi city and its environs

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ABSTRACT

Objective: To ascertain the role of traditional healers in malaria treatment and its impact on control of the disease. **Methods:** The study was cross-sectional in nature. Test-run structured and semi-structured questionnaires were either interviewer or self administered to adult women aged 18 years old and above. House holds were selected using systematic random sampling methods. Information such as age, educational level, marital status, occupation and methods of malaria treatment were obtained. Focused group discussions about beliefs and perceptions on utilization of traditional healers and in depth discussions on treatment and control of malaria were also carried out. **Results:** Of the 2 075 respondents studied, 49.7% (n=1 031) utilized traditional healers for treatment of malaria, including 16.7% (n=172) utilizing traditional healers strictly while 83.3% (n=859) combining it with other treatment methods such as hospital/clinic, pharmacy/chemist shop, herbs or spiritual healing. The major contributors to utilization of traditional healers were: illiteracy and ignorance, poverty, unemployment/underemployment and slow pace of the comprehensive package implementation of the "roll back malaria" (RBM) programme initiate in the community. **Conclusions:** Health education should be intensified while adequate facilities put in place to commence home management of malaria and probable free distribution of the artemisinin-based combination therapy (ACT).

1. Introduction

Traditional healers have, over generations, earned the confidence in quite a large number of Africans in the treatment of several ailments[1,2]. More often than not, they serve as the first point of call in the community when sicknesses and diseases come calling[3]. This practice with its obvious imperfections has been the only means Africans could rely upon until just more than half a century ago when allopathic medical practice started gaining its foothold in different parts of the continent. Yet the traditional practice appears not to have really given way to the scientifically proven medical procedures and practices a decade into the 21st century[4,5].

In Nigeria and several other parts of Africa, traditional healers have continued to be involved in the treatment of malaria and malaria related ailments (MRI)[6,7]. The fact that most of these procedures have no verifiable proof of any measurable success, and the tendency for a likelihood of wrong or misdiagnosis, proper treatment of malaria by these practitioners becomes doubtful. Furthermore, the potency of these drugs, content of impurities and, immediate and long term oncogenic and teratogenic properties are usually unknown. Also, the unwillingness or delays in referral has been found to further increase the mortalities associated with malaria and has further impeded the overall control and prevention process[8]. This scenario has also been blamed as a contributory factor towards the obviously slow pace of the progress of "roll back malaria" (RBM) programme in most parts of Africa[9,10].

Makurdi city is endemic for malaria[11]. The quality of treatments modes and their reliability for malaria and MRIs among her residents would impact significantly on the control of the disease in the community[12]. The growing

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resistance to aminoquinolines and the recommendation for artemisinin combinations for malaria treatment by the ongoing RBM programme also call for the need to assess the level of participation by individual communities towards this goal. In this lightthe study focuses on the rate of traditional healers utilization for management of malaria and MRIs and associated factors among adult women in Makurdi city.

Women were chosen for the study because they play important roles in health of all family members. For example, during pregnancy they determine significantly the type and quality of healthcare services they access; also as mothers and caregivers, influence the level of medical care available to their children, wards and to some extent their husbands as well; and as grand mothers take vital decisions concerning the health and well being of the entire family.

2. Materials and methods

2.1. Study area

The study was carried out in Makurdi, capital city of Benue state located in north central Nigeria, between October and December 2009. Six major parts of the city were selected for convenience, which were high level, low level, Wurukum, North bank, Wadata and government reserved area (GRA). The ethnic, socioeconomic, and religious backgrounds of the inhabitants in each area were collected.

2.2. Sampling

The minimum sample size (N) of 196 was calculated based on the statistical formula[13] $N=\frac{z^2\times p\times q}{d^2}$, p=maximum expected prevalence=50% where prevalence was not certain; d=tolerable error=7.9%; q=100%-p; z=2×SD.

100% of the minimum sample size (N) was come from each of the city locations designated for the study. Households were selected using systematic sampling methods in which one after another household in each direction faced by the interviewers was recruited into the study. The presumed central position of each of the designated parts of the city were used as the starting points where eight interviewers converged and moved outwards each in one's own direction while the first households were picked by throwing up a coin. Where a household did not have any eligible woman for the study, zero was awarded and the normal sampling pattern continued. Selection of households was stopped when the periphery of the part in the town was reached or where 25 households had been interviewed. This arbitrary figure was chosen to allow uniform coverage of the geographic location for the study.

2.3. Interviews and questionnaires

Twenty interviewers were subsequently recruited for the study and trained on the art of questionnaire administration. They were drawn from staff of the Department of Medical Microbiology and Parasitology, Haematology and Blood Transfusion of the Benue State University Makurdi, and fellowship members of a local church with qualifications not less than senior school certificate.

All adult women 18 years and above in each household were individually interviewed to assess their knowledge about malaria and choices of drugs used for its self medication. Informed oral or written consent were obtained from the subjects before the interview. Those who refused to participate were counselled with the assistance of other family members on the benefits of study to the community.

Semi-structured questionnaires with both closed and open ended questions were either self or interviewer administered to the respondents. Questionnaires were earlier pilot tested for reliability and validity. The obtained information included age, educational level, occupation, marital status, knowledge about malaria, rate of patronage of traditional healers for treatment of malaria and factors influencing their decisions.

2.4. Additional sources of information

Focused group discussions and in depth discussions on myths and cultural beliefs surrounding preferences for traditional healers were also carried out. Information on how they view malaria as a disease, whether it is a serious public health issue or not, and what they ascribe to some of the common clinical presentations of malaria such as anaemia, convulsions, irritability in the community were obtained. This qualitative data was used to strengthen the quantitative data obtained from the questionnaires. Another in depth discussion with the traditional healers on signs and symptoms and treatments for malaria were also carried out where interviewers were able to access them. With the help of members of the community some of the traditional healers were identified and visited where in the course of discussions their level of understanding of the clinical features of malaria were assessed and their various modalities of treatment.

2.5. Wealth index analysis

Principal Component Analysis (PCA) was used to develop wealth indices for the households based on ownership of durable assets including radio, television, telephone, refrigerator, bicycle, motorcycle/scooter and car/truck. Ownership was coded as 0 or 1 and missing cases were excluded. The households were then divided into socio-economic quartiles based on their scores. Cronbach's alpha was then calculated to test consistency-reliability[14].

2.6. Statistical Analysis

Data obtained was analysed using Epi Info 6 statistical software. Pearson's Chi squared test or Mantel-Haenszel were used to determine association with a P-value of < 0.05 as significant. Fisher's exact test was calculated for borderline significance and for cells with counts less than five. Analysis of variance (ANOVA) was used to determine multivariate predictors of traditional healers utilization for malaria treatment.

3. Results

3.1. General information

A total of 2 075 women were studied in Makurdi, spreading across 692 households with average of 3 adult females per household (range 1-7). The age range of the women was from 18 to 83 years old with the mean of 37 years old and mode of 32 years old. There were 97.0% (n=2 013) of respondents being aware of the existence of malaria while 87% (n=1 751) being able to associate it with mosquitoes.

Those who utilized traditional healers for treatment of malaria were 1 031 (49.7%), including 172 (16.7%) utilizing it strictly while 859 (83.3%) combining it with other treatment options. The patterns of options were traditional healers in 172 (8.3%), hospital/clinic only in 643 (31.0%), pharmacy chemist shop only in 189 (9.1%), herbs only in 222 (10.6%), spiritual healing only in 83 (4.0%), traditional healers+hospital/clinic in 287 (13.8%), traditional healers+pharmacy/chemist shop in 107 (5.2%), traditional healers+herbs in 179 (8.6%), traditional healers+spiritual healers in 114 (5.5%), traditional healers+hospital/clinic+pharmacy/chemist shop in 172 (8.3%), herbs+pharmacy/chemist shop in 58 (2.8%), and pharmacy/chemist shop+spiritual healing in 132 (6.4%). And 378 had no treatment (18.2%).

3.2. Influence of age, education, occupation, and marital status on utilization of traditional healers

The rate of utilization of traditional healers among the respondents in relation to age showed that 7.3% (13/177), 33.0% (209/634), 50.4% (197/391) and 55.2% (123/223) of those aged <20, 20–29, 30–39 and 40–49 years old , respectively utilized traditional healers; 73.1% (204/279), 68.2% (88/129), 81.0% (166/205) and 83.8% (31/37) aged 50–59, 60–69, 70–79 and >80 years old , respectively utilized traditional healers. Significant differences were found among age groups (P< 0.0001).

Analysis of the rate in relation to educational levels among the respondents showed that 63.9% (532/833), 51.4% (267/519), 43.0% (195/455) and 13.8% (37/268) of those with Nil, Primary, Secondary and Tertiary education, respectively patronised traditional healers. Significant differences were found among educational level groups (P<0.0001). The higher the educational level is, the less utilization of traditional healers.

Based on occupation, petty traders, artisans, farmers, applicants, casual labours and students had a higher tendency of utilizing traditional healers for malaria treatment compared to other occupations such as civil servants, lecturer/teacher and health workers (P<0.005).

In relation to marital status of the respondents, the rate of utilization of traditional healers were 49.2% (580/1,179), 50.0% (342/685) and 52.1% (110/211) in the married, singles and separated/widowed/divorced groups, respectively (P>0.05).

3.3. Reasons for utilization of traditional healers

Reasons advanced for traditional healers utilization among adult women in Makurdi city were as listed below: 1) drugs being cheaper 36.3% (n=374); 2) practitioners are more readily accessible 27.4% (n=282); 3) drugs are very effective 42.5% (n=438); 4) it is inherited culture 18.7% (n=193); 5) no consultation fee nor procurement of card 24.0% (n=247); 6) 9.8% (n=101) had no response.

3.4. The impact of family income on utilization of traditional healers

There was a direct correlation between improvement in family economy and reduced utilization of traditional healers as the rate of utilization was highest among those in the first and second quartiles of wealth index compared to the least patronage among those in the fourth quartiles (RR=2.7, CI=3.5–4.4). Knowledge about artemisinin-based combination therapy (ACT) in context of the present RBM programme among both the adult women and traditional healers was as low as less than 3.0%.

Seventeen focused group discussions were conducted. Malaria was generally not regarded as a serious medical problem in the city and was seen as causing only mild febrile illnesses in children. Also clinical features like convulsion, anaemia, irritability, refusal of feeds in children were ascribed to different disease entities other than malaria while some of the presentations like convulsions were believed to worsen by injection and knowledge about ACT was extremely low (less than 2%).

Eight traditional healers were involved in discussions. They attested to the efficacy of their drugs more than allopathic medications but assigned different diseases to different clinical presentations of malaria with equally different treatment modalities.

4. Discussion

The rate of traditional healers utilization was found to be 49.7% among adult women in Makurdi city, including 8.3% relying wholly on traditional healers while 41.4% combining traditional medication with other forms available. The rate of utilization decreased with educational levels (P<0.0001) and increased with age (P<0.0001). Other contributing factors were unemployment or underemployment and poverty. Although education appeared to re-orientate the people positively towards allopathic medical care, doctorate degree holders were nevertheless encountered expressing confidence in traditional medicare.

Beyond conventional education for the people, there is a need for additional sound and extensive health education for the people and it should cut across educational levels. The low level of awareness of ACT in the current malaria control programme among the people irrespective of educational levels further stresses the need to intensify public enlightenment campaign on malaria in the community so as to bring it in line with the present continental efforts towards its eradication[15].

The high patronage of traditional healers for malaria treatment by residents of the community has the tendency of slowing down the present control activity. The lack of adequate knowledge of various signs and symptoms of malaria and cloud of uncertainty hanging over the potency of various antimalarial decoctions cast doubt on treatment outcomes of malaria carried out by these practitioners. The latest finding on the burden of malaria in the community lay credence to this fact[11]. Patronage of traditional healers for treatment of malaria appears to be a continental affair on African continent and has been found to significantly impede the smooth control of malaria on the continent[16].

Due to the high confidence in their traditional healers in the treatment of malaria, policy formulators and implementers should consider the possibility of recruiting and integrating them into the current malaria control programme either as Home Based Managers of Malaria (HBMM) or as Community Medicine Distributors (CMDs) with improvement on signs and symptoms of malaria and various dosages of ACT combinations[17]. Proper training of the traditional healers will also avail them the opportunity of understanding their obvious limitations towards effective malaria control in the community[9]. The absence of HBMM and CMDs in the community calls for the need to urgently institute them in line with the RBM mandate, and with additional responsibility of health education at the peoples' door steps[18,19].

Poverty and unemployment were found to play significant roles in traditional healers utilization for malaria treatment. Attainment of millennium development goals (MDGs) by communities relies on formulation and implementation of policies aimed at economic rejuvenation and recovery, creation of jobs by both government, organized private and informal sectors.

The findings in the present study are, however, different from that in Swaziland[20], a district on Kenyan coast[21], Gambia[22], a rural community in Mozambique[23] and Cambodia[24] where utilization of traditional healers for malaria control at the expense of allopathic medications was not a popular option. This in fact impacted positively with reductions in malaria burdens in the respective communities.The feats which were achieved through massive public health enlightenment campaigns[25].

In conclusion, poverty, unemployment and underemployment, illiteracy among the people and obvious slow and comprehensive implementation of the RBM prescriptions by government were found to contribute significantly to the present high patronage of traditional healers for treatment of malaria by the people in Makurdi city. Health education should be intensified and more income generating avenues should be created for the people. Furthermore, HBMM and CMDs should be introduced in the malaria control programme of the community. This no doubt would contribute significantly towards preventing the community from being the centre of global attention when all other African communities might have successfully won the malaria war.

Conflict of interest statement

We declare that we have no conflict of interest.

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