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Attitude of Residents of a Rural Community in South-South, Nigeria towards Alternative Medical Therapy

Omosivie Maduka[1*] and Evans Ejimkaraonye[1]

[1]Department of Preventive and Social Medicine, University of Port Harcourt, Nigeria.

Authors' contributions

This work was carried out in collaboration between both authors. Author EE designed the study and wrote the protocol while author OM analyzed the results and wrote the first draft of the manuscript. Both authors read and approved the final manuscript.

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ABSTRACT

Background: Up to 80 percent of Africans are reported to use some form of alternative medical therapy (AMT) to meet their health needs. There are gaps in knowledge relating to attitude towards AMT in south- south Nigeria. An understanding of beliefs and the prevailing factors that influence the patronage of traditional medicine in this environment may help inform policy interventions.
Objectives: This study aimed to assess the awareness of and attitude towards AMT amongst the inhabitants of a rural community in south-south Nigeria.
Materials and Methods: This was a cross sectional survey involving 300 respondents selected by a two stage sampling technique, using a self-designed interviewer administered structured questionnaire. Results were presented as proportions with chi-squared test done to determine associations. Level of significance was set at 0.05.
Results: Mean age of the 300 respondents was 35.7±11.7 with 237 persons (79.0%) earning less than $250 monthly and 168 (56.0%) having secondary education. Majority 297 (99%) were aware of AMT and 287 (95.7%) cited herbal concoctions as the most prevalent method. Few were aware of side effects of AMT 71 (23.7%). Majority 208 (69.3%) preferred AMT to orthodox treatment, and

**Corresponding author: Email: omosivie.maduka@unport.edu.ng;*

were willing to refer others to AMT practitioners. Of these 159 (76.4%) claimed AMT to be more effective and 140 (67.3%) more affordable. Age of respondents, educational status, occupation and average monthly income were all found to be associated with preference of AMT ($p<0.5$).
Conclusion: Alternative medical therapy is favoured by majority of the respondents in spite of the risks. Public enlightenment campaigns, better regulation, and implementation of community health insurance for affordable health care are advocated.

Keywords: Alternative medical therapy; attitude; rural community.

1. INTRODUCTION

Alternative medical therapy (AMT) otherwise known as traditional medicine, native treatment or complementary medicine is the oldest form of health care available to populations [1-4]. In spite of the evolution of modern medicine, it has continued to grow in popularity. A large proportion of the World population is reported to use some form of AMT to meet their health needs. [5-8] various forms of AMT exist in Nigeria such as traditional birth attendance (TBAs), traditional bone setting (TBS), herbal treatment, and Traditional Eye Medications (TEMs). The widespread and growing use of AMT despite the presence of orthodox treatment has been attributed to its accessibility and affordability, especially in the rural areas, and also because it is often deeply rooted in cultural and religious belief systems [5,9,10]. While some countries have completely integrated AMT into their national health delivery system, many others like Nigeria, are yet to do so [7,11,12].

AMT practitioners have been accused of exaggerated claims and not having scientific data about treatment effectiveness, thus making it difficult to ascertain legitimate and effective therapies [10,13,14]. Practitioners have also been accused of lacking the proper knowledge and skills required for correct diagnosis of serious disorders [7,15,16]. Inadequate coordination of the practitioners' activities, poor communication between the practitioners and their patients, secrecy of treatment content and difficulty in determining treatment ingredients are some of the short-comings of AMT. In addition, incorrect diagnosis, imprecise dosage, low hygiene standards, and absence of documentation adversely affects AMT practice in Nigeria [12,13,17]. An understanding of beliefs and practices, and the prevailing factors and conditions that influence the patronage of traditional medicine may help inform policy decisions and planning of interventions aimed at improving the health of the people.

A number of studies on the awareness and attitude of alternative medical therapy in Nigeria have been published [9,11,12,14,16,18,19]. However, most of these studies were done in the Northern and South-Western part of Nigeria. There is some gap in literature on the awareness and attitude of alternative medical therapy in the South-South region of the country. In addition, most of the studies done on the awareness and use of alternative medical therapy are not population based. This does not afford a complete picture of the issues surrounding attitudes of people towards alternative medical therapy at the community level. Consequently, this study sought to fill knowledge gaps about the awareness of and attitude towards AMT in selected communities in the south-south region of Nigeria. It aimed to assess the awareness of and attitude towards alternative medical therapy (AMT) amongst the inhabitants of a selected rural community in south-south Nigeria.

2. MATERIALS AND METHODS

A descriptive cross sectional house-hold survey was conducted among adult residents of Rumuekini between July and August 2014. Rumuekini is a small rural town in Obio-Akpor Local Government of Rivers State comprising of eight villages. A self-designed interviewer administered structured questionnaire was used to collect information from people aged 18 to 70 who had been resident in the community for at least one year. This questionnaire had previously been pretested among 30 residents of Ozuoba a community similar to the study community. Adjustments were made to the questionnaire based on the responses during the pre-test. Interviews were conducted in either English or '*pidgin'* based on what was comfortable for respondents.

All those who were mentally challenged or otherwise incapacitated and thus unable to make choices about their health needs were excluded from the study. A sample size of 300 persons was deemed adequate using the formula for

estimating single proportion [20] with a prevalence (p) of 0.9 representing respondents who were aware of alternative means of getting health care [12], z of 1.96 at 95% confidence limits, and degree of precision (e) set at 0.05, design effect of 2 and a ten per cent over-estimation to accommodate for non-response. Design effect was applied majorly to mitigate the bias arising from not using simple random sampling throughout.

A two stage sampling method was used to select respondents into the study. In the first stage, simple random sampling was used to select three villages out of the eight villages. Based on the sample size and the fact that the population of households for each village was fairly the same, it was determined that 100 respondents from 100 household would be recruited from each village. A bottle was spun at the centre of each village to select a household as starting point. Systematic sampling was used in stage two such that one respondent was sampled from alternate households (sampling interval of two) until sample size was achieved. The researchers ensured that only one respondent was interviewed per household to make the sample more representative of the community population.

Respondents' awareness and attitude towards AMT was assessed through their responses to a series of questions ranging from whether they had ever heard of AMT, its types, uses and side effects to if they preferred AMT to orthodox treatment and if they would recommend AMT to others with reasons. Data was collected by the authors with the assistance of six final year medical students who had been trained prior to data collection. Data was subsequently entered into MS Excel and analysed by the author using Statistical Package for the Social Science (SPSS) version 20. Results were represented as proportions of the study population. Chi-squared test was performed to establish associations between socio-demographics and preference for AMT with p-value set at 0.05.

Ethical approval for the study was received by the ethics committee of the University of Port Harcourt Teaching Hospital. Informed consent was obtained from all study participants after explaining the study objectives and assuring them of confidentiality. Participants were also informed that they could opt out at any point during the interview. No personal details were written on the questionnaires. Data was entered on a computer and pass worded.

3. RESULTS AND DISCUSSION

3.1 Results

3.1.1 Socio-demographics

The age of study participants ranged between 18 and 70 years with a mean age of 35.37±11.73. The male to female ratio was 1:1 Only 37 (12.3%) of respondents were professionals, while the majority 124 (41.3%) were in the category of skilled labour. In addition, majority of respondents 237 (79.0%) reported an average monthly income less than $250. Over half of respondents were married 168 (56.0%) while close to sixty per cent had secondary education 176 (58.7%). Almost all respondents were Christians 292 (97.3%), with 201 of these (67%) being of the Pentecostal persuasion (Table 1).

3.1.2 Awareness of AMT

Almost all the respondents, 297 (99%) were aware of alternative methods of treating illnesses. The methods most commonly identified include, herbal concoction (287; 95.7%), traditional bone setting (170; 56.7%) and traditional birth attendance (164; 54.7%). The practitioners of these methods of AMT were most commonly called herbalists (151; 50.3%). Other names included native doctors (54; 18%) and traditional doctors (36; 12%). The most common sources of information on AMT as reported by respondents included family members (194; 64.7%), friends (170; 56.7%), and the media (146; 48.7%). Respondents claimed that these AMT practitioners could treat a wide range of ailments including fever/malaria, STI and other infections, bone ailments and wounds, gastro-intestinal tract disorders, hypertension, diabetes, infertility and even snake bites and poisons. Few respondents 71 (23.7%) were aware of any side effects of AMT (Table 2).

3.1.3 Attitude towards AMT

Majority of respondents (208; 69.3%) expressed preference for alternative medical therapy. Reasons for the preference are that it's more effective (159; 76.4%), more affordable (140; 67.3%), more accessible (78; 37.5%) and more acceptable (78; 37.5%). The same proportion of respondents (208; 69.3%) would also

recommend alternative medical therapy to others for similar reasons (Table 3).

Table 1. Socio-demographic characteristics of the respondents

Variable	Frequency	Proportion (%)
Age (n=300)		
18 – 24	49	16.3
25 – 34	117	39.0
35 – 44	72	24.0
45 – 54	35	11.7
55 – 64	18	6.0
≥ 65	14	4.7
Sex (n=300)		
Male	148	49.3
Female	152	50.7
Occupation (n=300)		
Professional	37	12.3
Skilled labour	124	41.3
Unskilled labour	33	11.0
Unemployed	43	14.3
Marital status (n=300)		
Single	118	39.3
Married	168	56.0
Divorced	3	1.0
Widowed	3	1.0
Cohabiting	8	2.7
Educational qualification (n=300)		
None	17	5.7
Primary	50	16.7
Secondary	176	58.7
Tertiary	57	19.0
Religion (n=300)		
Christian	292	97.3
Muslim	5	1.6
Traditional religion	3	1.0
Denomination (n=292)		
Orthodox	82	27.3
Pentecostal	201	67.0
No response	9	3.0
Average monthly income (n=300)		
0-<$250	237	79.0
$500-<1,000	34	11.3
$1,000 –$2,000	10	3.3
> $2,000	3	1.0

Majority of respondents who preferred AMT were aged 25-34 (71 persons; 35.1%) and 35-44 (49 persons; 23.6%). This was found to be statistically significant (p=0.001). More respondents whose occupation fell into the unskilled labour category (141 persons; 67.8%) expressed preference for AMT than any other occupation and this association was found to be significant (p = 0.001). In addition, secondary education (121 persons; 58.2%) was found to be significantly associated with AMT preference (p<0.001). Furthermore, 175 respondents (89.3%) had an average monthly income less than 250 dollars and this was found to be significantly associated with preference for AMT (p<0.001). Married persons (151 persons; 58.2%) were also more likely to prefer AMT than other categories of marital status (p = 0.04).

Similarly, age of respondents between 25 and 34 (71 persons; 34.1%) and 35 and 44 (50; 24.1) was significantly associated with willingness to recommend AMT (p<0.001). Those with occupations categorized as unskilled labour were more willing to recommend AMT than any other group and this association was found to be significant (p = 0.002). Those with secondary education (119 persons; 57.3%) were more willing to recommend AMT and this association was found to be significant (p<0.001). Finally persons with average monthly income less than 250 dollars were more willing to recommend AMT to others. This association was also significant (p = 0.003) Sex and religion were not found to be associated with either preference for AMT or willingness to recommend AMT to others (Tables 4 and 5).

3.2 Discussion

The findings of this study are similar to other research efforts done among rural communities in south western and northern Nigeria [6,12,17,21–23]. One such study showed that majority of respondents were aware of alternative ways of getting treatment for their ailments, with herbal concoctions being the most prevalent form of treatment used in the study [12]. The fact that most respondents were unaware of side effects is also corroborated by Fakeye et al. [14] who found that only a few respondents were of the opinion that some herbal medicines could have dangerous side effects. Aderibigbe et al. [6] found in their study that most respondents preferred traditional bone setters to orthodox bone treatment because they were perceived to be cheap, more acceptable and accessible. Agbaje et al. [19] also found that most respondents believe that ill health is spiritual and cannot be managed adequately by conventional drugs, hence the importance of traditional cures.

Table 2. Awareness of alternative medical therapy

Variable	Frequency	Proportion (%)
Aware about AMT (n=300)		
Yes	297	99.0
No	3	1.0
Methods of AMT (multiple responses)		
Herbal concoctions	287	95.7
Traditional birth attendance (TBA)	164	54.7
Traditional bone setting (TBS)	170	56.7
Traditional eye medications	83	27.7
Others	6	2.0
Common name for AMT practitioners (n=300)		
Herbalists	151	50.3
Native doctors	54	18.0
Traditional doctors	36	12.0
Others	5	1.6
No response	54	18.0
Source of information (multiple responses)		
Friends	170	56.7
Family	194	64.7
Media	146	48.7
Sign posts	56	18.7
Others	2	0.7
Common diseases treated (multiple responses)		
Malaria/fever/typhoid	167	55.7
STIs and other infections	90	30.0
Bones and wounds	78	26.0
Digestive tract ailments	43	14.8
Aches and pains	29	9.7
Poison/snakebite	26	8.7
Infertility	25	8.3
Hypertension and diabetes	21	7.0
No response	9	3.0
Awareness of side effects (300)		
Yes	71	23.7
No	220	73.3
No response	9	0.3

Table 3. Attitude to alternative medical therapy

Variable	Frequency	Proportion (%)
Prefer AMT to orthodox medicine		
Yes	208	69.3
No	92	30.7
Reason for preference (multiple responses)		
More acceptable	78	37.5
More affordable	140	67.3
More accessible	78	37.5
More effective	159	76.4
Would recommendation AMT to others		
Yes	208	69.3
No	92	30.7
Reasons for recommendation (multiple responses)		
More acceptable	64	30.8
More affordable	133	63.9
More accessible	68	32.7
More effective	158	76.0

Table 4. Association between selected socio-demographic factors and preference for AMT

Variable	Prefer AMT to orthodox medicine?			
	No (%)	Yes (%)	א	p-value
Age (n=300)				
18 – 24	20(21.7)	29 (13.9)		
25 – 34	44(47.8)	73 (35.1)		
35 – 44	23(25)	49 (23.6)	20.196	0.001
45 – 54	3 (3.3)	32 (15.4)		
55 – 64	1(1.1)	19 (9.1)		
≥ 65	1 (1.1)	6 (2.9)		
Sex (n=300)				
Male	47 (51.1)	105 (50.5)	0.009	0.923
Female	45 (48.9)	103 (49.5)		
Occupation (n=300)				
Professional	2 (2.2)	0 (0)		
Skilled labour	25 (27.2)	36 (17.3)		
Unskilled labour	41 (44.6)	141 (67.8)	18.285	0.001
Unemployed	20 (21.7)	28 (13.5)		
No response	4 (4.3)	3 (1.4)		
Marital status (n=300)				
Single	45 (48.9)	73 (35.1)		
Married	47 (51.1)	121 (58.2)		
Divorced	0 (0)	3 (1.4)	9.86	0.04
Widowed	0 (0)	3 (1.4)		
Cohabiting	0 (0)	8 (3.8)		
Educational qualification (n=300)				
None	2 (2.2)	15 (7.2)		
Primary	5 (5.4)	45 (21.6)	25.86	<0.001
Secondary	55 (59.8)	121 (58.2)		
Tertiary	30 (32.6)	27 (13.0)		
Religion (n=300)				
Christian	90 (97.8)	202 (97.0)		
Muslim	2 (0.2)	3 (0.5)	1.535	0.464
Traditional religion	0 (0)	3 (0.5)		
Denomination (n=292)				
Orthodox	28 (30.4)	54		
Pentecostal	58 (63.0)	143	1.701	0.637
No response	6 (6.5)	11		
Average monthly income (n=300)				
0-<$250	62 (67.4)	175 (84.1)	20.861	<0.001
$500-<1,000	16 (17.4)	18 (8.6)		
$1,000 –$2,000	7 (7.6)	3 (1.4)		
> $2,000	3 (3.2)	0 (0)		
No response	4 (4.3)	12 (5.8)		

The evident preference for AMT over orthodox medicine indicates that orthodox medicine is perceived as expensive and somewhat less effective than AMT. This may be a reflection of entrenched cultural and religious beliefs and the effectiveness of paid media propaganda by AMT practitioners. Preference for alternative medical therapy over orthodox medicine may be contributory to the poor uptake of services at health facilities. In addition, the poor awareness of side effects should be a source of concern for government and health care providers. The observed association between age, educational status, occupation and average monthly income is an indication of the direct or indirect determinants of the preference of AMT by members of rural communities. Poverty is likely to be an underlying factor implicated in the preference for AMT.

Table 5. Association between socio-demographics and willingness to recommend AMT to others

Variable	Willing to refer others to AMT?			
	No	Yes	א	p-value
Age (n=300)				
18 – 24	20 (21.7)	29 (13.9)		
25 – 34	46 (50.0)	71 (34.1)		
35 – 44	22 (23.9)	50 (24.1)		
45 – 54	2 (2.2)	33 (15.9)	23.82	<0.001
55 – 64	1 (1.1)	19 (9.1)		
≥ 65	1 (1.1)	6 (2.9)		
Sex (n=300)				
Male	46 (0.5)	105 (50.7)	0.024	0.878
Female	46 (0.5)	103 (49.3		
Occupation (n=300)				
Professional	1 (1.1)	1 (0.5)		
Skilled labour	26 (28.3)	35 (16.8)		
Unskilled labour	40 (43.5)	142 (68.3)	17.087	0.002
Unemployed	21 (22.8)	27 (13.0)		
No response	4 (4.3)	3 (1.4)		
Marital status (n=300)				
Single	45 (48.9)	73 (35.2)		
Married	47 (51.1)	121 (58.2)		
Divorced	0 (0)	3 (1.4)	9.86	0.04
Widowed	0 (0)	3 (1.4)		
Cohabiting	0 (0)	8 (3.8)		
Educational qualification (n=300)				
None	2 (2.2)	15 (7.2)		
Primary	5 (5.4)	45 (21.6)	22.27	<0.001
Secondary	57 (62.0)	119 (57.3)		
Tertiary	28 (30.4)	29 (13.9)		
Religion (n=300)				
Christian	90 (97.8)	202 (97.2)		
Muslim	2 (2.2)	3 (1.4)	1.535	0.464
Traditional religion	0	3 (1.4)		
Denomination (n=292)				
Orthodox	28 (30.4)	54 (26.0)		
Pentecostal	58 (60.0	143 (68.7)	1.701	0.637
No response	6 (6.5)	11 (5.3)		
Average monthly income (n=300)				
0-<$250	62 (67.4)	175 (84.2)	15.668	0.003
$500-<1,000	16 (17.4)	18 (8.8)		
$1,000 –$2,000	7 (7,6)	3 (1.5)		
> $2,000	2 (2.2)	1 (0.5		
No response	5 (5.4)	11 (5.3)		

These findings have implications for healthcare delivery services in Nigeria especially within rural communities. The strength of this study lies in its focus on data collection via house-hold survey unlike the hospital based studies which give results that are not generalizable to the population. The limitations of the study however, are that it did not determine actual AMT use, neither did it qualitatively explore study participants perceptions and reasons for their preference of AMT. This is being considered for future research.

4. CONCLUSION

The study findings show evidence that alternative medical therapy in its various forms is well favoured by majority of the respondents as they claim that it is more affordable and acceptable. This is in spite of the apparent dangers of

patronage of AMT practitioners whose activities are largely un-supervised and un-regulated. The challenge of affordability of orthodox methods of health care highlighted by this study underscores the need for community based health insurance schemes. These schemes will ensure that affordable quality health care services are available. Stricter supervision and better regulation of the practices of AMT practitioners should be enforced. The flamboyant advertisements of many of these practitioners with claims to cure everything from common cold to cancers should be discouraged. More importantly, implementation of affordable community health insurance schemes is vital to making health care services more accessible to residents of rural communities. There is also need for public enlightenment campaigns about AMT use and possible side effects and improvement in health care structure and service delivery especially Primary Health Care Facilities.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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