ATTITUDE TOWARDS TRADITIONAL MEDICINE AND UTILISATION OF MODERN HEALTHCARE AMONG CROP FARMERS IN SAKI WEST LOCAL GOVERNMENT OF OYO STATE

[1]Ibrahim, F. M., [2]Shaib-Rahim, H. O., [3]Olatunji, B. T. and [4]Oyedeji, M. B.
[1]Department of Agricultural Extension and Management, Federal College of Forestry, Forestry Research Institute of Nigeria
[2] Department of Agricultural Technology, Federal College of Forestry, Forestry Research Institute of Nigeria
[3]Department of Forest Economics and Extension, Forestry Research Institute of Nigeria
[4]Department of Vocational Studies, Federal College of Forestry, Forestry Research Institute of Nigeria, P.M.B. 5087, Ibadan, Oyo State, Nigeria
Correspondence contact details: fausatibrahim@gmail.com; +2348055822100

ABSTRACT
Farmers are typically more traditional in outlook and this may impede utilisation of modern healthcare and bear negative implication for morbidity and mortality. The aim of this study was therefore to examine attitude towards traditional medicine and utilisation of modern health care among crop-farmers in Saki West LGA, Oyo State. Using survey design, 200 copies of structured-questionnaire were administered via structured-interview to randomly selected respondents. Chi-square and contingency co-efficient were used to assess the significance and strength of associations between pairs of categorical variables respectively. Pearson Product Moment Correlation Coefficient was used to assess relationship between attitude and utilisation. Univariate analysis indicates that 55% and 45% of respondents maintained maximally and minimally positive attitude towards traditional medicine respectively. Further, 2.5%, 54.0% and 43.5% of respondents were non-utilisers, low utilisers and high utilisers of modern healthcare, respectively. Sex and marital status were not significantly associated with utilisation of modern healthcare ($p > 0.05$) but religion and education were ($p < 0.05$). There was a significant, inverse and fairly strong relationship between attitude towards traditional medicine and utilisation of modern healthcare ($r = -0.493$, $p = 0.000$). Being Muslim and having increased education are significantly associated with lower and higher utilisation of modern healthcare among famers in the study area. The more positive the attitude towards traditional medicine, the less the utilisation of modern healthcare among farmers in the study area. Farmers' patronage of modern healthcare should be improved through making modern medicine more responsive to farmers the way traditional medicine does.
Keywords: Attitude, Traditional medicine, Modern medicine, Farmers, Primary Health Care.

INTRODUCTION

In the developing world including Nigeria, farmers are under pressure to increase food production owing to increasing human population. Hence, agricultural production typically attracts attention but this is at the expense of the agricultural producer. Moreover, the climate-dependent, human energy-demanding attribute, owing to the less-mechanized nature of farming in developing societies like Nigeria implies that farmers' health is inextricably and deeply tied to their livelihoods. Climate change has exacerbated the challenges of agricultural production such that work productivity declines during hottest and wettest seasons (Kjellstrom and Crow, 2011; Dunne *et al*., 2013). Yet, farmers live almost exclusively in rural areas, the regions with poorest access to health infrastructures. This portends grave consequences for the health of farmers who are typically poorer and more traditional in outlook. This makes it logical for concerns to be raised with regard to farmer's attitude to traditional medicine and their utilisation of modern health infrastructures.

The World Health Organisation defined traditional medicine as 'the sum total of the knowledge, skills and practices based on the theories, beliefs and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health as well as in the prevention, diagnosis, improvement or treatment of physical and mental illness' (WHO, 2013: 15). Traditional medicine is an important component of health institution in sub-Sahara Africa. Its role in ensuring health for all in Africa cannot be overemphasised. The World Health Organisation recognizes the potential contribution of traditional medicine in progressing health systems (Staden, 2019). Traditional medicine is historically relevant to peoples of every land and climes. It appeals to the spirit–mind–body notion of holistic health. Traditional medicine incudes the use of animal products, plants and other culturally relevant objects in the promotion and restoration of health (Sen *et al*., 2011; Pan *et al*., 2014). The practice of traditional medicine invokes orders of cultural knowledge, customs and beliefs to instigate desired outcome (Gyasi, Siaw and Mensah, 2015). These and many more justifications make the utilisation of traditional medicine prevalent in African as well as global populations (James *et al*., 2018).

Paradoxically, absolute reliance on traditional medicine is a huge threat to the health of the population. Utilisation of traditional medicine is sometimes premised on supernatural conception of disease causation which may not be apt. In the

report of a qualitative study to explore cultural construction of health and illness among the Yoruba, Jegede (2002) asserted that among their research participant's explanation of sources of disease causation were supernatural causes including "enemies (*ota),* which include witchcraft (*aje)*, sorcery (*oso);* gods *(orisa)* or ancestors (*ebora)"*. Although these participants also recognized *"*natural illness (*aare)* and hereditary diseases (*aisan idile*)" (Ibid: 328), it is expectable that people's primary health orientation will impede their acceptance of modern healthcare. Jegede (2002) further reported that about two-thirds of their participants always frequented traditional healthcare centers prior to patronizing hospitals. Hospitals were typically considered after other choices became futile. No wonder many refer to hospitals as '*ile iku* (houses of death)' as cases are referred there at stages of intractability. Indeed, farmers' attitude towards traditional medicine and their utilisation of modern healthcare are bases of determining farmers' welfare status and asserting their right to health as fundamental human right which government is responsible for (Birn, 2018).

The modern healthcare system closest to farmers as a subset of the larger Nigerian population is the primary health care center. Primary health care (PHC) is the most basic of the modern health institutions, the others being secondary and tertiary health centers. The Primary Health Care was adopted in 1978 at an International Conference instigated by the WHO and UNICEF in Alma Ata, Kazakhstan, by 134 governments including Nigeria, as the strategy of attaining 'Health for All' (WHO, 1978) (Birn, 2018). PHC is a fundamental element of Nigeria's health system, and it is the first health center to be, ideally, contacted by individuals, the family and the community (NPHCDA, 2019). Among the eight components (services) of the primary health care are maternal and child care including family planning, immunization against major infectious diseases, prevention and control of locally endemic diseases, appropriate treatment for common ailments and injuries, as well as supply of essential drugs. Nigeria recorded tremendous success in its implementation of PHC between 1986 and 1992 during the reigns of Professor Olikoye Ransome-Kuti as the Minister of Health (Aregbeshola and Khan, 2017): primary health centers were local-government-focused, infrastructures were expanded, community health workers' training institutions were created to turn out health workers. These facilitated the achievement of the goal of 80% coverage of Universal Child Immunization (UCI). These tremendous successes were acknowledged by the great rating of the WHO Review Team (Lambo, 2015). The National Primary Health Care Development Agency (NPHCDA) was created to sustain these successes in 1992 (Fatusi, 2015). Unfortunately, the incursion of the military in Nigeria politics and governance in 1993 disrupted the Nigerian PHC success story (Aregbeshola and Khan, 2017) for which the nation is yet to recover from. Indeed, primary health centers are places of reaping the rewards of modern heath care, for which the farmer's health stand to benefit. The role of attitude towards traditional medicine in this instance is aptly of interest. Attitudes are motivated by peoples' beliefs and knowledge as well as experiences. This work was therefore designed to examine attitude of crop farmers towards traditional medicine and utilisation of modern healthcare in Saki West Local Government Area of Oyo State, Nigeria

METHODOLOGY

The survey design was adopted for this study. The target population was the crop farmers of Saki West Local Government Area (LGA) of Oyo state. Oyo state is one of the six states of southwestern Nigeria, the homeland of the Yorùbá people. The LGA has a land mass of 300 km^2. The people of the LGA are typically farmers, but most people diversify their livelihood by concurrently engaging in trading and artisanal works. The LGA is divided into eleven political wards. According the 2006 population and housing census, the total number of people in the LGA was 278,002 (National Population Commission, 2007). This is taken as the total population (N) for the study because the people are typically farmers. The sampling procedure was random and systematic. The modified Cochran formula displayed below was used to calculate sample size:

$$\mathbf{n} = \frac{Npqz^2}{e^2(N-1)+pqz^2} \quad \ldots\ldots (1)$$

Where *e* is the desired level of precision (i.e. the margin of error) = 7%; p is the (estimated) proportion of the population which has the attribute in question at assumption of 50%= 0.5; q is 1–p; z is obtained from 95% confidence on z table as 1.96 and n is the sample size. The calculated sample size was 196. This was increased to 200. Five wards were randomly selected from the eleven in the LGA. Villages/communities in the selected wards were identified and two villages were randomly selected from each ward. The villages were Agbele, Isale Abudu, Idi Igba, Apinite, Eko tan, Isale Oke, Logbogbo, Odo Okerete, Igboro and Sangote. The study took place in these ten villages. Systematic sampling principle was invoked to select twenty respondents in each of the ten communities. Data collection was achieved using structured questionnaire. This was administered via structured interview. A Yorùbá version of the questionnaire was created to be able to converse with respondents that do not speak English language. Respondents' rights to willful participation was respected. Study details were explained to participants and their

anonymity was assured before their acceptance to participate in the study. Their informed consent was obtained by appending their signature. Data collection took place between March and May, 2018. Response rate was 100%.

Attitude towards traditional medicine was defined as respondent's feelings, mental states and opinions regarding traditional medicine. It was measured using a ten-item author-constructed Likert scale (see table 2 for items in the scale). Responses were scored 1 to 5 such that the higher the score, the more positive the attitude towards traditional medicine. *Utilisation of modern healthcare* was defined as utilisation of primary health care centers. This utilisation was defined as the extent to which respondents make use of primary health care centers. It was measured using a six-item author-constructed scale assessing the degree to which respondents generally patronize modern health centers (see table 2). Responses were scored 0 to 2, such that higher score implies greater utilisation of modern healthcare.

Distributions of data were assessed using frequency counts and percentages. Cross-tabulation and chi-square were used to show distributions and significance of associations between pairs of variables respectively. Contingency co-efficient was used to assess the strength of significant associations. Pearson Product Moment Correlation Coefficient was used to assess relationship between attitude towards traditional medicine and utilisation of modern healthcare. All data were analyzed using Statistical Package for Social Sciences (version 21).

RESULTS AND DISCUSSIONS

Table 1 shows that majority (72.0%) of respondents were male. This implies that agriculture is dominated by men in the study area. Most respondents (75.0%) were married. The proportion of those who were divorced (5%) is probably an indication of growing level of marriage instability in the study area. Most respondents (43.5%) had no formal education. The highest educational qualification of up to a quarter of respondents was primary school certificate. The distribution of educational achievement of respondents indicates poor status of basic education among farmers. This distribution implies that illiteracy is still a major problem confronting farmers. However, the proportion of respondents with tertiary education is considerable and cheering given the poor-educational condition of farmers in the study area. The majority (58%) of respondents were Muslims, while Christians constituted 36.5%. About 1 in every 20 respondents (5.5%) were practitioners of traditional religion. This indicates a considerable level of cultural survival among respondents. The distribution of socio-demographic characteristics of respondents is shown in Table 1.

Table 1: Distribution of respondent's socio-demographic characteristics

Variables	Categories	Frequency	Percentage
Sex	Male	144	72.0
	Female	56	28.0
Marital	Single	28	14.0
status	Married	150	75.0
	Divorced	10	5.0
	Widowed	12	6.0
Education	No formal education	87	43.5
	Primary school certificate	48	24.0
	Secondary school certificate	37	18.5
	Tertiary education	28	14. 0
Religion	Islam	116	58.0
	Christianity	73	36.5
	Traditional Religion	11	5.5

Item analysis of measures of attitude towards traditional medicine and utilisation of modern healthcare

The analysis of items used in the assessment of attitudes and utilisation presented in table 2 shows that 71.5%, 70% and 65.0% of respondents strongly agreed that only traditional medicine can cure diseases because they are caused by spirits, traditional medicine was pocket friendly and time saving respectively. Further, 75% of respondents strongly disagreed that traditional medicine could have devastating side effects while 59.5% strongly believed that in the co-existence of traditional and modern medicine. Distribution of responses to these items have generally impressed the idea that traditional medicine is a popular phenomenon among farmers in the study area. Table 2 further shows that 35.5% and 43.0% were certain that they patronized health center the last time they were sick and only when sickness is severe. However, 86.5% regarded themselves as consistent use of health center. These show that respondents reported diverse range of utilisation of health center.

Table 2: Analysis of items used in the assessment of attitude towards traditional medicine and utilisation of primary health care centers

Attitude towards traditional medicine						
s/no	Items	Strongly agree	Agree	Unsure	Disagree	Strongly Disagree
1	Traditional medicine is more pocket friendly	70.0	21.0	0.50	5.0	3.5
2	Total healing can only be achieved using traditional medicine	50.5	27.5	2.5	15.0	4.5
3	Patronizing traditional medicine is always time saving	65.0	29.0	1.0	4.0	1.0
4	Aside from healing diseases, traditional medicine agrees with my spirit	52.0	13.0	10.0	10.0	15.0
5	Traditional medicine can have devastating side effect	4.0	3.5	15.0	2.5	75.0
6	Traditional medicine works faster	44.5	40.0	4.5	1.0	10.0
7	When I am sick, I prefer to see a traditional healer	43.0	33.0	4.0	3.5	16.5
8	Traditional medicine is better for the people of my ethnicity than modern medicine	38.5	47.0	5.5	1.5	7.5
9	Some diseases are caused by spirits which only traditional medicine can cure	71.5	15	8.5	0.5	4.5
10	Our healthcare system cannot be adequate without inclusion of traditional medicine	59.5	30.0	6.5	0.5	3.5

Utilisation of primary health care centers				
s/no	Items	Not true at (%)	I'm not sure (%)	Very true (%)
1	The last time you were sick, did you patronize health care center?	50.0	14.5	35.5
2	Is health care center your major source of health care?	7.0	15.5	77.5
3	I patronize primary health care center only when traditional medicine fails.	10.5	0.5	89.0
4	I patronize primary health care center only when my sickness is severe	55.0	2.0	43.0
5	I am a consistent user of primary health care center	3.5	10.0	86.5
6	I patronize primary health care center only when someone/people pressurize me to do so	12.0	3.0	85.0

Univariate analysis of attitude towards traditional medicine and utilisation of modern healthcare

The univariate distributions presented in Table 3 indicates the closely bipolar distribution of respondents in terms of the dimensions of their attitude and utilisation. The proportion of respondents who maintained maximally positive attitude towards traditional medicine (55%) was a strong indication that traditional medicine is staunchly popular among respondents. This is comparable with the findings of Stanifer *et al*. (2015) who conducted mixed methodology study of the determinants of the use of traditional medicine in Kilimanjaro, Tanzania. They reported that 55.7% of their survey participants use traditional medicine. Although the finding of Stanifer *et al*. (2015) is not directly relevant to current finding, the reported proportion of traditional medicine users is arbitrarily reflective of attitude towards traditional medicine in Africa sub-populations.

Only 2.5% of respondents are non-utilisers of modern healthcare but the majority (54%) were low utilisers of same. Nevertheless, over 4 out of every 10 respondents were high utilisers of modern healthcare. This distribution suggests considerable lag in the utilisation of primary health care centers among farmers in the study area. This finding is comparable with the findings of Alarima and Obikwelu (2018) who conducted an assessment of utilisation of primary health care services among

settled Fulani agropastoralists in Ogun State, Nigeria. Alarima and Obikwelu (2018) reported that 15.0%, 83.3% and 1.7% of their respondents always, occasionally and never make use of primary health care services, respectively. The two sets of finding reflect that those who never use modern medicine are very marginal. The differences in other proportions reported and current findings is probably due to fact that the target population of the two studies are different.

Table 3: Distribution of dimensions of attitude towards traditional medicine and utilisation of modern healthcare

Variables	Dimensions	N	%
Attitude towards traditional medicine*	Minimally positive	90	45.0
	Maximally positive	110	55.0
Utilisation of modern healthcare**	Non-utilisers	5	2.5
	Low utilisers	108	54.0
	High utilisers	87	43.5

*The means (below the mean and mean; above the mean) of summary scores were used to Categorise respondents into two. **Respondents' lowest, highest and mean score were found to be 0, 10 and 5, respectively. Respondents scoring 0, between 1 to 5 and 6-10 were Categorised as non-utilisers, low utilisers and high utilisers respectively.

Socio-demographic characteristics and utilisation of modern healthcare

The cross-tabulations in Table 4 indicates that all non-utilisers were male and they also dominated the low and high utilisation sub-groups. The chi-square of this analysis was 0.397 ($p > 0.05$). This implies that sex is not a significant factor in utilisation of modern healthcare among the famers. People utilise and will utilise modern healthcare irrespective of their sex. However, Alarima and Obikwelu (2018) reported that sex was a significant determinant of utilisation of primary healthcare services among settled Fulani agropastoralists in Ogun State, Nigeria. This calls for more studies to establish the role of sex in the patronage of modern medicine. Married respondents dominated the three levels of utilisation. They constituted 80%, 71.3% and 79.3% of non-utilisers, low utilisers and high utilisers, respectively. The chi-square of this analysis was 3.929 ($p > 0.05$). Marital status is not significantly predisposing towards high or low utilisation of modern healthcare among the famers. Similarly, Alarima and Obikwelu (2018) reported that marital status was an insignificant determinant of utilisation of primary healthcare services in their study among settled Fulani agropastoralists in Ogun State, Nigeria. This reflects a growing conclusion to the effect that marital status is not a factor of significant importance in the patronage of modern healthcare. Muslims are the majority of non-utilisers (80%) and low utilisers (65.7%). However, Christians were the majority (50.6%) among high utilisers of modern healthcare. The chi-square of this cross tabulation was 15.182 ($p < 0.05$). Being Muslim is significantly more predisposing to lower utilisation of modern healthcare among famers in the study area. This is probably a reflection of some peculiarities of Muslims and their social circumstances in the study area which calls for further studies. For instance, education could be lower among Muslims and education was found to be significantly associated with utilisation of modern healthcare. The contingency coefficient of this analysis shows that the extent of the association between religion and utilisation of modern healthcare is 26.6%. Table 4 further shows that 54.6% of low utilisers had no formal education. However, these respondents with no formal education constituted only 13.8% of high utilisers. Meanwhile, respondents with tertiary education constituted majority of high utilisers (32.2%). The chi-square of this cross tabulation was 16.194 ($p < 0.05$). Increasing education is significantly more predisposing to higher utilisation of modern healthcare among the famers. This finding is in tandem with the finding of Oladigbolu *et al*. (2017). In their report, Oladigbolu *et al*. (2017) stated that educational status was a significant predictor of utilisation of healthcare services. The extent of the association between education and utilisation of modern healthcare as assessed with contingency coefficient is 27.4%.

Table 4: Cross-tabulation of sex, marital status, religion, education and utilisation of modern healthcare

Socio-demographic characteristics	Sub-groups	Utilisation of modern healthcare		
		Non-utilisers	Low utilisers	High utilisers
Sex*	Male (%)	100.0	95.4	94.3
	Female (%)	0.0	4.6	5.7
Marital status**	Single (%)	20.0	13.9	13.8
	Married (%)	80.0	71.3	79.3
	Divorced (%)	0.0	6.5	3.4
	Widowed (%)	0.0	8.3	3.5
Religion***	Christianity (%)	20.0	25.9	50.6
	Islam (%)	80.0	65.7	47.1
	Traditional religion (%)	0.0	8.3	2.3
Education****	No formal education (%)	0.0	54.6	13.8
	Primary education (%)	40.0	18.5	29.9
	Secondary education (%)	40.0	13.0	24.1
	Tertiary education (%)	20.0	13.9	32.2
	Total	100	100	100

*Chi-square = 0.397, p =0.820
**Chi-square = 3.929, p =0.686
***Chi-square = 15.182, p =0.004; Contingency co-efficient = 0.266, (p =0.001)
****Chi-square = 16.194, p =0.013; Contingency co-efficient = 0.274, (p =0.012)

Relationship between attitude towards traditional medicine and utilisation of modern healthcare

The Pearson's r (-0.493, p =0.000) in Table 5 indicates a significant, inverse and fairly strong relationship between attitude towards traditional medicine and utilisation of modern healthcare. The inverse direction of this correlation indicates that the more favourable the attitude towards traditional medicine, the less the utilisation of modern healthcare among the farmers. This finding is indirectly similar to the findings of Stanifer *et al*. (2015) who reported that strong cultural identity was one of the significant determinants of the use of traditional medicine in Kilimanjaro, Tanzania. In addition, the current finding is indirectly similar to the finding asserting that attitude towards use of primary healthcare service was a significant determinant of utilisation of primary healthcare services (Alarima and Obikwelu, 2018). Indeed, respect for traditional medicine is a significant threat to high patronage of modern medicine. By implication, this respect is a threat to farmer's productivity because health is an essential element of human capital which positively impacts productivity and economic growth (Adeoti and Awoniyi, 2014). The rendering of modern medical services in this part of the world needs to emulate some attributes of traditional medical practices, such as being more pocket friendly, respecting cultural dictates, lessening bureaucratic bottlenecks, in order to be more appealing to people.

Table 5: Pearson's *r* indicating relationship between attitude towards traditional medicine and utilisation of modern healthcare

		Attitude towards traditional medicine	Utilisation of modern healthcare
Attitude towards traditional medicine	R	1	-0.493
	p value		0.000
Utilisation of modern healthcare	R	-0.493	1
	p value	0.000	

CONCLUSIONS AND RECOMMENDATION

Sex and marital status are not significantly associated with utilisation of modern healthcare. However, religion and education are significantly associated with utilisation of modern healthcare among the famers. Being Muslim and having lower education are significantly more predisposing to lower utilisation of modern healthcare among the famers. The more positive the attitude towards traditional medicine, the less the utilisation of

modern healthcare among the farmers. It is therefore incumbent on units of government, non-governmental organisations and other stakeholders to focus on the health of food producers through improving patronage of modern health facilities by improving semblance of the two systems.

REFERENCES

Adeoti, A. I. and Awoniyi, O. A. (2014). Demand for Health Care Services and Child Health Status in Nigeria - A Control Function Approach. *An International Multidisciplinary Journal,* 8 (1-32): 273-301.

Alarima, C. I. and Obikwelu, F. E. (2018). Assessment of Utilisation of Primary Health Care Services among Settled Fulani Agropastoralists in Ogun State, Nigeria. *Agro-Science Journal of Tropical Agriculture, Food, Environment and Extension*, 17(1): 27-34.

Birn, A. E. (2018). Back to Alma-Ata, From 1978 to 2018 and Beyond. *American Journal of Public Health*, 108(9): 1153-1155.

Aregbeshola, B. S. and Khan, S. M. (2017) Primary Health Care in Nigeria: 24 Years after Olikoye Ransome-Kuti's Leadership. *Front. Public Health*, https://doi.org/10.3389/fpubh.2017.00048

Dunne, J., Stouffer, R. and John, J. (2013): Reductions in Labour Capacity from Heat Stress Under Climate Warming. *Nature Climate Change*, 3(3): 563-566.

Fatusi, A. O. (2015). Public Health Leadership, Policy Development and the Nigerian Health System. *A Paper Presented at the Induction Program of the Institute for Government Research Leadership Technology*, Abuja.

Gyasi, R. M., Siaw, L. P., and Mensah, C. M. (2015). Prevalence and Pattern of Traditional Medical Therapy Utilisation in Kumasi Metropolis and Sekyere South District, Ghana. *Journal of Ethnopharmacology*, *161*, 138-146.

James, P. B., Wardle, J., Steel, A., and Adams, J. (2018). Traditional, Complementary and Alternative Medicine Use in Sub-Saharan Africa: A Systematic Review. *BMJ Global Health*, *3*(5), e000895. doi:10.1136/bmjgh-2018-000895

Jegede, A. S. (2002). The Yoruba Cultural Construction of Health and Illness. *Nordic Journal of African Studies* 11(3): 322-335.

Kjellstrom, T. and Crowe, J. (2011). Climate Change, Workplace Heat Exposure, and Occupational Health and Productivity in Central America. *International Journal of Occupational and Environmental Health*, 17(3): 270-281.

Lambo, E. (2015). Primary Health Care: Realities, Challenges and the Way Forward. *A Paper Presented at the First Annual Primary Health Care Lecture*. Abuja, Nigeria. Available at URL http://nigeriahealthwatch.com/wp-content/uploads/bsk-pdf-manager/1160_2015_Primary_Health_Care_Presentation_Final,_NPHCDA_1216.pdf

National Population Commission. (2007). 2006 National Population Census. NPC Publication. Available at URL http://www.nigerianstat.gov.ng. Accessed on 9th June 2012.

National Primary Health Care Development Agency (NPHCDA) (2019). PHC Guideline. Available at: http://nphcda.gov.ng/?ddownload=672

Oladigbolu, R. A., Oche, M. O., Kaoje, A. U. and Gana, G. J. (2017). Socioeconomic Factors Influencing Utilisation of Healthcare Services in Sokoto, North-Western Nigeria. *International Journal of Tropical Disease and Health,* 27(2): 1-13.

Pan, S. Y., Litscher, G., Gao, S. H., Zhou, S. F., Yu, Z. L., Chen, H. Q., Zhang, S.F., Tang, M. K., Sun, J. N. and Ko, K. M. (2014). Historical Perspective of Traditional Indigenous Medical Practices: The Current Renaissance and Conservation of Herbal Resources. *Evidence-Based Complementary and Alternative Medicine*, 1-20, doi.org/10.1155/2014/525340.

Sen, S., Chakraborty, R. and De, B. (2011). Challenges and Opportunities in the Advancement of Herbal Medicine: Indian's Position and Role in a Global Context. *Journal of HerbalMedicine*1(3–4): 67–75.

Staden, J.V. (2019). A View of South African Traditional Medicine Through the Lens of its Medicinal Plants (Special Issue Celebrating the 80th Birthday of Professor Johannes Van Staden). *South African Journal of Botany*, 126: 1-3.

Stanifer, J. W., Patel, U. D., Karia, F., Thielman, N., Maro, V., Shimbi, D., Kilaweh, H., Lazaro M., Matemu, O., Omolo, J., and Boyd, D. (2015). The Determinants of Traditional Medicine Use in Northern Tanzania: A Mixed-Methods Study. *PLoS ONE* 10(4): p.e0122638.

World Health Organisation (2013). Traditional Medicine Strategy 2014–2023. URL http://apps.who.int/iris/bitstream/10665/92455/1/9789241506090_eng.pdf?ua=1