Determinants of Traditional and Complementary Medicine Usage Among Ophthalmic Patients of Selected Hospitals in Ogun State, Nigeria

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Abstract

Background: Traditional and complementary medicine has been practiced since time immemorial, with perceived social, cultural, economic, and historical influences on its use. This practice has been viewed with mixed feelings by healthcare professionals as most have reservations about such products, their safety, quality, and effectiveness. Considering the value that people place on their eyes, they do not mind using any product for maintaining good eye health and treatment of eye diseases.

Aim: The objective of this study was to appraise the determinants of Traditional and complementary medicine usage among ophthalmic patients in selected hospitals in Ogun State, Nigeria.

Method: A cross-sectional survey was conducted in two selected hospitals in Ogun State, Nigeria. Four hundred and forty respondents were purposively sampled, and data was collected by using a pretested structured questionnaire. Data were analyzed using Statistical Package for Social Sciences version 26 computer software.

Results: All the respondents use spiritual therapy, followed by herbs or herbal extracts (69.3%). Urine or animal waste (5.5%) is the least used Traditional and complementary medicine.The respondents

use Traditional and complementary medicine because of its affordability (76.6%), availability (75.7%), accessibility (73%), and lack of trust in orthodox medicine (15%).There was a significant relationship between the sociodemographic variables (gender, age, religion, level of education, occupation, and marital status) and the choice of Traditional and complementary medicine used by the residents in the study area ($p < 0.005$).

Conclusion: The study concluded that the Ophthalmic patients in the study area still use Traditional and Complementary medicine. The most practiced traditional and complementary medicine is spiritual therapy, irrespective of religion, gender, and age. Healthcare workers must recognize the pattern of Traditional and Complementary usage among their patients, explore what their patients are using, why they are using it, and be willing to guide them appropriately to promote their eye health.

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Keywords: Traditional and complementary medicine, ophthalmic patients, Traditional Eye medicines, Ogun State, Nigeria.

Background

Traditional and Complementary medicine (TCM) is an approach to medical care, products, and practices that is not based on the ideals and principles of conventional medical care (Lee et al., 2022). The use of TCM is often judged as substandard as they are not proven by scientific methods (Lee et al., 2022), but this has often been consistently ignored as many users perceived TCM as cultural traditions and their own standard (Mbutho et al., 2012). The use of TCM is indigenous and has existed from time immemorial, surpassing generations, whereby community members hold strong allegiance to promoting their health and preventing illness (James et al., 2018). The availability of TCM over the counter, affordability, cultural and historical influences, and a significantly insufficient number of health personnel, especially in developing countries, have contributed to its continued use (Hill et al., 2019; James et al., 2018; Eardley et al., 2012). In other words, Psychological, social, cultural, and economic factors exert a strong influence on the usage of TCM (Kayoma & Ukponmwan, 2016).
In meeting up with the reality of Universal Health Coverage, the World Health Organization (WHO) has identified the role and importance of TCM products, practices, and practitioners while encouraging research to provide further evidence to ensure its safety, quality, and effectiveness (WHO, 2022). The WHO defines Traditional and Complementary medicine (TCM) as "the sum of knowledge, skill, and practices based on the theories, beliefs, and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health and in the prevention, diagnosis, improvement or treatment of physical and mental illness and the management of patients, as well as the provision of services to communities" (WHO, 2022).

Despite the numerous work on the usage of TCM, it has not been well received by the health care providers as they were not exposed to TCM education during their training and are not inclined to offer such services to patients, thus making them judgmental when attending to patients who have used TCM (Srinivasan, 2014). This singular act, when perceived by the patients, often makes them withhold certain information from their healthcare providers, which may ultimately affect care delivery or outcome (Mbutho et al., 2012)

The usage of Traditional and Complementary Medicine (TCM) in ophthalmic settings is often referred to as Traditional Eye Medicine (TEM). TEM encompasses all remediations that are biologically-based, partially processed organic or inorganic agents that are administered either locally or systemically to achieve a desired ocular therapeutic effect (Eticha et al., 2021; Munaw et al., 2020; Eze et al., 2009). In previous studies, the identified common TEMs used are plant extracts, commercial chemicals, fluids from various sources, breast milk, saliva, and urine (Munaw et al., 2020; Gupta et al., 2017). These products have been reported to have negative effects on the eye and affect sight (Munaw et al., 2020; Arunga et al., 2019; Gupta et al., 2017; Ebeigbe, 2013; Eze et al., 2009). The use of TEM is a common practice in Africa and other developing countries as it is adopted by many to treat a number of eye conditions (Arunga et al., 2019; Ebeigbe, 2013; Eze et al., 2009). The use of TEM is practiced in Nigeria, where about 80% of the population uses non-orthodox services for either diagnosis, treatment, prevention of diseases, or maintenance of good eye health (Kayoma &

Ukponmwan, 2016). A major contributory factor to the usage of TEM is the gross shortage of eye health specialists, and the few available ones reside in urban centers. In contrast, more than 60% of the citizens are rural dwellers (Kayoma & Ukponmwan, 2016).There is a paucity of empirical data on the patterns and determinants of TCM usage among ophthalmic patients in Ogun State, hence this study.

Methodology

This was a hospital-based cross-sectional study conducted among ophthalmic patients accessing care in Olabisi Onabanjo University Teaching Hospital, Sagamu, and Federal Medical Center, Idi-Aba, Abeokuta. The target population for this study was ophthalmic patients who were accessing eye care in the study centers during the data collection period. A purposive sampling technique was employed for this study. The inclusion criteria include having been diagnosed with any eye defect, having used any TCM products before, being over 18 years old, having no cognitive impairment, and having consented to the study.

Table 1 shows the previous clinic attendance in the study area.

Names of Selected Hospital	Previous Clinic Attendance					Selected sample size
	July	August	September	October	Total	
Olabisi Onabanjo University Teaching Hospital	100	80	132	98	410	188
Federal Medical Centre	120	144	136	148	548	252
Total	**220**	**224**	**268**	**246**	**958**	**440**

The sample size of 440 was calculated using Taro Yamane formula from the population after considering their previous clinic attendance (Table 1).

The instrument of data collection was a structured questionnaire developed from a review of previous studies. The reliability of the instrument was determined by employing a test-re-test method before final use. Results obtained in the first and second tests for all the variables were subjected to Spearman's Rank Correlation to determine the reliability of the instrument.

Permission to collect data from the respondents was requested from the Head of Nursing workforce in the selected clinics. Informed consent was obtained from all the respondents and their confidentiality and anonymity were ensured. Participation was made voluntary by all respondents in this study. Ethical approval was obtained from the Health Research Ethics Committee of the institution with the approval number OOUTH/HREC/442/2021AP.

The questionnaire was administered to each participant in the two selected eye clinics. The data collection period was eight (8) weeks, with visits to the eye clinics during their clinic days. Sufficient time was given to the respondents to go through and answer the questions. Data collected were coded and analyzed using the Statistical Package for Social Science(SPSS) version 26. The sociodemographic characteristics of the respondents were analyzed using frequency distribution, and data were presented in tables and charts.

Results

Table 2 shows the distribution of respondents by socio-demographic characteristics

Sociodemographic characteristics	Frequency (n = 440)	Percentage (100%)
Age		
Below 29 years	137	31.1
30-49 years	113	25.7
50-69 years	93	21.1
70 years and above	97	22.0
Gender		
Male	235	53.4
Female	205	46.6
Religion		
Christian	203	46.1
Muslim	187	42.5
Traditional	50	11.4
Highest Academic Qualification		
Tertiary education	189	43.0
Secondary	101	23.0
Primary	86	19.5
No formal education	64	14.5

Occupation		
Unemployed	24	5.5
Trading	94	21.4
Farming	55	12.5
Transport	62	14.1
Artisan	92	20.9
Civil servant	113	25.7
Monthly income (Naira)		
Less than 30,000	52	11.8
31,000 – 50,000	77	21.4
51,000 – 100,000	180	40.9
101,000 – 150,000	104	23.6
151,000 and Above	27	6.1
Marital status of respondents		
Single	125	28.4
Married	315	71.6
Possession of health insurance		
Yes	212	48.2
No	228	51.2
Do you go for routine eye check		
Yes	81	18.4
No	359	81.6

A total of four hundred and forty (440) patients consisting of 235 (53.4%) males and 205 (46.6%) females, participated in the study (Table 2). It reveals that more males partook in the study, with 53.4% responses as against 46.6% responses from their female counterparts. This, however, does not suggest that there is more male population than females at all levels. The gender distribution of the respondents in the study area is based on their accessibility and availability during the period this survey was carried out.

Table 3 shows the type of Traditional and Complementary Medicine used in the study area.

Type of TCM used?	Yes (%)	No (%)	±	Rank
Spiritual therapy (use of prayer or faith healing)	440 (100.0)	0 (0.0)	–	1
Herbs or herbal extract, e.g., marijuana, Ginkgo biloba	305 (69.3)	135(30.7)	1.31±0.46	2
Special Diet therapies, e.g., vegetarian, Pritikin, Ornish, Mediterranean	281 (63.9)	159 (36.1)	1.36±0.48	3
Mind-body medicine (e.g., relaxation, yoga, and exercises)	260 (59.1)	180 (40.9)	1.41±0.49	4
Edible liquids as Palm wine	141 (32.0)	299 (68.0)	1.68±0.48	5
Sugar solution	110 (25.0)	330 (75.0)	1.75±0.43	6
Breastmilk	44 (10.0)	396 (90.0)	1.90±0.30	7
Urine or animal waste	24 (5.5)	396 (94.5)	1.95±0.23	8

All the respondents use spiritual therapy, 69.3% use herbs or herbal extracts, while urine or animal waste (5.5%) is the least used TCM, as reflected in Table 3.

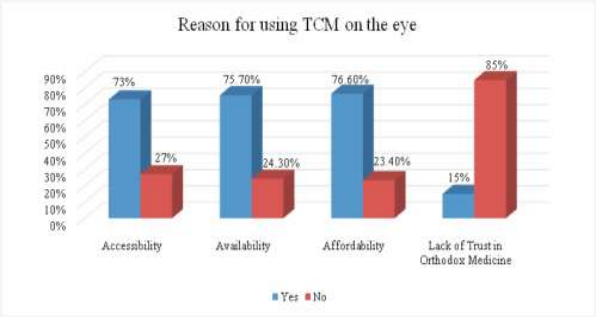

Figure I: Reason for using TCM on their eyes

The major reason why the respondents opted for the use of TCM, as reflected in Figure I, is affordability (76.6%). Others are availability (75.7%) and accessibility (73%). Lack of trust in orthodox medicine was not considered a reason as it only has an affirmed percentage of 15%.

Table 4 shows the association between sociodemographic characteristics of respondents and the type of TCM used

Variable	Characteristics	Usage of Herbs or Herbal extract		Use of edible liquids		Usage of Special Diet therapies		Usage of Mind-body medicine		Usage of Sugar solution		Usage of Urine or animal waste	
		Chi-square	P value	Chi-square	P value	Chi-square	P value	Chi-square	P value	Chi-square	P value	Chi-square	P value
Gender	Male	83.527	0.000*	72.908	0.000*	128.224	0.000*	175.408	0.000*	47.570	0.000*	18.360	0.000*
	Female												
Age	Less than 29years	334.334	0.000*	422.282	0.000*	350.449	0.000*	403.081	0.000*	324.380	0.000*	56.143	0.000*
	30-49 Years												
	50-69 Years												
	70 years and above												
Religion	Christianity	137.150	0.000*	172.487	0.000*	124.462	0.000*	137.833	0.000*	118.911	0.000*	29.636	0.000*
	Islam												
	Traditional												
Level of Education	No Formal Education	387.041	0.000*	401.154	0.000*	391.932	0.000*	403.553	0.000*	308.372	0.000*	149.135	0.000*
	Primary												
	Secondary												
	Tertiary												
Occupation	Unemployed	361.295	0.000*	378.549	0.000*	340.338	0.000*	364.684	0.000*	400.965	0.000*	440.000	0.000*
	Trading												
	Farming												
	Artisan												
	Civil Servants												
Marital status	Single	77.283	0.000*	370.258	0.000*	98.797	0.000*	120.879	0.000*	369.600	0.000*	63.969	0.000*
	Married												

Pearson Chi-square test was used to test the association between sociodemographic characteristics of respondents and the type of TCM used in the study area (Table 4). All the variables of the sociodemographic variables were significant for the TCM usage. This means that gender, age, religion, levels of education, occupation, and marital status significantly influenced the usage of TCM identified in the study area.

Discussion

This study gives an insight into the determinants of TCM usage among ophthalmic patients in selected hospitals in Ogun State.

The demographic characteristics of the study respondents revealed that most of the respondents in the study area are male (53.4%), less than 30 years and are educated up to the tertiary institution, with only a few having no formal education. This is inconsistent with the report of Achigbu and Achigbu (2017), where most of the respondents were females.

Interestingly, all the respondents' uses spiritual therapy (use of prayer or faith healing) as a form of TCM. This is at variance with the report of Achigbu & Achigbu (2017), where just 6.2% of the population used holy water. The term spirituality, though a global phenomenon, is local, as it is embedded in the culture of the people in focus (MahdiNejad et al., 2021). Despite the spread of the respondents across the three (3) major religions in the area (Christian 46.1%; Muslim 42.5%; Traditional 11.4%), they all attest to the use of spiritual therapy and had a belief in its efficacy. The results of this study isin contrast with the report of MahdiNejad et al.,(2021), who reported that women tend to be more religious than men. The profile of TCM usage in this study showed that all the respondents uses spiritual therapy, followed by herbal therapy. However, a systematic review of TCM use in Sub-Saharan Africa reported that biological-based therapy, such as herbal therapy, was the most common TCM, followed by faith-based healing methods (prayer/spirituality) (James et al., 2018). The difference in the common TCM usage could be linked to the scope of this study as it was delimited to ophthalmic patients as against the population of focus in the systematic review.

In this study, the primary reason the respondents opted for the use of TCM is affordability (76.6%). This is consistent with a similar study in another region of the country, where affordability was reported as the most frequent reason for using TCM (Kayoma and Ukponmwan, 2016). Affordability is closely followed by availability (75.7%) as most of the TCM used in a particular environment are materials that are readily available in such a community and believed to be helpful even when there is no scientific evidence to back such an assumption.

The result of this study showed that sociodemographic characteristics (gender, age, religion, level of education, occupation, and marital status) significantly influence all the choice of TCM used by the residents in the study area; as the data records a p-value less than 0.005 in testing the relationships between the sociodemographic characteristics and the choice of TCM used. This is consistent with the findings of Bifari et al., (2020), who reported a strong relationship between age, level of education, and the use of TCM (Bifari et al., 2020).This is also corroborated by the report of James et al. (2018), where the determinants of TCM usage were age (50 years), uneducated, married, and rural settlers.

Implications to the Healthcare System

The use of TCM is widely practiced and relied upon by members of our communities. It has formed an integral part of our healthcare system as it has earned significant recognition by the WHO. Healthcare workers must come into this reality and accept it. Extensive and elaborate research studies should be conducted into the content and efficacy of these TCMs commonly used in each community. The curricula of various healthcare professionals should be reviewed to accommodate exposure to and teachings of these TCM. This will foster

acceptance by the healthcare professionals. Patient needs to be guided in the selection of the appropriate TCM; hence healthcare professionals should have adequate knowledge of these TCMs. The health administrator should create a policy, protocols and procedures that will accommodate the use of TCM through evidence-based practices.

Limitations

This study was confined to Ophthalmic patients attending Olabisi Onabanjo University Teaching Hospital, Sagamu and Federal Medical Center, Idi-Aba, Abeokuta. It is difficult to draw a broader generalization beyond this scope.

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