



Awareness and Perspective on Use and Integration of Traditional and Modern Medicine in a Rural Area of Sokoto State, Nigeria

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Abstract

There are two forms of medicine that have existed over time and are important in the delivery of expert health care. The forms of medicine are traditional and modern medicine. This study was aimed at assessing the awareness and perspective on the use and integration of traditional and modern medicine in a rural area of Sokoto State, Nigeria. Two hundred and seventy-one (271) respondents were recruited and a self-administered questionnaire on the awareness and perspective on use and integration of traditional and modern medicine was used to assess the participant's view. Among the participants, 200(73.8%) were females. The mean±SD age of respondents was 30.55±9.73 years. 80.8% of the respondents were aware of traditional medicine while 100% were aware of modern medicine. All respondents prefer modern medicine but about 28.8% support integration of both healthcare services. The results were considered significant when p-value was less than 0.005. There is a statistically significant relationship between the integration of traditional and modern forms of medicine and age, gender, religion, education, ethnicity and occupation but not for marital status. Though all the respondents preferred modern medicine to traditional medicine, some people still feel it will be good to combine both for a better healthcare system.

Keywords: Awareness, Perspective, Integration, Traditional Medicine, Modern Medicine

Major classifications: Health Science

1. Introduction

The two main medical systems which have operated distinctively along each other are modern and traditional medicine (Asante et al 2013). Traditional medicine is an ancient form of medical system that plays a vital role in maintaining health and combating against different life threatening physical and mental disease (WHO 2000). It has been defined by the World

Health Organization (WHO) 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 2000). It is also known as complementary, alternative or ethic medicine that includes broad range of practices (Yuan et al 2016). Traditional medicine is an evolutionary process as individuals and communities continue to discover new techniques that can transform practice in the field of medicinal sciences (Ansari et al 2010). Even though specific practices vary between different tribes, all traditional medicine is based on the understanding that man is part of nature and health is a matter of balance (Crowshoe 2005). It has given useful synthetic clue of modern drugs in the past (Gregory 2004).

Over 25% of the pharmaceutical preparations in the world and more than 50% in the USA contain plant-derived active principles (Asfaw et al 1999). Some pharmaceutical drugs like digitalis, morphine, quinine and vinca alkaloids were obtained from plant sources (Avendano et al 2008). Plant derived compounds used as drugs are generally used in ways that correlate directly with their traditional uses and plant medicines (Kochi et al 2005).

The theory and application of traditional medicine are quite different from those of conventional medicine (WHO 2000). Modern medicine has been beneficial to the country in the areas of increasing life expectancy and lowering death rate (Twumasi 1975). Modern medicine has been highly recognized and has consequently become the official medical system which is heavily funded by the state (Asante et al 2013).

Integration generally means combining parts so that they work together or form a whole (Target T). Integrating these two medical systems involves “the introduction of traditional medicines, techniques and knowledge into the country’s mainstream health care delivery system and the exposure of the practitioners of both systems to the philosophies and theories of the systems in order to provide an effective preventive and curative treatment for all people” (Asante et al 2013). The call of WHO from Alma Ata is maybe a beginning in bridging the gap between TM and scientists, providing “for a sustainable exploitation of TM for better health”, and for the preservation of the indigenous knowledge (Mbwambo et al). A useful tool for understanding the process of integrating health care system is by employing the negotiated order theory for studying how health care system emerged which was developed by Anselm Strauss e al (1963) (Asante et al 2013). The negotiated order theory holds that health system or organizations occur as individual health practitioners, departments and stakeholders negotiate the terms of interactions with each other. In order for this to be achieved, it is expedient to ensure respect, recognition and collaboration among practitioners- thus traditional and modern (WHO 1978).

2. Methods

2.1. Subjects

A total of 271 respondents were chosen from the area based on simple random sampling method. The sample population included everybody above 18years of age who visited the health care center in the rural area of Sokoto State, Nigeria. They were all mentally stable at the time of the study.

2.2. Data Collection

A cross-sectional descriptive questionnaire was used to achieve the aim of this research. Simple language devoid of medical jargons was used. The questionnaire was designed to assess the awareness and perspective on the use and integration of traditional and modern medicine.

2.3. Study protocol

From the descriptive cross-sectional study carried out among community members in a rural area of Kedah State, Malaysia, the percentage of community members exposed to traditional medicine was 80% (Theingi et al 219). The minimum sample size for this study will be determined by this equation (Onwuasigwe 2017):

$$N = \frac{z\alpha^2 * p(1 - p)}{D^2}$$

$$N = 245.86$$

An addition of 10% to make up for attrition will bring the sample size to 271.

3. Data Analysis

Data analysis was done using Statistical Package for Social Sciences (SPSS) version 20.0 and Microsoft Excel 2016. Data was presented in tables and pie chart. Summary statistics such as mean, frequency and proportion were used to represent quantitative data. Statistical tests were used to test any relationship between variables; and statistical significance was set at $p < 0.05$.

4. Results

A total of 271 questionnaires were distributed to 71 males (26.2%) and 200 females (73.8%) with mean age of 30.55 ± 9.73 . Table 1 shows the socio-demographic characteristics of respondents. The largest group (41.3%) is aged 26-35 years. 56.8% are Christians and 43.2% are Muslims. Majority of the respondents are secondary school degree holders (80.1%), Hausa (56.1%), married (61.3%) and housewives (32.1%).

Table 2 presents the awareness and view of respondents on traditional medicine. The awareness rate of traditional medicine is 80.8%. Majority (60.7%) believe that traditional medicine is a good practice with 64.6% who believe that people should be educated on it.

Table 3 presents the awareness and view of respondents on modern medicine. All (100%) the respondents are aware of modern medicine, but only 86.0% believe modern medicine is a good practice.

Table 4 shows the perspective on integration of traditional and modern medicine among the respondents. 28.8% believe that the two forms should be integrated into one while the remaining 71.2% do not believe so.

Figure 1 shows the perspective on integration of traditional and modern medicine by the respondents. 78(28.8%) are in support of the integration while the remaining 193(71.2%) are not in support.

Table 5 presents the relationship between socio-demographic factors of the respondents and their views on integration of traditional and modern medicine. There is a statistically significant relationship between the integration of both forms of medicine and age, gender, religion, education, ethnicity and occupation but not for marital status.

Table 1: Socio-demographic Characteristics of Respondents **n=271**

Variable	Frequency	Percent (%)
Age at last birthday (years)		
18-25	104	38.4
26-35	112	41.3
36-45	33	12.2
>45	22	8.1
Mean Age (Standard deviation)	30.55(9.73)	
Gender		
Male	71	26.2
Female	200	73.8
Religion		
Christianity	154	56.8
Islam	117	43.2
Education		
Primary	14	5.2
Secondary	217	80.1

Tertiary	40	14.8
Ethnicity		
Igbo	16	5.9
Yoruba	52	19.2
Hausa	152	56.1
Idoma	51	18.8
Marital Status		
Single	105	38.7
Married	166	61.3
Occupation		
Student	32	11.8
Housewife	87	32.1
Civil servant	77	28.4
Self employed	75	27.7

Table 2: Awareness and View of Respondents on Traditional Medicine

n=271

Variable	Frequency	Percent (%)
Are you aware of traditional medicine?		
Yes	219	80.8
No	52	19.2
Is traditional medicine a good practice?		
Yes	133	60.7
No	86	39.2
Advantage of traditional medicine		
Effective	77	57.9
Cheap	21	15.8
Both effective and cheap	35	26.3
Do you think people should be educated on traditional medicine?		
Yes	175	64.6
No	96	35.4

Table 3: Awareness and View of Respondents on Modern Medicine

n=271

Variable	Frequency	Percent (%)
Are you aware of modern medicine?		
Yes	271	100

Is modern medicine a good practice?		
Yes	233	86.0
No	38	14.0
Advantage of modern medicine		
Sure of diagnosis	58	24.9
Accurate and precise	117	50.2
Have evidence to support diagnosis	58	24.9
Do you think people should be educated on modern medicine?		
Yes	271	100

Table 4: Perspective on Integration of Traditional and Modern Medicine among Respondents n=271

Variable	Frequency	Percent (%)
Is there difference between traditional and modern medicine?		
Yes	245	90.4
No	26	9.6
Which form of medicine do you prefer?		
Traditional medicine	0	0
Modern medicine	271	100
Should traditional and modern medicine be combined in treating patients?		
Yes	78	28.8
No	193	71.2

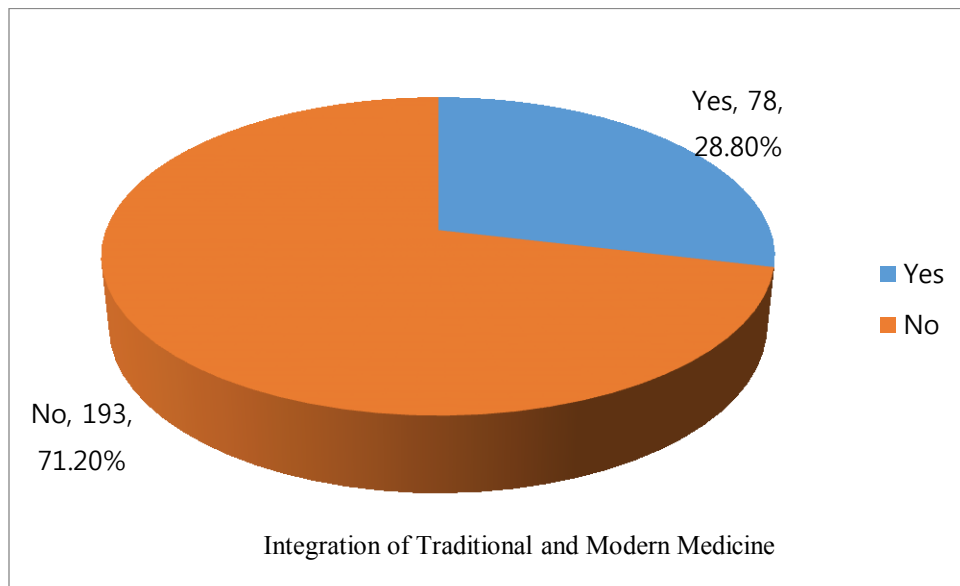


Figure 1: Integration of Traditional and Modern Medicine

Table 5: Relationship between Socio-demographic Factors and Integration

n=271

Integration of Traditional and Modern Medicine				
Socio-demographic Factors	Yes Freq (%)	No Freq (%)	X² value	P - value
Age at last birthday (years)			15.621	0.001
18-25	24(23.1)	80(76.9)		
26-35	42(37.5)	70(62.5)		
36-45	12(36.4)	21(63.6)		
>45	0(0)	22(100)		
Gender			4.012	0.045
Male	27(38.0)	44(62.0)		
Female	51(25.5)	149(74.5)		
Religion			13.722	0.000
Christianity	58(37.7)	96(62.3)		
Islam	20(17.1)	97(82.9)		
Education			19.045	0.000
Primary	10(71.4)	4(28.6)		
Secondary	51(23.5)	166(76.5)		
Tertiary	17(42.5)	23(57.5)		
Ethnicity			20.990	0.000
Igbo	0(0)	16(100)		
Yoruba	26(50.0)	26(50.0)		
Hausa	43(28.3)	109(71.7)		
Idoma	9(17.6)	42(82.4)		
Marital Status			3.485	0.062
Single	37(35.2)	68(64.8)		
Married	41(24.7)	125(75.3)		
Occupation			9.481	0.024
Student	9(28.1)	23(71.9)		
Housewife	17(19.5)	70(80.5)		
Civil servant	21(27.3)	56(72.7)		
Self employed	31(41.3)	44(58.7)		

5. Discussion

The study sought to find out the awareness and the perspective on the use and integration of traditional and modern medicine in a rural area of Sokoto State. The sample is made up of 271 people drawn from members in a rural area of Sokoto State.

The age distribution is between 19 years and 62 years. The mean age is 30.55 years with a standard deviation of 9.73 years. The majority of the respondents are aged between 26-35 years (41.3%); the remaining age groups are 18-25 years (38.4%), 36-45 years (12.2%) and more than 45 years (8.1%).

56.8% are Christians and 43.2% are Muslims. The educational levels attained by the respondents are primary level (5.2%), secondary level (80.1%) and tertiary level (14.8%). 56.1% of the respondents are Hausas, 19.2% are Yoruba, 18.2% are Idoma and the remaining 5.9% are Igbos. 61.3% are married while 38.7% are single. The occupation of the respondents are housewives (32.1%), civil servants (28.4%), self-employed (27.7%) and students (11.8%). Majority of the respondents are housewives. This can be attributed to the fact that majority of the respondents are female as well as the fact that majority had just secondary level of education.

The awareness rate of traditional medicine is 80.8%. 60.7% believe that traditional medicine is a good practice. 64.6% believe that people should be educated on traditional medicine. 57.9% of the respondents say traditional medicine is good because of its effectiveness; 15.8% say it is cheap, while the remaining 26.3% say it's both cheap and effective. The prevalence of traditional medicine from our study was in keeping with the study performed by Siti et al 2008 who also reported that the prevalence of traditional medicine usage is within WHO estimation (50-80%) particularly in the use of herb-based therapies. It was also in keeping with a study in Ethiopia showing that the prevalence of traditional medicine use is 80% (Mohasen et al 2014). A high prevalence of traditional medicine can be due to the fact that majority of respondents believe traditional medicine is still acceptable in their rural area.

The effectiveness and cheaper nature reason for the use of traditional medicine is in keeping with Herman et al 2012 who reported that traditional therapies are cheaper and cost-effective and thus the impoverished people with very low income seek help from traditional practitioners.

All (100%) the respondents are aware of modern medicine. However, only 86.0% believe modern medicine is a good practice. All the respondents also believe that people should be educated on modern medicine. 24.9% of the respondents say modern medicine is good because doctors are sure about the diagnosis; 50.2% because it is more precise; and the remaining 24.9% because of presence of evidence to support the diagnosis.

More than two-thirds (80.1%) of the respondents have just secondary school education, but majority (64.6%) prefer education on traditional medicine and 100% prefer education on modern medicine. This findings show that most of the participants in the study have positive attitude towards both traditional and modern medicine.

90.4% of the respondents think there is a difference between the two forms of healthcare delivery. However, all (100%) prefer modern medicine. This made it seem like everybody was in favor of the primary healthcare center where they were getting free health care.

Only 28.8% believe that the two forms should be integrated into one while the remaining 71.2% do not believe so. This can be attributed to the fact that not all sicknesses are cured by either traditional or modern medicine.

There is a statistically significant relationship between the integration of both forms of medicine and age (p-value of 0.001), gender (p-value of 0.045), religion (p-value of 0.000), education (p-value of 0.000), ethnicity (p-value of 0.000) and occupation (p-value of 0.024). However, there is no significant relationship between the integration of both forms of medicine and marital status of respondents (p-value of 0.062).

6. Conclusion

The traditional and modern forms of medicine have existed alongside each other for quite a while. Traditional medicine plays a very important complementary role in healthcare delivery and the dependency on traditional medicine continues to soar due to the increasingly expensive nature of modern scientific healthcare. Most of the population have shown intent to have education regarding the benefit and adverse effects of both traditional and modern medicine. Age group, gender, religion, education, ethnicity and occupation were found to be highly associated with perspective on integration of both forms whereas marital status was found to have no association with the perspective on integration. People see traditional and modern medicine as two different things and this has caused them to choose one over the other leading to various

ideologies and little communication when it leads to patient's care. However, there is still a possibility of co-existence between the two.

Recommendation

In this society, modern medicine is highly recognized by the government as well as nongovernmental organizations; hence reducing the influence of traditional medicine. For the integration to be possible, it is recommended that traditional medicine be recognized as well by such bodies in providing health care for the people.

There should be regular communication and discussion between both traditional and modern medicine practitioners to help get a better understanding of each method and hence bridge the gap between them.

Further research and studies should be done to know the knowledge, use and integration of traditional and modern medicine in other communities in Nigeria.

References

- Ansari J. A., & Inamda N. N. (2010). The promise of traditional medicine. *Int J Pharmacol* 6, 808-812.
- Asante E., Avornyo K. (2013). Enhancing Healthcare System in Ghana through Integration of Traditional Medicine. *Journal of Sociological Research* 4(2), 256-270.[ex]
- Asfaw D., Abebe D., & Urga K. (1999). TM In Ethiopia? Perspectives and developmental efforts. *J Ethiopian Med Pract* 1, 114-117.
- Avendano C., & Menendez J. C. (2008). Medicinal Chemistry of Anticancer drugs. *Elsevier*, 1st edition.
- Crowshoe C. (2005). Sacred Ways of Life: Traditional Knowledge. Prepared for the First Nation Center National Aboriginal Health Organization. *Traditional Medicine*, 2(7), 302-307.
- Gregory J. (2004). Herbal Medicine, Modern Pharmacology with Clinical Applications. Lippincot Williams and Wilkims, Philadelphia, USA. p.785-796.
- Herman P. M., Poindexter B.L., Witt C. M., & Eisenberg D. M. (2012). Are complementary therapies and integrative care cost-effective? A systematic review of economic evaluations. *BMJ Open* 2(5).
- Kochi F..E., & Carter G.T. (2005). The evolving role of natural products in drug discovery. *Nature Reviews Drug Discovery* 4(3), 206-220.
- Mbwambo Z .H., Mahunnah R .L. A., & Kayombo E .J. (2007)Traditional health practitioners and the scientist: bridging the gap in contemporary health research in Tanzania, *Tanzania Health Research Bulletin* 9(2), 115-120.
- Mohasen A, & Masoumeh H. (2014). Knowledge, attitude and practice towards complementary and traditional medicine among Kashan health care staff. *Complementary Therapies in Medicine* 22(1), 126-132.
- Onwasigwe P.C. (2017). Introduction to Biostatistics & Demography. *Onwuasigwe CN, editor. Enugu: EL DEMAK Publishers.*
- Siti Z.M., Tahir A., Farch A.I., FAzlin S.M.A., Sondi S., & Azman A.H. (2008). Use of traditional and complementary medicine in Malaysia: a baseline study. *Complement Ther Med*, 17(5), 292-299.
- Target T. (2015). "What is Integration?" (<http://searchrm.techtargt.com/definition/integration>).
- Theingi M, Sherly D.G., & Aye A.T. (2019). Traditional Medicine Vs Modern Medicine in Rural Area of Kedah State. *Malaysia*, 14(1), 05-08.
- Twumasi P. A. (1975). Medicinal Systems in Ghana: A Study in Medical Sociology. Tema: *Ghana Publishing Corporation*.
- WHO (1978). Promotion and Development of Traditional Medicine. Geneva: *WHO Publication*.
- WHO (2000). General Guidelines for Methodologies on Research and Evaluation of Traditional Medicine. "Introduction: Definitions [Internet]. <http://apps.who.int/medicinedocs/en/d/Jwhozip42e/3.html>
- Yuan H, Ma Q, Ye L., & Piao G. (2016). The traditional and modern medicine from natural products. *Molecules*.