



HARNESSING THE POTENTIALS OF TRADITIONAL MEDICINE FOR EFFECTIVE HEALTHCARE DELIVERY IN KOGI STATE, NIGERIA

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ABSTRACT

As individuals continue to face challenges related to the cost, quality, and timeliness of healthcare services, especially across time and space, it becomes crucial for policymakers in Kogi State to enhance both the accessibility and quality of traditional healthcare services. This research utilizes data gathered through In-depth Interview, and questionnaire surveys to develop actionable policies aimed at promoting and integrating traditional medical practices within Kogi State's healthcare system. The result shows that traditional medical practices in Kogi State has a robust and diverse set of indigenous healing traditions which include herbal medicine, bone setting, spiritual healing, traditional midwifery, incantations and divination, snakebite treatment, eye treatment and therapeutic massage. The study recommends integrating traditional medicine in the State's healthcare policy framework.

Keywords: Harnessing, Potential, Traditional, Medicine, Effective, Healthcare, Delivery

1. INTRODUCTION

Traditional medicine (TM) is 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 prevention, diagnosis, improvement or treatment of physical, mental, or social imbalance and relying exclusively on practical experience and observation handed down from generation to generation, whether verbally or in writing (World Health Organization, 2005; Joshua, 2010).

Globally, traditional medicine might also be considered as amalgamation of dynamic medical know-how and ancestral healing practice and experience (Joshua, 2010). In Nigeria, herbal medicines are plant derived material(s) or preparation(s) with therapeutic or other human health benefits, which contain either raw or processed materials from one or more plants. In some traditions, material of inorganic animal origin may also be present. These preparations highlight some inherent factors in traditional medicine that have been the cause of concern of the safety status of herbal preparations. These include lack of written records of ingredients and methods of preparation, lack of scientific proof of some claims and so on.

Many populations in Kogi State are tradition-bound. The use of traditional medicine in the area dates to the earliest history of mankind, prior to the coming of orthodox medicine, they

Silas J.

relied totally on the use of traditional means for all their healthcare needs. These include the use of herbs, animals and mineral based herbal medicines often laced with spiritual ingredients such as incantations (Joshua, 2010).

However, despite its widespread use, traditional medicine in most of the state remains undeveloped and unregulated. Communication between patients and traditional health care providers is generally poor leading to high risk in its practice. Consequently, it has become extremely important to create the conditions for the correct and appropriate use of traditional medicines to foster optimal use.

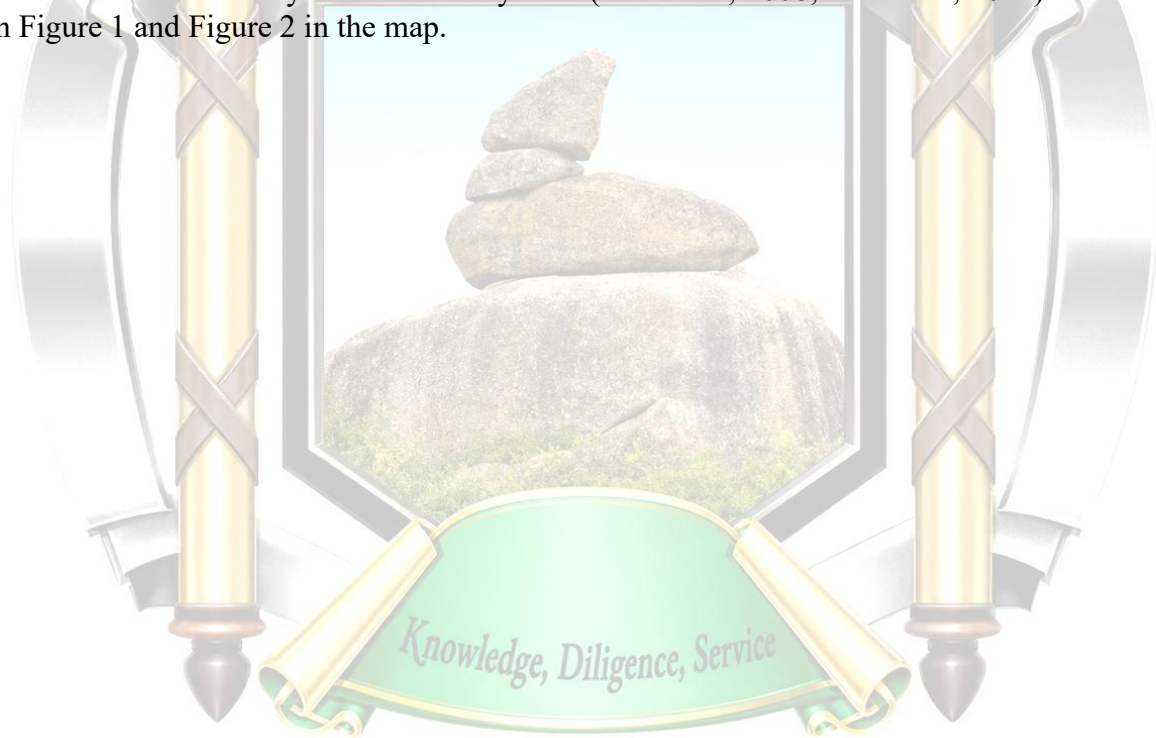
Traditional medicine has the potential to contribute immensely to the healthcare delivery system in Nigeria and particularly Kogi State. Like many states in Nigeria, Kogi State has a lot of traditional medicine potentials. But these potentials are yet to be harnessed for the benefit of the people. Some diseases such as broken bones, sprain, malaria fever, and so on are better cured using traditional medicines, but the mindset of people, especially those in urban areas discourages them from using traditional medicine. For example, Ofabo, a rural community in Kogi East, is renowned as a home of traditional medicine practitioners. In the past, the community was known for playing host to visitors from neighbouring towns and cities who sought the services of native healers to cure various types of ailments. But despite the healing proficiency and its importance to humanity, Ofabo is cut off from modern-day realities as it lacks the basic amenities needed by the people to live a decent life.

There are also scientific evidence that Orthodox medicine cannot treat every condition effectively, and some drugs have other side effects and are bacteria resistant (WHO, 2008). Despite its efficacy, traditional medicine is often used as a last resort when a variety of reasons do not permit the patient to access modern health care systems. The belief that traditional medicine is ineffective and unscientific still occupies the minds of some people. Traditional medicine, according to Buor (2003), is largely patronized by the rural people who constitute a greater proportion of the population.

Traditional healthcare has been the most efficacious, but unsuccessful, due to limited government attention. Yet, there is an acute shortage of medical doctors, nurses and other health staff especially at primary healthcare levels in the widely patronized modern health facilities. Poor conditions of facilities including a poor wage package made it extremely difficult to retain staff particularly in rural areas. The supply of drugs to facilities is irregular and ineffective. Essential drug items are out of stock in public hospitals and the PHC clinics are virtually without Government procured drugs (Vision 2020 Kaduna State, 2010). In rural areas of Kogi State, one sometimes travels for several kilometers before finding the nearest dispensary or pharmacy. In addition, losing working hours, transport fares and the high cost of medicine must also be taken into consideration. Thus, the search for alternative or complementary healthcare delivery systems is not only imperative but urgent, so as to come up with policies that will integrate trado-medical services and orthodox medical systems to enhance the health and wellbeing of the people in Kogi State. This study aims at investigating the inventory and mapping the traditional medical potentials in the communities of Kogi State.

Kogi State is located between latitude 7°45'N-7°51'N and longitude 6°41'E-6°45'E. The state is divided into three Senatorial districts largely differentiated by the three dominant ethnic groups; the Kogi East is occupied by the Igala people. The Ebira people predominantly

occupied Kogi Central, while the Okun people were located in Kogi West. The State is centrally located in Nigeria's North Central geopolitical zone, widely known as the "Confluence State" due to the confluence of the Niger and Benue Rivers at its capital, Lokoja (Federal Republic of Nigeria, 2006; Olorunfemi, 2009). Created in 1991 from portions of Kwara and Benue States, Kogi covers an estimated land area of 29,833 square kilometers and shares boundaries with ten other states, positioning it strategically for trade, migration, and cultural interactions (NPC, 2006; Falola & Heaton, 2008). The state is characterized by a tropical climate with distinct wet and dry seasons and is largely dominated by Guinea savanna vegetation, though forested patches persist in the south (Ayoade, 2004). Its relief is generally low-lying along the valleys of the Niger and Benue Rivers, with rugged hills and inselbergs in parts of the eastern and northern regions (Ofomata, 1975). The population, projected to exceed 5.5 million today from the 2006 census figure of approximately 4.5 million, is ethnically diverse, including the Igala, Ebira, Okun (Yoruba), Bassa, Nupe, and other smaller groups (NPC, 2006). The economy of Kogi State is predominantly agrarian, with major crops including yam, cassava, maize, rice, and cashew, while mining activities are gradually emerging to exploit its mineral potential (Ogunleye et al., 2017). Furthermore, the state maintains vibrant traditional medical practices such as herbalism, bone-setting, midwifery, and spiritual healing which are deeply rooted in cultural beliefs and remain widely patronized due to their accessibility and community trust (Abdullahi, 2008; Sofowora, 2011). As shown in Figure 1 and Figure 2 in the map.



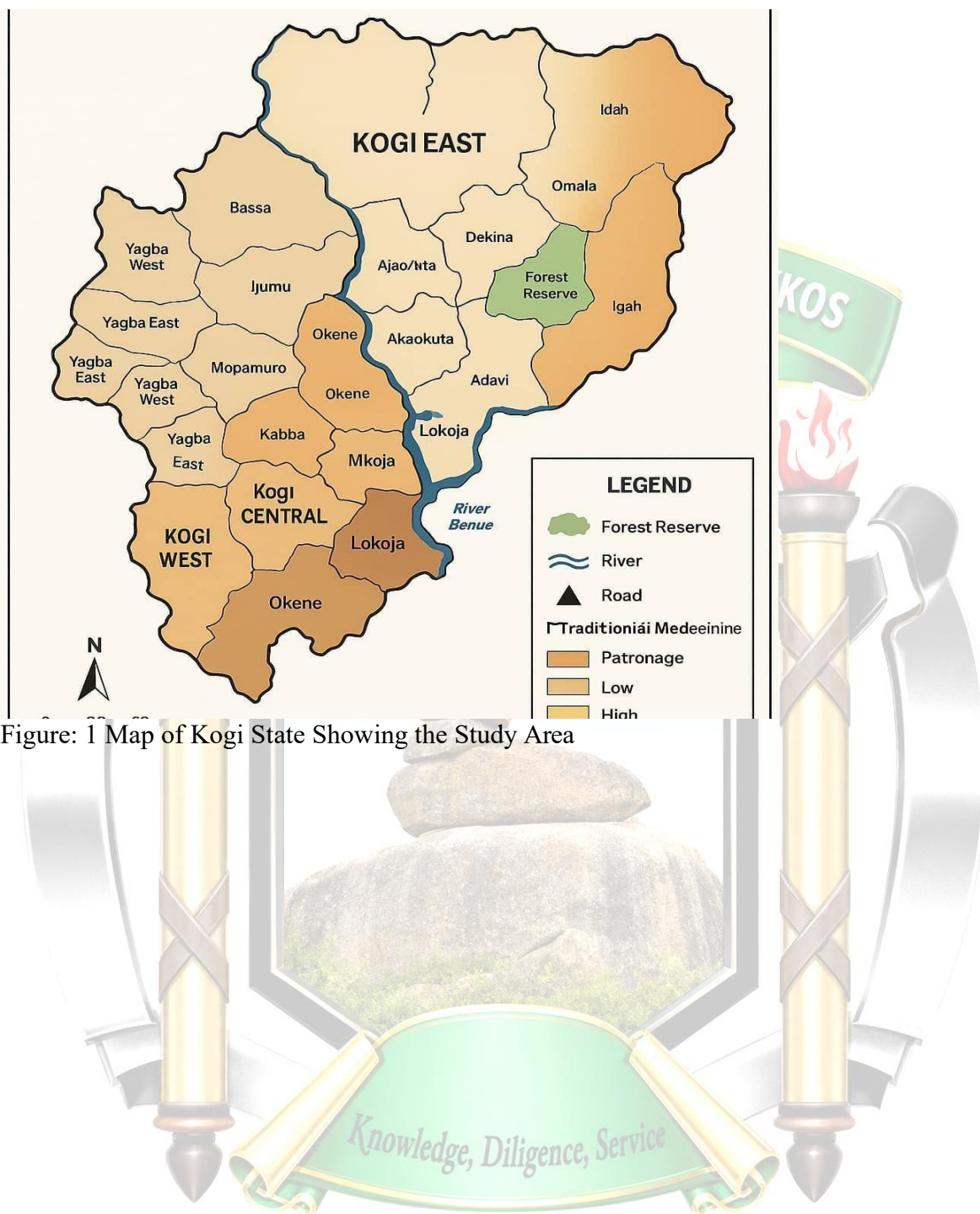


Figure: 1 Map of Kogi State Showing the Study Area

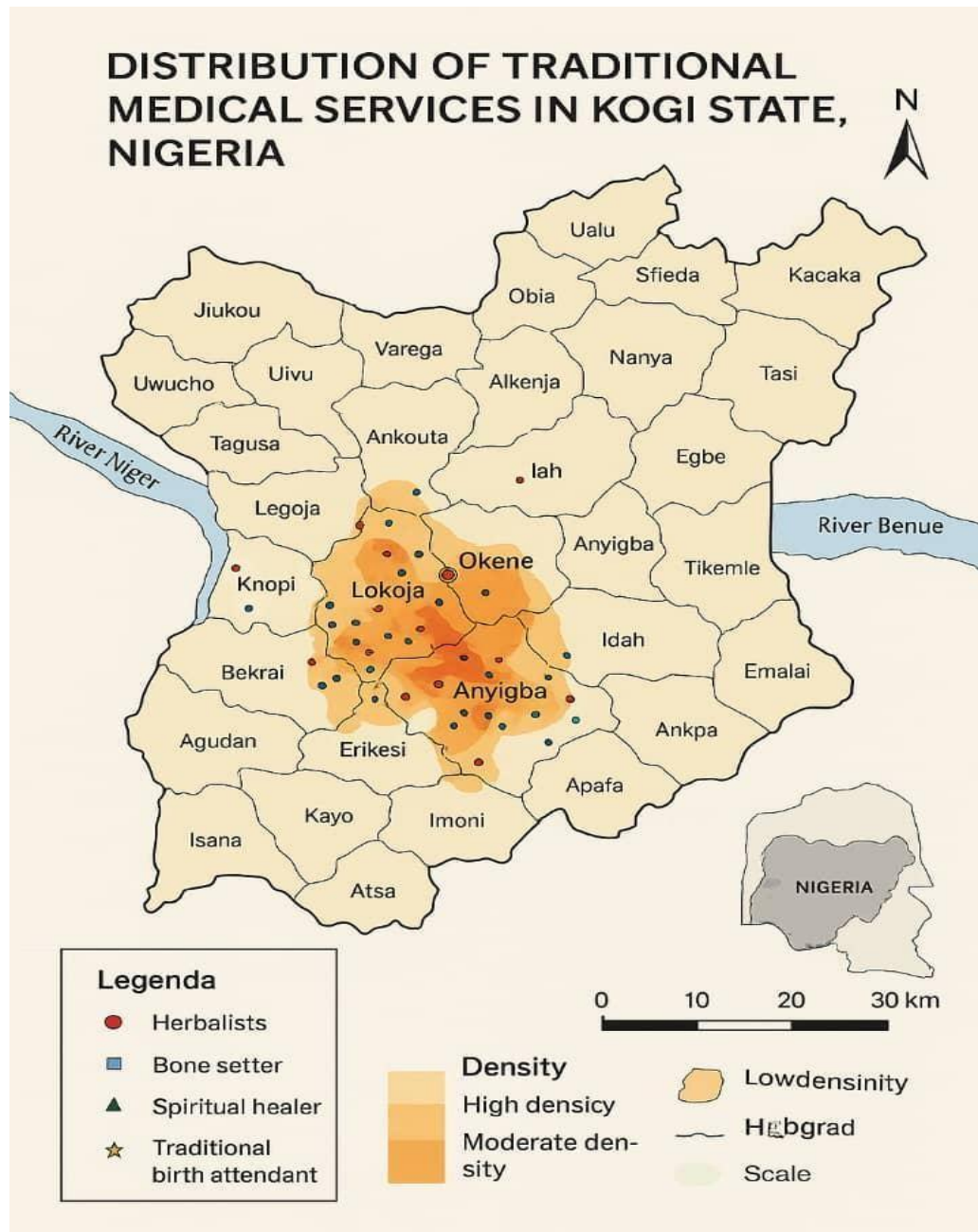


Figure 2: Study area Showing Different Traditional Medical Practices

2. Material and Methods

The study area was stratified into the three dominant ethnic groups and both quantitative and qualitative data was collected during the different phases of the study. The study involved the application of different techniques at different stages of the data collection process. Six communities were randomly selected for the study, two representing each senatorial district. In-depth Interview (IDI) and a set of questionnaires were determined based on the population of the communities. The data generated was analysed using descriptive and inferential statistics and the findings were put in context, qualitative analysis was performed on the

Silas J.

textual data. The essence of the data analysis was to identify the specific areas of intervention that promote alternative/traditional medical healthcare delivery systems in the study area.

2.1 Sampling and Sampling Techniques

The study adopted the purposive sampling technique due to the facts that it enabled the researcher to identify suitable respondents required from whom to gather information towards achieving the set objectives of the study. This entailed selecting persons who are knowledgeable on the subject matter and those that can clearly state their opinions. The purposive sampling technique also helped the researcher to meet those with first-hand information on the set of variables used in the study and is willing to share their wealth of experiences which allowed a wider representation for extensive inquiry into the implementation of traditional medical services in Kogi state, Nigeria.

The study sample six local government area in the state; Dekina and Idah local government areas representing Kogi East Senatorial district, Kabba-Bunu and Koton-Karfe local government area representing Kogi West Senatorial district and Okene and Okehi local government areas representing Kogi Central Senatorial district, see Table 1. Furthermore, the chosen local governments' areas are numbered among the most populous in their Senatorial districts.

2.2 Sampling Size

The study used both qualitative and quantitative methods of data collection. The table below shows the population of the area of study according to the last census conducted in Nigeria in 2006. It was arranged based on the senatorial district in the state. It is from this that the intended population size of the study was drawn to distribute questionnaires.

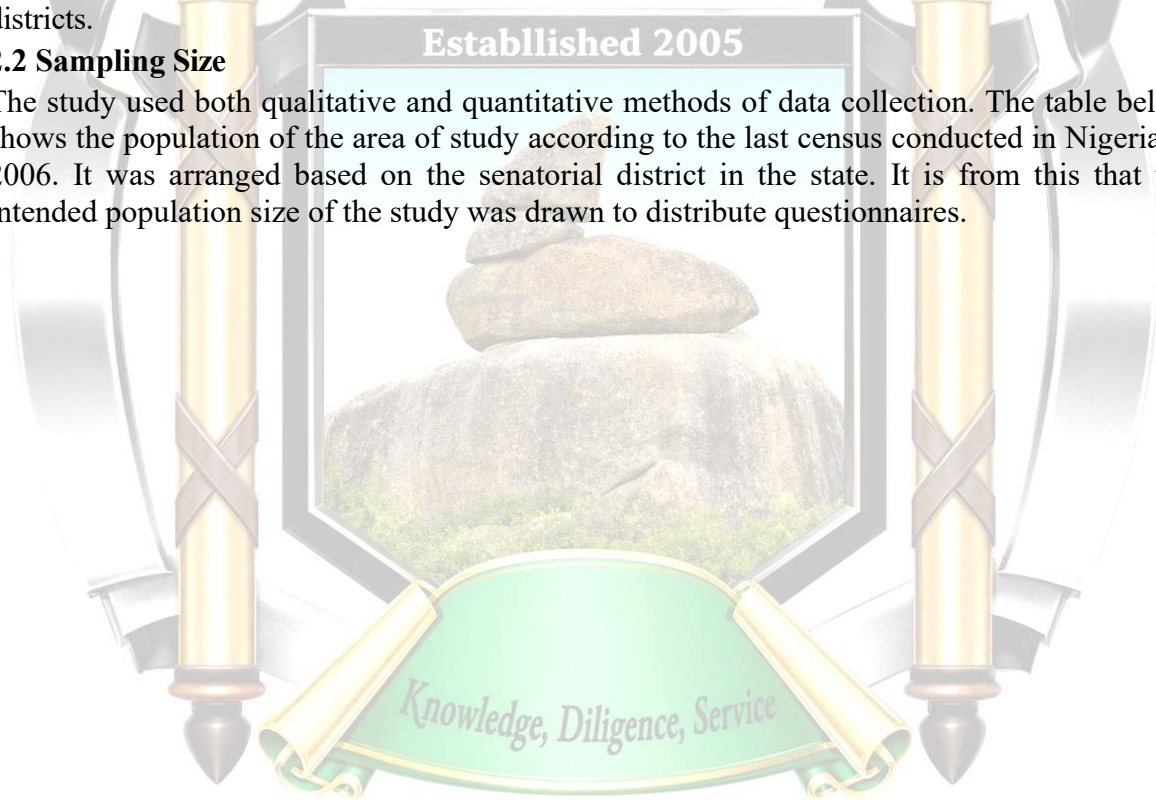


Table 1: Kogi's Population in each Senatorial District

Kogi East Senatorial District	Ankpa	266,176
	Bassa	139,687
	Dekina	260968
	Ibaji	127572
	Idah	79755
	Igalamela/Odolu	147048
	Ofu	191480
	Olamaboro	158490
	Omala	107968
Total		1479144
Kogi West Senatorial District	Ijumu	118593
	Kabba/Bunu	144579
	Kogi	115100
	Lokoja	196643
	Mopa-Moru	43760
	Yagba East	147641
	Yagba West	139928
Total		906244
Kogi Central Senatorial District	Adavi	217219
	Ajaokuta	122432
	Ogori/Magongo	39807
	Okehi	223574
	Okene	325623
Total		928655
Grand Total		3,314,043

Source: 2006 National Population Census

The study intends to distribute 300 questionnaires in the selected local government areas of the study among selected patrons of traditional medicine. It adopted the sample size formula propounded by T. Yamane (1967) in determining sample size.

N = Sample size and e is the level of precision (0.05)

$$n = N / (1 + N (e)^2)$$

$$N = 1149599 / (1 + 1149599(0.05)^2) = 300$$

The 300 questionnaires to be distributed among the six local government areas were derived by calculating the proportion of each area to the total population:

$$\text{Dekina: } 260968 / (260968 + 79755 + 144579 + 115100 + 325623 + 223574) = 0.23 \times 400 = 92$$

$$\text{Idah: } 79755 / (260968 + 79755 + 144579 + 115100 + 325623 + 223574) = 0.07 \times 400 = 28$$

$$\text{Kabba/Bunu: } 144579 / (260968 + 79755 + 144579 + 115100 + 325623 + 223574) = 0.13 \times 400 = 52$$

Kogi (Koton-Karfe): $115100 / (260968+79755+144579+115100+325623+223574) = 0.10 \times 400 = 40$

Okene: $325623 / (172260968+79755+144579+115100+325623+223574) = 0.28 \times 400 = 112$

Okehi: $223574 / (260968+79755+144579+115100+325623+223574) = 0.19 \times 400 = 76$

Table 2: Showing Sampling Size Selected

Senatorial District	Population	Selected Local Government Areas for the study	Population of Selected Study Area(s)	Sampling size of selected study areas
Kogi East	1,479,144	Dekina	260,968	92
		Idah	79755	28
Kogi West	906,244	Kabba/Bunu	144,579	52
		Kogi KK	115100	40
Kogi Central	928,655	Okene	325,623	112
		Okehi	223574	76

Source: Field Survey, 2025

Table 2, clearly shows how the questionnaire for the study was distributed consciously among the responded. In the aspect of conducting interviews, respondents were persons knowledgeable about the issues being discussed and able to express their opinions in an articulated manner.

Table 3: Showing the Nature of the Respondents

Category	Number	Description of Respondents	Criteria for Selection
1	4	General respondents	Knowledge, Experience and Responsibility
2	6	Traditional healers in Dekina, Idah, Okene, Okehi, Kabba-Bunu and Kogi (KK) local government areas	Knowledge and Experience
3.	4	Specific Respondents	Expertise, Knowledge and Experience

Source: Field Survey, 2025

2.3 Method of Data Collection

Qualitative and Quantitative methods of data collection were used in the research. Primary and secondary methods of collection of data were used. Questionnaires and Interviews were used as sources of primary data.

2.4 Method of Data Analysis

The study used statistical instruments particularly, the Statistical Package for the Social Sciences (SPSS) in analyzing the quantitative data gathered during the study. It was adopted for the thematic method of data analysis in interpreting the qualitative data sourced at the course of the research.

3. RESULTS AND DISCUSSION

3.1 Inventory and Mapping of Traditional Medical Potentials in Kogi State

Table 4: Inventory of Traditional Medical Potentials in Kogi State

Traditional Practice	Key Practitioners	Location (Town/Area)	Ethnic Group	Description of Practice	Estimated Number of Practitioners	Status (Thriving/Declining)
Herbal Medicine	Chief Ocholi	Ankpa	Igala	Use of roots, herbs, and barks for treating malaria, typhoid, ulcers	45	Thriving
Bone Setting	Mama Aisha	Lokoja	Ebira	Traditional orthopedic practices for fractures and dislocation	20	Thriving
Spiritual Healing	Baba Ododo	Okene	Ebira	Ritual cleansing, spirit appeasement for health	30	Declining

Traditional Midwifery	Iye Eunice	Kabba	Yoruba	Assisting births using traditional herbs and massage	15	Thriving
Incantation and Divination	Mallam Sule	Dekina	Igala	Use of chants, divination to diagnose illnesses	10	Declining
Snakebite Treatment	Pa Ayeni	Idah	Igala	Use of anti-venom herbs and charms	8	Thriving
Traditional Eye Treatment	Alhaji Musa	Anyigba	Igala	Treating eye diseases with herbs and ointments	12	Declining
Massage and Therapeutic Practices	Auntie Bola	Kabba	Yoruba	Body massage for bone realignment and wellness	25	Thriving

Source: Field Survey, 2025

Table 4, shows the inventory of traditional medical practices in Kogi State, it reveals a robust and diverse set of indigenous healing traditions, they include herbal medicine, bone setting, spiritual healing, traditional midwifery, incantations and divination, snakebite treatment, eye treatment and therapeutic massage.

The inventory presented in Table 4 demonstrates a robust and diverse spectrum of traditional medical practices across various ethnic groups and regions in Kogi State. Practices such as herbal medicine, bone setting, traditional midwifery, spiritual healing, massage therapy, and snakebite treatment are widespread and culturally rooted.

Herbal medicine emerges as the most dominant and thriving practice, particularly in Igala areas such as Ankpa and Idah, with practitioners using roots, leaves, and barks to treat diseases like malaria, typhoid, and ulcers. This aligns with findings by Osemene et al. (2011), who observed that 75% of rural populations in Nigeria depend on herbal remedies due to affordability and accessibility.

Bone setting and therapeutic massage also remain popular, especially in Ebira and Yoruba communities, due to their perceived effectiveness in treating musculoskeletal injuries. These practices have also been reported in northern Nigeria (Ibeneme et al., 2017), where traditional bone setters are often preferred to orthopedic hospitals due to quicker service and cultural trust.

Conversely, practices like spiritual healing and divination are on the decline, which may reflect the growing influence of religious reforms, formal education, and modern health beliefs, as observed by Ewhrudjakpor (2008) in Delta State. However, these services remain significant in certain communities for their diagnostic and psychosocial roles.

Table 5: Mapping Distribution of Traditional Medical Practices by LGA

LGA	Dominant Traditional Medical Practices	Density (Practitioners per 10,000 population)	Key Ethnic Groups	Notable Centers/Towns
Lokoja	Bone setting, Herbal medicine	15	Ebira, Bassa Nge	Lokoja town, Zango
Ankpa	Herbalism, Snakebite treatment	25	Igala	Ankpa town, Enjema
Okene	Spiritual healing, Herbalism	20	Ebira	Okene, Obangede
Kabba/Bunu	Traditional Midwifery, Massage	18	Yoruba	Kabba, Aiyegunle
Dekina	Divination, Snakebite treatment	12	Igala	Anyigba, Abocho
Idah	Snakebite, Eye Treatment	10	Igala	Idah town
Bassa	Herbal Medicine, Divination	8	Bassa Komu, Bassa Nge	Oguma

Source: Field Survey, 2025

Table 5, shows marked variations in the distribution of traditional medical practices across local government areas. Which include the Local Government Areas, dominant traditional medical practices, density of practitioners per 10,000 population, the key ethnic groups involved and the notable centres / towns of practices.

As shown in Table 5, the spatial distribution of traditional practices varies widely across LGAs, influenced by ethnic composition, environmental resource availability, and sociocultural preferences. Ankpa (25/10,000) and Okene (20/10,000) have the highest

Silas J.

density of practitioners, reflecting dense population, cultural reliance on traditional systems, and perhaps limited access to modern health infrastructure. Ethnic correlations are notable: Igala communities dominate in herbalism and snakebite treatment; Ebira communities in spiritual healing and bone setting; and Yoruba communities in midwifery and massage. Similar ethnic-based specialization was reported in Umeokeke et al. (2020) who studied traditional medicine use in southeastern Nigeria and found that practice varies not only by disease type but by clan and spiritual beliefs. This supports the argument that traditional medicine is not just therapeutic, but also geographic and cultural, responding to both ecological and social realities (WHO, 2013).

Table 6: Traditional Diseases and Treatments in Kogi State, Nigeria

Body System	Disease/Condition	Traditional Cure/Treatment	Common Name(s)
Cardiovascular System	Hypertension	Antihypertensive herbs; Persea Americana	Avocado Pear
	Stroke	African Rauwolfia (Rauwolfia vomitoria), Reserpine extracts	African Rauwolfia
Nervous System	Convulsions	Parrot's beak (Heliotropium indicum); Kigelia africana juice therapy	Parrot's Beak, Sausage Tree
	Insomnia	African Rauwolfia preparations	African Rauwolfia
Alimentary Canal	Diarrhoea	Basil (Ocimum gratissimum), Guava leaves (Psidium guajava)	Scent Leaf, Guava
	Dysentery	Ocimum gratissimum, Newbouldia laevis decoctions	Scent Leaf, African Border Tree
Endocrine System	Diabetes	Leaves of Rose periwinkle (Catharanthus roseus) or Bitter melon (Momordica charantia)	Rose Periwinkle, Bitter Melon
Respiratory System	Asthma	Lemon grass (Cymbopogon	Lemon Grass, Bitter Kola

Silas J.

		citratus), Bitter Kola (Garcinia kola)	
	Cough	Lemon grass, Bamboo leaves (Bambusa vulgaris)	Lemon Grass, Bamboo
Genito-Urinary System	Gonorrhea	Bush Banana (Uvaria chamae)	Bush Banana
	Haematuria (Blood in urine)	Bush Banana (Uvaria chamae)	Bush Banana
Skin	Wounds	Craw-craw plant (Senna alata)	Craw-craw Plant, Candle Bush
	Dermatonycosis (Fungal infection)	Craw-craw plant (Senna alata)	Craw-craw Plant, Candle Bush
Ear, Nose, Throat (ENT)	Sinusitis, Throat Ache	Resurrection Plant (Selaginella spp.)	Resurrection Plant
Microbes, Viruses, Insects	Infections	Garlic (Allium sativum), Clove (Syzygium aromaticum), African Mahogany (Khaya senegalensis)	Garlic, Clove, Mahogany
	Malaria	Hog Plum (Spondias mombin), Pawpaw leaves (Carica papaya), Lemon Grass	Hog Plum, Pawpaw, Lemon Grass
Others (Various)	Hernia, Snakebite, Arthritis, Gout	Various herbal mixtures; Animal parts like Bee Venom, Civet Cat exudes	Bee Venom, Civet Cat, Herbal Remedies

Source: Field Survey, 2025

Table 6 shows that numerous other diseases or complaints of a special nature such as hernia, snake bite, arthritis, gout etc. have been treated using herbs alone or in admixture with animal parts and minerals. Today, plant medicines include vincristine and vinblastine isolated from the Rose periwinkle and used to treat childhood leukemia and Hodgkin's disease, reserpine extracted from African or Indian *Rauwolfia* and used in tranquilizers, diogenin extracted from the yam and used in the treatment of rheumatism and to produce oral contraceptives and the shear butter which showed nasal decongestant activity and so on. None-plant medicines include the bee venom which is used in the treatment of arthritis and the civet cat exudes which has shown anticonvulsant effects. Plants extracts and chemicals with muscles relaxant

properties have been used by the traditional birth attendants (TBAs) to assist in child deliveries. All these facts point to the values of medicinal plants and their importance in traditional medicine in present day Nigeria (Adesina, 1995: Gbile, 1987).

Table 6, illustrates how traditional healers in Kogi State manage a broad spectrum of diseases, grouped by body systems. The remedies show a remarkable alignment with pharmacological properties recognized in biomedical science: Cardiovascular and nervous system diseases such as hypertension, insomnia, and stroke are treated with *Rauwolfia vomitoria*, a plant rich in reserpine, known for its antihypertensive and sedative effects. Adesina (1995) highlighted this plant's importance in producing modern tranquilizers. Digestive ailments like diarrhea and dysentery are addressed using *Ocimum gratissimum* (scent leaf) and *Psidium guajava* (guava), both shown in studies by Sofowora (1993) to have antidiarrheal and antibacterial properties. Infections and microbial diseases are tackled using broad-spectrum plants like *Khaya senegalensis*, Garlic, and Clove. Akinyemi et al. (2005) confirmed their antimicrobial efficacy, supporting their traditional use. The use of non-plant materials, such as bee venom for arthritis and civet cat exudes for convulsions, reflects an integrative medical system where fauna and mineral elements complement herbal treatments. This echoes Etkin (1988), who emphasized that African ethnomedicine is "multi-source" in composition and not limited to botanicals. The use of *Catharanthus roseus* (rose periwinkle) for diabetes and leukemia treatment underscores the biomedical potential of traditional knowledge. This plant is globally recognized for yielding vincristine and vinblastine, used in chemotherapy (Farnsworth et al., 1985).

In Southwestern Nigeria, Ogunyemi et al. (2010) found that over 60% of pregnant women still rely on traditional midwives for delivery, mirroring the reliance on midwifery seen in Kabba/Bunu LGA. In Northern Ghana, Abdullahi (2011) observed that traditional spiritual healing was declining due to modern religious influence similar to trends seen in Kogi State. A study in Benin City by Okonkwo and Wilson (2018) emphasized the rise in therapeutic massage as a complementary therapy to relieve pain and treat bone misalignment, reflecting growing public acceptance.

4. CONCLUSION

The study reveals that traditional medical practices in Kogi State remain vibrant, diverse, and functional, particularly in rural communities. With clear links to plant pharmacology and therapeutic outcomes, these practices demonstrate both cultural importance and scientific relevance. However, modernization and religious transformation pose threats to the survival of some practices, calling for strategic interventions in policy, research, and education. The study also discussed the diverse traditional medical practices, their spatial distribution and the diseases they address within Kogi State. The evidence underscores the strategic importance of recognising and integrating traditional medicine in the State's

Silas J.

health policy framework. This will not preserve indigenous knowledge systems but also improved health outcomes for underserved populations. In many Nigerian societies both traditional and orthodox healthcare systems exist. Normally people consult both systems, though for different reasons and during different stages of the disease. Certain diseases are believed to be better treated by one of these systems; in spite of increased interest in the technical aspects of traditional healthcare, forms of true cooperation between the two systems are rare. Traditional healers may refer to modern medicine, but the reverse is rarely the case.

5. RECOMMENDATIONS

There is a tendency in the orthodox oriented biomedical tradition to focus on the risks and play down traditional African medicine and the expertise of traditional healers. We cannot deny the drawbacks of traditional medicine, which include incorrect diagnosis, imprecise dosage, low hygiene standards, the secrecy of some healing methods and the absence of written records about the patients. However, in light of the significance of traditional medicine to enhance healthcare delivery systems. The following recommendations should be looked at: Traditional medicine should provide first line health care for underserved populations. It should also present a pharmacological resource for drug discovery and development. There is a need to document, protect, and regulate traditional medical knowledge to prevent loss and promote safe practices. Collaboration between traditional healers and biomedical professionals can enhance health outcomes and foster mutual learning.

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