

## Review Article

# Socio-cultural aspects of diabetes mellitus in Nigeria

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### ABSTRACT

Undoubtedly, Nigeria is the most populous country in Africa with about 400 ethnic groups and languages. There is a double burden of disease with rising incidence and prevalence of diabetes mellitus. World Health statistics indicate that Nigeria has the highest number of diabetics in sub-Saharan Africa. In spite of advances in diabetes care and facilities, desired outcomes are not good and linked to this, patient satisfaction is not optimal. Reasons include inadequate attention to biological aspects of diabetes, inadequate or inappropriate pharmacology and psycho-socio-cultural factors. In this review, crucial socio-cultural factors in Nigeria include traditional medicine, religion, diet, physical activity patterns, foot care, awareness, and stress management. Diabetes programs in Nigeria should adopt the principles of education and psycho-social support highlighted by the DAWN study, integrating our socio-cultural heritage, empowering individuals to take charge of their diabetes and achieve desired health outcomes. Religion should be explored as a potential tool to reach out on facts whilst doing away with erroneous beliefs about diabetes mellitus.

**Key words:** Communicable disease, diabetes mellitus, non-communicable, socio-cultural

## INTRODUCTION

Nigeria, the most populous country in Africa and the tenth largest country by population in the world, is located at the eastern terminus of the bulge of West Africa.<sup>[1]</sup>

The size of its population is one of Nigeria's most significant and distinctive features with probably more than 140 million people in 2006 – the precise figure is not certain because there has been no accepted census since 1963.<sup>[1]</sup>

Nigeria is rich in diversity with multiple ethnic groups, languages, states, traditional and modern cultures, affluence and poverty; education and ignorance.<sup>[1]</sup>

Several of Nigeria's 36-states have more people than a number of countries in West Africa, and some of the Igbo areas of the South east have the highest rural densities in sub-Saharan Africa.

Ethnicity is one of the keys to understanding Nigeria's pluralistic society. It distinguishes groupings of people who, for historical reasons, have come to be seen as distinctive on the basis of locational origins and a series of other cultural markers.<sup>[1]</sup>

Nigeria national policies have usually fostered tolerance and appreciation for cultural differences, while trying at the same time to suppress unfair treatment based on ethnic prejudice. An estimate of the number of distinct ethnic groupings varies from 250 to as many as 400, and the most widely used marker is that of language.

The broadest groupings of linked ethnic units are regional. What is generally referred to historically as the South included a western Yoruba-speaking area, an eastern Igbo area, a mid-section of related but different groups, and a set of Niger Delta peoples on the eastern and central coastal areas (Ndokis, Ibibio, Igbani, Ijaws etc). The North

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is widely associated with the Hausa-speaking groups that occupied most of the region, but the Kanuris predominate in the north east with a belt of peoples between the North and South.

The incidence and prevalence of diabetes mellitus (DM) has continued to increase in Nigeria, despite a great deal of research and resources.<sup>[2-4]</sup> With the current trend of transition from communicable to non-communicable diseases, it is projected that the latter will equal or even exceed the former in developing nations, including Nigeria, thus culminating in double burden of disease.<sup>[5]</sup>

In Nigeria today, modern and traditional medicine are practiced though independently, and the government allows for that, but not equal weight is given to both.<sup>[6,7]</sup>

Health is the most precious of all things, and it is the foundation of all happiness. Traditional medicine has developed in various communities in Nigeria in response to the health needs of the people. The British colonial masters brought in orthodox medicine and today, both systems of healthcare exist in the country; both have the primary objective to cure, manage or prevent diseases and maintain good health.<sup>[6]</sup>

In Africa and Asia, 80% of the population still uses traditional remedies rather than modern medicine for primary healthcare.<sup>[8]</sup>

In spite of advances in diabetes care and diabetes care facilities, desired outcomes are not good<sup>[4]</sup> and linked to this, patient satisfaction is not optimal.<sup>[9]</sup> According to the 'Rule of Halves',<sup>[9]</sup> only half of people living with diabetes have been diagnosed and only half of those diagnosed receive professional care. Of the people receiving care, only half achieve their treatment targets. And of those achieving treatment targets, only half live a life free from diabetes-related complications.

While figures vary from country to country, the 'rule of halves' suggest that globally, just 6% of everyone with diabetes manage to gain control of their condition and avoid diabetes-related complications such as irreparable damage to the heart, kidneys, nerves, and feet.

This is the diabetes challenge; a challenge we all face, even in Nigeria.

Why is patient satisfaction and desired outcome not adequate? The reasons are multiple and include:

1. Inadequate attention to biological aspects of diabetes.

2. Inadequate or inappropriate pharmacology, and  
3. Psycho-socio-cultural reasons.

This review focuses on socio-cultural aspects of diabetes mellitus in Nigeria. While in the developed countries, diabetes care is largely sought in medical health care centers, a rather different, pluralistic approach prevails in Nigeria. Many Nigerians often 'supplement' the care they receive in clinics and hospitals with treatment from traditional healers. Traditional medicine in this review refers to practices and approaches that apply-separately or in combination-plant, animal, and mineral-based medicines, spiritual therapies, manual techniques and exercises to diagnose, prevent, and treat diabetes or maintain or enhance well-being.

Millions of Nigerians use traditional medicine to help meet some of their primary healthcare needs.

According to traditional widely held beliefs, every illness has a cure. In the context of these beliefs, the scientific description of diabetes as a chronic non-communicable disease exposes the limitations of biomedical medicine and motivates people who subscribe to these widely held beliefs to turn to traditional healers.

In traditional belief systems, diabetes is classified into three categories: Naturally occurring, man-made, and ancestral.<sup>[10]</sup> The first category fits the biomedical explanation; the second and third point at causal agents such as witchcraft or supernatural beings (ancestral or a deity).

A cure is believed to be available for each of these types of diabetes.

The biomedical 'incurability' of diabetes is often interpreted within a traditional framework. It is believed that this "incurability" is a temporary issue-ancestor or deity will eventually provide a cure.

Within the traditional model, diabetes is recognized as having its origin in the history of a person's family, but this is not the same 'family history' that is recorded in orthodox healthcare facilities. The traditional family history refers to the interpretation of issues, including conflicts and misdeeds, which might date back to several previous generations.

## TRADITIONAL DIAGNOSIS AND TREATMENT

The traditional practitioners are usually consulted for diagnosis of diabetes, its causes, and treatment. With their

ability to deal with the unseen, the supernatural etc., they are usually held in high esteem in the community. They are believed to have extra sensory perception and can see beyond the orthodox practitioners.

In the 'Ifa' traditional medicine, practiced among the Yorubas as well as Igbos in the southern part of Nigeria, the instructions which these practitioners use include magic stones, which are usually thrown to the ground. Sounds so produced are read and interpreted. Some take replies of messages in a pool or glass water. Others depend on the throwing of cowries, coins, kola-nut seeds, divining rods, keys or sticks. Treatment is done by making patient and family members active partners, e.g., sacrifice a chicken at midnight at a particular shrine-this process involves patient and family as active partners in achieving health.

In the delta region, which is a riverine region, the beliefs on DM centers around hexes or curses issued on people and that makes them to pass large quantities of urine. As such, a cure is believed to be achieved when the person who issued the curse and the "god" invoked for such a curse are appeased.

The Nigerian with diabetes, no matter how literate, is attuned to the traditional ideas of disease causation and cure, which has served the community well for centuries.

Non-proprietary drugs and healthcare practices often referred to as complementary and alternative medicine (CAM) are often used in the management of DM in the Nigerian setting. There are often underlying explanations, which are founded on cultural and spiritual beliefs; thus, necessitating the use of traditional medicines, which are often of an herbal nature. Traditional medicine is said to provide 80-90% of health care.<sup>[11]</sup>

Ogbera *et al.* reported CAM usage to be 46% in persons with DM attending a general hospital in the South Western region of Nigeria, and the commonly used CAM was the local "bitter leaf," also known as *vernonia amygdale*.<sup>[12]</sup>

The philosophy of orthodox medicine is based on diseases as biological entities with acute and chronic patterns. Treatment is pharmacology-centered, and the patient is a passive participant, who follows doctor's advice quietly. Diabetes healthcare professionals are attuned to these ideas.

This discordance between the patient(s) and physician is the root cause of dissatisfaction, poor adherence, and poor outcomes.

The former Chairman of WHO Africa Regional Expert Committee on Traditional medicine, Prof. Abayomi Sofowora has this to say, "Traditional medicine has been with us since the beginning of time, and it is the only source of healthcare for most people due to its accessibility and affordability. The holistic approach attracts many people who want to go back to nature for treatment, because many people are not happy with the healthcare provided by orthodox medicine."<sup>[13]</sup>

The solution lies in knowledge of our socio-cultural ethos and formulation of socio-culturally appropriate action plan.

At the first Oxford International Diabetes Summit (2002),<sup>[14]</sup> virtually all the participants (98%) representing medicine, politics, nursing, and patient groups called for psycho-social aspects of diabetes to be included in national guidelines. They concluded that psycho-social factors are critical to successful outcomes in diabetes management. This summit was prompted by the results of the milestone DAWN Study<sup>[15]</sup> (Diabetes Attitudes, Wishes and Needs) on the psycho-social dimensions of diabetes.

The DAWN study was the world's largest international psycho-social study in persons with diabetes. It included 5000 people with diabetes and 3000 diabetes healthcare professionals across 13 countries. The results of the DAWN Study showed that as many as 41% of the patients had poor psychological well-being. These psychological problems were recognized by providers as affecting patients' diabetes self-care. However, despite this, only about 10% of these patients received psychological care.

This study also showed that across the world, the relationships that diabetics have with family members, colleagues at their workplace, or groups of friends, is a critical factor in improving the patient's sense of wellbeing, and leads to more effective self-management of diabetes. People without such networks of support, especially those living alone, are not likely to manage their diabetes as effectively. In addition, the wide diversity among patients, showing how differences in everyday life and psychology affect the self-management of diabetes, indicates the need for different emotional support packages for different "socio-cultural" types of patient. There appears to be no universal best practice<sup>[16]</sup> currently, hence the need for guidelines on psycho-social management of diabetes taking into cognizance the socio-cultural background of the patients.

The traditional healers in tight-knit rural communities have knowledge of the background of people in their

care that orthodox healthcare providers in the towns and cities are unlikely ever to attain. A traditional healer who is familiar with the players and events in community life is able to pick up on knowledge of people's social circumstances and employ this to perform diagnosis and healing rituals.<sup>[10]</sup> When diabetes is suspected, clients are often advised to visit a healthcare center for confirmation of the healer's diagnosis. Some traditional healers' interpretations draw on modern scientific wisdom, acquired through interaction with healthcare providers and the media (including internet), to reinforce their interpretations of a health condition.

This is an important aspect of traditional practices, which enhances people's belief in a traditional approach. Indeed, many traditional healers supplement modern treatment by performing healing rituals at the bedside of people receiving care in hospital. While many healthcare providers view these practices with some degree of disdain, others embrace them; some even engage in recommending certain traditional healers or medicines.

The assertion that diabetes is curable serves to bolster the status of traditional healers. Symptoms that persist after a 'cure' has been performed are often explained as a new bout of diabetes. Thus, the concept of chronic illness is absent from many African cultures including Nigeria.

## RELIGION

The traditional Igbo religion (south eastern part of Nigeria) recognizes a personal god called '*chi*' and a supreme God called '*chineke*' with the traditional priest administering rites and rituals. The '*chi*' intercedes for individuals in matters of health and socio-economic wellbeing.

The Christian missionary enterprise started in Nigeria in the mid-19<sup>th</sup> century,<sup>[17]</sup> around 1850, with various Christian denominations involved (they predominate in the southern parts of Nigeria). Later, the African Christian churches emerged with their emphasis on enculturation and the mixture of the western received eurocentric Christian faith and traditional practices. Just for the sake of reference, Islam had previously been in Nigeria, particularly in the Northern parts for centuries, but this is outside the scope of this review.

Religion and religious values and institutions have affected virtually every nation, people, culture, and race on earth. What holds Nigerians together is our belief in deep religiosity founded on the traditional African cultural values of co-existence, the ability to take

part in reconciliation and common interest matters. Nigerians eat, dress, live, think, work, dance, and breathe religiously. Indeed, every activity of Nigerians is founded on religion (either Christian or traditional), be it name-giving, food, dance, celebration etc., Thus, faith and life are linked in Nigeria.

The Christian churches together with traditional religion have a role to play in influencing constructive socio-cultural changes. Such changes are necessary for the transformation of society towards the common good.

## THE CHURCH AND HEALTH

The promotion of health, social institutions, and welfare homes in the pre-nation state of Nigeria was mainly a primary method of evangelization by the emergent new Christian missionaries. Orphanages were built to cater for the socially disadvantaged in many rural areas by Catholic Missionaries; hospitals were constructed in the urban and peri-urban centers since under colonial rule, the British in Nigeria did not care for the rural areas and the lives of people there, but focused on infrastructure within some urban towns in pre-colonial Nigeria. These hospitals and the training of adequate personnel, supply of equipment and drugs helped in no small measure to guarantee the foundations of a healthy nation. Today, in Nigeria, the Catholic Church remains the largest and strongest health services supplier amongst all the Christian and religious denominations in the country.

The Pentecostal churches in Nigeria, which are the second largest group of Christians in Nigeria, believe firmly in divine healing which entails largely healing by faith or faith healing.

Faith healing entails doing away with medications and confessing that one is healed. For those that are living with chronic illnesses like DM, they are encouraged to seek divine healing.

Many of the Pentecostals construe faith healing as doing away with medications and confessing that one is healed. For those that are living with chronic illnesses like DM, they are encouraged to seek divine healing only, while forgetting the fact that even the Holy Land holds firmly that divine and medical healing are complimentary.

## THE CHURCH AND SOCIAL MOBILIZATION

The power of mobilization of people and the reality of grassroots support and control of the churches over their believers is a factor, which is critical in Nigeria.

African peoples believe in their religious leaders, and respect the impact of religion on their own personal life and destiny. Not to be religious is to be 'un-African' and indeed 'un-Nigerian.' Christian churches have a potential as social organizations to influence their followers, not just in a prayer or faith encounter but even on social and health matters.

The church stands as the agent of Christ in the service of evangelization to entire creation and mankind. "Go ye into the whole world and proclaim the good news of salvation to all creation" (Mathew 28:20). Nigeria needs 'Diabetes evangelists' to proclaim the good news about diabetes prevention and care.

*Remember: "my people perish for lack of knowledge" Hosea 4:6!*

In today's Nigeria, traditional and modern religion exist side by side, and the family, community leaders, church leaders etc., all play important roles in decision-making, especially concerning individual health matters.

The modalities of diabetes care and prevention involve education, diet, exercise, medications, regular self and or assisted monitoring, and stress management.

## DIET

Palm wine is the symbol of eastern Nigeria and is rich in calories and ethanol (when fermented). Other high calorie diets prevalent in this part of Nigeria include yam, cassava/garri/*fofofo* with salt-rich soup (s). There is also the culture of keeping women in fattening-rooms in Calabar, located in south eastern Nigeria. These socio-cultural practices fuel the epidemic of diabetes in this part of Nigeria where the prevalence is as high as 6.8%.

Deep rooted in our cultural beliefs is the notion that being fat connotes wellbeing and a full pocket. Obese DM patients who follow their doctor's instructions to lose weight are often bothered by well-meaning but ignorant family members and neighbors who often ask if they are doing okay health-wise and financially. These erroneous beliefs are upheld even by some enlightened members of the public.

## PHYSICAL ACTIVITY PATTERNS

There is less focus on exercise now because of industrialization and urbanization. There is also rural-urban migration with sedentary living, and traditional wrestling is going out of fashion. Urgent cultural revival is needed, championed by the traditional authorities who are the

custodians of culture and tradition. Traditional dances constitute a good way of burning calories.

The '*ikoro*' and '*ekpe*' festivals are cultural dances common to the Ndokis, Ibibios, and Efiks in South eastern Nigeria. These historical dance festivals involve all age groups in the communities and needs to be sustained, because it has enormous health benefits.

## DIABETES FOOT

Our rural people still walk barefooted or with ill-fitting foot wear. Educational support is needed using culturally relevant tools, e.g., the diabetes conversation maps.

## STRESS MANAGEMENT

Traditional methods of stress management using oracles, confession in church, community service, festivals, and feasts have proven benefits.

All of us should know these and be sensitized to their importance in our patients' lives. We cannot treat the biology of our patients without understanding their psycho-sociology, i.e., the bio-psycho-social model of disease.

The belief that some ailments like DM are inflicted by persons that have been offended is a source of stress to such persons, and these groups of people are most likely to display poor adherence to medication. A commonly asked question when the diagnosis of DM is made is "Who have I offended?"

## AWARENESS

Awareness is the key to diabetes health, and the platform for creating awareness in our community include masquerades ("*nwutam*" from Ndoki and Opobo), festivals, and the traditional weekly markets (*eke, orie, afor, nkwo*) where all and sundry attend, providing a mass forum for communication. The use and interpretation of Diabetes Conversation Maps (a socio-educational tool) during community awareness is highly recommended; splitting the '*ohanaeze*' (communal assembly) into small groups of 3-10 persons.

## TRADITIONAL HEALERS AND DIABETES CARE

In their proper spheres, orthodox medicine and traditional medicine are mutually independent and autonomous, each serving the personal and health needs of Nigerians. The more they co-operate reasonably, the more effectively they will perform this service to the advantage of Nigerians living with diabetes.

Gradual co-operation with traditional healers as recommended by the World Health Organization (WHO) is perhaps the most promising policy. Mutual respect between care providers in both fields-traditional and modern-is a pre-requisite for this approach. It would also engender evidence-based research, which would in turn trigger legal reforms to permit the regulated incorporation of traditional healers into healthcare systems.

If, under this approach, traditional healers were provided with education on the symptoms and complications of diabetes, they might be able to act as frontline players in primary diabetes care.

While a number of the practices in traditional medicine can have negative health consequences, and constitute a poor alternative to modern medical treatment, the traditional healers themselves, if their knowledge and skills can be properly recognized and harnessed, might prove to be effective partners in the fight against diabetes.

Furthermore, with stakeholders' involvement, namely traditional, religious and medical authorities, a psycho-social guidelines<sup>[18]</sup> for management of diabetes will be drawn focusing on initiatives related to diet, physical activity, stress management, positive attitudes towards modern healthcare and insulin usage.

The Diabetes Association of Nigeria (DAN) has embraced this concept. Awareness about diabetes is carried out in churches now using the religious leaders, and slots are provided by churches for DAN experts to discuss diabetes with the congregation. The traditional rulers of ancient kingdoms located in the South eastern Nigeria are regularly mobilized by DAN for diabetes education of their subjects during traditional ceremonies.

## CONCLUSIONS

Effective diabetes care goes beyond world class research and the provision of medicines. Many people living with diabetes still experience barriers to effective self-management, such as fear of taking medicine, anxiety over the social stigma attached to the illness, its chronic 'incurability' and the inability to undertake responsibilities at home or at work.

These psycho-social factors may result in medical conditions such as depression or in long-term complications through non-adherence with treatment.

Today, diabetes programs in Nigeria should adopt the principles of education and psycho-social support highlighted by the DAWN study, integrating our

socio-cultural heritage, thereby empowering individuals to take charge of their diabetes and achieve desired health outcomes.

Let us utilize the richness of our socio-cultural heritage to fight diabetes.

Religion should be explored as a potential tool to reach out on facts whilst doing away with erroneous beliefs about DM.

## REFERENCES

1. Nigeria. The Society and Its Environment, 2007. Available from: [http://www.mongabay.com/reference/country\\_studies/nigeria/SOCIETY.html](http://www.mongabay.com/reference/country_studies/nigeria/SOCIETY.html). [Last accessed on 2013 Feb 03].
2. Wild S, Roglic G, Green A, Sicree R, King H. Global prevalence of diabetes: Estimates for the year 2000 and projections for 2030. *Diabetes Care* 2004;27:1047-53.
3. Akinkugbe OO, editor. Non-communicable diseases in Nigeria: national survey (Final Report) on hypertension, coronary heart disease, diabetes mellitus, haemoglobinopathy, G6PD deficiency and anaemia. National expert committee on non-communicable disease. Lagos: Federal ministry of health and social services; 1997.
4. Chinenye S, Young EE. State of diabetes care in Nigeria: A review. *Niger Health J* 2011;11:101-9.
5. Yach D, Hawkes C, Gould CL, Hofman KJ. The global burden of chronic diseases: Overcoming impediments to prevention and control. *JAMA* 2004;291:2616-22.
6. Adesina SK. Traditional Medical Care in Nigeria, 2007. Available from: <http://www.onlinenigeria.com/health/?blurb=574>. [Last accessed on 2013 Feb 03].
7. Priya Shetty. Integrating modern and traditional medicine: Facts and figures, 2010. Available from: <http://www.scidev.net/en/features/integrating-modern-and-traditional-medicine-facts-and-figures.html>. [Last accessed on 2013 Feb 03].
8. National Policy on traditional Medicine and regulation of Herbal Medicines: Report of a global WHO survey. Geneva: WHO; 2005.
9. Hart JT. Rule of halves: Implications of increasing diagnosis and reducing dropout for future workload and prescribing costs in primary care. *Br J Gen Pract* 1992;42:116-9.
10. Awah P. Diabetes and traditional medicine in Africa. *Diabetes Voice* 2006;51:24-6.
11. Awah P. Diabetes and traditional medicine in Africa. *Diabetes Voice* 2006;51:25-6.
12. Ogbera AO, Dada O, Adeyeye F, Jewo PI. Complementary and alternative medicine use in diabetes mellitus. *West Afr J Med* 2010;29:158-62.
13. Anna Angbazo. Incorporating Traditional Medicine into Nigeria's Healthcare System, 2012. Available from: <http://www.orientnewspaper.com/incorporating-traditional-medicine-into-nigerias-healthcare-system/>. [Last accessed on 2013 Feb 03].
14. Anonymous. The Oxford International Diabetes Summit: implications of the DAWN study. *Pract Diab Int* 2002;19:187-92.
15. Peyrot M, Rubin RR, Lauritzen T, Snoek FJ, Matthews DR, Skovlund SE. Psychosocial problems and barriers to improved diabetes management: Results of the cross-national diabetes attitudes, wishes and needs (DAWN) study. *Diabet Med* 2005;22:1379-85.

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16. Young EE, Unachukwu CN. Psychosocial aspects of diabetes mellitus. *Afr J Diabetes Med* 2012;20:5-7.
17. Kuip G, Reifield H. The church and society. The role of christian churches in the emerging countries of argentina, Mexico, Nigeria and South Africa, 2007. Available from: [http://www.kas.de/db\\_files/dokumente/veranstaltungsbeitraege/7\\_dokument\\_dok\\_pdf\\_9863\\_2.pdf](http://www.kas.de/db_files/dokumente/veranstaltungsbeitraege/7_dokument_dok_pdf_9863_2.pdf). [Last accessed on 2013 Feb 06].
18. Chinenye S, Ofoegbu EN. National clinical practice guidelines for diabetes management in Nigeria. Port Harcourt, Nigeria: Diabetes Association of Nigeria; 2011. p. 90-106.

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