



## DIABETES PREVENTION IN NIGERIA USING SOCIO-ECOLOGICAL FACTORS

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### ABSTRACT

Diabetes is among the silent leading cause of death in Nigeria. Diabetes remains a public health problem, and a lot of inequity gaps exist in its management, access to care, knowledge, and outcomes. Social determinants of health include the social and economic conditions that influence health status. Diabetes has an impact on how the body turns food into energy and it can be chronic. Over time, diabetes can also lead to other health problems, such as kidney disease, cardiovascular disease and vision loss. Factors like built environment, education, economic stability and healthcare can impact diabetes. Diabetes is also one of the risk factors of Coronavirus (COVID 19). **A Method:** The article, using CDC system framework to discuss effective ways to prevent diabetes through socio-ecological factors in Nigeria. **Result:** The CDC system framework is used to explain how socio-ecological factors can help to prevent diabetes in Nigeria. **Conclusion:** Diabetes prevention program focused on socio-ecological factors is effective in reducing diabetes.

**KEYWORDS:** Diabetes, socio-ecological factors and social determinants of health.

### INTRODUCTION

Diabetes is a chronic disease caused by a genetic or acquired deficiency in the production of insulin by the pancreas (type 1) or the ineffective use of insulin by the body cells (type 2) (Kopelman PG 2002). High levels of blood glucose characterized it. Uncontrolled diabetes increases the risk of cardiovascular disease, stroke, nerve damage, foot ulcers leading to lower-limb amputations, kidney failure, blindness, and premature death (Vazquez G, Duval S, Jacobs D, et al. 2007). According to the Centers for Disease Control and Prevention (CDC), diabetes is Nigeria's seventh leading cause of death (CDC, 2019). According to the International Diabetes Federation (IDF), There were 1.702.900 cases of Diabetes in Nigeria in 2015. Diabetes remains a public health problem, and many inequity gaps exist in its management, access to care, knowledge, and outcomes.

### Community description

Nigeria is the most populous and fastest-growing country in Africa. Diabetes is a significant problem, and the epidemic will intensify due to population growth. Before implementing any health promotion program or campaign, it is essential to identify the target population or audiences. The Imo people are an ethnic group in Imo State east, Nigeria. They are found between Anambra and Abia State. The Imo people still hold on to their traditions, including believing that traditional medicines can cure all kinds of illnesses.

### Primary Socio-Ecological factors

Despite 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, insufficient 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, integrating our socio-cultural heritage, empowering individuals to take charge of their diabetes, and achieve desired health outcomes. Religion should be considered a potential tool to reach out on facts while doing away with erroneous beliefs about diabetes mellitus.

The traditional practitioners are usually consulted for diagnosing diabetes, its causes, and treatment. With their ability to deal with the unseen, the supernatural, etc., they are held in high esteem in the community. They are believed to have extrasensory perception and can see beyond the orthodox practitioners. The Nigerian with Diabetes, no matter how literate, is tuned to the traditional ideas of disease causation and cure, which has served the community well for centuries.

The traditional Igbo religion (south-eastern part of Nigeria like Imo state) 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 health and socio-economic wellbeing. Religion and religious values and institutions have affected virtually every nation, people, culture, and race. What holds Nigerians together is our belief in deep religiosity founded on the traditional African cultural values of co-existence, the ability to participate in reconciliation, and everyday interest matters. Nigerians eat, dress, live, think, work, dance, and breathe religiously. Indeed, every activity of Nigerians is founded on religion (either Christianity, Islam or traditional) be it name-giving, food, dancing, celebration, etc. Thus, faith and life are linked in Nigeria. The Christian churches, together with traditional religion, have a role in influencing constructive socio-cultural changes. Such changes are necessary for the transformation of society towards the common good. Faith healing entails doing away with medications and confessing that one is healed. Those living with chronic illnesses like diabetes are encouraged to seek divine healing.

Palm wine is the symbol of eastern Nigeria (Imo State) 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 constantly ask if they are doing okay health-wise and financially. These erroneous beliefs are upheld even by some enlightened members of the public.

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 the right way of burning calories.

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

Awareness is the key to diabetes health. The platform for creating awareness in our community includes masquerades dance festivals and the traditional weekly markets (eke, orie, afor, nkwo) where all and sundry attend, providing a mass communication forum. 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 methods of stress management using oracles, confession in church, community service, festivals, and feasts have proven benefits. We should know these and be aware of 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 the disease. The belief that some ailments like diabetes are inflicted by persons they offended is a source of stress to such persons, and these groups of people are most likely to display poor medication adherence. A commonly asked question when the diagnosis of diabetes is made is, "Who have I offended?"

### CONCLUSION

Effective diabetes care goes beyond world-class research and the provision of medicines. Many people with diabetes still experience barriers to effective self-management, such as fear of taking medication, anxiety over the social stigma attached to the illness, its chronic 'incurability' and the inability to undertake responsibilities at home or work. These psycho-social factors may result in medical conditions such as depression or long-term complications through non-adherence to treatment. Today, diabetes programs in Nigeria need to adopt the principles of education and psycho-social support, integrate our socio-cultural heritage, and empower individuals to take charge of their diabetes and achieve desired health outcomes. Let us utilize the richness of our socio-cultural culture to fight diabetes. Religion should be seen as a potential tool to reach out on facts while disregarding erroneous beliefs about diabetes. There is a need for diabetes knowledge, health beliefs, and diabetes management in Nigeria, focusing on cultural beliefs to diabetes health beliefs.

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