Functional food potential of different categories of Nigerian foods for wellness and management of disease

Ezekwesili-Ofili J O* PhD, Ogbunugafor, HA PhD Nnamdi Azikiwe University, Awka, Nigeria

ABSTRACT

Statement of the Problem: The recognition of the relationship between diet and human health has highlighted the perception of food beyond the basic nutritional needs. Functional foods are foods that have potentially positive effects on health beyond basic nutrition, thereby promoting wellness and reducing the risk of disease. They can be conventional (i.e. natural) whole foods that are rich in nutrients, or modified, and may be of plant or animal origin. Nigeria is endowed with a rich reserve of functional foods that can offer both nutritional and therapeutic benefits. Dietary patterns have however changed from the traditional diets to western type diets and have lost the protective effects that these foods may confer. This has escalated the incidence of chronic diseases and reduction in life span. This work investigated the functional food potentials of different categories of Nigerian local foods in health and in disease. Methodology and Theoretical Orientation: The materials and methods used included books, journals, evidence-based clinical trials reports, databases, interviews and questionnaires to nutritionists and indigenous people from different cultures on their traditional culinary practices and relationship to healthcare. Findings: Most local foods in Nigeria possess functional food potentials, attributable to their bioactive components and are discussed according to their different categories. However, knowledge of the health benefits of some traditional foods had long existed in different Nigerian cultures, even without any scientific knowledge. Conclusions and significance: The growth of the significance and consumer knowledge of functional foods in Nigeria is expanding, that natural foods could protect against physiological dysfunctions. More researches into elucidating the scientific basis that validates their health-promoting benefits offered by different foods or their bioactive components need to increase, as well as exploiting these benefits for product formulations in accordance with approved legislations.

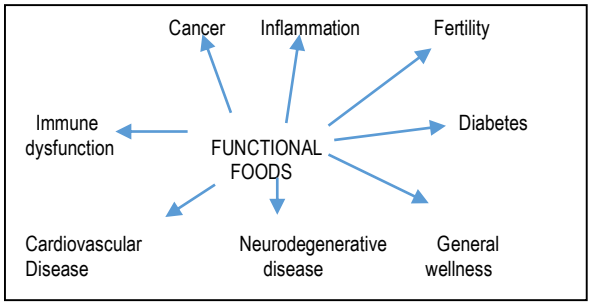


Fig 1: Functional foods and diseases

Recent Publications:

1. Butt, S, Sulan, T (2013) Selected functional foods for potential in disease treatment and their regulatory issues. Int. J. Food Properties. 16: 397-415.
2. Chandrasekara, A., Kumar, TJ. (2016) Roots and tuber crops as functional foods: A review on phytochemical components and their potential health benefits. Int. J. Food Sc. 1-15 Article ID 3631647.
3. Muhammad, A., Mada, SB, Malami, I, Forcados, GE, Erukainure, OL, Sani, H, Abubakar, IB. (2018) Postmenopausal osteoporosis and breast cancer: The biochemical links and beneficial effects of functional foods. Biomedicine and Pharmacotherapy. 107: 571-582.
4. Acham, IO, Kundam, DN, Girgih, AT (2018) A review on potential of some Nigerian local foods as sources of functional foods and their health promoting benefits. Asian Food Sc. J. 2(4): 1-15.
5. Achi, OK, Asamudo, NU (2019). Cereal-based fermented foods of Africa as functional foods. In: Merrilon JM, Ramawat, K (eds). Bioactiv Molecules in Food. Reference Series in Phytochemistry, Cham.



Professor Josephine Ozioma Ezekwesili-Ofili is a lecturer and researcher in Pharmacological Biochemistry at the Department of Applied Biochemistry, Nnamdi Azikiwe University, Awka, Nigeria. She has special research interest in ethno medicine and medicinal plant pharmacology, nutraceuticals and chemical and food toxicology. She is involved in validation of folkloric claims of medicinal plant action and formulation of medicinal foods. She is a member of the Association of Scientific Investigation, Conservation and Utilization of Medicinal Plants of Nigeria (ASICUMPON) wherein she interacts with traditional healers and professionals with interest in nutritional, curative and esoteric effects of plants. She is also a member of the Nigerian Fields Society. She has contributed a book chapter on African traditional medicine in herbal medicine and is currently working on the effect of spices on resistant microorganisms.

* Email: ezekjojo@yahoo.com