



Linking Nutrition Education to National Development through Gut Health and Mental Well-Being Outcomes

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Abstract

While human beings may have the conscious ability to provide their own food, in terms of the nutritional values of these foods, they will need a measure of nutrition education to gainfully benefit from the dietary values supplied to the body system through these foods. In a way, then, a greater population of Nigerians, either because they do not know the art of meal planning or how to preserve the essential microbial content of these foods, does not wholly gain their maximum nutritional value. While they consume these foods on a daily basis, the foods soon become toxic to their body. The consequence of this is that they constantly break down. Furthermore, there stems from this a huge decline in the production chain of the country, as the nation's development is tied to the well-being of its labour force. This study, content-wise, claims that two essential aspects that nutrition education must step in to rescue the modern man are in the areas of gut health and mental well-being of the individual. The study is a content analysis of secondary works from which the researcher concludes that the gut health condition of the individual and their mental stress.

Keywords: Nutrition-Education, National Development, Gut, Health, Mental Well Being

Introduction

There is a disease with modern man. Ageing folks must beware of this. With the overgrowth in capitalism, the African market is gradually becoming a dumping ground for many of the products from the West, as 80 to 90 percent of them, being inorganic, tend to affect the human gut system. The human gut system in modern science is the second brain. It controls, with its interaction with the brain, our overall well-being. In terms of our mental health, when there is a breakdown in microbial balance, the individual breaks down. The concern then about mental stress in people is closely connected with the gut condition of the body. Stress can adversely affect the microbial bodies that contribute to the overall well-being of the individual. It is then not enough to provide the individual with the right nutrition intake; also worthy of note is the fact that nutrition education must inform the individual how mental stress can kill the beneficial and healthy microbial elements from our food. It is probably true that in developing countries, where individuals are striving to survive, the gut system is not always in good health condition despite the nutritional quality of food intake. But again, considering the fact that mental stress can attack the beneficial microbes in the gut, nutritionists cannot afford to multi-strain their nutrition content to help withstand the adverse effect of mental stress on the gut (Fletcher, et al., 2011). The nutrition education therefore, contributes to the gut health condition of the individual. There is then the inseparability between our mental health and our gut bio condition. In this study, our objective is to stoke up interest in the connectivity between the human gut system, mental stress, food and nutrition education. By what it is, our study claims that local food dishes, when rightly treated, provides the individual with a healthy gut that keeps him productive. However, unchecked mental stress condition, can attack a healthy gut system by depleting the colony unit of the organisms thereby losing the essential properties of the food. It is part of the working condition of the nutritionists, to further educate consumers about how to protect and preserve their gut in order to get the rich properties of their food intake. One of these aspects nutrition education must look into is the mental health condition of their consumers (Solomon, 2024). There will be no healthy benefit gained from the foods, where the gut is being adversely attacked by mental stress. The model then below will guide the whole study.

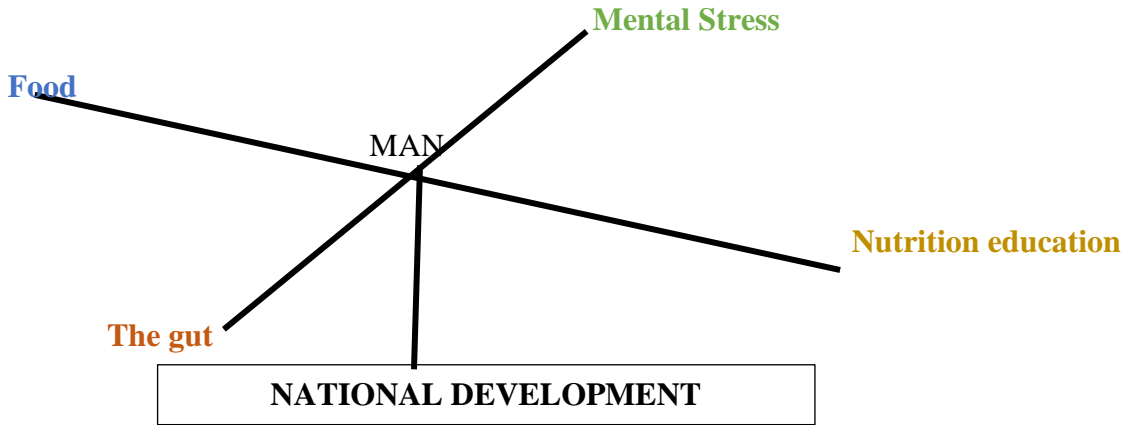


Fig. 1: In many ways, the overall national development of a people depends on human capital. To put the man together is to have a sustainable development system where much of the human thinking is connected to the gut. In other words, when the gut system is affected, the individual does not think right. This in return affects his productivity and socio-commitment, either to himself or to the institutions of the state. The whole idea then is that a functional system overrules the human gut system, food, mental condition, and nutrition education. Where one is underperforming, the rest tend to suffer a strenuous attack.

Statement of the Problem

Modern science now refers to the human gut system as the second brain. The well-being of the gut condition depends on some factors, such as its nutritional intake, most especially. But the living conditions in developing countries can, conversely, affect the gut. In many ways, much of the nutritional content of our food intake is depleted by lifestyles such as mental stress. This sort of living condition in developing countries stems from the demand to survive, thereby attacking the gut system. Our study, therefore, claims that Nigerians do not get much of the food content they take in due to their gut condition and mental stress. The consequence of this is that their overall health tends to interfere with their workplace productivity, which, in turn, on a macro level, adversely impacts national development

Objectives of the Study

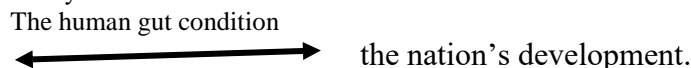
This study was guided by the following objectives;

1. To establish the relationship between the human gut system and nutritional intake.
2. To establish the relationship between the human gut condition and mental stress
3. To establish the relationship between the human gut condition and national development.

On The Gut System

Our overall well-being is in the gut system. Where the health of 250 million people depends on the condition of the gut, it also, in a way, suggests that the nation's productivity depends on the overall well-being of its labour force. In many ways, the gut, the human second brain as considered by modern science, carries with it an essential part of the human body system. Gut health, then, is the overall digestive system with a focus on trillions of microorganisms that help in the human digestive system. A healthy gut tends to aid or support digestion process, immune function, nutrition absorption, and further impacts our overall physical and mental health. Where the gut microbiome is adversely affected, an essential part of human physical and mental well-being is stalled (Solomon, 2024). The gut, in a way, consists of the stomach, the small intestine, and the large intestine. These tracts, being responsible for food absorption, absorption of nutrients, and elimination of waste, contain a community of trillions of bacteria, viruses, and fungi. Where these organisms are adversely attacked either by antibiotics or stress, the nutrients in the food are rarely absorbed. In most cases, the food ends up becoming harmful to the human body system. In a study done by WHO (2013), a diet rich in fibre, fruits, vegetables, and fermented foods can aid a healthy gut microbiome. However, several factors, such as poor sleep, stress, genetics, and antibiotics, can kill these organisms. The effect of this, as said earlier, is that where those organisms are adversely affected, the nutrients in our diet are rarely absorbed (Ayodeji,2024). Globally, a significant population of the world, it has been reported to suffer from gut health conditions. In 2019, over 7.3 billion cases of gastrointestinal (digestive issues) were reported, with a greater population of adult cases connected to functional gastrointestinal disorders (FGIDS). It is worthy of note that a greater population of adults who are

characterized by such symptoms as chronic constipation, abdominal bloating, flatulence, irritable bowel syndrome, heartburn, acid reflux, and indigestion attribute their cases to food (Mayer, 2008). As well, many of the adults, according to statistics, are of working age (Rossler & Schnyder, 2018). Consisting of a greater population of their country's working force, where there is a breakdown in gut health, the nation's development is stalled. The model below shows the centrality of the human gut system in the absorption of food nutrients and the development of the nation's economy.



It follows then that a healthy nation is a wealthy nation, just as it is largely practised in the Middle East that a healthy body, a healthy mind, is a wealthy hand. The hand is essentially productive because the body is wealthy.

The Gut Health: Nigeria's Experience

A study by WHO (2013) found that 40% of Americans have their daily activities disrupted by gut issues. In the Nigerian context, there are over 70% of such digestive issues. Many of the cases, perhaps, stem from socio-economic factors that further affect their mental balance. (Gold 9, 2023, Akin, 2020). In many ways, poverty exposes people to diseases and ensures that when they contract these diseases, they find it difficult to recover. Although there are no specific studies representing the prevalence of gut problems across the country, many of the gut conditions are influenced by socio-economic status and poor access to health. In a study carried out by Oghenetega, Kuti, Owolabi, and Omayone (2021) it was reported that 61% out of 71,812 suffer from GI symptoms. For instance, in northern Nigeria, the prevalence of irritable bowel syndrome is 12%, conditioned by cigarette smoking and UR employment (Ajayi et al., 2013).

Gut Health: The Role Of Food and Nutrition Education for the Nation's Development.

In terms of health and sustainable development, nutrition education is central, among other things. Nutrition education, a key aspect of modern nutrition practice, is beyond imparting knowledge about foods and nutrition. It is, by extension, the process of sharing with individuals, a community, or a group of like social behaviour of the need to adopt or cultivate a healthy eating lifestyle and with concern to other nutrition-related behaviours which aid human well-being. These lifestyles (nutrition education contents) then range from:

1. Food safety information
2. Nutritional values of certain foods
3. Different food preparation methods
4. How to set the nutrition benefits from those foods.
5. How to make informed decisions about certain foods.

A look at these entails that individuals or a community get to learn the nutritional values and benefits of different diets. Getting the benefits and values of those foods largely involves a behaviour change in the lifestyle of the consumer. The whole idea and aim for behavioural change is that it can interfere with the health values and benefits of the food. These behavioural changes in the individual range from:

1. Cutting down on one's consumption habits as this can also interfere with the health values of certain foods.
2. Time and meal planning: Certain foods can be beneficial or harmful to the body system of the individual as he or she advances in age. The nutritional values of the food will require the body mass and gut system of the individual. For instance, certain individuals who have lactose intolerance are advised to shun and respect the sensitivity of their body system.
3. The issue of eating outdoors. Outdoor meetings and amusement can predispose one to take in certain foods that are unhealthy to the body system at the same time. The individual will readily need to be intentional or prepare his food at home before hitting the road. In many ways, nutrition education informs and empowers individuals, groups, or communities with certain health issues to take control of their food choices, as this can impact their health. A further look at nutrition education is in its environment support in terms of practical skills like food preparation, understanding food labels, meal planning, creating and encouraging communities or individuals to make healthy food choices from their locally available foods. This importance in learning has remained a key way for the individual or group to stay informed about dietary preparation, dietary recommendations, and nutrition trends. In all then, nutrition education most essentially benefits the individual or community in the following ways;

1. Food security measures: Here, the individual or community helps in making food choices that can further reduce food waste while promoting food security in terms of the availability of food.

2. Improvement in the quality of life: By following healthy eating habits, individuals or the community can improve their health and quality of life. As individuals adopt a healthy habit, it reduces their being prone to certain health risks, chronic diseases such as kidney failure, diabetes, obesity, heart diseases, etc.

Mental Health and Growth in the Economy

Our energy level, mental health, and overall well-being of the nation's economy are other key aspects of nutrition education. As pointed out in Immurana (2024). There is an interdependence in the production chain of the nation's economy and the energy level of its labour force. Where the individual is not mentally stable, either due to socio-economic factors or an obvious health condition, it tends to affect general production in the overall economic system. Growing an economy is at the level of her human capital growth. In Ayodeji (2024), human capital is the process of advancing the knowledge index and skills within a group or population to increase the economy and general well-being of the nation (Solomon, 2024). Golda (2024) Human capital growth then is essentially led in health care provision, education of the individual or group, manpower training, etc. The whole idea of this, we stress again, is to help enhance the quality of the productive capacity of the individual. In many ways, the nation's economic advancement depends on the health care of the individual, education, and manpower training. In terms of educating the individual, a group, or community about its health, nutrition education through this medium advances the economy by keeping the individual (labour) healthy for continuous production for the larger population, as a reduction in labour due to health breakdown can affect the general size of production. Where there is a shortage of labour, this in turn causes a shortage in food security and availability. In all then, the connection of a nation's advancement to nutrition education is a question of sensitizing the individual or community with the knowledge of nutrition values of certain foods that can interfere with or promote a healthy living for a continuous productive life.

Conclusion

The government must invest in nutrition education in terms of healthcare and other social programmes as these can significantly impact human capital growth and the nation's production desk. The process of growing the nation's economy begins early in life by first acquiring, developing, and increasing available human capital. Investment in human capital has, since the 20th century, remained a catalyst in the overall growth of a nation's economy. By what it is then, nutrition education is considered a crucial factor in achieving sustainable development goals, as it increases the health consciousness and awareness of labour. The need for a country's labour force to stay healthy in all-round improves its economy and general well-being.

Recommendations

1. This study provides national policy makers and nutrition planners with the knowledge of health in terms of human capital and national development
2. The nutrition schools should have centres or an institute for community enlightenment on public nutrition

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