The American Journal of Social Science and Education Innovations
ISSN 2689-100X | Open Access

TYPE Original Research
PAGE NO. 25-30
DOI 10.37547/tajssei/Volume07Issue02-04

Check for updates

Food and nutrition security for women and children are important for nation's health and development

Abubakar Danjuma Bundaram

PhD student of city university Cambodia, Department of public health, Cambodia

OPEN ACCESS

SUBMITED 07 December 2024
ACCEPTED 09 January 2025
PUBLISHED 11 February 2025
VOLUME Vol.07 Issue02 2025

CITATION

Abubakar Danjuma Bundaram. (2025). Food and nutrition security for women and children are important for nation's health and development. The American Journal of Social Science and Education Innovations, 7(02), 25–30.
https://doi.org/10.37547/tajssei/Volume07Issue02-04

ABSTRACT: This article examines the crucial role of balanced nutrition in maintaining most favourable health and wellbeing. A comprehensive analysis of existing written works highlight the significance of essential nutrients, including macronutrients, micronutrients, and fiber, in preventing chronic diseases, enhancing cognitive function, and promoting healthy weight management. The analysis underscore the importance of adopting a well-balanced diet, tailored to individual needs, to mitigate the risk of nutrition-related disorders and optimize quality of life.

KEYWORDS: Food, nutrition, security for women, health, development.

INTRODUCTION: Nutrition plays a vital role in maintaining most favourable health and wellbeing, influencing physical growth, cognitive function, and chronic disease risk. A balanced diet provides essential nutrients, including macronutrients (carbohydrates, proteins, and fats), micronutrients (vitamins and minerals), and fiber. The global burden of malnutrition, including undernutrition and overnutrition, poses significant health and economic consequences. This review aims to summarize the current understanding of nutrition's impact on overall health, highlighting key nutrients, dietary patterns, and prevention strategies for nutrition-related disorders.

Nutrition security implies "physical, economic and social access to an age-appropriate balanced diet, safe drinking water, environmental hygiene, and primary health care for all and awareness to utilise

these". Thus, nutrition security goes beyond food security. Nigeria being a country in developmental transition is facing the double burden of pre-transition disease (undernutrition and communicable diseases) as well as post-transition diseases like overweight, obesity, diabetes, hypertension, CVD, cancer. Besides having the highest incidence of undernutrition (especially among children) in the world, Nigeria is regarded to be another diabetes centerl of the world. Maternal undernutrition contributes to both. An undernourished woman gives birth to a malnourished low birth weight (LBW) child, who is doomed to impaired physical and mental development. The window of opportunity for rehabilitation is the first year after birth. Such individuals are born with more body fat and less muscle and according to Barker's hypothesis are prone to obesity and associated non-communicable diseases in later life, especially if there is indulgent life style. Undernutrition -infection is a vicious cycle approach. Undernutrition predisposes to greater morbidity and mortality. Economic cost of undernutrition is direct due to increased burden on health care and indirect - loss of productivity, besides human suffering. The issue has to be addressed through human development (health, nutrition, education, gender equity e.t.c) besides economic development. Inter-country and within-country (between states) comparisons show that for growth to be inclusive, population at large should be healthy, educated and processing right skills. For health and nutrition security there has to be awareness and access at affordable cost to balanced diet and right infant and child feeding practices (WHO guidelines), safe drinking water and environment and health care outreach. There has to be nutrition literacy at all levels- planners, administrators, agriculture and health professionals besides the community at large. Nigerian diets are qualitatively deficient in micronutrients (MN)-vitamins and minerals due to low intake of MN rich foods such as vegetables and fruits (particularly green leafy vegetables), pulses, and animal products. There is dietary erosion of nutritious millets due to wrong policies. To address the issue of micronutrient deficiencies and poor quality of proteins in Nigeria diets, agriculture should be made nutritionally and environmentally promotive through diversification to horticulture, and dry land crops like legumes and millets, and promotion of backyard poultry, dairy, fishery e.t.c . Technologies such as food fortification (chemical) and biofortification (enrichment of germ plasm) have to be judiciously applied. Personal hygiene, sanitation (use of latrines) and safe drinking water and access to primary health care need high priority. are, important, for, nation's, health, and, development,

. Nutritiondiet, safe drinking water, ery health care for all and awareness to utilise these". Thus, nutrition security goes beyond food security. Nigeria being a country in developmental transition is facing the double burden of pre-transition disease (undernutrition and communicable diseases) as well as post-transition diseases like overweight, obesity, diabetes, hypertension, CVD, cancer. Besides having the highest incidence of undernutrition (especially among children) in the world, Nigeria is regarded to be another diabetes centerl of the world. Maternal undernutrition contributes to both. An undernourished woman gives birth to a malnourished low birth weight (LBW) child, who is doomed to impaired physical and mental development. The window of opportunity for rehabilitation is the first year after birth. Such individuals are born with more body fat and less muscle and according to Barker's hypothesis are prone to obesity and associated non-communicable diseases in later life, especially if there is indulgent life style. Undernutrition -infection is a vicious cycle approach. Undernutrition predisposes to greater morbidity and mortality. Economic cost of undernutrition is direct due to increased burden on health care and indirect - loss of productivity, besides human suffering. The issue has to be addressed through human development (health, nutrition, education, gender equity e.t.c) besides economic development. Inter-country and within-country (between states) comparisons show that for growth to be inclusive, population at large should be healthy, educated and processing right skills. For health and nutrition security there has to be awareness and access at affordable cost to balanced diet and right infant and child feeding practices (WHO guidelines), safe drinking water and environment and health care outreach. There has to be nutrition literacy at all levels- planners, administrators, agriculture and health professionals besides the community at large. Nigerian diets are qualitatively deficient in micronutrients (MN)-vitamins and minerals due to low intake of MN rich foods such as vegetables and fruits (particularly green leafy vegetables), pulses, and animal products. There is dietary erosion of nutritious millets due to wrong policies. To address the issue of micronutrient deficiencies and poor quality of proteins in Nigeria diets, agriculture should be made nutritionally and environmentally promotive through diversification to horticulture, and dry land

crops like legumes and millets, and promotion of backyard poultry, dairy, fishery e.t.c . Technologies such as food fortification (chemical) and biofortification (enrichment of germ plasm) have to be judiciously applied. Personal hygiene, sanitation (use of latrines) and safe drinking water and access to primary health care need high priority.

Food and nutrition security for women and children are important for nation's health and development. Nutrition security implies "physical, economic and social access to an age-appropriate balanced diet, safe drinking water, environmental hygiene, and primary health care for all and awareness to utilise these". Thus, nutrition security goes beyond food security. Nigeria being a country in developmental transition is facing the double burden of pre-transition disease (undernutrition and communicable diseases) as well as post-transition diseases like overweight, obesity, diabetes, hypertension, CVD, cancer. Besides having the highest incidence of undernutrition (especially among children) in the world, Nigeria is regarded to be another diabetes centerl of the world. Maternal undernutrition contributes to both. An undernourished woman gives birth to a malnourished low birth weight (LBW) child, who is doomed to impaired physical and mental development. The window of opportunity for rehabilitation is the first year after birth. Such individuals are born with more body fat and less muscle and according to Barker's hypothesis are prone to obesity and associated non-communicable diseases in later life, especially if there is indulgent life style. Undernutrition -infection is a vicious cycle approach. Undernutrition predisposes to greater morbidity and mortality. Economic cost of undernutrition is direct due to increased burden on health care and indirect - loss of productivity, besides human suffering. The issue has to be addressed through human development (health, nutrition, education, gender equity e.t.c) besides economic development. Inter-country and within-country (between states) comparisons show that for growth to be inclusive, population at large should be healthy, educated and processing right skills. For health and nutrition security there has to be awareness and access at affordable cost to balanced diet and right infant and child feeding practices (WHO guidelines), safe drinking water and environment and health care outreach. There has to be nutrition literacy at all levels- planners, administrators, agriculture and health professionals besides the community at large. Nigerian diets are qualitatively deficient in micronutrients (MN)-vitamins and minerals due to low intake of MN rich foods such as vegetables and fruits (particularly green leafy vegetables), pulses, and animal products. There is dietary erosion of nutritious millets due to wrong policies. To address the issue of micronutrient deficiencies and poor quality of proteins in Nigeria diets, agriculture should be made nutritionally and environmentally promotive through diversification to horticulture, and dry land crops like legumes and millets, and promotion of backyard poultry, dairy, fishery e.t.c . Technologies such as food fortification (chemical) and biofortification (enrichment of germ plasm) have to be judiciously applied. Personal hygiene, sanitation (use of latrines) and safe drinking water and access to primary health care need high priority.

Food and nutrition security for women and children are important for nation's health and development. Nutrition security implies "physical, economic and social access to an age-appropriate balanced diet, safe drinking water, environmental hygiene, and primary health care for all and awareness to utilise these". Thus, nutrition security goes beyond food security. Nigeria being a country in developmental transition is facing the double burden of pre-transition disease (undernutrition and communicable diseases) as well as post-transition diseases like overweight, obesity, diabetes, hypertension, CVD, cancer. Besides having the highest incidence of undernutrition (especially among children) in the world, Nigeria is regarded to be another diabetes centerl of the world. Maternal undernutrition contributes to both. An undernourished woman gives birth to a malnourished low birth weight (LBW) child, who is doomed to impaired physical and mental development. The window of opportunity for rehabilitation is the first year after birth. Such individuals are born with more body fat and less muscle and according to Barker's hypothesis are prone to obesity and associated non-communicable diseases in later life, especially if there is indulgent life style. Undernutrition -infection is a vicious cycle approach. Undernutrition predisposes to greater morbidity and mortality. Economic cost of undernutrition is direct due to increased burden on health care and indirect - loss of productivity, besides human suffering. The issue has to be addressed through human development (health, nutrition, education, gender equity e.t.c) besides economic development. Inter-country and within-country (between states) comparisons show that for growth to be inclusive, population at large should be healthy, educated and processing right

skills. For health and nutrition security there has to be awareness and access at affordable cost to balanced diet and right infant and child feeding practices (WHO guidelines), safe drinking water and environment and health care outreach. There has to be nutrition literacy at all levels- planners, administrators, agriculture and health professionals besides the community at large. Nigerian diets are qualitatively deficient in micronutrients (MN)-vitamins and minerals due to low intake of MN rich foods such as vegetables and fruits (particularly green leafy vegetables), pulses, and animal products. There is dietary erosion of nutritious millets due to wrong policies. To address the issue of micronutrient deficiencies and poor quality of proteins in Nigeria diets, agriculture should be made nutritionally and environmentally promotive through diversification to horticulture, and dry land crops like legumes and millets, and promotion of backyard poultry, dairy, fishery e.t.c . Technologies such as food fortification (chemical) and biofortification (enrichment of germ plasm) have to be judiciously applied. Personal hygiene, sanitation (use of latrines) and safe drinking water and access to primary health care need high priority.

Analysis:

On Maternal Nutrition

1. Folic Acid Supplementation*: Studies have consistently shown that folic acid supplementation during pregnancy reduces the risk of neural tube defects.

2. Iron Deficiency: Iron deficiency is prevalent among pregnant women, and supplementation has been shown to improve maternal and infant health outcomes.

3. Calcium Intake: Adequate calcium intake during pregnancy is essential for fetal bone development and maternal bone health.

Child's Nutrition

1. Breastfeeding: Exclusive breastfeeding for the first six months of life provides optimal nutrition and health benefits for infants.

2. Complementary Feeding: Timely introduction of complementary foods at six months of age supports continued growth and development.

3. Micronutrient Deficiencies: Micronutrient deficiencies, such as vitamin A and iron deficiencies, are prevalent among children in developing countries and can have long-term consequences for health and development.

Women's Nutrition

1. Menstrual Health: Nutrition plays a crucial role in menstrual health, with deficiencies in iron and other micronutrients contributing to menstrual disorders.

2. Pregnancy and Lactation: Adequate nutrition during pregnancy and lactation is essential for maternal and infant health, with deficiencies in key nutrients increasing the risk of adverse outcomes (15, 16).

3. Aging and Nutrition: Nutrition plays a critical role in healthy aging, with adequate intake of key nutrients supporting physical function and reducing the risk of chronic disease

Child Development

1. Cognitive Development: Nutrition plays a critical role in cognitive development, with deficiencies in key nutrients contributing to impaired cognitive function (19, 20).

2. Physical Growth: Adequate nutrition is essential for physical growth and development, with deficiencies in key nutrients contributing to growth faltering and other adverse outcomes.

3. Emotional Developments: Nutrition also plays a role in emotional development, with deficiencies in key nutrients contributing to impaired emotional regulation and other adverse outcomes.

Sub analysis:

Maternal Nutrition and Pregnancy Outcomes

1. Folic Acid and Neural Tube Defects: Folic acid supplementation during pregnancy reduces the risk of neural tube defects.

2. Iron and Anemia: Iron supplementation during pregnancy reduces the risk of anemia and improves maternal and infant health outcomes.

3. Calcium and Preeclampsia: Adequate calcium intake during pregnancy reduces the risk of preeclampsia and other adverse outcomes. Child Nutrition and Development

1. Breastfeeding and Cognitive Development: Exclusive breastfeeding for the first six months of life supports cognitive development and reduces the risk of cognitive impairment.

2. Complementary Feeding and Growth: Timely introduction of complementary foods at six months of age supports continued growth and development.

3. Micronutrient Deficiencies and Child Development: Micronutrient deficiencies, such as vitamin A and iron deficiencies, can have long-

termconsequences for child development and health.

Women's Nutrition and Health

1. Menstrual Health and Nutrition: Nutrition plays a crucial role in menstrual health, with deficiencies in iron and other micronutrients contributing to menstrual disorders.

2. Pregnancy and Lactation Nutrition: Adequate nutrition during pregnancy and lactation is essential for maternal and infant health, with deficiencies in key nutrients increasing the risk of adverse outcomes.

3. Aging and Nutrition: Nutrition plays a critical role in healthy aging, with adequate intake of key nutrients supporting physical function and reducing the risk of chronic disease.

CONCLUSION

Balanced nutrition is fundamental to maintaining optimal health and wellbeing. By understanding the significance of essential nutrients and adopting tailored dietary patterns, individuals can mitigate the risk of nutrition-related disorders. Healthcare professionals, policymakers, and communities must prioritize nutrition education, promoting accessible, affordable, and sustainable healthy food options. Future research should focus on personalized nutrition, nutrition informatics, and addressing health disparities.

REFERENCES

Smith et al. (2020). Folic acid supplementation during pregnancy. Journal of Nutrition, 150(10), 2711-2718.

Johnson et al. (2019). Iron deficiency and anemia during pregnancy. American Journal of Clinical Nutrition, 109(3), 531-538.

Davis et al. (2018). Nutrition and healthy aging. Journal of Gerontology, 73(9), 1221-1228.

Concluth Organization. (2020). Nutrition.

National Institutes of Health. (2020). Dietary Guidelines for Americans.

Academy of Nutrition and Dietetics. (2020). EatRight*: Healthy Eating.

Willett, W. C., & Ludwig, D. S. (2020). Science reviews of the Dietary Guidelines. BMJ, 370, m2632.

Johnson, R. K., et al. (2019). Added sugars and health*. Nutrition Reviews, 77(8), 530-543.

Astrup, A., et al. (2020). Effects of protein intake on body weight regulation*. Nutrients, 12(11), 2862.

Slawson, D. C., & Fitzgerald, N. (2019). Position of the Academy of Nutrition and Dietetics*: Total diet approach to healthy eating. Journal of the Academy of Nutrition anReferences:

World Health Organization. (2018). Maternal nutrition.

American College of Obstetricians and Gynecologists. (2020). Nutrition during pregnancy.

Johnson, R. K., et al. (2019). Women's reproductive health and nutrition.

Gynecologic and Obstetric Investigation, 84(3), 247-255.

Harris, S. E., et al. (2020). Nutrition and menstrual health.

Journal of Women's Health, 29(10), 1420-1428.

Kramer, M. S., et al. (2018). Pregnancy and lactation nutrition.

Journal of the Academy of Nutrition and Dietetics, 118(3), 536-545.

World Health Organization. (2018). Infant and young child nutrition.

American Academy of Pediatrics. (2020). Breastfeeding and the use of human milk.

Johnson, R. K., et al. (2019). Childhood obesity and nutrition.

Pediatrics, 143(3), e20190383.

Lozoff, B., et al. (2018). Nutrition and cognitive development.

Journal of Pediatric Gastroenterology and Nutrition, 66(3), 432-438.

World Health Organization. (2018). School-age children and nutrition.

American Academy of Pediatrics. (2020). Nutrition for school-age children.

World Health Organization. (2018). Micronutrient supplementation.

American Journal of Clinical Nutrition, 108(3), 531-538.

Lai, J. S., et al. (2020). Nutrition and mental health.

Journal of Affective Disorders, 260, 346-354.

Calder, P. C., et al. (2018). Nutrition and immune function.

Journal of Nutrition and Immunology, 17(2), 147-155.

Scarborough, P., et al. (2019). Nutrition and environmental sustainability.

Lancet Planetary Heances:

World Health Organization. (2018). Maternal

nutrition.

American College of Obstetricians and Gynecologists. (2020). Nutrition during pregnancy.

Johnson, R. K., et al. (2019). Women's reproductive health and nutrition.

Gynecologic and Obstetric Investigation, 84(3), 247-255.

Harris, S. E., et al. (2020). Nutrition and menstrual health.

Journal of Women's Health, 29(10), 1420-1428.

Kramer, M. S., et al. (2018). Pregnancy and lactation nutrition.