
Food Security: A Key Component in Promoting Public Health and Nutrition

Khansa Nur Fathiya

Disaster Management, Faculty of National Security, The Republic of Indonesia Defense University

Corresponding Author

Email : khnsnf@gmail.com

Abstract

Food insecurity is a significant issue in public health, with individuals and households experiencing insufficient access to food necessary for maintaining a healthy lifestyle. The objective of this article is to explore the role of food security as a critical element in promoting public health and nutrition. This article was written using a qualitative method through a literature review study. Adequate nutrient intake is essential for good health and optimal performance in all areas of life. Inadequate access to nutritious food can weaken the immune system, making individuals more susceptible to infections and diseases. Food insecurity and poor health can create a cycle of poverty and contribute to health disparities within communities. Additionally, food security and mental health are closely related, and a lack of access to affordable and nutritious food can lead to poorer mental health outcomes such as stress, anxiety, and depression. Addressing food insecurity prevents public health crises and contributes to health disparities. Food security is essential for promoting public health and preventing malnutrition. It ensures adequate nutrient intake, enhancing performance and productivity. Addressing food insecurity is crucial for improving overall well-being and promoting a healthier future for individuals and communities.

Keywords: Food Security, Public Health, Nutrition

INTRODUCTION

Food insecurity is a significant issue in public health, affecting individuals and households who lack adequate access to the food necessary for maintaining a healthy lifestyle (Lu et al., 2019). The World Health Organization (WHO) recognizes food security as a critical concern and actively works towards addressing the challenges of hunger, food insecurity, and malnutrition (WHO, 2022). The COVID-19 pandemic has further exposed the vulnerabilities in our food systems and the existing inequalities in societies, leading to an alarming increase in global hunger and severe food insecurity (WHO, 2022). Ensuring food security is intricately tied to nutrition and food safety. It is estimated that approximately 600 million people, nearly 1 in 10 individuals, fall ill each year due to consuming contaminated food, resulting in 420,000 deaths annually (WHO, 2022). To combat these issues, the WHO has developed the "Global Strategy for Food Safety 2022-2030" aiming to improve the safety and quality of food worldwide. This strategy emphasizes the interconnections between food safety, foodborne diseases, and malnutrition, with a particular focus on vulnerable populations (WHO, n.d.). Additionally, the WHO collaborates with other organizations such as the Food and Agriculture Organization (FAO), the International Fund for Agricultural Development (IFAD), the United Nations Children's Fund (UNICEF), and the World Food Programme (WFP) to produce annual reports on the state of food security and nutrition globally (FAO, 2023). These reports provide comprehensive analysis, progress evaluations, and highlight key challenges in accomplishing food security and nutrition goals within the framework of the 2030 Sustainable Development Agenda (FAO, 2023).

Food security is a crucial cornerstone in ensuring the well-being and health of individuals and communities. It encompasses more than just the availability of food, it also considers its accessibility and affordability for everyone. The relationship between food security and public health is intricate and profound, with notable impacts on nutrition and overall health outcomes. Food security plays a vital role in promoting and sustaining good health for both individuals and communities. In essence, food security exists when all individuals have the means to access enough safe and nutritious food

that meets their dietary needs and preferences for an active and healthy life (FAO, n.d.). With these interconnections in mind, the objective of this journal article is to explore the role of food security as a critical element in promoting public health and nutrition. It will delve into the implications of food security with regards to nutrient intake and health outcomes, disease prevention, the cycle of poverty and health disparities, and mental health. By comprehending and addressing the multifaceted dimensions of food security, we can strive towards a healthier future for individuals and communities alike.

RESEARCH METHODS

This article was written using a qualitative method through a literature review study. A literature review is a research method that involves collecting, analyzing, and interpreting existing literature in a specific field or topic. This process involves reviewing various sources of information, such as journal articles, reports, and online publications, to gain a deep understanding of the knowledge development and thematic context of the research topic or issue. Literature review enables researchers to understand ongoing discussions and arguments in the relevant research field, as well as analyze the methods and findings of previous studies.

RESULTS AND DISCUSSION

In recent years, the importance of food security in promoting public health and nutrition has gained increasing recognition. Access to safe, nutritious, and ample food is vital for maintaining good health, preventing malnutrition, and reducing the risk of related diseases. Proper intake of nutrients is especially critical for the physical and cognitive development of children. Conversely, a lack of food security can lead to adverse physical health outcomes, weakened immune systems, and increased vulnerability to diseases. The topics of food security and public health are intricately intertwined. Food security refers to the presence of available, accessible, and affordable nutritious food for all individuals (Beyene, 2021). Meanwhile, public health focuses on promoting and safeguarding the overall health and well-being of the population.

Food security ensures that individuals have access to a diverse range of nutrient-rich foods that offer essential vitamins, minerals, and other necessary nutrients to support optimal health. Inadequate intake of nutrients, resulting from a lack of food security, can lead to various health issues such as anemia, stunted growth, and cognitive impairments. Insufficient access to nutritious food can result in malnutrition and negatively impact health outcomes, including stunting, underweight, and deficiencies in micronutrients (BMC Medicine, 2023). These nutritional deficiencies can hinder physical and cognitive development, weaken the immune system, increase the risk of chronic diseases, and reduce overall productivity and well-being (Beyene, 2021). Adequate nutrient intake is crucial for maintaining good health and optimizing performance in various aspects of life, including work and education. When individuals have access to sufficient and nutritious food, they are more likely to be productive and able to reach their full potential.

Insufficient access to nutritious food can weaken the immune system, increasing individuals' vulnerability to infections and diseases (BMC Medicine, 2023). Malnourished individuals are more prone to experience severe health complications and have a reduced capacity to recover from illnesses (Beyene, 2021). Maintaining food security is crucial for preventing public health crises associated with foodborne illnesses and malnutrition (CDC, 2021). Ensuring food safety and addressing malnutrition are essential aspects of promoting population health. Consuming a healthy diet contributes to a lower risk of developing chronic diseases like heart disease, diabetes, and certain types of cancer. Conversely, food insecurity has been linked to an increased risk of chronic disease, as individuals may resort to cheaper, less nutritious food options that are high in added

sugars, sodium, and unhealthy fats. Although diet is not the sole determinant of cancer risk, certain dietary patterns have been associated with a reduced risk of specific types of cancer. A diet rich in fruits, vegetables, whole grains, and legumes, coupled with moderate consumption of lean proteins, supports overall health and helps reduce the risk of developing certain cancers (WCRF, n.d.). Importantly, a healthy diet should be supplemented by other lifestyle practices such as regular physical activity, maintaining a healthy weight, avoiding tobacco use, and limiting alcohol consumption to maximize the benefits of chronic disease prevention.

Food insecurity and poor health can also create a vicious cycle of poverty and contribute to health disparities within communities (Gross et al., 2021). Numerous studies have demonstrated a strong link between food insecurity, income, and adverse physical and mental health outcomes (Gross et al., 2021). In many households, prioritizing expenses like rent, medication, and other bills often results in reduced spending on food (Gross et al., 2021). When individuals and households struggle to meet their basic food needs, it can hinder their ability to pursue education, obtain employment, and break free from the cycle of poverty (Gross et al., 2021). This perpetuates the uneven distribution of resources and opportunities, further widening health disparities. The connection between food security and mental health is increasingly being acknowledged (Liebe et al., 2022). Research indicates that limited access to affordable and nutritious food can result in poorer mental health outcomes. Food insecurity can have adverse effects on mental health, leading to stress, anxiety, and depression (Beyene, 2021). The constant concern about access to food and the inability to provide adequate nutrition for oneself or family members can significantly impact an individual's mental well-being (Beyene, 2021). Food insecurity, which refers to insufficient or uncertain access to adequate food, has been linked to a higher risk of mood disorders, anxiety disorders, behavior disorders, and substance abuse disorders, especially among young people. The association between food insecurity and mood disorders seems to be most prominent among teenagers in households with low income levels and significant relative deprivation (Katie et al., 2012). This emphasizes the importance of addressing food insecurity as a crucial aspect of promoting mental health and well-being. Insufficient access to affordable and nutritious food can have detrimental effects on mental well-being, leading to stress, anxiety, and depression.

A systematic review and meta-analysis involving 19 studies and a total of 372,143 participants from ten different countries found a positive correlation between food insecurity and the risk of depression (Pourmotabbed et al., 2019). The findings indicate that experiencing food insecurity significantly increases the likelihood of experiencing stress or depression (Pourmotabbed et al., 2019). This underscores the importance of healthcare services that address food insecurity, as it can contribute to overall well-being in adults (Pourmotabbed et al., 2019). Inadequate nutrition resulting from food insecurity can lead to nutrient deficiencies that negatively impact brain function and mental well-being. Additionally, the stress and anxiety associated with the experience of food insecurity can contribute to poor mental health outcomes (Liebe et al., 2022). By addressing food insecurity and ensuring access to nutritious food, we have the potential to improve mental health outcomes in individuals and communities.

From the previous explanation, it is evident that food security is of utmost importance in advancing public health and nutrition. Having access to safe, nutritious, and adequate food is critical for preserving good health and warding off malnutrition and its associated ailments. The importance of food security in promoting public health and nutrition can be summarized by focusing on the following key points:

1. Ensuring food security means that individuals and communities have access to a diverse range of foods that provide the necessary nutrients for healthy development and functioning. This helps prevent malnutrition, including both undernutrition and overnutrition.
2. Insufficient food security can result in adverse physical health outcomes, including deficiencies in essential nutrients, compromised immune systems, and heightened vulnerability to diseases. By advocating for and ensuring food security, we can improve physical well-being and decrease the likelihood of illnesses associated with inadequate nutrition.

3. Adequate nutrition is crucial for proper cognitive development, especially in children. A lack of access to nutritious food can impede learning abilities, impair cognitive function, and hinder overall intellectual growth. Food security plays a significant role in ensuring optimal brain development and academic performance.
4. As previously mentioned, food security also impacts mental health. Limited availability of nutritious food can contribute to feelings of stress, anxiety, and depression. By tackling food insecurity, we can promote positive mental health outcomes and enhance overall well-being.
5. Food security is closely linked to socioeconomic factors. By improving access to affordable and nutritious food, we can reduce health disparities, promote social equity, and enhance economic productivity and development.

In conclusion, food security is a key component in promoting public health and nutrition. It is essential for preventing malnutrition, supporting physical and cognitive development, and fostering better mental health outcomes. Furthermore, food security is closely intertwined with socioeconomic factors. In many households, prioritizing expenses such as rent and medicine often leads to reduced spending on food. This perpetuates the cycle of poverty and contributes to health disparities within communities. Addressing food insecurity is crucial for reducing inequality, promoting social equity, and enhancing economic productivity and development. By addressing food insecurity, we can support positive mental health outcomes and improve overall well-being in individuals and communities.

CONCLUSION

Food security is a crucial element in fostering good health for both individuals and communities. Every person should have the right to obtain enough, safe, and nourishing food to lead an active and healthy lifestyle. Access to safe, nutritious, and ample food ensures good health, prevents malnutrition, and reduces disease risk. Malnutrition, resulting from insufficient access to nutritious food, negatively impacts physical and cognitive development, weakens the immune system, increases chronic disease risk, and reduces productivity. Adequate nutrient intake is vital for maintaining good health, enhancing performance in various aspects of life, and boosting productivity. Food insecurity can result in poor mental health outcomes, including stress, anxiety, and depression. Insufficient access to nutritious food weakens the immune system, making individuals more prone to infections and diseases. Malnourished individuals have reduced capacity to recover from illnesses. Maintaining food security prevents public health crises associated with foodborne illnesses and malnutrition. Food insecurity and poor health create a vicious cycle of poverty and contribute to health disparities. Addressing food insecurity has far-reaching benefits for health and well-being and is a critical component of public health and social justice efforts. Food security is essential for public health and nutrition, preventing malnutrition, supporting physical and cognitive development, fostering better mental health outcomes, and reducing health disparities. Addressing food insecurity is crucial for promoting overall well-being in individuals and communities. By addressing food security, public health outcomes can be improved, leading to healthier and more resilient communities.

REFERENCES

- Beyene, S.D. The impact of food insecurity on health outcomes: empirical evidence from sub-Saharan African countries. *BMC Public Health* 23, 338 (2023). DOI: <https://doi.org/10.1186/s12889-023-15244-3>
- BMC Medicine. Food insecurity: a neglected public health issue requiring multisectoral action. *BMC Med* 21, 130 (2023). DOI: <https://doi.org/10.1186/s12916-023-02845-3>
- Centers for Disease Control and Prevention. (2021). Food Safety. Access at <https://www.cdc.gov/foodsafety/index.html> on January 29th, 2024.
- Food and Agriculture Organization of the United Nations. (2023). The State of Food Security and Nutrition in the World 2023. Access at <https://www.fao.org/publications/home/fao-flagship-publications/the-state-of-food-security-and-nutrition-in-the-world/2022/en> on January 29th, 2024.
- Food and Agriculture Organization of the United Nations. (n.d.). An Introduction to the Basic Concepts of Food Security. Access at <https://www.fao.org/3/a1936e/a1936e00.pdf> on January 29th, 2024.
- Gross, R., Edmunds, M., and Schwartz, P. (2021). Food Security: A Community Driver of Health. American Public Health Association, AcademyHealth, and Kaiser Permanente. Access at https://www.apha.org/-/media/Files/PDF/pubs/Food_Security_Health_Community_Driver.ashx on January 29th, 2024.
- Katie A. McLaughlin, Jennifer Greif Green, Margarita Alegría, E. Jane Costello, Michael J. Gruber, Nancy A. Sampson, Ronald C. Kessler. (2012). Food Insecurity and Mental Disorders in a National Sample of U.S. Adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry*, Volume 51, Issue 12, 2012, Pages 1293-1303, ISSN 0890-8567. DOI: <https://doi.org/10.1016/j.jaac.2012.09.009>
- Liebe, R. A., Adams, L. M., Hedrick, V. E., Serrano, E. L., Porter, K. J., Cook, N. E., & Misyak, S. A. (2022). Understanding the Relationship between Food Security and Mental Health for Food-Insecure Mothers in Virginia. *Nutrients*, 14(7), 1491. DOI: [10.3390/nu14071491](https://doi.org/10.3390/nu14071491)
- Lu S., Perez L., Leslein A., Hatsu I. (2019). The Relationship between Food Insecurity and Symptoms of Attention-Deficit Hyperactivity Disorder in Children: A Summary of the Literature. *Nutrients*. 2019 Mar 19;11(3):659. DOI: [10.3390/nu11030659](https://doi.org/10.3390/nu11030659)
- Pourmotabbed, A., Moradi, S., Babaei, A., Ghavami, A., Mohammadi, H., Jalili, C., Symmonds, M.E., Miraghajani, M. (2020). Food insecurity and mental health: a systematic review and meta-analysis. *Public Health Nutrition*, 23(10), 1778–1790. DOI: <https://doi.org/10.1017/S136898001900435X>
- World Cancer Research Fund International. (n.d.). Diet, Activity and Cancer. Access at <https://www.wcrf.org/diet-activity-and-cancer/> on January 29th, 2024.
- World Health Organization. (2021). *World Food Safety Day 2021*. Access at <https://www.who.int/indonesia/news/campaign/world-food-safety-day-2021> on January 29th, 2024.
- World Health Organization. (2022). The State of Food Security and Nutrition in the World 2022. Access at <https://www.who.int/publications/m/item/the-state-of-food-security-and-nutrition-in-the-world-2022> on January 29th, 2024.
- World Health Organization. (n.d.). Draft Who Global Strategy for Food Safety 2022-2030. Access at https://cdn.who.int/media/docs/default-source/food-safety/public-consultation/draft-who-global-strategy-for-food-safety-13may2021.pdf?sfvrsn=ac480bb9_5 on January 29th, 2024.