

Food security, its historical development and its relationship to mental health*Dr. Snani Loubna***University 20 August 1955 -Skikda, (Algeria)**Laboratory of Psychological and Educational Applications,
University of Constantine 2*l.snani@univ-skikda.dz*Received 15/10/2024**Accepted 19/02/20252***• Abstract:**

Food considered as the basis of human life in order to live and to carry out his self, as he needs energy in order to carry out his social role. Therefore, food security does not only play a role in achieving acceptable physical health, but it is the basis of mental health and psychological balance. Also, an incomplete food may lead to a lot of psychological damage, including mental disorders resulting from a lack of some necessary substances that the brain needs in order to perform its vital functions. Through our article, we will clarify the concept of food security in addition to identifying the historical stages of the development of food security, also its relationship with mental health.

Keywords: security, food security, health, mental health, the world.

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• Introduction

Food security is a condition related to the access of individuals to food, as it relates to families around the world, when all family members at all times have access to sufficient food for a healthy and effective life so that food-secure individuals do not live in hunger in return.

As food, insecurity in terms of food adequacy and safety or limited and uncertain ability to acquire appropriate food quality in socially acceptable ways is a major issue-affecting humans directly and countries indirectly.

Therefore, it was necessary to take this issue seriously from several aspects, whether at the psychosocial and economic level, In light of the above, we can ask the following questions: what is the concept of food security? How does food security relate to mental health?

1. Food security:

1.1 The concept of food security:

The definitions of food security are related to the idea of the availability, accessibility and utilization of food everywhere and at all times through the access of members of society to a sufficient quantity of food in terms of quantity and quality, as well as in terms of hygiene so that humans can live a normal life.¹

The 1974 World Food Conference defined food security as follows: “the ability to provide at all times an adequate global food supply of basic commodities, to sustain the steady expansion of food consumption, and to compensate for fluctuations in production and prices.”²

It is also related to the ways of securing food for the population and obtaining it in sufficient quantity, in addition to the availability of health and safety conditions so that the individual can lead a healthy and active life, where the focus should be on 3 pillars:

- Abundance of food commodities.
- The presence of food commodities in the market on a permanent basis.
- The prices of goods should be affordable for citizens.³

Food security is also one of the important concepts that must be taken seriously, as the need for food is considered one of the basic needs that have accompanied human life since his presence on

¹ - Mohammed Abdulhadi Mohammed Al-Bashir, Food Security: Concepts, Measurement and Dimensions, Al-Haqiqah Magazine. Vol. 2, No. 6, 2007, p. 2

² -Boubakir Amal, Algeria between achieving sustainable food security or food sovereignty, an evaluation study for the period (1998-2018), Journal of Economy and Human Development, Vol. 14, No. No. 01, 2023, p. 298

³ - Mutai Abdelkader, “Food Security in the Arab World: Conditions and Solutions?”, Economic Studies, Vol. 02, No. 1, 2012, p. 8

the earth's surface, that is, since the beginning of humanity. As he relied on many agricultural activities, livestock breeding and hunting, and with the passage of time, many economic activities emerged that aimed to secure sustenance for the population.⁴

The ability of a country can be determined by its ability to fully or partially provide food commodities in addition to providing the needs in a continuous and organized manner. There is also relative food security, which indicates that basic needs do not have to be provided at the local level but can be obtained at the international level through other products enjoyed by the country concerned, by joining international food markets for commodity exchange, and this concept according to this level is an acceptable concept in practical terms.

The lack of food security is a persistent issue that haunts countries in varying degrees depending on the economic wheel of each country. For Algeria, it has suffered in the past years from almost total dependence on imports from the international market in order to provide some products, including basic materials such as: Cereals, milk, oils, sugar..... However, Algeria was able to emerge from this crisis due to the realization by actors and experts of the importance of relying on local production and its ability to provide the requirements of society and achieve self-sufficiency in quantity and quality, as well as exporting some products to other countries.

Table 1. Shows the food dependency on the outside world in terms of the proportion of basic foodstuffs on which food security depends, as follows:

Materials	percentage%
Cereals	80%
Sugar	100%
Oil	95%
Dry vegetables	70%
Milk	60%
Food imports	2.5 billion dollars, of which 0.6 billion dollars are agricultural inputs

Source : (Ben Tarzi, 2016, p197)

⁴ - Al Jazeera News, The concept of food security, accessed on 2024.01.09 at: 21:08, at: <https://www.aljazeera.net/encyclopedia/2022/7/18/>

It can be said that food security is the ability of society to provide food in the short and long term in the appropriate quantity and price so that it is commensurate with income and satisfies the need.

It can also be considered as a situation that provides everyone with access to social and economic opportunities that enable the population to provide safe, healthy and satisfying food, and the concept of food security is related to providing the necessary resources to secure these needs through products. In which the country has a comparative advantage over other countries also, its products can be competitive with foreign products. In addition, food security calls for preserving the environment and contributing to the realization of food security.⁵

It is defined as a situation when all people enjoy sufficient, appropriate, healthy and nutritious food that meets their dietary needs and preferences for an active and healthy life as well as sustainability and survival.⁶

The availability of supplies is related to the provision of appropriate quantities for consumption by working to achieve balance and stability by taking into account the possibility of low or high consumption at different stages of life and difficult seasons. As for access to supplies, it means that providing food does not mean obtaining it, as many people remain hungry, as they are poor and unable to produce or buy the food they need.⁷

According to the World Food and Agriculture Organization (FAO), sustainable food security requires respecting the following criteria:

- Sufficient and affordable food for all.
- Healthy, balanced and clean food.
- Food that satisfies human needs and meets physical and psychological demands.
- Food that complies with environmental conservation standards.
- Food that respects biodiversity and animal diversity so that it is complete and integrated.
- Conserves energy and consumes it regularly.⁸
- Produce less-waste and less greenhouse gases so that it contributes to the preservation of humans, livestock and forests.

⁵ - Boubaker Amal, op. cit.

⁶ - World Bank, Food Security, accessed on: 2024.01.18 at: 13:34, at:
<https://www.albankaldawli.org/ar/topic/agriculture/brief/food-security-update/what-is-food-security#:~:text=%D9%88%D9%81%>

⁷ - Ben Tarzi Khair El-Din, Food Security and its Conditions in Algeria, Al-Researcher Magazine, No. 16, 2016 p. 197

⁸ - Ibid.

- The contribution of all actors (governments, consumers, officials, ...) in preserving and raising awareness in all matters related to food security and wealth.

1.2 Key dimensions of food security:

-Physical availability of food: Food availability addresses the “supply side” of food security and is determined by the level of food production, stock levels, and net trade.

-Physical and economic access to food: This element is related to supply and demand, where an adequate supply of foodstuffs at the national or international level cannot achieve food security for the population.

As there are concerns about inadequate access to foodstuffs, which has prompted a focus on policies related to economic acceleration and income in order to achieve food security goals.

-Utilization of nutrients: It is related to the extent to which a person benefits from the various nutrients contained in foodstuffs, as providing food alone is insufficient. This food must achieve physical health through its availability of the basic elements of proteins, vitamins and useful and necessary minerals that achieve balance at the level of the body and soul, through providing good care, diversity of the diet, distribution of food within the family. In addition to benefiting from achieving good biology from the foodstuffs eaten by the individual.

-Achieving stability and continuity in access to food: As humans are still perceived as suffering from food insecurity due to the inability to obtain foodstuffs continuously and stably.

As it may lead to a deterioration of their health condition, and this can be attributed to several reasons such as drought, or political instability that leads to the deterioration of the economy, and the latter leads to unemployment in addition to the rising food prices, which affects the ability of the state to achieve the state of food security.⁹

-Sufficiency and abundance: Sufficiency can be reached by providing food supplies at the macro level in the country so that all members of the same society have access to the right amount of food that is appropriate and satisfying and that can maintain their health and psychological balance.¹⁰

There is more than enough food in this world to feed the planet's 7.8 billion people. But more than 820 million people are starving today. Some 144 million children under the age of five are stunted, more than one in five children globally.

Our food systems are broken, and the COVID-19 pandemic has made things worse. It is no longer a secret that unless immediate action is taken, the world could face an imminent food emergency

⁹ - World Bank, Food Security, accessed on: 2024.01.18 at: 14:55, at:
<https://www.albankaldawli.org/ar/topic/agriculture/brief/food-security-update/what-is-food-security#:~:text=%D9%88%D9%81%>

¹⁰ - Boubaker Amal, op. cit.

and that such a situation could have long-lasting effects on hundreds of millions of children and adults.

Some 49 million more people could fall into extreme poverty this year due to COVID-19.

The number of people who are severely food or nutritionally insecure will increase rapidly.

For every one percentage point drop in global GDP, the number of stunted children increases by 0.7 million. Even in countries with plenty of food, there are risks of disrupting the food supply chain. We need to act now to avoid the worst effects of our efforts to control the pandemic.

Today.¹¹



Image 01. A child eats a meal at a food distribution center in a camp for internally displaced persons near Tawila, North Darfur¹²

¹¹ -United Nations System, Food Security, accessed on 10.5.2024 at 15:12, at <https://www.un.org/ar/coronavirus/articles/food-security>

¹² -Ibid

1.3 Historical development of food security:

Food security has undergone several transformations throughout the historical stages, as providing food was one of the most important things for man since his presence on the earth and storing part of it to maintain stability, especially with climatic changes that may prevent him from obtaining some necessary materials.

By working to find appropriate solutions, especially in seasons that lack some products, and over time it became clear that there are mechanisms that enable him to store products by drying meat, vegetables, fruits and others by relying on vinegar and salt as well as sugar and oil. So that they become less vulnerable to spoilage in addition to grains that were sufficient to dry them for other seasons.¹³



Image 02. Illustrating the process of harvesting with cows¹⁴

¹³ - Akroud Soufiane, Food Security: The Problem of Defining the Concept and Dimensions, Maalem Journal of Media and Communication Studies, Vol. 04, No. 02, 2022, p. 52

¹⁴ - Nour Elwan, Cooking in Ancient Civilizations What did ancient Egyptian cuisine look like?", visited on 24, 02, 2024, at: 16:10, <https://www.noonpost.com/22443/>



Image 03: Some of the foods eaten by ancient Egyptians¹⁵

The development of food security was also linked to the imbalance between the national production of foodstuffs for a country and the diverse requirements of the members of society in terms of primary and secondary materials, as some countries that suffer from economic gaps and lack of food relied on importing it, often according to demand.

In the 18th century, many writers dealt with the issue of food security according to the misery and hunger suffered by a large number of the population, especially in Europe. William Godwin, who is considered one of the philosophers who focused on social issues in terms of identifying the causes of the corrupt social systems prevailing at the time, concluded that nature is good and meets all needs, but man is corrupt and is the reason for not providing needs and ensuring stability in life.

On the contrary, Thomas Malthus argued that systems are not responsible for misery and injustice, but rather nature itself, due to the indiscriminate increase in population and resources, which led to an imbalance in the rate of increase and the emergence of social grievances.¹⁶

Several trends have also become clear since the World Food Crisis (1973-1974), which was characterized by a sharp rise in food prices and a significant decrease in global food stocks. Which led to many health and social consequences, led to many international, political and economic

¹⁵ -Nada Hassan, Feasting, Food and Fasting in Ancient Egypt, visited on 27.02.2024, at: 15:14, Location: <https://www.egypt2.com/8-35/>

¹⁶ -Ibid, p. 53

crises. As it use food, and oil the two most important strategic commodities in the global economy.¹⁷

These crises have linked the concept of food security to two economic activities:

A- Strategic food stocks: It is represented by stored consumables to cope with food crises or food shortages.

B- Food self-sufficiency: The country has enough food to meet its needs.

According to the World Health Organization, in recent years and with the emergence of the Corona pandemic, the assessment of global hunger in 2022, measured by the prevalence of food shortages, revealed that it remained significantly higher than pre-pandemic levels. In addition, the proportion of the world's population that was facing hunger in 2022 reached about 9.2 percent compared to 7.9 percent in 2019.

After a sharp increase in the prevalence of undernourishment in 2020 in the midst of the global pandemic and a slower rise in 2021 to 9.3 percent, the increase stalled between 2021 and 2022, giving some hope that a turnaround could occur and so-called global food security could be achieved.¹⁸

2. The role of food security in achieving mental health:

2.1 Paying attention to food security as a starting point for maintaining and promoting mental health:

Mental health is an integral part of overall health as it is linked to physical health, so providing food security and health services has become essential through by:

- Linking mental health to nutritional support for countries affected by drought and war, as well as health assessment.
- Advocate for the promotion of mental health in countries, including attention to the risks associated with food insecurity and the provision of protective factors.
- Engage in advocacy and promotion with the help of various sectors and other actors to build awareness of physical health and nutritional balance that will promote mental health and end famine around the world.

¹⁷ -Ibid, p. 54

¹⁸ -World Health Organization, International Food Security, accessed on: 2024.01.19, at: 16:04, at: <https://www.fao.org/3/cc3017ar/online/state-food-security-and-nutrition-2023/food-security-nutrition-indicators.html#:~:text=%E2%9E%94%20%D8>

- Orient health workers regarding psychological support and programs that promote mental health for caregivers, children and adolescents in the provision of health services, in addition to raising awareness of the importance of healthy and integrated nutrition and the need to provide it to affected countries. Because maintaining the continuation of humanity and protecting it from serious and infectious diseases begins with providing all members of communities around the world with healthy nutrition and hygiene.

- Include mental health care in public health care and other health services and work to expand its scope at the level of international social institutions.

2.2 Rely on mental health and nutrition support programs in food security programming:

Integrating mental health and nutrition support into food security programming can be done by:

- Providing nutrition services in ways that support mental health and well-being.
- Incorporating relevant key mental health and nutrition support messages into nutrition communication materials.
- Monitoring outputs and outcomes related to mental health, psychosocial and nutritional support.
- Pay attention to children and adolescents and the quality of their nutrition and its ability to provide good physical and mental health.
- Paying attention to the factors that cause psychological and physical diseases and linking them to nutrition and educating community members about everything related to balanced nutrition.
- Working on mental health programs by relying on the idea of a healthy mind in a healthy body by encouraging individuals to maintain good health through sports and relaxation in addition to healthy eating.

Conclusion

Achieving food security is a goal sought by most countries, especially in light of the current global economic transformations and the multiple challenges they pose, especially for developing countries. Therefore, it is imperative for these countries to strive to reduce dependence on foreign countries, especially with regard to achieving their food security by improving methods of food production, conservation and distribution. In addition to reforming agricultural land distribution systems in a way that ensures the best development and utilization of natural resources and working to secure the equitable distribution of global food resources in light of needs while working to give all people the right to freely dispose of their wealth.

Bibliography :

- Akroud Soufiane, *Food Security: The Problem of Defining the Concept and Dimensions*, Maalem Journal of Media and Communication Studies, Vol. 04, No. 02, 2022.
- Al Jazeera News, *The concept of food security*, accessed on 2024.01.09 at: 21:08, at: <https://www.aljazeera.net/encyclopedia/2022/7/18/>
- Ben Tarzi Khair Eldinne, *Food Security and its Conditions in Algeria*, Al-Researcher Magazine, No. 16, 2016.
- Boubakir Amal, *Algeria between achieving sustainable food security or food sovereignty, an evaluation study for the period (1998-2018)*, Journal of Economy and Human Development, Vol. 14, No. 01, 2023.
- Mohammed Abdulhadi Mohammed elBashir, *Food Security: Concepts, Measurement and Dimensions*, Al-Haqiqah Magazine. Vol. 2, No. 6, 2007.
- Mutai Abdelkader, *Food Security in the Arab World: Conditions and Solutions?*, Economic Studies, Vol. 02, No. 1, 2012.
- Nada Hassan, Feasting, *Food and Fasting in Ancient Egypt*, visited on 27.02.2024, at: 15:14, Location: <https://www.egypt2.com/8-35/>
- United Nations System, *Food Security*, accessed on 10.5.2024 at 15:12, at <https://www.un.org/ar/coronavirus/articles/food-security>
- World Bank, *Food Security*, accessed on: 2024.01.18 at: 13:34, at: <https://www.albankaldawli.org/ar/topic/agriculture/brief/food-security-update/what-is-food-security>
- World Health Organization, *International Food Security*, accessed on: 2024.01.19, at: 16:04, at: <https://www.fao.org/3/cc3017ar/online/state-food-security-and-nutrition-2023/food-security-nutrition-indicators>.