

The Impact of War on Gaza on Children's Malnutrition Since 2023

Samah Adnan Ashour¹, Mohammed Migdad², Mohamed Buheji^{3,4,*}

¹Gaza European Hospital, Paediatric Emergency Nurse

²Professor of Economics, Islamic University of Gaza

³Founder, International Institute of Inspiration Economy, Bahrain

⁴Socioeconomic Institute for Advanced Studies (SIAS), Rwanda

Abstract This paper examines the devastating impact of the War on Gaza 2023/2024 on children's malnutrition, contributing to rising mortality rates among children under five. The study highlights reflects on the malnutrition categories and how the war intensified these deficiencies since October 2023, due to exacerbated food insecurity situation. A comprehensive analysis reveals a severe increase in malnutrition rates with a specific focus of Gaza's children under five who suffer from acute malnutrition and chronic malnutrition rates (stunting) exceeding 30%. The methodology employed both quantitative and qualitative research approaches, including field observations and interviews with affected families and healthcare officials, illustrating the grim realities of food scarcity and inadequate healthcare infrastructure. Direct testimonies from parents indicate the profound anxiety and helplessness in securing sufficient nutrition for their children amidst ongoing violence and displacement. The findings reinforce the critical role of improving access to adequate, nutritious food and healthcare as essential measures to mitigate the risks posed by the ongoing conflict and blockade. The researchers call here for the necessity for immediate action to avert a humanitarian catastrophe that threatens the lives and futures of countless children in Gaza and Palestine.

Keywords War on Gaza, Children's Malnutrition, Food Insecurity, Acute Malnutrition, Chronic Malnutrition, Stunting, Humanitarian Crisis, Nutrition Access, War Impact, Public Health

1. Introduction

The escalation of violence in October 2023 exacerbated the malnutrition crisis, with reports indicating a sharp increase in acute malnutrition cases, particularly among children. Hospitals and clinics reported a surge in admissions for malnutrition-related complications, including severe wasting and dehydration.

This paper assesses the impact of the War on Gaza, which started in October 2023, on child malnutrition. It documents cases of malnutrition observed in field hospitals and public hospitals. The authors analyse the factors contributing to the increase in child malnutrition in the context of war and provide recommendations to mitigate the effects of malnutrition among children in conflict environments.

2. Literature Review

2.1. Wars and Malnutrition

Malnutrition contributes to increased child mortality rates in Gaza. According to the Palestinian Ministry of Health, malnutrition-related deaths among children under five have risen significantly since 2020, with the 2023 conflict further worsening the situation.

According to the Food and Agriculture Organization (FAO, 2024a), food security is achieved when "all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life." (FAO, 2024b). (Amnesty International, 2024) mentions that a prolonged armed confrontation between government armed forces and one or more armed groups, or between such groups, occurs within the territory of a state. The armed confrontation must reach a minimum level of intensity, and the parties involved must demonstrate a minimum level of organisation.

Armed conflicts are among the most significant threats that directly and indirectly affect the health of populations, particularly children. While these conflicts cause immediate physical harm, their repercussions extend to overall nutritional and health conditions, exposing individuals to long-term health risks, Mekki (2024). In this context, the ongoing war on the Gaza Strip, which began on October 7, 2023, serves as a prominent example of the impact of armed

* Corresponding author:

buhejim@gmail.com (Mohamed Buheji)

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conflict on public health. This war has led to a noticeable increase in cases of child malnutrition, as children are the most vulnerable group due to their specific nutritional needs. Shorrab et al. (2024)

2.2. Definition of Malnutrition

Malnutrition refers to deficiencies, excesses, or imbalances in an individual's energy and/or nutrient intake. This term encompasses three broad groups of conditions:

1. *Undernutrition*, including wasting (low weight-for-height), stunting (low height-for-age), and underweight (low weight-for-age);
2. *Micronutrient-related malnutrition*, including micronutrient deficiencies (lack of essential vitamins and minerals) or excesses;
3. *Overweight*, obesity, and diet-related non-communicable diseases (such as heart disease, stroke, diabetes, and some cancers). WHO (2024b)

WHO (2024b) measures all types of malnutrition in all its forms, including undernutrition (wasting, stunting, underweight), inadequate vitamins or minerals, overweight, obesity, and resulting diet-related noncommunicable diseases. Globally in 2022, 149 million children under five years old were estimated to be stunted (too short for age), 45 million were estimated to be wasted (too thin for height), and 37 million were overweight or living with obesity. Nearly half of deaths among children under five years of age are linked to undernutrition. These mainly occur in low- and middle-income countries. The developmental, economic, social and medical impacts of the global burden of malnutrition are profound and lasting, for individuals and their families, for communities and countries. OCHA (2025)

2.3. Malnutrition in Gaza

WHO (2024a) a steep rise in malnutrition among children and pregnant and breastfeeding women in the Gaza Strip poses grave threats to their health, according to a comprehensive new analysis released by the Global Nutrition Cluster, Mekki (2024). As the War in the Gaza Strip extended, food and safe water became incredibly scarce, and diseases were rife, compromising women's and children's nutrition and immunity and resulting in a surge of acute malnutrition. WHO (2024a), Al-Muhannadi and Buheji (2024)

The Food and Agriculture Organization (FAO, 2024b) reported in 2023 that over 70% of Gaza's population faced food insecurity, with many families relying on humanitarian aid for basic sustenance. The blockade and import restrictions have severely limited access to fresh produce, meat, and dairy products, leading to imbalanced diets. Hassoun et al. (2024), OCHA (2024)

The undernutrition in Gaza can be seen in the wasting, stunting, underweight, and deficiencies in vitamins and minerals. WHO (2024a) mention that undernutrition makes children, in particular, much more vulnerable to disease and death. Low weight-for-height is the other name for wasting, and it can also be seen in Gaza as it indicates recent and

severe weight loss because of not having enough food to eat and/or have had an infectious disease, such as Diarrhea, which has caused them to lose weight. This spread of moderate or severe waste increased the risk of death in Gaza. Hassoun et al. (2025)

Similarly, in Gaza, low height-for-age is known as stunting as a result of chronic or recurrent undernutrition due to unstable and poor socioeconomic conditions, poor maternal health and nutrition, frequent illness, and/or inappropriate infant and young child feeding and care in their early days are clearly holding children back from reaching their physical and cognitive potential. Many children in Gaza could be seen to be underweight, which means that they may be stunted, wasted or both. Migdad et al. (2024)

Due to inadequacies in the intake of vitamins and minerals, referred to as micronutrients, many young children in Gaza might not be able to produce enzymes, hormones, and other substances that are essential for proper growth and development. The shortages of Iodine, vitamin A, and iron or their deficiency represent a major threat to the health and development of children and pregnant women. Buheji and Hasan (2024)

According to a 2022 report by the United Nations, approximately 10% of children under five in Gaza suffered from acute malnutrition (wasting), a condition characterised by low weight-for-height. In northern Gaza, where access to aid is most restricted, rates of acute malnutrition were even higher, with some areas reporting 15-20% of children under five affected. Further recent detailed work by Faris et al. (2024) supports the deterioration of such a situation further.

Chronic malnutrition, reflected in stunting (low height-for-age), affected over 30% of children under five in Gaza, according to a 2021 report by the World Health Organization (WHO). Stunting is a long-term consequence of inadequate nutrition and poor living conditions, impacting physical and cognitive development.

Even before the War of October 2023, iron deficiency anaemia was also widespread, affecting over 50% of children under five and 40% of pregnant women in Gaza, as reported by UNICEF in 2022. Vitamin A and D deficiency are also prevalent, further weakening children's immune systems and increasing their susceptibility to diseases.

UNICEF (2023) Warned that Gaza is on the brink of a "nutritional catastrophe," with thousands of children at risk of severe malnutrition and preventable deaths. World Food Programme (WFP) also highlighted that over 80% of Gaza's population relies on food aid, with many families unable to meet their basic nutritional needs. Hence, it is not a surprise that WHO report that 90% of children under five in Gaza suffer from at least one infectious disease, exacerbated by malnutrition and poor living conditions.

3. Methodology

The study adopted both quantitative and qualitative research approaches. The second author collected field data through various research tools, including interviews with

parents, direct observations in hospitals, and analysis of medical records of children admitted due to malnutrition. Observations were conducted in the Paediatric Emergency Department of the Gaza European Hospital and the Paediatric ward of the British Field Hospital. Interviews included cases of children aged 6 months to 14 years. Data on clinical symptoms, dietary patterns, and overall health status were collected to analyse the impact of war on Gaza's children's health, particularly regarding malnutrition.

4. Data Collection Methods

4.1. Semi-Structured Interviews

Semi-structured interviews were conducted with families of malnourished children to identify factors affecting their health. Topics included dietary changes, access to healthcare, and the impact of the war on food and water availability.

The interviews were extended to include Gaza's local health officials and hospital directors, providing information on the healthcare system's capacity to respond to the crisis, malnutrition rates compared to previous years, and shortages of resources such as medicines and nutritional supplements.

4.2. Direct Observation

Observations were conducted in the emergency and Paediatric wards of the Gaza European Hospital and the British Field Hospital. The observations focused on the following areas:

- Critical cases of acute malnutrition.
- Associated symptoms such as dehydration and Diarrhea.
- Responses to emergency treatments.
- Availability of medicines and nutritional supplements.

4.3. Review of Medical Records

Medical records of malnourished children were analysed to determine:

- The prevalence of acute malnutrition.
- Associated diseases such as Diarrhea and respiratory infections.
- Changes in malnutrition rates compared to pre-conflict levels.

4.4. Review of Reports and Previous Studies

Reports from international and local organisations, such as the World Health Organization (WHO), UNICEF, and the Palestinian Ministry of Health, were used to understand the impact of conflict on child nutrition and assess the healthcare system's readiness to respond to the crisis.

5. Sample of the Interview Results

5.1. Purpose and Scope of the Interviews

Through interviews with families with malnourished children, the impact of the conflict on children's nutritional

status can be clearly seen. In the face of the destruction of infrastructure and the loss of access to humanitarian aid, families explained that they are in a constant battle not only to survive, but also to provide the minimum food that ensures their children's health.

5.2. Case of 'Can't Promise to Bring Food'

For example, Umm Ahmed, the mother of a malnourished child, said: "The child was healthy before the war, but with the intensification of the bombing and the destruction of homes, we are starting to lose the ability to get enough food. Our neighbour's child died from malnutrition, and we don't know how to help our children in these circumstances. Sometimes we just have a little bread and water, I can't tell them 'I will bring you food' because I simply we don't have the means to do so."

5.3. Case of 'We Used to Give them Rich & Healthy Meals.. Not any more'

Zaki a father of a malnourished child explained: "I used to always prepare meals rich in protein and vegetables for him, but since the beginning of the war everything has changed. We live in constant fear, and when food comes, we share it with the neighbours' children, and no one feels safe here."

5.4. Case of 'Children living Unsafe Conditions'

Many parents quotes reflect the great anxiety felt by the families, not only because of the lack of food, but also because of the fear of the unknown future. With homes destroyed, it is difficult to provide a safe environment for children. One parent, a father of a malnourished girl said "We live in constant fear of the future, and there is very little food."

Abu Sami, who has been displaced with his family from one area to another, adds: "Every time we move to a new place, we face difficulty in finding food. All we have now is some food that does not meet our children's needs. The situation is very bad and our children are suffering from severe malnutrition."

5.5. Case 'Forcefully becoming Dependent on Aid'

Umm Ahmed, whose child Ahmed suffers from malnutrition, says: "My son Ahmed, who is three years old, started losing weight dramatically after the war. We cannot afford milk or fruits, their prices have become exorbitant, and we can barely afford even basic foods like bread and rice. Our food depends on the aid that reaches us, but it is not enough to provide healthy nutrition for children. I feel helpless when I see him crying from hunger, and I only have some bread or potatoes to feed him."

The same story repeated by Umm Mohammed, a mother who is struggling to secure food for her children due to the ongoing displacement, says: "After we were forced to leave our home, it became very difficult to get food. We used to rely on aid, but with the repeated displacement, we are facing difficulty in even getting food aid. My children are suffering

from hunger and weight loss, and I feel helpless because I cannot provide them with enough food."

5.6. Case of 'Living on Canned Food'

Abu Suad, whose daughter suffers from severe malnutrition, explains: "I have six children, the youngest of whom is Suad, who is four years old. Since the last war, it has become very difficult to secure food. All we can afford is the cheapest food, such as canned food or oils. Vegetables and meat have disappeared from our meals. I noticed that she gets tired quickly and loses her concentration, and when I took her to the doctor, he said that she suffers from severe malnutrition. How can we treat her when we can barely feed her?"

5.7. Case of 'Helpless in Dealing with Growth Retardation'

Umm Sarah, mother of a child with growth retardation which is a complication of being born small for gestational age (SGA), says, "My daughter Sarah is five years old but cannot walk normally like her peers. The doctor told us that her growth retardation was due to malnutrition. I cannot provide her with the healthy food she needs because of the high food prices. Even when we get food aid, it is full of carbohydrates but lacks essential elements such as protein and iron. I feel helpless every day as I see her growing slowly compared to other children," says Umm Sarah, whose daughter suffers from growth retardation due to malnutrition.

A nutritionist working in a field hospital adds: "The increasing number of malnutrition cases among children in Gaza is alarming. Following the war, there was a severe shortage of available food, including foods rich in essential nutrients. The biggest challenge is that we are facing a shortage of proteins and micronutrients, which are essential for children's growth. Children suffering from severe malnutrition often show signs of learning delays or difficulty concentrating at school, which affects their educational and social future."

The nutritionist adds: "Field hospitals witness complex disease cases due to malnutrition, and we deal with many children suffering from diarrhea and pneumonia due to weak immunity. This does not stop at intestinal diseases only, but also includes respiratory diseases such as pneumonia that affect children in these difficult circumstances. The poor nutritional status makes treatment more difficult, because the body does not have the ability to resist the disease naturally."

5.8. Case of 'Spread of Diarrhea and Pneumonia among Children in Gaza'

Umm Mustafa, the mother of a child suffering from severe diarrhea due to malnutrition, says: "My son Mustafa, who is not more than three years old, has severe diarrhea due to malnutrition. I cannot provide him with the food he needs to strengthen his immune system, and when we went to the hospital, the doctor said that malnutrition is the reason behind his weak immunity and increased susceptibility to diseases. The situation here is difficult, as there is no clean

water, which makes diarrhea more complicated. His weight has started to drop noticeably, and I can do nothing but give him the medications that the field hospitals give us."

In another case, Umm Adel, the mother of a child who was brought to the emergency ward, suffering from persistent pneumonia, says: "My son Adel has been suffering from persistent pneumonia for weeks. The doctor said that due to malnutrition, his immune system has become very weak, making him vulnerable to serious respiratory diseases. The situation in Gaza does not allow us to get the food he needs, as we can no longer afford milk and protein-rich foods. We live in constant fear that his condition will worsen."

The increase in infectious diseases in Gaza poses a serious health challenge, and clearly reflects the negative effects of the deteriorating nutritional situation on children's health. The weakened immune system resulting from malnutrition directly contributes to children's increased vulnerability to infectious diseases such as diarrhea and pneumonia. This situation complicates the treatment of patients, as the body does not have the ability to fight diseases due to the lack of essential nutrients. Difficult living conditions, such as the lack of clean water, also deepen the spread of these diseases, threatening children's lives significantly. Therefore, an urgent humanitarian response is needed at the local and international levels to address the deteriorating health situation and protect children from the devastating effects of these diseases.

5.9. Case of 'Increased child mortality in the Gaza Strip'

The worsening cases of acute malnutrition, especially among children suffering from severe underweight and anemia, have led to a significant increase in the mortality rate among children in hospitals in the Gaza Strip. In most cases admitted, children required immediate medical interventions such as intravenous feeding or therapeutic supplements to save their lives.

"The Gaza Strip is on the verge of an explosion in preventable child deaths, which will exacerbate the already unbearable level of child mortality in Gaza," said Ted Chaiban, UNICEF Deputy Executive Director for Humanitarian Affairs and Supply Operations. "We have been warning for weeks that the Gaza Strip is on the brink of a nutrition crisis. If the conflict does not end now, child nutrition will continue to decline, leading to preventable deaths or health problems that will affect Gaza's children for the rest of their lives and have potential intergenerational consequences." (WHO, 2024)

Umm Nasser, the mother of a child who died of malnutrition, describes her suffering: "I lost my son Mahmoud because he did not receive the necessary treatment in time. The hospital did not have enough equipment or medicine, and we could not provide him with food because of the blockade. He was very weak, and his body could not cope."

Abu Khaled, the father of a girl suffering from anemia, says: "My daughter is in critical condition. The doctor told us that she needed urgent therapeutic nutrition, but the lack of supplies meant they were unable to help her. Every day we fear that we will lose her because of this catastrophic situation."

Dr. Laila, a nutrition officer at a field hospital, explains the situation in Gaza: “Children in Gaza suffer from severe malnutrition, which makes them vulnerable to death from simple diseases that could easily be treated if supplies were available. The situation is getting worse day by day.”

Dr. Ahmed, a doctor at the European Gaza Hospital: “Hospitals are operating at a minimum due to lack of equipment and resources. Many children arrive at our facility in very advanced stages of malnutrition, and many cases we are unable to save due to lack of support.”

The testimonies in this section point to the severe deterioration in the health status of children in the Gaza Strip as a result of ongoing malnutrition, which has contributed significantly to the increase in child mortality rates. Although malnutrition in children can be treated in more stable conditions, the continuing blockade and the lack of medical and food supplies are increasing their suffering and delaying necessary therapeutic interventions, contributing to the high mortality rates.

5.10. Case of ‘Acute malnutrition (Underweight)’

Several types of malnutrition have been observed among children in Gaza during the war; one of them is the repeated cases of Acute malnutrition (underweight); many children in hospitals are severely underweight due to chronic lack of proper nutrition, which is reflected in their delayed physical and mental development. According to the Gaza Nutrition Vulnerability Analysis Report (2024), “The situation is particularly serious in the north of the Gaza Strip, which has been almost completely cut off from aid for weeks. Nutrition screenings conducted in shelters and health centres in the north found that 15.6 per cent – or 1 in 6 children under the age of two – are acutely malnourished. Of these, nearly 3 per cent are suffering from severe wasting, the most life-threatening form of malnutrition, putting young children at risk of medical complications and death unless they receive urgent treatment. Given that the data was collected in January, the situation is likely to be even more serious today.” (WHO, 2024)

Testimonies from parents and doctors confirm the severity of the crisis, with children suffering from severe weakness due to a lack of essential nutrients. For example, Umm Yassin says of her severely emaciated child: “My son cannot move because of his weakness. The doctor told us that his condition is critical and he needs urgent treatment, but there are no medicines or appropriate food in the hospital.” Abu Rami, the father of a child suffering from severe malnutrition, noted that “the interruption of aid has made us live in extreme poverty, and we cannot secure his basic needs.”

According to Dr. Laila, (Head of the Nutrition Department): “The numbers we see in the field are terrifying. Acute malnutrition and severe emaciation have become common among children, especially in besieged areas such as the northern Gaza Strip.” She also confirmed that children are dying from a simple lack of essential nutrients, which could be prevented if aid arrived immediately. ”

5.11. Cases of ‘Malnutrition Due to Micronutrient Deficiencies’

Many cases of micronutrient deficiencies have been recorded among children in Gaza, most notably iron deficiency anemia, besides vitamin A and vitamin D deficiencies. These nutritional problems are common in situations of siege and conflict, where nutritional deficiencies lead to weak immunity, making children more susceptible to infectious diseases. According to the warnings of Hussam Abu Safia, Director of the Health Sector, micronutrient deficiencies not only affect the immediate health of children but also have long-term effects. He said: “Most of the cases that come in have advanced and late symptoms, so this matter needs to be taken seriously, and all the required medicines, foods and therapeutic milk for these cases must be brought in. All foods must be allowed in. It is no secret to you that northern Gaza has flour and some canned foods, but there are no vegetables, fruits, oils or meat, and of course, all of this has a future impact on children’s bodies. This problem will continue unless the food problem is resolved (UN, 2024)”.

Mothers tell painful stories about their children’s suffering due to the lack of adequate quality food. For example, Maysoun Aqel, mother of sick child Malak, says: “My daughter started showing symptoms after she was a month old, and when she was about 40 days old, she was admitted to the hospital with severe diarrhea. Every time she breastfed, she would vomit up anything right away. Although the doctors did not diagnose her condition, they told me that she might have a milk allergy, and they told me that she should have special milk, which is not available in Gaza. So they gave me a protein-free milk” (UN, 2024).

The destruction of health and food infrastructure greatly hinders the ability of the health system to provide sufficient and healthy food for children. In addition, the closure of community kitchens and food warehouses makes it even more difficult to provide proper nutrition for children. Doctors also face significant challenges in treating cases due to the shortage of medicines and medical supplies, as well as the disruption of supply chains due to the blockade and movement restrictions. These conditions make traditional treatments for malnutrition even more complicated, especially with the absence of specialised therapeutic foods such as medical milk and special meals for children suffering from severe malnutrition.

6. Review of Causes of Malnutrition During War on Gaza 2023/2024

6.1. Destruction of Vital Sources of Life

The ongoing armed conflict in Gaza has contributed to the deterioration of children's nutritional status in multiple ways. The war has destroyed vital facilities in Gaza, such as markets, shops, water treatment plants, and electricity networks. This destruction has directly affected families' ability to access regular and safe food, leading to a noticeable shortage of

essential food items like vegetables, fruits, and meat, negatively impacting children's health.

The atrocities of the Israeli Defence Forces (IDF) have also focused on the total destruction of the little agricultural land used for local food production, increasing dependence on imports that are difficult to bring in due to the ongoing blockade.

The indiscriminate destruction of infrastructure in the Gaza Strip as a result of the armed conflict has exacerbated the nutritional status of children, making access to sustainable food sources extremely difficult. The ongoing bombing has destroyed many vital facilities such as markets, water stations, electricity networks, and health facilities, hindering families' ability to store food properly and safely. This destruction has directly affected the availability of basic foodstuffs, such as vegetables, meat, and fruits, contributing to increased rates of malnutrition among children.

6.2. None Availability of Food and Medicine

"The situation is more difficult than ever," says Dr. Yousef, a Paediatrician at the Gaza European Hospital. "We are facing unprecedented cases of severe malnutrition. Children arriving at the hospital in advanced cases of malnutrition need urgent treatment, but due to the lack of aid, we do not find all the necessary medicines in our stores. We are working with what we have, but the situation cannot continue like this."

Through field research and interviews with families and officials in the Gaza Strip, it appears that armed conflict has significantly contributed to the exacerbation of malnutrition among children. The destruction of health and agricultural infrastructure, in addition to restrictions on food supply chains, has made it difficult for families to meet their basic food needs. The lack of medical and relief resources further complicates efforts to address malnutrition, requiring an urgent and effective response from humanitarian organisations and stakeholders to alleviate the suffering of children in Gaza.

6.3. Devastating Impact on Mental and Emotional Wellness

The effects of malnutrition on children in Gaza go beyond the direct physical effects to include deeper dimensions that affect their mental, emotional and social development. By analysing these medical and humanitarian testimonies provided by doctors and nutritionists in Gaza, it becomes clear that the nutritional status of children has been dramatically affected by the ongoing conflict and economic blockade, which has exacerbated nutritional problems and poor health. This is supported by OCHA (2024) report.

6.4. Destruction for Sources of Sustainable Food Sources

The random destruction of infrastructure has made it extremely difficult to access sustainable food sources. The continuous bombardment has destroyed markets, water stations, electricity networks, and health facilities, hindering families' ability to store food safely. While the ongoing economic blockade has exacerbated the malnutrition crisis

by limiting access to diverse food sources, forcing reliance on calorie-rich but nutrient-poor foods.

The continuous conflict has contributed to the destruction of agricultural land that was used to produce food locally. This destruction has increased reliance on imports that are difficult to bring in due to the ongoing blockade. One farmer explained his suffering, saying: "I used to have a small plot of land where I used to grow vegetables for my family, but the war completely destroyed it. Now we buy everything from the market, and prices are very high. My children eat less than they need, and we see signs of weakness in them. Everything is linked to this war that has left us with nothing to live on."

The destruction of agricultural land, along with damage to irrigation systems, farms, and markets, limits Gaza's ability to produce and consume food locally. This reinforces the impact of armed conflict on children's food security in the region.

6.5. Inadequacy of Drinking Water

Inadequate safe drinking water, as well as insufficient water for cooking and hygiene purposes, are compounding poor nutrition. On average, households surveyed had access to less than one litre of safe water per person per day. According to humanitarian standards, the minimum amount of safe water needed in an emergency is 3 litres per person per day, while the overall standard is 15 litres per person, which includes sufficient quantities for drinking, washing and cooking. UNICEF (2024)

6.6. Consistent Displacement

The IDF intentionally created fear, and orders for frequent displacement and forced evacuations have worsened the malnutrition crisis as families struggle to provide adequate nutrition for their children in unstable conditions. While this going on, the blockade has severely restricted the entry of food aid, further worsening the humanitarian situation.

This consistent displacement made more of Gaza's children are falling sick due to being Hungry, thirsty and weak. UNICEF (2024) finds at least 90 per cent of children under 5 are affected by one or more infectious diseases. Seventy per cent had Diarrhea in the past two weeks, a 23-fold increase compared with the 2022 baseline. UNICEF mentioned that children who are sick, especially those with Diarrhea, cannot absorb nutrients well, which threatens their lives.

Observations collected during displacements show that repeated displacement and instability lead to a deterioration in children's nutritional status. Constant movement between locations makes it impossible for families to provide their children with healthy food on a consistent basis. In addition, disruptions to humanitarian assistance and restrictions on access to food aid lead to increased rates of malnutrition, threatening children's long-term health. This requires an urgent humanitarian response to ensure that children affected by conflict and ongoing displacement are provided with the necessary food and care.

6.7. Role of Economic Blockage

Through my observations in field hospitals and during interviews with families, it is clear that the economic blockade is one of the main factors exacerbating malnutrition among children in the Gaza Strip. The continuous rise in the prices of basic foodstuffs makes many families unable to provide sufficient and nutritious food for their children, which increases the rates of acute malnutrition. Families' reliance on limited food aid is not enough to meet children's essential nutritional needs, which exposes them to long-term health problems. This situation requires urgent intervention at the local and international levels to provide the necessary food supplies and ensure that the population has sustainable and safe access to food.

6.8. Absence of Public Health Facilities

In addition, the destruction of sewage networks and health facilities has contributed to the spread of intestinal diseases such as Diarrhea, which exacerbates the condition of malnourished children. In the absence of proper sanitation, destroyed areas become a fertile environment for the spread of diseases, further complicating children's health conditions and negatively affecting their ability to recover from severe malnutrition.

7. The Effects of Malnutrition on Children in Gaza – A Professional Nurse Observations

7.1. The Direct Field Observations

Malnutrition has profound effects on children's physical and mental development, including stunted growth, weakened immune systems, and increased susceptibility to infectious diseases like diarrhea and pneumonia. The lack of access to clean water and sanitation has further exacerbated these health challenges.

During her practice as a Professional Paediatric Emergency Nurse in Gaza's European Hospital, the second author observed three types of Malnutrition. The worst and most spreading is the acute malnutrition (wasting) where many children came to the Gaza hospitals suffering from severe weight loss due to chronic lack of proper nutrition, leading to stunted physical and mental growth.

The second type malnutrition observed was the micronutrient deficiencies. Cases of iron-deficiency anaemia, vitamin A deficiency, and vitamin D deficiency have been recorded. This clearly weakened the Gaza's children's immune systems.

The third type of malnutrition observed, though found in rare cases, certain children obesity due to unhealthy diets. Despite food shortages, some children suffered from obesity due to the consumption of calorie-dense but nutrient-poor foods that comes in the canned food received from the Aid agencies.

One of the most visible effects of malnutrition is delayed physical and mental growth. Children who suffer from a deficiency in essential nutrients such as iron, proteins and

vitamins are exposed to delayed physical growth, which is manifested in problems such as stunting (short stature compared to their peers) and severe weight loss. At the same time, mental effects such as difficulties with concentration, attention and learning become more evident over time, making it more difficult for children to achieve academically and socially in schools. This significant impact on children's physical and mental development is attributed to the limited access to healthy and diverse food, in addition to the destruction of Gaza's agricultural infrastructure as a result of the ongoing conflict. This has led to a significant shortage of basic food items and an unprecedented price rise. What makes the situation worse is that the majority of families in Gaza live in harsh economic conditions that prevent them from providing balanced meals for their children. These factors combined contribute to increasing rates of malnutrition among children, which leads to adverse effects on their health and mental and physical development.

Through these testimonies and studies, it is clear that the War on Gaza is deepening the collapse of food and health systems, leading to the spread of severe malnutrition. In Gaza, the situation is further complicated by the ongoing blockade and the interruption of humanitarian aid, leading to an increase in the number of children suffering from severe wasting, one of the most dangerous forms of malnutrition that threatens their lives. If urgent treatment is not provided through immediate food and medical supplies, future generations will face long-term damage to their growth and general health, further complicating the challenges facing the region in the future.

The observations indicate that the crisis in Gaza is not only a food crisis, but a humanitarian crisis that directly threatens the lives of children. Severe wasting and severe malnutrition in Gaza represent a health emergency that requires an urgent response to provide nutritional and therapeutic support. Immediate intervention in this context can save many lives and contribute to reducing the long-term effects on the health of children in the region.

7.2. The Collective Reflection on the Observations

The collective reflection on the observations is that the increased dependency on food aid affected the overall health of Gaza's children. Many children, due to imbalanced comprehensive food assistance, have a problem with essential micronutrients like iron, vitamin A, and vitamin D, as well as proteins and vitamins necessary for growth. The Gazan families were not ready or had the essential awareness or education on proper nutrition during crises and wars. Many families did not know enough about utilising available food resources.

From the direct observations in field hospitals and interviews with affected families, it is clear that the indiscriminate destruction of infrastructure in the Gaza Strip not only destroys food sources, but also complicates the treatment of malnourished children. The absence of water and sanitation networks increases the spread of intestinal diseases, while the destruction of markets and health facilities hinders the

provision of appropriate treatment for affected children. This destruction creates an unstable health environment and directly affects the ability of families to provide healthy and safe food for their children, exacerbating the malnutrition crisis. In these circumstances, securing medical and nutritional care for malnourished children becomes extremely difficult, and increases their suffering. These observations are supported by Shorrab *et al.* (2024) team.

The other collective observation concerns the readiness of local healthcare and their capacity to mitigate the risks of malnutrition during wars or crises in general is fragile. Healthcare workers need to be further trained to handle acute malnutrition cases and where it could direct the international humanitarian cooperation beforehand. Such capacity can help direct international organisations to where to intensify their medical and food aid to the most vulnerable children. Therefore, one could say that the malnutrition crisis in Gaza is a direct result of prolonged conflict, economic blockade, and systemic poverty. Without immediate and sustained humanitarian intervention, the situation will continue to deteriorate, with devastating consequences for children's health and development. Addressing this observation would ensure access to nutritious food, healthcare, and clean water, as well as long-term solutions to rebuild Gaza's infrastructure and economy.

7.3. International Organisation Reports

WHO (2024a) "Nutrition Vulnerability and Situation Analysis - Gaza" report focused on the situation in the Northern Gaza Strip, which has been almost completely cut off from aid for many weeks. Nutrition screenings conducted at shelters and health centres in the north found that 15.6 per cent – or 1 in 6 children under 2 years of age – are acutely malnourished. In the Southern Gaza Strip, in Rafah, where aid has been more available, it found that 5 per cent of children under 2 years are acutely malnourished. Of these, almost 3 per cent suffer from severe wasting, the most life-threatening form of malnutrition, which puts young children at the highest risk of medical complications and death unless they receive urgent treatment. As the data were collected in January, the situation will likely be even graver today.

"The Gaza Strip is poised to witness an explosion in preventable child deaths, which would compound the already unbearable level of child deaths in Gaza," said a UNICEF (2024) Executive.

The collective reports of the international agencies confirm that there is a high risk that malnutrition will continue to rise across the Gaza Strip due to the alarming lack of food, water and health and nutrition services. If this happens, then it is expected that 90 per cent of children under the age of 2 and 95 per cent of pregnant and breastfeeding women face severe food poverty.

The collective analysis of these reports is that each child would have consumed two or fewer food groups in the previous day – and the food they do have access to is of the lowest nutritional value. This coincides with the reports that 95 per cent of households in Gaza are accessing limited meals

and portion sizes, with 64 per cent of households eating only one meal a day. Over 95 per cent of households said they had restricted the amount of food adults received in order to ensure small children had food to eat. Lakhani (2024)

WFP (2024) confirms that there is a steep rise in malnutrition that we are seeing in Gaza, which is dangerous and entirely preventable through the provision of continuous access to healthy foods, clean water and health and nutrition services.

8. Discussion and Conclusions

8.1. Factors that Might Contribute to Sustenance of Malnutrition in Gaza

The economic blockade restricts the import of essential goods, including food, medicine, and fuel, leading to shortages and inflated prices. The limited access to diverse and nutritious food would continue to force families to rely on calorie-dense but nutrient-poor diets.

The repeated Wars on Gaza have destroyed agricultural land, water treatment plants, and electricity networks, further limiting food production and access to clean water. Due to the length of a decade of blockade, over 50% of Gaza's population lives below the poverty line, with unemployment rates exceeding 45% (2023 estimates). This economic hardship makes it difficult for families to afford nutritious food. Besides, Gaza has a healthcare system that is overwhelmed with shortages of medicines, medical supplies, and trained personnel to address malnutrition and its complications.

8.2. Immediate Factors that Would Help Eliminate Malnutrition in Gaza

This study reveals that the 2023 War on Gaza had a profound impact on child health and led to a sharp increase in malnutrition rates. The devastating economic and social conditions, coupled with the deterioration of health services and restricted access to humanitarian aid, have significantly exacerbated this problem, threatening children's health and leading to long-term physical and mental developmental complications.

An urgent response from the international and local community is required to provide immediate food and medical support to affected children. Strengthening health infrastructure and raising awareness about proper nutrition are crucial steps. If this crisis is not addressed promptly and sustainably, future generations in Gaza will face severe health consequences that could limit their potential and well-being.

8.3. Practical Recommendations

Local health centres should be supported with urgent medical supplies, such as vaccines and antibiotics, needed to combat infectious diseases exacerbated by malnutrition. It is also recommended that humanitarian corridors be established to evacuate patients who need specialised treatment outside the Strip.

Focus on rehabilitating the health infrastructure in Gaza, including rebuilding destroyed hospitals and improving water

and sanitation supplies. These efforts should also improve the health conditions of the displaced and reduce health risks associated with deteriorating living conditions.

By strengthening immunisation programs against infectious diseases, including following up on programs to prevent measles, cholera and other common diseases in emergency situations can be mitigated or eliminated. It is also necessary to continue following up on programs to combat malnutrition for children, in cooperation with international humanitarian organisations such as UNICEF and the Red Cross, to ensure continued support for affected families and protect future generations from long-term damage.

The literature and research indicate that armed conflict and the destruction of food and health infrastructure significantly exacerbate the spread of malnutrition and its associated health complications. The situation in Gaza clearly reflects the detrimental impact of these factors, as mass displacement, poverty, and food insecurity contribute to the deterioration of children's health, putting their lives at risk on a daily basis. Responding to this crisis requires immediate and urgent interventions to provide basic health care for children, in addition to developing sustainable strategies to ensure the protection of children in the long term. This also requires rapid and integrated international coordination in order to reduce preventable child deaths and achieve sustainable health stability in the future.

In conclusion, addressing the malnutrition crisis in Gaza requires sustained humanitarian efforts and long-term international support to ensure the health and stability of children and protect them from the ongoing impacts of conflict.

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