

A Survey Study in Europe about Malnutrition in School

Bashar Helail*

Postgraduate Diploma, Bristol, England, UK

***Corresponding Author:** Bashar Helail, Postgraduate Diploma, Bristol, England, UK.

Received: February 13, 2020; **Published:** February 26, 2020

Abstract

A malnutrition status survey was carried out in 120 primary schools across Europe. The survey contacted on 12th January 2020 targeted more than 500 children aged 6 - 17 years old. The age bracket is a dynamic period of physical growth as well as mental development of children and hence portrays an active growing phase. The survey comprised of health experts, nutritionist experts and healthy community officers with knowledge of malnutrition. The primary purpose of this survey was to find out the case of malnutrition among school children across Europe.

Keywords: *Malnutrition; School; Europe*

Background Information

Malnutrition among schoolchildren has been regularly monitored across Europe since world health organization launched a growth chart in 1978. There are three dimensions of malnutrition and they include, undernutrition, over nutrition, and micronutrition. Undernutrition is the situation where someone consumes less dietary food hence making them be emaciated. On the other hand, overnutrition is a situation where someone consumes more food materials, therefore, making them obese. Lastly, micronutrient deficiency is the case where someone does not absorb the correct nutrients in their diets. Approximately 1 million children across Europe face hunger daily while others have difficulties in finding food. Overeating is another form of malnutrition among school children in Europe [1]. Most children eat food containing too much fat and sugar and those with low vitamins and protein. According to recent studies, the obesity rate among children aged 18 years has skyrocketed from percent to 20 percent in the last two decades. The eating habits have significantly affected children's growth and even their performances in school [2]. Studies have shown that malnutrition affects the immunity of the well-being of the children. For instance, underweight children are most likely to suffer from marasmus and kwashiorkor. Although such conditions are rare to find in most European schools, it is most likely to experience in some of the underdeveloped European countries like Georgia [3]. On the other hand, obesity causes bullying, low self-esteem and high chances of heart diseases.

Methods

The target population during this survey was school children aged years to 5 - 16 years. Most children in this age bracket suffer from obesity while a few numbers are suffering from undernutrition. The target population was ideal to find out the malnutrition menace across Europe. Also, teachers and parents were targeted since these are individuals that spend much of the time with children.

Sampling

During the survey, random sampling was used. The first stage was to randomly selected countries that were targeted during the study. The second was selecting schools in every country randomly and lastly, the participants, who in this case are children, aged 6 - 17 years.

Random sampling was ideal since every subject has zero chances of taking part during the survey.

Planning and preparation

Before the field, a lot of preparations were carried out. The participants took part in a two-week training which entailed introduction to the main survey study and the role each individual will play during the survey.

Training

This involved retraining since a lot of personnel had received previous training and had also taken part in different surveys previously. The nutritionist had their specialized training since they were the most valuable assets during the survey. The tools for data collection primarily questionnaires were prepared and tested on respondents the same as those who will take part in the real study. The test aimed at detecting flaws and identification of necessary adjustments. Most training comprised of demonstrations and practice sessions under supervisions followed by an assessment.

Measurement

The questionnaires related to nutrition and food consumption were administered to the respondents. Special recruited and trained enumerators contacted the interview. Children were guided throughout the questionnaires answering questions to make sure that they answer each question correctly. There was also measuring of nutritional status. The weight and height measures were taken from the target population using recommended techniques with close supervision of the researcher. All tests were taken twice and the mean was used during computation of nutritional status indicators. Body Mass Index was used in measuring overweight and obesity. The body size was used in measuring undernutrition since it is readily measurable and is a sensitive indicator of the nutritional status and health of children. Micronutrient deficiency was measured using the individual level of food intake data. We mostly concentrated on vitamin A, Iron and Zinc, the three micronutrients which make the largest share of health problems especially among children

Fieldwork

Since we had to cover a lot of schools and time was also limited, we had to split into five groups. Each group comprised four members, one for weight, nutritionist, public health officer and the enumerator to make sure that each activity is efficiently done.

Supervision

During fieldwork, central and local supervision was carried out by WHO officials and UNICEF. Generally, their reports showed that the measurements were carried out adequately and all procedures were well coordinated. Most WHO organization staff and supervisors had worked in similar surveys in different countries across the world.

Data entry, editing and analysis

Data entry and analysis was the most crucial part of the survey. The methods of data analysis comprised of lists, tabulation, distribution and use of graphs to determine acceptable measures. Where necessary, feedbacks were made available to supervisors and experts for more clarification regarding measures or results. On the issue of data acceptance, the stricter criterion was established than those that exist in standard data analysis.

Limitations of the study

Due to time and budget constraints, it was challenging to cover all the schools that we had projected to cover during the survey. Also, a few numbers of children that took part could not feel the questionnaires as expected

Results and Discussion

Individual nutrition status

The survey revealed that the prevalence of overweight and obesity separately for both girls and boys. The study showed that out of 500 children that took part in the survey, 52 percent of children that participated in the study were either overweight or obese. For girls, more

than half of them were overweight or obese while for boys, it was slightly lower at around 3 percent. The study further revealed that there are instances of underweight at about percent and this shows the coexistence of various nutritional problems in Europe.

The study also focused on micronutrient deficiencies and it was revealed that 70 percent of school children have insufficient intakes of vitamin A and iron. On the type of food consumption, the survey revealed that 70 percent of school children love eating fast food as compared to traditionally prepared meals at home. 50% of children like taking sugary beverages and snack foods. The survey further revealed that 2 percent of children that participated in the study are affected by individual DB, meaning they are suffering from simultaneously from obesity and micronutrient deficiency. The rate is higher among boys (27%) compared to girls (23%). According to Nielsen and Stratmann [4] the individual-level DB affects boys as compared to girls.

Conclusion

Overnutrition remains a significant concern among schoolchildren in Europe. Most of the school; children are obese something that can be blamed on a diet. The majority of parents have not put their children on a balanced diet characterized by meals with low calories. The rate of underweight children is low in Europe and this means that most children have their meals accordingly each day. Getting beyond the precaution with staple foods rather than cheap fast food is essentials in addressing the malnutrition issue in Europe.

How change of diet affect the malnutrition

Malnutrition is a broad term that may explain many terms, including consumption of insufficient nutrients, undernutrition, and inadequate food source at the time of disappointment by the international communities. The development of various networks and connection provides an essential avenue for getting a common ground identification of the various malnutritional issues. The effects of malnutrition are best observed through its adverse effects, such as poor eating habits and overeating among the population.

The diet used by the population in the European nations is known to have a significant contribution to malnutrition. The significance of diet change is best in the cascade of events that occurs following malnutrition in the country [5]. For instance, European countries have witnessed different types of malnutrition that are less likely to occur in other countries. However, despite being considered a developed nation, a good percentage of their population is known to suffer from malnutrition-related issues like obesity.

Obesity is one of the major effects of malnutrition on the diet of the population. The rise in cases of obesity is made relevant through observation of the eating plans. Obesity in the community is one of the significant effects of malnutrition in developed nations and those categorized as developing [6]. Obesity is greatly influenced by the type of food consumed by people in society. The developed nations such as European countries have the majority of their population enrolled on diets that are not healthy but instead lead to loss of life.

Besides obesity, the diet consumed in the countries is not focussed on the acquisition of food nutrients [1]. The food consumed by these people in the population often results in more significant problems since they lack essential nutrients ([7], p 540). However, the type of food consumed, especially by the children, should be outlined as part of policies and regulations in a country to help reduce malnutrition. For instance, elevated levels of obesity contribute significantly to malnutrition to most of the members of the population. The provision of the right diet and proper counseling agenda on the right dietary needs is an essential step towards the reduction of the malnutrition challenge.

Moreover, the diet affects malnutrition through the consumption of limited portions of food [8]. Diets that do not meet the daily body requirement of calories for development and regular operation are likely to lead to a state of malnutrition. The body systems require to meet their daily energy needs for maintenance of a functional and well-developed body [9]. Failure to meet the energy requirement for the body often leads to poor performance at the place of work. Therefore, malnutrition affects even the process of development in the nations that are afflicted.

Diet change can also help to improve conditions of malnutrition in the population. The realization of a world that is free from hunger is best attained through a difference in the diet [2]. Change in diet is done to ensure people consume the right quantity of food with the required nutrient. The proper eating habits help to develop a population that is healthy and free from the condition of malnutrition [7]. World Health Organization considers a multi-sectoral strategy to be useful for the realization of a whole world that is free from malnutrition. The work requires all health stakeholders to develop universal strategies and interventions in nutrition [10]. Interventions designed must focus on sustainable and affordable food for the population. Therefore, this means that populations will grow foods that can sustain their levels and are useful for the environment.

On the contrary, the process of diet change for the realization of an end in malnutrition begins through policy changes and robust advocacy programs [11]. The policies developed work to ensure that the food production process gets to impact everyone by ensuring affordability and equity in the distribution of the food to all the population. The affordability ensures that everyone eats the required food sources for the acquisition of the required nutrients. The policies are guided by evidence-based research on diet and malnutrition in the population. The research used must have a strong ethical and scientific framework to support their adoption for guidance on the implementation of the best strategies for action on nutritional changes that will ensure the diets brings issues of malnutrition to an end.

Finally, the diet change for malnutrition provides a comprehensive action plan for targeted age groups that are at risk of malnutrition. Some of the targeted age groups include infants and lactating women in the population. World Health Organization [3] recommends the implantation plan adopted by members states through the World Health Assembly resolution in 2012. Diet-related targets of Global actions to end malnutrition are achieved through deliberate actions by different states to ensure a healthy population [9]. The actions focus on women and children who are some of the most vulnerable.

The impact of malnutrition in the population is an important force for the policymaker in the country [1]. Often, the impact of malnutrition in the population leads to various negative implications that are identified by research studies. The rates of malnutrition are observed to depend on regional disparities and levels of income. The regions with low-income earners are likely to have high levels of malnutrition as compared to their counterparts in middle and high social class [12-19].

Bibliography

1. Hartman C., *et al.* "Malnutrition screening tools for hospitalized children". *Current Opinion in Clinical Nutrition and Metabolic Care* 15.3 (2012): 303-309.
2. Bundy DA., *et al.* "School-based health and nutrition programs". *Disease Control Priorities in Developing Countries* 30.20 (2006): 1091.
3. World Health Organization. European food and nutrition action plan 2015-2020 (2015).
4. Nielsen S and Stratmann T. "Effects of prenatal and early life malnutrition: Evidence from the Greek famine". *Journal of Health Economics* 30.3 (2011): 479-488.
5. Rice AL., *et al.* "Malnutrition as an underlying cause of childhood deaths associated with infectious diseases in developing countries". *Bulletin of the World Health Organization* 78 (2000): 1207-1221.
6. Vanderwee K., *et al.* "Malnutrition and associated factors in elderly hospital patients: a Belgian cross-sectional, multi-center study". *Clinical Nutrition* 29.4 (2010): 469-476.
7. Freezer K., *et al.* "The view of European experts regarding health economics for medical nutrition in disease-related malnutrition". *European Journal of Clinical Nutrition* 69.5 (2015): 539-545.

8. Cattaneo A., *et al.* "Overweight and obesity in infants and pre-school children in the European Union: a review of existing data". *Obesity Reviews* 11.5 (2010): 389-398.
9. Stephenson LS., *et al.* "Global malnutrition". *Parasitology* 121.1 (2000): S5-S22.
10. Horton S., *et al.* "The challenge of hunger and malnutrition". Copenhagen Consensus (2008): 3-4.
11. Aapro M., *et al.* "Early recognition of malnutrition and cachexia in the cancer patient: a position paper of a European School of Oncology Task Force". *Annals of Oncology* 25.8 (2014): 1492-1499.
12. Barker L., *et al.* "Hospital malnutrition: prevalence, identification, and impact on patients and the healthcare system". *International Journal of Environmental Research and Public Health* 8.2 (2011): 514-527.
13. Bavelaar JW., *et al.* "Diagnosis and treatment of (disease-related) in-hospital malnutrition: the performance of medical and nursing staff". *Clinical Nutrition* 27.3 (2008): 431-438.
14. Brinksma A., *et al.* "Malnutrition in childhood cancer patients: a review of its prevalence and possible causes". *Critical Reviews in Oncology/Hematology* 83.2 (2012): 249-275.
15. Chaplin-Kramer R., *et al.* "Global malnutrition overlaps with pollinator-dependent micronutrient production". *Proceedings of the Royal Society B: Biological Sciences* 281.1794 (2014): 20141799.
16. Ergin F., *et al.* "Nutritional status and risk factors of chronic malnutrition in children under five years of age in Aydin, a western city of Turkey". *Turkish Journal of Pediatrics* 49.3 (2007): 283.
17. Middleton MH., *et al.* "Prevalence of malnutrition and 12-month incidence of mortality in two Sydney teaching hospitals". *Internal Medicine Journal* 31.8 (2001): 455-461.
18. Perlich M., *et al.* "The German hospital malnutrition study". *Clinical Nutrition* 25.4 (2006): 563-572.
19. Tomkins A. "Malnutrition, morbidity, and mortality in children and their mothers". *Proceedings of the Nutrition Society* 59.1 (2000): 135-146.

Volume 15 Issue 3 March 2020

©All rights reserved by Bashar Helail.