
Guest editorial: the relationship between nutrition and COVID-19

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The COVID-19 pandemic has drastically changed our daily lives, and with it, our eating habits and nutrition. As a result, the journal *Nutrition and Food Science* has published this special issue exploring the intersection of nutrition and COVID-19 [1], [2], [3], [4], [5], [6], [7], [8]. These papers have highlighted the importance of nutrition in mitigating the mental and health-related issues associated with the pandemic, as well as its effects on diet quality and physical activity levels.

One paper that stands out is a systematic literature review that emphasizes the role of nutrition in minimizing mental and health-related issues during COVID-19 [1]. The review concludes that a healthy diet rich in essential nutrients can play a crucial role in supporting mental health, immune function and overall well-being during the pandemic. In addition, it highlights the need for public health interventions that promote healthy eating habits and provide access to nutritious foods.

Another paper focuses on adherence to the Mediterranean diet in Greek adolescents during COVID-19 [2]. The study found that adherence to the Mediterranean diet was associated with better mental health and a lower risk of depression in adolescents during the pandemic. This underscores the importance of promoting healthy eating habits among young people during these challenging times.

A randomized, double-blind, placebo-controlled clinical trial investigated the effect of synbiotics on inflammatory markers and white blood cell count in COVID-19 patients [3]. The results suggest that synbiotics, which are a combination of probiotics and prebiotics, can improve inflammatory markers and immune function in COVID-19 patients. This highlights the potential of nutritional interventions to support immune function and improve outcomes in COVID-19 patients.

Another study explored whether COVID-19 pandemic anxiety was reflected in nutritional habits in adults [4]. The results showed that individuals experiencing higher anxiety levels during the pandemic were more likely to engage in emotional eating, leading to poorer dietary quality. This highlights the need for mental health interventions that support healthy coping strategies during the pandemic.

The association between diet quality, BMI and the side effects of the Pfizer-BioNTech COVID-19 vaccine and SARS-CoV-2 immunoglobulin G titers was also investigated [5]. The study found that individuals with higher diet quality and lower BMI had better vaccine responses and higher antibody levels, suggesting that a healthy diet and weight management may improve vaccine efficacy.

Another study investigated the link between metabolic risks, dietary patterns and COVID-19 prognosis [6]. The results suggest that a healthy dietary pattern, such as the Mediterranean diet, may improve metabolic health and reduce the risk of severe COVID-19 outcomes.

Perceived stress negatively affects diet quality and life satisfaction during the COVID-19 lockdown period in Greece [7]. The study highlights the need for interventions that promote stress management and healthy eating habits during times of crisis.

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Lastly, a study explored the factors related to sedentary lifestyle in a Brazilian sample during the COVID-19 initial quarantine [8]. The results suggest that factors such as age, gender and education level were associated with sedentary behavior during quarantine, emphasizing the need for interventions that promote physical activity and healthy lifestyle habits during periods of lockdown.

In conclusion, the papers published in the special issue “The relationship between nutrition and COVID-19” underlined the importance of nutrition in mitigating the mental and health-related impacts of the COVID-19 pandemic. The evidence suggests that a healthy diet rich in essential nutrients and adherence to healthy dietary patterns may improve immune function, metabolic health and vaccine efficacy. In addition, interventions that promote stress management and physical activity may support overall well-being during these challenging times. These findings highlight the need for public health interventions that prioritize nutrition and well-being during and after the pandemic.

Mauro Lombardo

*Department of Human Sciences and Promotion of the Quality of Life,
San Raffaele Open University, Rome, Italy*

Notes

1. Role of nutrition in minimizing mental and health-related issues during COVID-19: a systematic literature review
2. Adherence to the Mediterranean diet in Greek adolescents during COVID-19: exploring determining factors through cross-sectional study
3. Effect of synbiotics on inflammatory markers and white blood cell count in COVID-19 patients: a randomized, double-blind, placebo-controlled clinical trial
4. Was COVID-19 pandemic anxiety reflected on nutritional habits in adults?
5. Association between diet quality and BMI with side effects of Pfizer-BioNTech COVID-19 vaccine and SARS-CoV-2 immunoglobulin G titers
6. Metabolic risks and prognosis of COVID-19: are dietary patterns important?
7. Perceived stress negatively affects diet quality and life satisfaction during the COVID-19 lockdown period, in Greece
8. Is “stay-at-home” synonymous of inactivity? Factors related to sedentary lifestyle in a Brazilian sample during COVID-19 initial quarantine