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Challenges and Opportunities

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PREFACE

Alhamdulillah, by the grace of Allah SWT, the 2nd International Conference on International Wellbeing was successfully conducted through an online system (due to the outbreak of Covid-19 Pandemic) on Saturday, 12 December 2021. The organizing committee for this conference is ASASI (Indonesia), in partnership with PERINTIS Malaysia.

The theme for this conference is Research and Education during Pandemic Era: Challenges and Opportunities. This theme is selected due to the common concern that Covid-19 is a common disaster and problem. Nevertheless, scholars must not give up, but they need to expand their horizons and create innovation to overcome this massive challenge. We believe that behind every challenge, there are also opportunities.

The organizing committee, ASASI Indonesia, initially intends to conduct this conference through offline mode, just like the previous conference (1st ICUW 2019) at UiTM Kuala Lumpur Malaysia. However, as we may have been aware, the covid-19 outbreak has struck the world, including Southeast Asia, since the beginning of 2019. Among the persons infected by covid-19 are also our colleagues, friends, and brothers and sisters. Therefore, this conference is quite significant as a positive contribution from the scholars.

The conference covered various streams and issues and involved speakers and presenters from diverse academic backgrounds and countries. Thank you so much for the participation and generous contribution from all speakers, presenters, professors, students, researchers, and observers from all over the world who are keen enough to participate amidst different season constraints and busy schedules.

A vote of thanks also conveys to the organizer of this conference, namely professors and lovely colleagues from ASASI Indonesia and our counterpart in Malaysia (PERINTIS) and Thailand.

May Allah SWT bless the knowledge that we have obtained and spread to our fellow scholars.



Assoc. Prof. Heru Susetyo, PhD (Universitas Indonesia)
PIC of 2nd ICUW 2020

The Importance of Nutrition Education to Prevent Covid-19 : A Mini-Review

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Abstract

Nutrition education is an integral part of a series of disease prevention and control, including covid-19. This mini-review aims to investigate the role of nutritional status on the severity of covid-19 symptoms. Balanced nutritional intake is the essential capital to maintain metabolic balance, maintain nutritional status, and increase endurance. This is very useful to prevent or at least suppress the symptoms of covid-19. Excessive and unhealthy food intake (high in sugar and high in fat) can cause metabolic disorders, increase body weight resulting in obesity, and increase the risk of degenerative diseases such as diabetes mellitus and hypertension. This will increase inflammation in the body, which can reduce immunity. Several studies have suggested that nutritional status is related to the severity of Covid-19 symptoms. Most of the patients with confirmed Covid-19 with poor nutritional status had more severe respiratory complaints. So, nutrition education is needed to prevent the covid-19 infections.

Keywords: Nutrition, education, prevent, covid-19

Abbreviations

Covid-19 : Coronavirus disease 2019

Introductions

Coronavirus disease 2019 (COVID-19) was first reported in Wuhan, China in December 2019. The virus that produced COVID-19 is the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), that mainly affects the respiratory system. This virus is being the spread of droplets from infection human or carriers. [1]

The latest data on January 11st, 2021 shows that the total number of confirmed cases of Covid-19 in the world is 91 million cases, with 50.4 million recovered and 1.95 million deaths. In Indonesia, there are 837 thousand documented cases of covid-19, with 689 thousand recovered and 24,343 of them died. There were 24,509 confirmed cases in West Sumatra, with 21,235 recovered and 540 people dead. This number continues to increase. There has been a significant increase in cases and has reached 10 thousand new positive cases per day in recent times. [2]

Prevent Covid-19 Infection

Several things must be done to prevent Covid-19 infection, including:

1. Wear a mask. Everyone must wear a mask, especially when going out and coming into contact with other people. Masks can block the transmission of viruses from the wearer to other people and vice versa. Several types of veneers can be used, including surgical masks, N-95 masks, KN-95 masks, but masks made of cloth can also be used if others are not available.[3,4]
2. Hand washing and social distancing. Washing hands causes the virus that sticks to the hands to dissolve with water, and the chances of being inhaled or eaten are minimal, likewise, with social distancing. Maintaining a minimum distance of 1.5 meters can avoid virus transmission through droplets.[3,4]
3. Increase body immunity. Immunity is needed to fight any disease, including covid-19 infection. Increasing body immunity is the best way to fight infection. One of them is by maintaining proper nutrition. Good nutrition can work synergistically with medicine to reduce the prevalence of chronic disease and lower the healthcare system burden. Balanced nutritional intake is the essential capital to maintain metabolic balance, maintain nutritional status, and increase endurance. It is useful to prevent or at least suppress the symptoms of covid-19. Excessive and unhealthy food intake (high in sugar and high in fat) can cause metabolic disorders, increase body weight resulting in obesity, and increase the risk of degenerative diseases such as diabetes mellitus and hypertension. This will increase inflammation in the body, which can reduce immunity. [5, 6]

Nutrition and Immunity

The relationship between nutrition and immune function can be found in Figure 1 below:

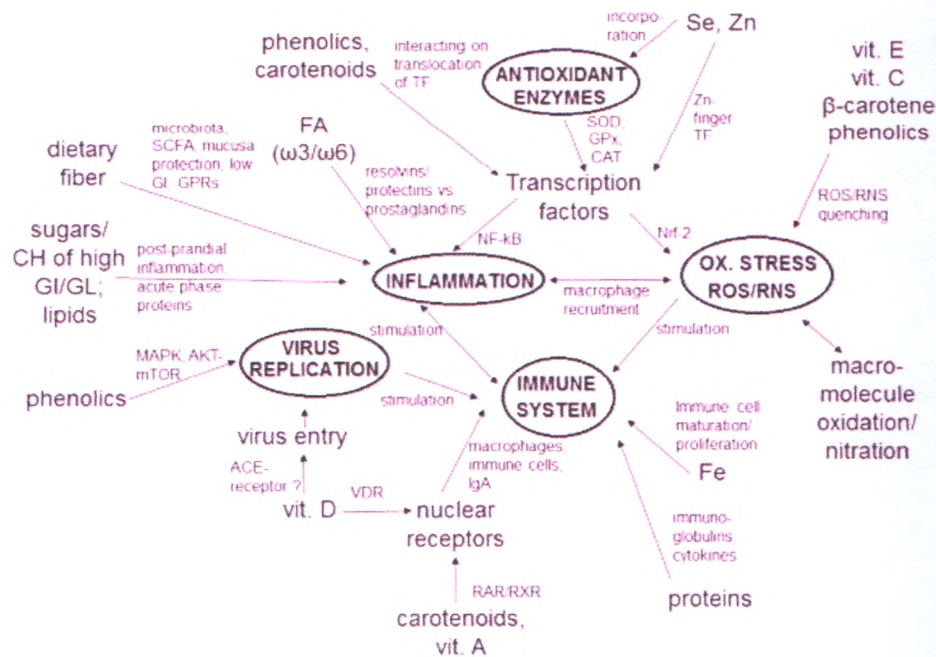


Figure. Interaction Between Selected Dietary Constituents and Immune System [6]

Nutrition affects the immune system through several mechanisms and is influenced by the type and nutrient content. A high intake of sugar, carbohydrates, fat can cause post prandial inflammation. Likewise, dietary fiber and fatty acids can cause inflammation, stimulating the immune system. Another case with vitamin A, vitamin D, proteins, and iron can stimulate the immune system directly without causing inflammation. Likewise, vitamin C, vitamin E, beta carotene, phenolics, selenium, and zinc increase the immune system as antioxidants. [5,7]

Several studies have suggested that nutritional status is related to the severity of Covid-19 symptoms. Most of the patients with confirmed Covid-19 with low nutritional status had more severe respiratory complaints.[7, 8]

Malnutrition in covid-19

In covid-19 patients, malnutrition will affect the patient's condition, namely, (1) malnutrition that has occurred before being infected with Covid-19. A total of 24 - 60% of elderly patients are malnourished. It is accompanied by the emergence of several degenerative diseases such as type 2 diabetes mellitus, hypertension, stroke, and coronary heart disease. If the person is infected with covid-19, he will be treated with polymorbid patient status. (2) Length of stay and mortality was significantly worse in untreated, nutritionally at-risk inpatients than in inpatients who were

not at risk. (3) malnutrition is a highly modifiable aspect. Multiple large randomized studies have demonstrated that older or polymorbid inpatients provided with nutritional support experience improved quality of life and reduced complications (including infectious complications).[6,9,10]

Discussion and Conclusion

Nutrition education is the most importance thing to prevent corona virus infection, beside physical distancing, and mask uses. Continuous nutrition education is mandatory for all groups, such as housewives, school children, workers, even medical personnel. Think of good nutrition as a seat belt for your health; it doesn't guarantee you won't get sick, but it helps to ensure the best outcomes.

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