



**DIETITIANS' ROLE IN THE BATTLE AGAINST COVID-19 PANDEMIC:
AN OVERVIEW FROM INDIA**

Parmeet Kaur¹ and Mahesh R²

¹Department of Dietetics, All India Institute of Medical Sciences, New Delhi, India

²Department of Hospital Administration, All India Institute of Medical Sciences, New Delhi, India

ARTICLE INFO

Article History:

Received 06th November, 2020

Received in revised form 14th

December, 2020

Accepted 23rd January, 2021

Published online 28th February, 2021

Key words:

COVID-19 pandemic, dietitian, nutritional status

ABSTRACT

India is currently going through a rapid socio- economic, geographical, health and nutritional transition. The rising prevalence of non- communicable diseases, nutritional deficiency disorders and lower immune function which are linked to faulty lifestyle and imbalanced dietary intake highlights the role of dietitians for an early and appropriate nutrition intervention to keep diseases at bay. Now, with the dominance of Corona virus disease 2019 (COVID-19) , leadership of dietitians in the battle against COVID-19 for improving nutritional and health status has been sought more in India. Owing to the fact that in the today's digital world, overabundant confusing diet related information is available in plenty in social media the evidence based nutrition information based on scientific acumen is required. Therefore, the role of dietitians in India is getting more strengthened in multi-faceted settings in health care sectors from modulating health and well being to preventing malnutrition in critical care units for improving overall nutritional status in the best interests of the society as a whole.

Copyright©2021 Parmeet Kaur and Mahesh R. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

India is a vast and extremely diverse country with an array of regional foods and eating patterns appropriate to geographical regions ranging from snow capped mountains, deserts, plains, sea shores and plateaus. After gaining Independence, the major national program focused on overcoming poverty, under - nutrition, communicable diseases and attaining health and hygiene. However, during the last two to three decades, the challenge of diabetes, cardiovascular diseases and other non communicable diseases as public health problems are being added. These emerging public health problems are known due to intake of unhealthy diets and sedentary lifestyle. The Coronavirus disease 2019 (COVID 2019) pandemic caused by severe acute respiratory syndrome (SARS) Coronavirus – 2 (SARS – COV-2) is primarily transmitted from person to person contact.¹ It is being observed that in most people with good nutritional status it may cause mild illness, however in people with poor nutritional status, obesity and in the presence of other co-morbidities *i.e.*, diabetes, cardiovascular diseases etc. may make a person severely ill.² Therefore, in India role of professionally trained dietitians for providing food and nutrition information in everyday life for preventing malnutrition and improving nutritional status is gaining popularity for strengthening the position of healthcare services.³

The other role of dietitians in the Indian context in the hospital setting as an important multidisciplinary team member in the frontline to population level advice, in hospital based dietary care, community care and education have been recognized. The key areas where the dietitians are actively contributing in India are as follows:

During Hospitalization

In India, some hospitalized patients find it difficult to adapt to standard hospital menu. Planning diets for hospitalized patients in India requires taking into consideration the food habits and choices of wide-ranging cultures. Indians from diverse regions prefer diverse and typical foods and meal patterns. Early and appropriate nutrition intervention of hospitalized COVID-19 patients who are at increased risk of malnutrition and are likely to suffer from loss of muscle during their stay by a dietitian improves rate of recovery and well-being. Provision of locally available and seasonal well balanced nutritious diet, fortified, tasty foods or specialized nutrition supplements to indoor hospitalized patients are useful in regaining the weight and muscle that may have been lost.⁴ Even when people are well enough to leave hospital after COVID-19, their journey is not over, outdoor nutrition counseling is continued by regular follow up.

Critical Care Nutrition

Most patients in the intensive care unit (ICU) with COVID-19 are sedated, ventilated and will have nutrition, hydration and

***Corresponding author: Parmeet Kaur**

Department of Dietetics, All India Institute of Medical Sciences,
New Delhi, India

medications delivered through feeding tubes. Feeding tubes are used to deliver the protein and calories required to meet the demands on the body. Patients in ICU, can experience malnutrition, changes in eating patterns, loss of sense of taste and smell and have a poor appetite before, during and after critical illness which can directly impact on recovery and rehabilitation to foster a multidisciplinary team approach to patient care.⁵

Rehabilitation

Dietitians have an important role to play in rehabilitation in reducing risk of complications and shortening recovery times. Dietitians recommend nutritious and healthy diets to boost overall immunity.⁶ Avoiding unhealthy food items like excessive consumption of salty, sugary and greasy foods is being promoted for maintain good health and immune function. This, involves direct community support, follow up by phone calls with other health care professionals.

Supporting Public Health

Dietitians provide dietary advice to support people, many of whom may be self isolating or under quarantine due to catching infection or are at risk of infection. Optimum nutrition is important because poor nutrition due to either inadequate dietary intake of key nutrients or overall low diet quality may affect proper functioning of the immune function. Therefore, community based nutrition support programs are undertaken in many hospitals by not only taking care of dietary needs of hospitalized patients but also of their attendants, because lockdown presented many challenges in procuring foods. Healthcare staff and medical doctors attending COVID-19 are also exposed to risk of infection, therefore provision of appropriate nutrition containing key nutrients to them is also a priority. Consumption of healthy diet and getting adequate exercise during this challenging time becomes very difficult and dietitians have a role to play in promoting healthy and sustainable food choices. Members of community of below poverty line who suffering from food insecurity needs greater support from local or national food assistance programs. Public health messaging and awareness to promote consumption of locally available seasonal food items and antioxidants and vitamin rich fruits, vegetables herbs and spices needs to be encourage for maintain optimum nutritional status in day to day cooking. Dietary diversification and healthy cooking practices like steaming, fermentation and sprouting are encouraged.

Virtual Health Care

In today's fast paced digital world almost everyone can be reached for nutrition counseling. Uptake of virtual health care in India has been sluggish till date, but has now seen a steep rise due to COVID-19 health crisis. Dietitians are providing virtual health care services known as tele-health and tele-nutrition services. Patients with pre-existing health conditions, such as malnutrition, cancer, obesity, diabetes, food allergy and eating disorders to name a few, are supported, even if the COVID-19 lockdown made it more difficult to access it as they normally would. Video conferencing and specialist apps are used to provide consultations and support to patients who need them for health promotion, nutrition intervention and monitoring nutrition care and support.⁷

Handling Risky Diets

Nowadays a lot of misinformation is circulated regarding foods and diets promising cure and solutions for COVID-19.⁸ Moreover, many people tend to go over the board and fall further ill.⁹ Dietitians have a role to educate and promote evidence based nutrition practice in busting harmful myths both on social media and in more conventional print and telemedia.¹⁰

Call to action

During the COVID-19 pandemic, dietitians have an immense role to play in up-skilling their potential to assess and recommend nutrition, tailored to each person and the community as a whole. One and all, should adopt healthy eating and continue to follow World Health Organization (WHO), Indian Council of Medical Research (ICMR) and Government of India guidelines recommendations and advice. In India, diet and lifestyle measures are not a substitute for current public health advice, but it is anticipated that this briefing will help dietitians, health care professionals, health caterers, policymakers and members of the public to optimize nutrition for everyone as we wait for the COVID-19 pandemic to pass.

References

1. World Health Organization. (2020). Global Surveillance for human infection with novel coronavirus (2019-nCoV): interim guidance, 31 January 2020. World Health Organization. <https://apps.who.int/iris/handle/10665/330857>. License: CC BY-NC-SA 3.0 IGO
2. World Health Organization. Global Surveillance for human infection with coronavirus disease (COVID-19). 2020. [https://www.who.int/publications-detail/global-surveillance-for-human-infection-with-novel-coronavirus-\(2019-ncov\)](https://www.who.int/publications-detail/global-surveillance-for-human-infection-with-novel-coronavirus-(2019-ncov)).
3. World Health Organization, Infection prevention and control during health care when COVID-19 is suspected. 2020 March 19, [https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-\(ncov\)-infection-is-suspected-20200125](https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(ncov)-infection-is-suspected-20200125).
4. Diabetes (India), National Diabetes Obesity and Cholesterol Foundation (NDOC), and Nutrition Expert Group, India (2020). Balanced nutrition is needed in times of COVID19 epidemic in India: A call for action for all nutritionists and physicians. *Diabetes & metabolic syndrome*, 14(6), 1747–1750. <https://doi.org/10.1016/j.dsx.2020.08.030>
5. Zhang JY, Shao CH, Yang JH, Su JG, Qian T, Liu JF, *et al*. Recommendations for nutrition therapy in critically ill COVID-19 patients. *Chin J Clin Med*. 2020. <http://kns.cnki.net/kcms/detail/31.1794.R.20200311.0958.002.html>.
6. Rozga M. Effects of micronutrients or conditional amino acids on COVID-19-related outcomes: an evidence analysis center scoping review. *J Acad Nutr Diet*. 2020 doi: 10.1016/j.jand.2020.05.015. [PMC free article] [PubMed] [CrossRef] [Google Scholar]
7. Ghosh A. Effects of nationwide lockdown during COVID-19 epidemic on lifestyle and other medical issues of patients with type 2 diabetes in north

- India. *Diabetes Metab Syndr.* 2020;14(5):917–920. [PMC free article] [PubMed] [Google Scholar]
8. Gupta R., Misra A. COVID19 in South Asians/Asian Indians: heterogeneity of data and implications for pathophysiology and research. *Diabetes Res Clin Pract.* 2020;165:108267. [PMC free article] [PubMed] [Google Scholar]
9. Lee AM, Wong JG, McAlonan GM, Cheung V, Cheung C, Sham PC, *et al.* Stress and psychological distress among SARS survivors 1 year after the outbreak. *Can J Psychiatry.* 2007;52:233–240. [PubMed] [Google Scholar]
10. Haug A, Brand-Miller JC, Christophersen OA, McArthur J, Fayet F, Truswell S. A food “lifeboat”: food and nutrition considerations in the event of a pandemic or other catastrophe. *Med J Aust.* 2007;187:674. [PubMed] [Google Scholar]

How to cite this article:

Parmeet Kaur and Mahesh R (2021) 'Dietitians' role in the Battle against Covid-19 Pandemic: An Overview from India', *International Journal of Current Advanced Research*, 10(02), pp. 23803-23805.
DOI: <http://dx.doi.org/10.24327/ijcar.2021.23805.4715>
