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## **Nutritional Considerations, Lifestyle Changes and Smoking Habits in Geriatric Patients in COVID 19 ERA – Survey Report**

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### **Authors' contributions**

*This work was carried out in collaboration among all authors. Author PB planned the whole article, provide concept of the study. Authors HS, Ashish Bali and Aditya Bali helped to conduct the survey, authors PP, YR and FJ helped in compiling the data. All authors read and approved the final manuscript.*

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## ABSTRACT

**Aim:** The main aim of this study is to investigate whether or not there has been a change in the daily dietary patterns of elderly people between the ages of 60 and 80 during the Coronavirus quarantine.

**Materials and Methods:** An online survey was conducted with questionnaires related to dietary habits and changes done in COVID 19 in elderly patients. An online form was sent with no physical contacts and questions were asked related to dietary habits in age group 60-80 years. Questions were related to Daily diet, Systematic diseases and mental health.

**Results:** With regards to lifestyle changes during the COVID-19 lockdown, most of the population declares not to have changed its habits. 48% of population has not changed their lifestyle where as 16% has improved their nutritional intake and 36% have witnessed decline their dietary habits during pandemic and lockdown.

**Conclusion:** The three pillars which should be controlled in COVID 19 times has been taken under and an insight is provided. COVID 19's peculiarity is it enhances the chronic respiratory ailment in geriatric group hence diet plays an important role.

*Keywords: Nutrition; corona; geriatric; smoking; lifestyle; COVID.*

## 1. INTRODUCTION

The novel coronavirus malady (COVID-19), firstly reported in late December 2019 in urban center, China, quickly became evolving scenario, spreading inevitably outside China and also the Asian continent, and it had been declared a deadly disease in March 2020 [1]. This explicit pandemic has arisen in an exceedingly time of worldwide net use additionally the increasing role of online information has helped and also created a concern and apprehension among net users regarding dietary habits [2]. Thus pandemic-related quarantine will be a nerve-wracking event, and normally, such events are famed to affect dietary patterns [3]. Prolonged quarantine may cause binge eating, snacking, and alcohol consumption [4]. A healthy diet is plays an important throughout pandemics, like the one amongst COVID-19 [5]. The COVID-19 pandemic represents an enormous impact on human health particularly in older population, and it can affect and deteriorate if keen intervention in their dietary habit is not done. One exhibit is considering the smoking, there are major association exists between SARS-CoV-2 infection and pollution, and during this context in smokers, a lot of severe COVID-19 symptoms occur [6]. Uptake habits and fashion modification might threaten our health. Maintaining an accurate nutrition standing is crucial, particularly in an exceedingly amount once the system would possibly got to fight back. In fact, subjects with severe obesity (BMI  $\geq$  forty kg/m<sup>2</sup>) are one amongst the teams with the upper risk for COVID-19 complications [7]. By the time the terribly initial cases of COVID-19 were known in several countries, it had been already clear that

sure teams were at larger risk of great health problem, and probably death, than others. the foremost inclined are older folks embody subjects with chronic respiratory organ diseases, heart diseases, diabetes, liver diseases, chronic nephrosis, obesity, and neurologic disorders [8]. Thus engaged on immunity is taken into account as a sensible work however our dietary habits in pandemic has clothed to be a time for baking cakes, food or binging on unhealthy .Still there is a small amount of population that eat clean and serve alimentary food. This study provides Associate in Nursing insight on uptake habits of geriatric and conjointly discusses regarding what's smart for health.

## 2. MATERIALS AND METHODS

The survey was conducted from the 7th to the 14th of November 2020, among the Indian population in age group 60-80 years, by using an online platform, accessible through any device with an Internet connection. The survey was disseminated through institutional and private social networks (Twitter, Facebook, and Instagram), and institutional mailing lists [9]. This method of administration provides a statistical collective whose population parameters cannot be controlled as it is the case for probabilistic sampling. However, it was completely effective for the research objectives, because it facilitated the wide dissemination of the survey questionnaire during a period where, due to the pandemic, there are many territorial restrictions. Moreover, all the participant participated using their smartphone to connect and 99% of them visited or used a social network or messaging services to reply the survey questionnaire.

## 2.1 Survey Methodology

The COVID19 questionnaire was specifically built by using Google Form by the authors. The questionnaire, included 20 questions divided into four different sections: (1) personal data (4 questions: age, gender, weight /Height, if tested Covid 19 positive) (2) dietary habits and questions related (3) Other important details for better insights. The whole data was divided, organised and statistical analysis were done and proper bar charts were made to understand the dietary habits. A Review of literature was done to give a better report and thorough discussed and concept of 'creating better health in pandemic time' was drawn.

## 2.2 COVID19 Questionnaire

1. **Personal information** which was important for the survey was asked [10]

- a. Name
- b. Gender
- c. Age
- d. Weight/Height: (if underweight please mention /lost weight in COVID?)
- e. Any health problem
- f. Have you tested positive for COVID 19

## 2. Dietary habits

Question: Are you Vegan, Vegetarian or Non Vegetarian?

Question: Have you altered your diet in COVID 19 era?

Question: Do you take suppliments/immunity boosters for COVID 19?

Question: Do you smoke in COVID 19 era? Have you quit smoking in recent past? If yes why?

Question: Do you cosume alcohol in COVID 19 era? Have you quit consumption of alcohol in recent past?

## 3. OTHER questions

Which affectmental health were also considered as health is a whole well being which include mental health as well [11].

Question: Do you find internet helpful/Stressful in COVID 19?

Question: Have you done any research on internet about Dietary habits?

Question: Have you bought any superfood /suppliments/immunity booster with Regard to COVID 19?

Question: Are you regular with exercise regime?

Question: Do you eat less after COVID 19? Have your systematic chronic ailments (If present) has increased after COVID 19? On what day of getting COVID 19 positive you lost your appetite and reason behind?(in case tested positive).

## 2.3 Statistical Analyses

Data area unit delineated as variety and share in paren theses (%) for categorical variables, or median and inter- score direct sq. brackets [IQR] for continuous variables. All the variables had skew distribution. The Spearman parametric statistic was calculated so as to judge the correlation between continuous variables. Chi sq. take a look at was utilized to assess the association between categorical variables whereas McNeman analysis was accustomed investigate the distinction between categorical variables pre and through the COVID-19 emergency. Instead, Mann– Whitney U and Kruskal–Wallis tests were performed to check continuous variables among 2 or additional teams, severally. Finally, binary and multinomial provision regression analyses were conducted to research the association between categorical variables (depend- ent) and continuous or categorical ones (independent). Results were important for p price < zero.05. applied mathematics analysis was performed victimisation SPSS ver. 21.0 (IBM, Chicago, IL, USA).

## 3. RESULTS

On the 14<sup>th</sup> of November 2020, the web-survey Results were concluded and data was analysed. A total of 650 elderly people participated through online survey with zero physical contact. A proper checking of questionnaires and validation of participants was done. Out of 650 participants 496 participants were included in the study. The female respondants were 36% and 64% were male as in India according to census of 2011 the literacy rate of males is higher than females [12]. It was important for us to maintain social distancing hence we reached through internet only [13]. With regards to lifestyle changes during the COVID-19 lockdown, most of the population declares not to have changed its habits. 48% of population has not changed their lifestyle where as 16% has improved their nutritional intake and 36% have witnessed decline their dietary habits during pandemic and lockdown Fig. 1.

Concerning physical activity, no significant difference between the percentage of people that did not train before (36.7%) nor during (37.4%) the COVID-19 lockdown was observed ( $p = 0.430$ ) Fig. 2 A small decrease was observed in exercising habit due to COVID 19.

Although there was a decline in smoking habit was noticeable. A 28% of decline in smoking habit was observed in pandemic Fig. 3.

#### 4. DISCUSSION

Several studies support Associate in Nursing age gradient within the severity and mortality of COVID-19 [14-18]. It's familiar that human immunity is supported by organic process standing. during this regard, the immune strength of ill-fed and sarcopenic people against microorganism and infective agent infections is lower [19,20]. Nutrition, physical activity, and socialization are necessary factors for frailty management to reinforce physical and mental resilience [21]. In line with survey report 16 PF has improved their organic process intake and one year have witnessed decline their dietary habits throughout pandemic and imprisonment. In general, old people tend to own multiple comorbidities, altered body composition (such as sarcopenia), attenuated swallowing and ingesting ability, and attenuated psychological feature operate [22]. In case of institutionalised elderly patients it was seen that due to COVID patient tend to have swallowing problem also a moderate demotivation to consume food was noticeable. Moreover, they're underprivileged

socioeconomically. During this regard, maintaining smart organic process standing moreover as preventing infection is vital for old people [18]. In line with participants World Health Organization mentioned 16 PF increase in organic process intake have additionally mentioned web because the supply for higher organic process thought. the employment of plant based mostly foods for enhancing the immunity of geriatric aged teams against COVID-19 is vital. By the employment of many water, minerals like metallic element and Zn, micronutrients, herbs, food wealthy in vitamins C, D & E and higher life vogue one will promote the health and may overcome this infection [20]. Hence, diet plays a crucial half in boosting immunity. As patients with current diseases, particularly chronic diseases like polygenic disorder, high blood pressure, coronary cardiopathy and cancer, are a lot of liable to SARS-CoV-2 infection and its poor prognosis, sickness standing and generally current treatment by these vulnerable cluster results in having a lower general immunity, "therefore, it's significantly necessary to reinforce self-resistance" [23]. The opposite necessary purpose of survey was physical activity and during this survey no vital modification was seen however alittle decline in exercise was seen in old population as because of social distancing open areas weren't on the market for physical activity during this pandemic era [24]. In line with our survey a big modification was seen in smoking habits and this is often mostly attributed to web and correct spreading of message concerning the sickness. the upper risks of respiratory

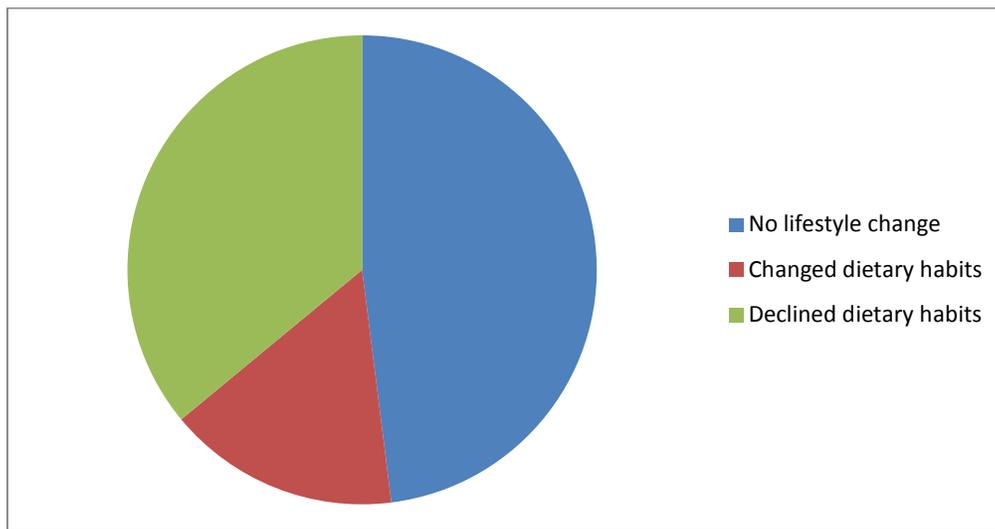
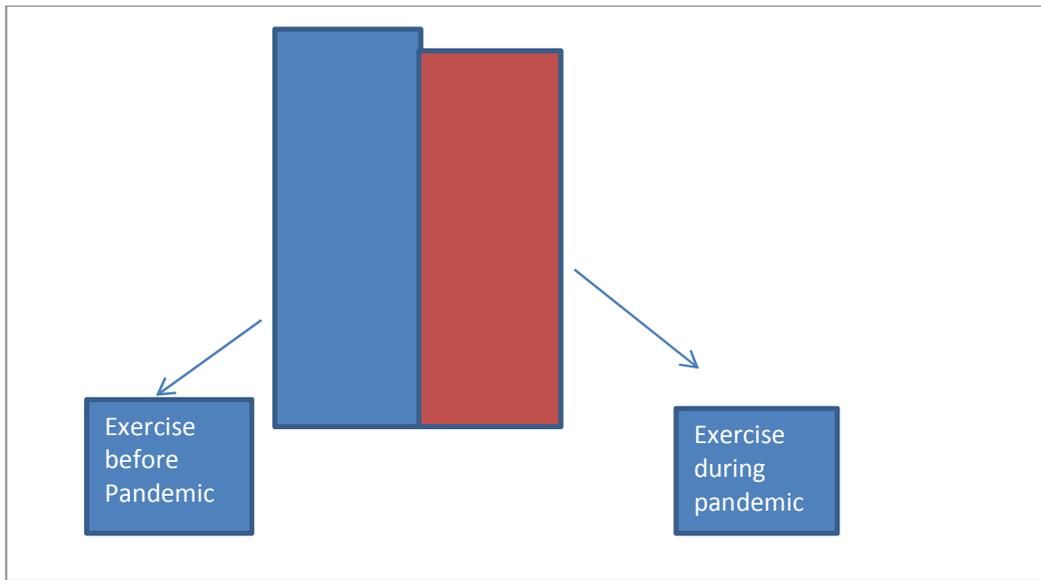
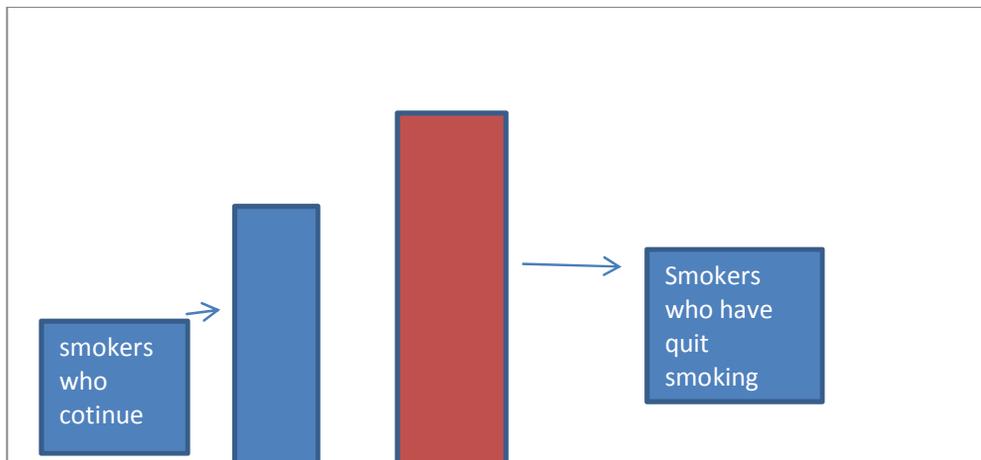


Fig. 1. Dietary habits changes during pandemic



**Fig. 2. Exercise habits changes in pandemic**



**Fig. 3. Smoking in Covid 19 ERA**

disorder result in this alteration that was appreciable [25]. Mechanisms by that smoking will increase the danger of infections embrace structural changes within the tract and a decrease in immunologic response. Smoke smoking affects each cell mediate and body substance mediate immune responses in humans and animals [26]. Hence, Smoking aggravates COVID nineteen and will be taken care of properly.

### 5. CONCLUSION

In this survey, the three pillars which should be controlled in COVID 19 times has been taken

under and an insight is provided. COVID 19's peculiarity is it enhances the chronic respiratory ailment in geriatric group .So, there is a need to improve socioeconomic status of geriatric patients and a lot of work on nutrition, immunity boosting and cutting health hazardous habits is essential.

### 6. LIMITATIONS

Although this study has provided insight but still there were few limitations which we would acknowledge like firstly, in India internet facility is still not feasible especially in this elderly age group. Secondly, Female participant number was

less due to low literacy rate in this age group although we have tried to provide questionnaires in their local language in a simplified manner as well.

## CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the authors.

## ETHICAL APPROVAL

It is not applicable.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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