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Knowledge and Awareness in Maintaining Good Health During Infection Outbreak (COVID-19) Among Parents of South Indian Population - A Survey

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ABSTRACT

Introduction: COVID-19 is an infectious disease caused by a newly discovered virus named 'coronavirus' which is rapidly spreading all around the world thereby affecting the majority of the world population causing distress. Most of the people who are infected with the COVID-19 virus are prone to experience mild to moderate respiratory illness and recover without requiring special treatment. Only the aged and sick people are at high risk.

Materials and Methods: A self-structured questionnaire was distributed through an online google forms link to about 109 individuals belonging to the parental population of India among all age groups. The results were collected and the data was analyzed using SPSS software version 20.

Results: The majority of the Indian parental population was aware of COVID -19 and also about maintaining the proper health of their children. The results of the survey conclude that Indian parents are concerned about their children and their health.

Conclusion: Further, the campaign can be done to make the Indian parental population aware of ill-effects of COVID-19.

Key Words: Awareness, COVID-19, Indian parental population, Children, Pandemic, Survey

INTRODUCTION

COVID-19 is an infectious disease caused by a newly discovered virus named 'coronavirus' which is rapidly spreading all around the world thereby affecting the majority of the world population causing distress¹ Most of the people who are infected with the COVID-19 virus are prone to experience mild to moderate respiratory illness and recover without requiring special treatment². Aged elderly people and those with underlying medical health problems such as cardiovascular diseases, diabetes, chronic respiratory disorders, cancer, etc. are more likely to acquire the COVID-19 virus owing to the impaired health conditions.

The best way to prevent and lessen the transmission is to be well informed about the assorted effects of the COVID-19

virus, its origin, causes, symptoms, and its transmission. Certain basic preventive measures include protecting oneself using PPE (Personal Protective Equipment) in order to prevent the possible transmission of the disease from one person to another. Other basic preventive measures include proper washing of hands (or) using an alcohol-based rub frequently to avoid transmission of the virus³.

The COVID-19 virus is reportedly found to transmit majorly through droplets of saliva from the sputum of infected patients, discharge of mucus accumulation from the nose when an infected person coughs or sneezes, and close contact with infected patients. Given as if now, there are no vaccines or treatments found for the treatment of the COVID-19 virus. Recently, there are various researches being carried out over the world in order to discover the treatment for COVID-19

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4,5,6. The COVID-19 virus is supposedly found to have originated from Wuhan, China⁷. In the beginning, the COVID-19 disease was formerly referred to as the ‘2019 novel coronavirus’ or ‘2019-nCoV’⁸. In the past decade there are various high-end researches related to cancer biology⁹ nanotechnology¹⁰ evaluating cytotoxicity¹¹ phytochemical analysis¹² and finding out the effectiveness of natural food ingredients¹³ as an ailment for incurable diseases has helped mankind fight against various infections.¹⁴.

The COVID-19 virus is supposedly found to survive on surfaces for several days. Studies to date suggest that the virus that causes COVID-19 is mainly transmitted through contact with respiratory droplets, rather than through the air¹⁵⁻¹⁸. The COVID-19 virus is a new virus linked to the same family of viruses as Severe Acute Respiratory Syndrome (SARS) and some types of the common cold, Various previous studies aim at exploring the causes¹⁹ cure using various techniques like nanotechnology^{20,21} *in vivo* studies²² *in vitro* studies with various cell lines²³ has been done to find cure. Now as the whole world is fighting COVID 19, to find a cure, it is important to create awareness on the prevention of the infection.²⁴.

The main aim of the study is to spread awareness among the parental population of India to maintain good health during this pandemic caused by the COVID-19 virus.

MATERIALS AND METHODS

Study Design

A survey was conducted among Indian parents to evaluate the knowledge, awareness, and perception of maintaining good health towards their children to fight this pandemic. The sampling method is a simple random sampling method. The sample size of the study is 100. The participants did the survey voluntarily and no incentives were given to them. Ethical approval and informed consent from the participants were obtained. The study was conducted in the month of May 2020 to June 2020.

Survey Instrument

The survey instrument which was a questionnaire was prepared after an extensive review of the existing literature. The questions were reviewed and amendments were made to improve the clarity of the questions to eliminate ambiguous responses. The questionnaire consisted of a total of 18 questions. The questionnaire (https://docs.google.com/forms/d/e/1FAIpQLSeZjfWJux62EhSLA14HJoyx1QUdUQp44LPkmeswCP7vYeby0A/viewform?usp=sf_link) was shared with Indian parents where age was not the criteria using an online survey platform.

Data Analysis

Only completed surveys were taken for analysis and the incomplete surveys were eliminated. The statistical test used is descriptive statistics. All the responses obtained were tabulated and the reliability of the data was checked. A frequency table was prepared and analyzed for each question using SPSS data analysis software.

RESULTS AND DISCUSSION

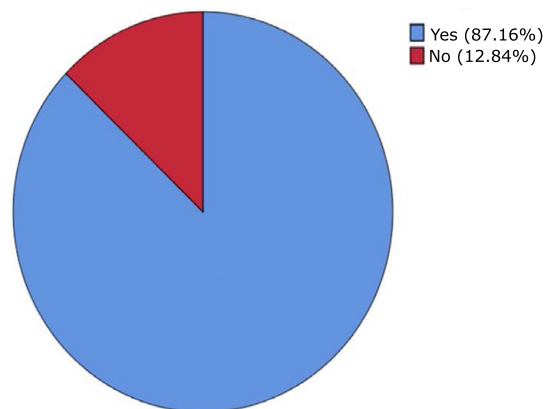


Figure 1: Figure represents the distribution of participants based on their awareness regarding the fast-spreading nature of COVID-19, where 87.16% (blue) of the study population are aware and the remaining 12.84% (red) of the study population are unaware.

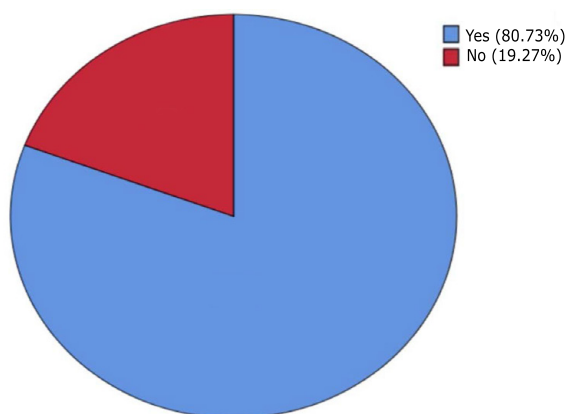


Figure 2: Figure represents the distribution of participants regarding their concern over the health of their children amidst a pandemic outbreak to which 89.91% (blue) of the study population are concerned and the remaining 10.09% (red) of the population are not concerned about the health of their children.

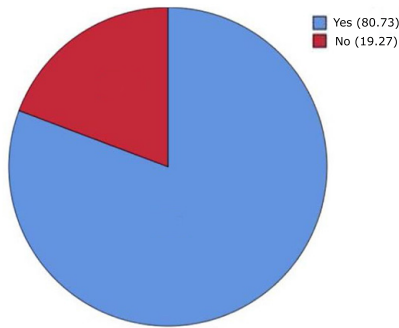


Figure 3: Figure represents the distribution of participants regarding their belief over proper health being able to provide immunity and keep the infection at bay, to which 74.31% (blue) answered of maintaining good health during a Pandemic outbreak and 19.27% (red) were not aware of it.

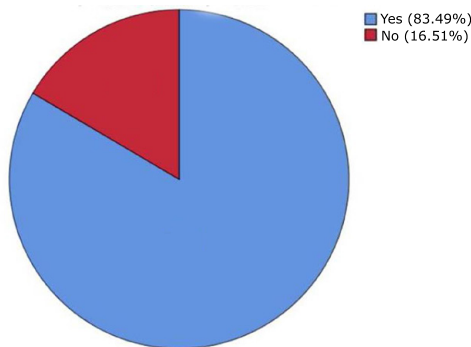


Figure 4: Figure represents the distribution of participants regarding the inclusion of food that boost immunity such as ginger pepper citruses in their diet to which 83.49% (blue) of the population include immunity booster foods and the remaining 16.51% (red) of the population do not include.

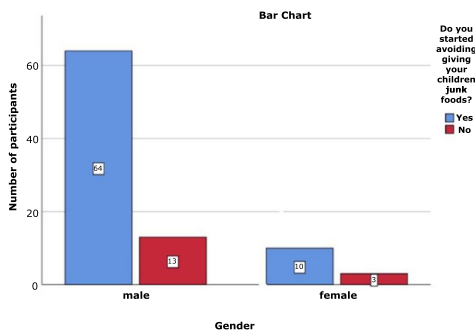


Figure 5: Bar graph represents the association between gender and their awareness to avoid junk food during a pandemic to keep themselves and their children fit. X-axis represents the gender and Y-axis represents the number of participants who have totally restricted giving children junk food (blue) and who have not (red). 64 out of 77 males and 10 out of 13 females have already started restricting junk food to their kids. Person's Chi-square analysis done, p-value = 0.589 (>0.05) which is not significant. Though not significant, males seem to be stricter in avoiding junk food for their kids.

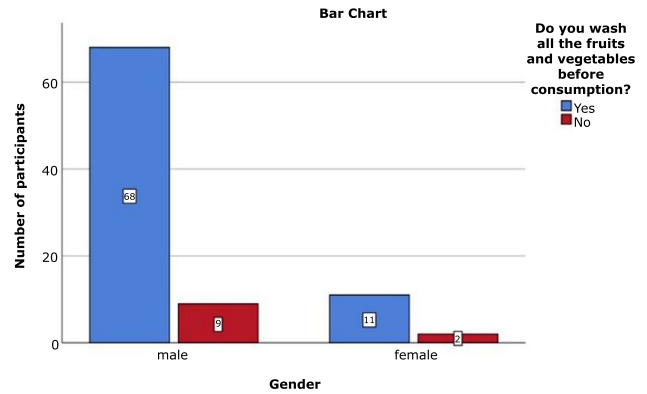


Figure 6: Bar chart showing the association between gender and their awareness towards the washing fruits and vegetables before consumption individuals where blue denotes 'yes' and red denotes 'no'. X-axis represents the gender and Y-axis represents the number of participants who opt for washing the fruits and vegetables before consumption (blue) and who do not do the same (red). 68 out of 77 males and 11 out of 13 females do washing their vegetables and fruits before eating. Chi-square analysis was done, p-value = 0.707 (>0.05) which is not statistically significant. Though statistically not significant, the majority of males follow good practices to avoid infection.

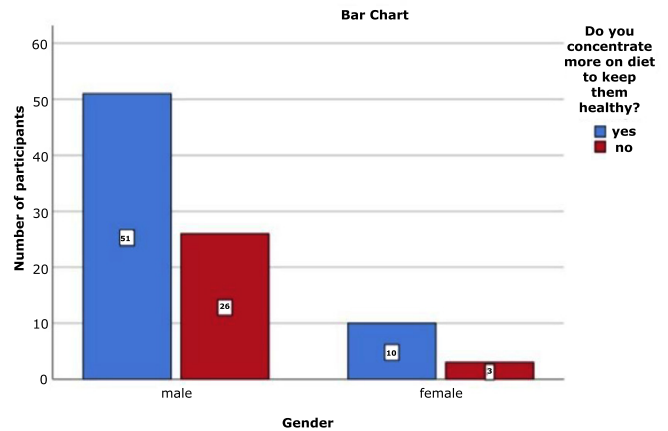


Figure 7: Bar chart showing the association between gender and the importance of concentrating more on diet to keep children's healthy. X-axis represents the gender and Y-axis represents the number of participants who concentrate more on diet to keep their children healthy (blue) and who do not do the same. 51 out of 77 males and 10 out of 13 females concentrate more on the diet to keep fit. Chi-square analysis, p-value = 0.895 (>0.05) which is statistically not significant. Though, not significant, majority of male participants concentrate more on their children's diet than females.

From the results, the majority of the respondents have shown a positive perception regarding the knowledge

and awareness of maintaining good health among Indian parents. When asked about their awareness of the current pandemic 87.16% of the study population is aware of the pandemic disease COVID-19 and 12.84% of the study population is not aware. (Figure 1) When asked about their concern for children's health, 89.91% of the study population is concerned over the health of their children amidst a pandemic outbreak and the remaining 10.09% of the population are not concerned about the health of their children.²⁵ (Figure 2) when asked about whether they will be able to boost immunity among their kids, 80.7% of the parental population were confident about their children's health and 19.3% of them are not concerned.²⁶ (figure 3). When it comes to the preferred type of food, 83.49% of the Indian parents include food that boost immunity such as ginger pepper citrus in their diet and the remaining 16.51% of the population do not include.²⁷ (Figure 4). 64 out of 77 males and 10 out of 13 females have already started restricting junk food to their kids. Though not significant, males seem to be stricter in avoiding junk food for their kids (Figure 5). 72.5% of the participants have answered positively to washing their fruits and vegetables before consumptions and 21.1% have answered contradicting, Though statistically not significant, the majority of males follow good practices to avoid infection (Figure 6)³⁰. 83.5% of the participants had answered positively for the importance of concentrating more on diet to keep children healthy and about 17.7% answered negatively.³¹(Figure 7).

From the survey results, it is very obvious that Indian parents are much concerned about their children and family health. Awareness becomes the limiting factor. In the current scenario, when there is a pandemic outbreak, it is essential that proper awareness is created to the community, thus the people will be well prepared to face an emergency. From the survey, it was evident that as a habit, the parental population of India follows certain things, like washing the vegetables before use, making their children drink boiled water, and following certain disciplines. Moreover, it was also evident that most of the parents are very much concerned when it comes to the health of their children. During these infections, they have preferred not to order food online. They also take the utmost care to provide immune booster foods to their children to fight against infection.

CONCLUSION

The results of the survey conclude that Indian parents are very much concerned about their children and their health. It is the responsibility of every parent to take care of their children's health. There is proper awareness among Indian parents to keep their kids and family healthy especially during a pandemic.

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