

IS INDIA CAPABLE OF MANAGING PANDEMIC— A SURVEY ON POPULAR PERCEPTION AMONG INDIANS

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ABSTRACT:

Pandemic is a global affection which has effects on health, social and political levels, As many countries are trying to tackle the current COVID pandemic, this study aims at analysing the popular perception on the capabilities of India in managing a pandemic among the local population. A questionnaire was distributed through an online google forms link to about 100 South Indian population, The study population were asked to fill out the online form after reading each question thoroughly. The results were collected and Data was analysed using SPSS software version 20. From the results, the majority of the study population answered positive responses regarding India's capability of managing pandemic and also awareness of Pandemic among people of India.. 100% of the population were aware of the pandemic and its outbreaks. This study gives an insight on the popular perception toward India's capability of managing pandemic, and creating an awareness on its spread.

Keywords: Awareness, COVID-19, India, Pandemic, Popular perception,

INTRODUCTION :

Pandemic is a disease outbreak that spreads ,across countries and continents.It affects more people and takes more lives that an epidemic.The world health organisation declared COVID -19 to be a pandemic,when COVID-19 developed into a severe form of illness and could spread quickly over wide area (Madhav *et al.*, 2017) Pandemic is a global affection of effect which has affect on health political and social. In India,several institutional mechanisms with response capacities were affected including the financial sector (Taylor, 2020) .The challenges a country faces is to strive to reach higher levels of mitigation and ensure an effective response mechanism ,(Li *et al.*, 2020). Previously our team had conducted numerous studies and reviews on many upcoming topics (Johnson *et al.*, 2020), (Sekar *et al.*, 2019; Johnson *et al.*, 2020), (Seppan *et al.*, 2018), (Krishna, Nivesh Krishna and Yuvaraj

Babu, 2016), (Nandhini *et al.*, 2018), (Subashri and Thenmozhi, 2016), (Thejeswar and Thenmozhi, 2015), (Sriram, Thenmozhi and Yuvaraj, 2015)and animal studies(Keerthana and Thenmozhi, 2016), (Pratha, Ashwatha Pratha and Thenmozhi, 2016), (Menon and Thenmozhi, 2016), (Samuel and Thenmozhi, 2015), (Hafeez and Thenmozhi, 2016), and in vitro studies (Choudhari and Thenmozhi, 2016), (Kannan and Thenmozhi, 2016).

Any death, any disaster occurs, there is loss of human life which impacts the entire family and puts them under stress . (Purohit *et al.*, 2018),Pandemic affecting the majority of the people in a number of countries. A significant portion of the Wider geographical area is broadly called a pandemic. Normally the pandemic depends on three major things, pandemic response,pandemic preparedness, pandemic mitigation. These three approaches of pandemic management are known as pandemic cycle,(Luby, 2013), (Bhatia *et al.*, 2020)

This study is done in order to spread awareness about the Pandemic situation and its effects on public health and well being . It mainly focuses on analysing the general popular perception about the country pandemic handling capabilities (Germann *et al.*, 2006). This study hopes at fulfilling the deficiency by spreading effective awareness among the local South Indian population and also assess their thoughts , opinions and views towards this pandemic, The aim of the study was to analyse the popular perception about the India's efficient methodologies and strategies employed to tackle the pandemic and thereby spread awareness among the local South Indian population. ((Institute of Medicine, Board on Global Health and Forum on Microbial Threats, 2005).

MATERIALS AND METHODS:

A questionnaire was distributed through an online google forms link to about 100 South Indian population, The study population were asked to fill out the online form after reading each question thoroughly. The questionnaire was validated in a standard manner. Measures such as the selection of participants randomly, steps to prevent asking irrelevant questions, placing restrictions over the participants and age groups are followed to minimise the sampling bias. The questionnaire was circulated using the online platform Google Forms. Descriptive analysis was carried out using the statistical software SPSS VERSION 20. The results were analyzed and represented in the forms of pie-charts.

RESULTS AND DISCUSSION:

The results collected were analysed. A majority of the respondents show positive perception, towards the pandemic (Hessel and The European Vaccine Manufacturers (EVM) Influenza Working Group, 2009), From the results the perception of the general population is highly one sided and very determining opinions were noted.

Popular perception, awareness was found to be varied across different countries. Among that 100% of the study population were aware of pandemic, (World Health Organization, 2010) And when asked about the [figure: 1] COVID 19 spread, in that 61% of the respondents were aware of COVID-19 spread among the population.(Khanna *et al.*, 2009),(Jong *et al.*, 1997).

The study also included a question on an outbreak of nipah virus. For that 48% of the respondents were aware about the Nipah virus [figure: 2] . According to [figure: 3] when asked about the comparisons of nipah and corona management, among 100 respondents, 33% participants answered positively. And when asked about the antibiotics to treat COVID 19 , 33% of respondents were aware about the latest antiviral drugs available in the market [figure: 4]. (Grimes *et al.*, 2006). When asked about the social distancing and its effects in controlling a pandemic, out of 100 respondents, 39% were aware of social distancing and its merits.This coincides with the outcome of another study (Kawaoka, 2006)[figure: 5]. And about the healthcare system only 6% were aware that it is changed and revamped. [figure:6] which reflects the similar ideas of another study (Martinez-Urtaza *et al.*, 2005). When asked about the management for

COVID-19; 100% participants only 39% were aware of the prevention and treatment protocols[figure: 7], which is also supported by another study (Fauci, 2006)(Lipsitc h *et al.*, 2007). Do you think health is beneficial in that only 6% answered positively [figure:8] , About the National health mission [figure: 9] among 100% respondents only 6% responded positively.And about the health care in India 100%respondents among that 28%only answered positively [figure: 10]. And COVID 19 spread has been decreased after the lockdown which supports the results acquired. Limitation of the study is about the awareness of pandemic showed that it led to serious spread and lack of information about the pandemic outbreak covid19 .(Russell and Webster, 2005),(Reed *et al.*, 2009).

The general opinion is that India can manage pandemic positively in a better way and more of its strength can be established(Tscherne and García-Sastre, 2011) . It also focuses on ensuring better awareness on preventive measures and to understand the importance of lockdown to the pandemic outbreak .(Chen *et al.*, 2006).

From fig :4,5,6,9,10 shows , they are significant where males have differing responses to that of females.

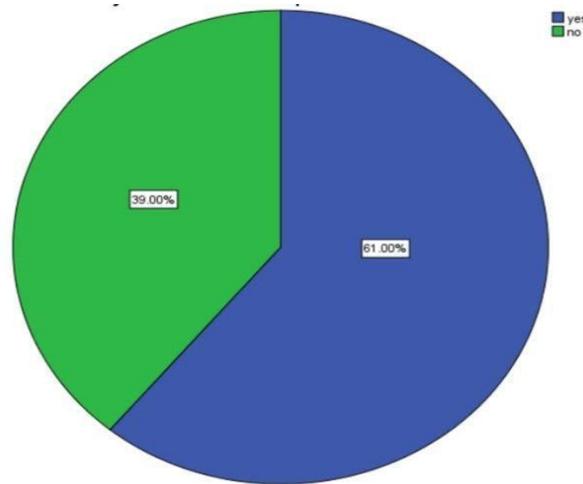


FIGURE 1- Pie chart showing percentage distribution of responses about the awareness of the COVID-19 spread among the population, and a majority of 61% perceive COVID-19 spread is more faster in India than expected(blue), where 39% disagree(green) to it.

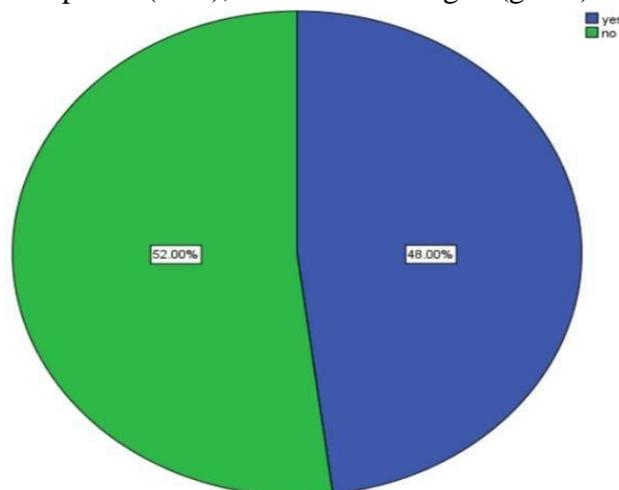


FIGURE 2 - Pie chart showing percentage distribution of responses about awareness of the term Nipah virus, where only a minority of the participants of about 33% were aware of the term Nipah virus (blue), and 67% were unaware(green) about it.

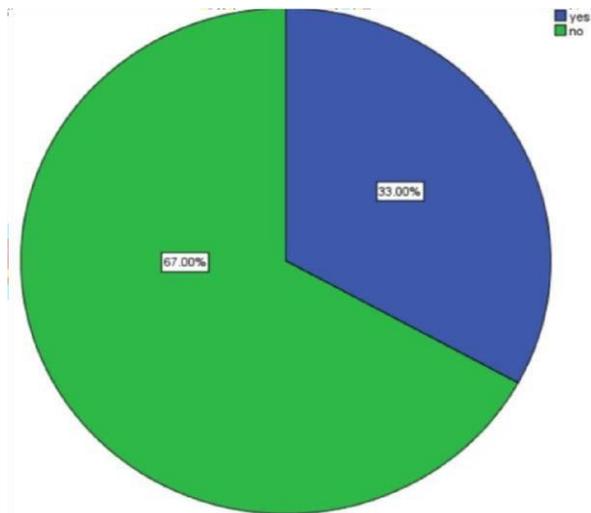


FIGURE 3 - Pie chart showing percentage distribution of responses about awareness of relationship between Nipah and Coronavirus, 33% people agree that they are related(blue), And 67% of people disagree(green).

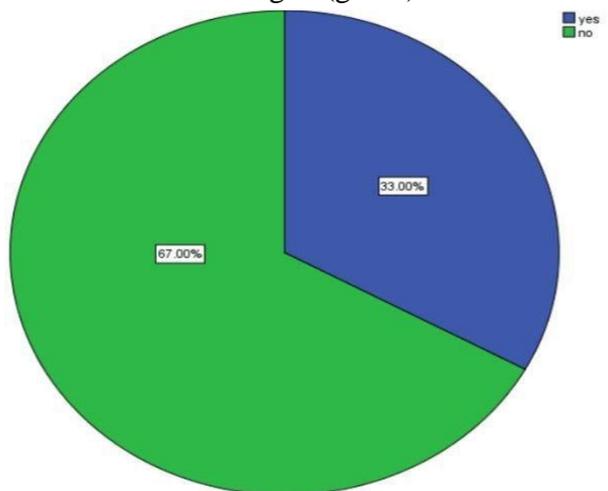


FIGURE 4 - Pie chart showing percentage distribution of responses about awareness on role of antivirals in the treatment of COVID-19, 33% of participants agree that antivirals treat COVID-19(blue),while a majority of them, 67% disagree(green).

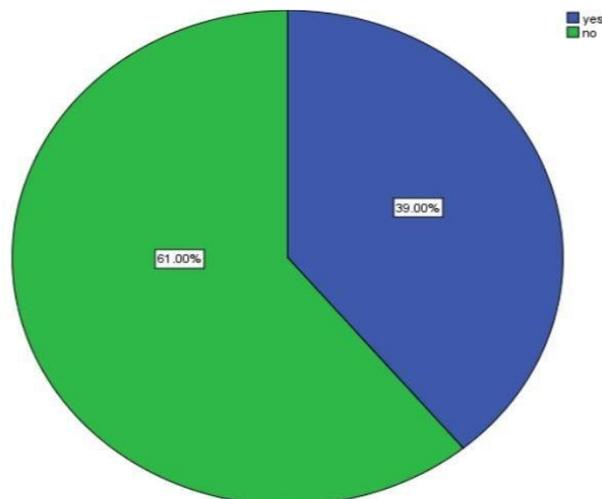


FIGURE 5 - Pie chart showing percentage distribution of responses, about the importance of Social Distancing, 39% are aware that social distancing can reduce the spread of COVID-19(blue) while a majority of 61% are unaware(green) about it.

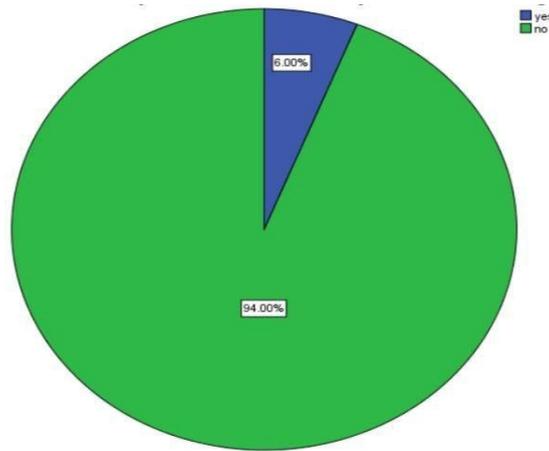


FIGURE 6 - Pie chart showing percentage distribution of responses , about the importance of a strong Healthcare System in effective management of COVID-19, only 6% were aware of the role played by the healthcare system(blue), 94% were not aware of the role played by the healthcare system in managing the COVID-19 pandemic (green).

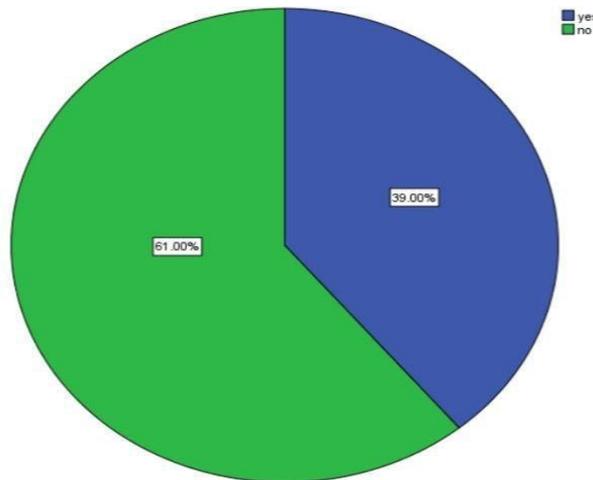


FIGURE 7- Pie chart showing percentage distribution of responses about the management of COVID-19 in India, 39% responded India can effectively manage COVID-19 (blue) and 61% doubted it (green).

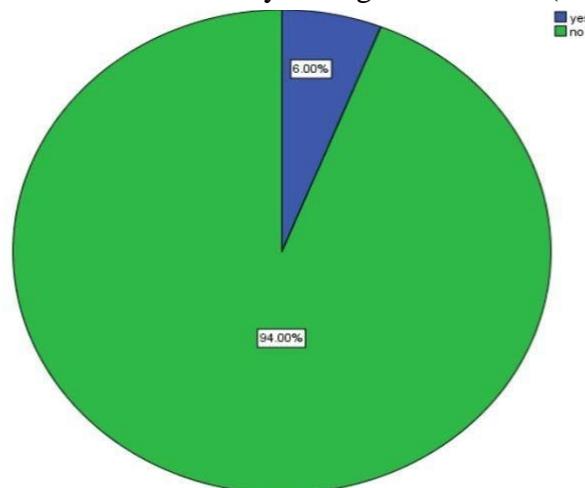


FIGURE 8 - Pie chart showing percentage distribution of responses, about the role of the Public Health care system in mitigating an infectious disease, only 6% of total participants aware that they are beneficial(blue) , 94% were unaware about the need for a robust public health care system(green).

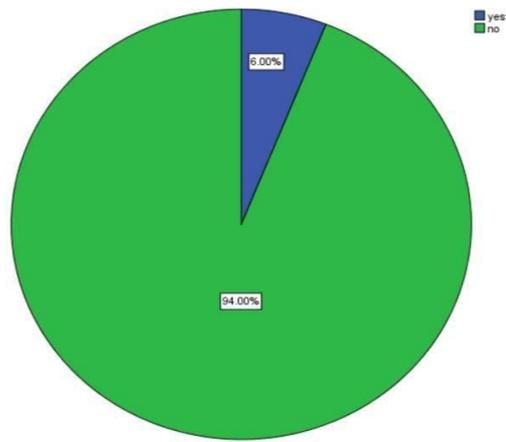


FIGURE 9- Pie chart showing percentage distribution of responses about the role of National health Mission in containing the COVID-19 pandemic, only 6% were aware of its significance (blue), but a vast majority of 94% were unaware of it (green).

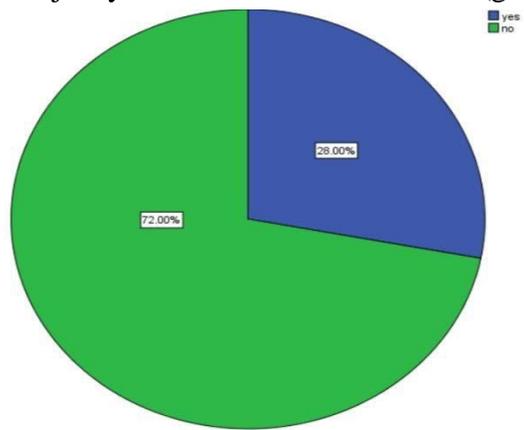


FIGURE 10 - Pie chart showing percentage distribution of responses about the status of free healthcare in India, 28% agreed that Health care is free in India (blue), but a majority of 72% disagree (green) to it.

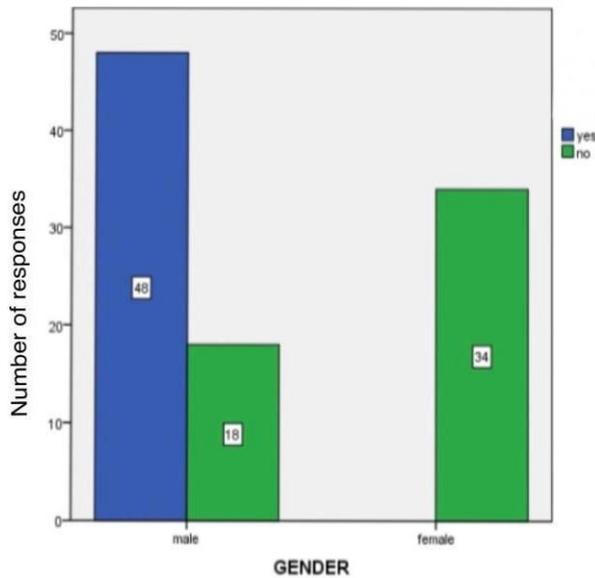


Figure 11: Bar graph represents the association of gender and awareness about Nipah virus. X axis represents the Gender and the Y axis represents the number of responses about the status of awareness of Nipah virus ; where those who are aware are represented by 'blue' and not aware by 'green'. Males(48%) were more aware about Nipah virus compared to females. Association between gender and awareness about Nipah virus was done using chi-square test, Pearson Chi- square value is (47.552) P value =0.000, (p<0.05) was found to be statistically significant. Hence males are more aware of Nipah virus than females.

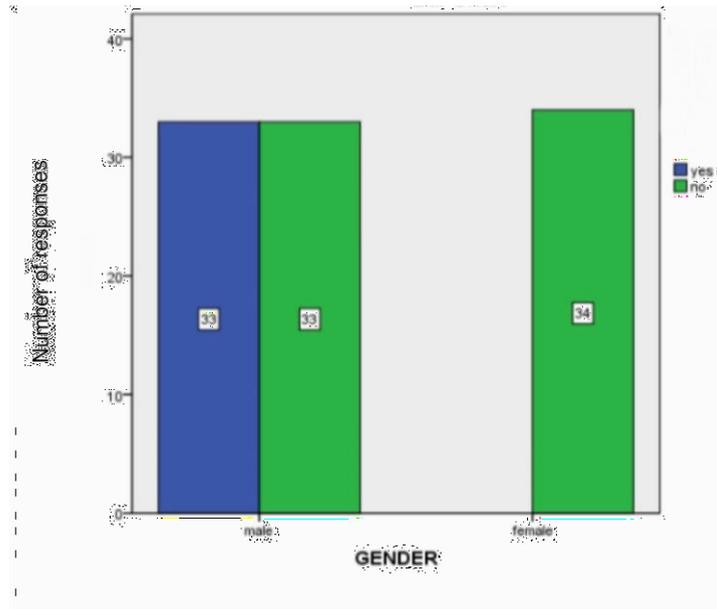


Figure 12: Bar graph represents the association of gender and awareness about the similarity of Nipah and coronavirus. X axis represents the Gender and Y axis represents the no. of responses of those who are aware (blue) and not aware (green) about the similarity of Nipah and coronavirus. Males (33%) were more aware of the similarity of Nipah and coronavirus than females. Association between gender and awareness about Nipah and coronavirus was done using chi-square test, Pearson Chi- square value is (25.373) P value =0.000, ($p < 0.05$) was found to be statistically significant. Out of 33% of the participants who are

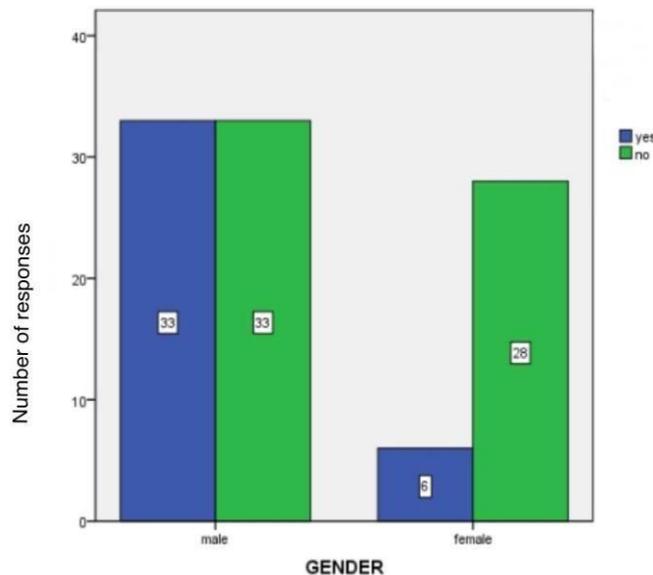


Figure 13: Bar graph represents the association of gender and awareness of Social Distancing reducing the spread of Covid-19 and X axis represents the Gender and Y axis represents the no.of responses of Social distancing will reduce the spread of COVID-19; where those who are aware are represented by 'blue' and not aware by 'green'. Out of 39% of the participants who are aware(blue), 33% constitutes male and 6% constitutes female. Males are more aware of the topic than females. Association between gender and awareness of social distancing was done using chi-square test, Pearson Chi- square value is (9.873) P value =0.002, ($p < 0.05$) was found to be statistically significant.. Hence males are more aware of the impact of Social Distancing in reducing the spread of Covid-19.

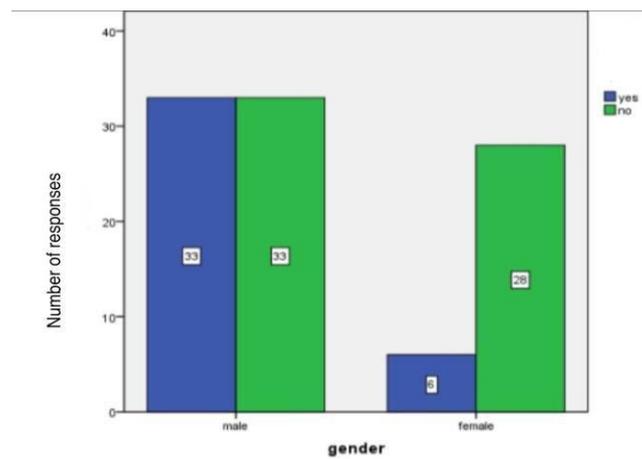


Figure 14: Bar graph represents the association of gender and opinion on India's capability to manage COVID-19 and X axis represents the Gender and Y axis represents the No. of affirmative or negative responses on India's capability to manage COVID-19, where those who responded affirmative are represented by 'blue' and negative by 'green'. Out of 39% of the participants who are aware (blue), 33% constitutes male and 6% constitutes female. Hence males are more affirmative on India's capability than females. Association between gender and opinion on India's capability to manage COVID-19 was done using chi-square test, Pearson Chi-square value is (9.873) P value = 0.002, ($p < 0.05$) was found to be statistically significant. Hence males are more positive on the capability of Indian Government in managing COVID-19 than females.

CONCLUSION:

Pandemic (COVID-19) is a serious disease prevailing around the world that is causing distress to the entire human population in every possible aspect of their life. While every individual looks upon their governments and policy makers to get them out of this grave situation, From this study, it can be seen that a positive perception has been attained among the Indian people. With imposed lock down and a robust health care system including National health mission people some people are positive about the capability of Government of India in managing the COVID-19 pandemic. However many are still skeptical about the capability of India to manage the repercussions of COVID-19 given its poor track record and a weak Health care system. Participants are aware about the challenges posed by the pandemic but the percentage of their Knowledge should be increased and the steps taken by the government machinery should get good propaganda to change such perceptions. The study stresses the need for awareness of government programs, guidelines and protocols among the general public in managing a pandemic.

AUTHOR CONTRIBUTION : All the authors contributed equally in concept, design, carrying out the research and analysis of the study .

CONFLICT OF INTEREST: All the authors declare no conflict of interest in the study.

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