



## Assessment of Awareness, Life Style Modifications and Preventive Measures Adopted During Havoc of Covid- 19 – A Web Survey

Keerthana Morusu<sup>1</sup>, Devi Guna Shireesha Pothina<sup>1</sup>, Sai Deepthi Rayadurgam Venkata<sup>2</sup>, Praveen Kumar Javvaji<sup>3</sup>, Vidyavathi Maruvajala<sup>1\*</sup>

1: Institute of Pharmaceutical Technology, Sri Padmavati Mahila Visvavidyalayam, Tirupati- Chitoor District, 517502, A.P, India.

2. Sri Padmavati Women's medical college, SVIMS University, Tirupati, Chitoor District, 517507, A.P, India.

3. Community Health Centre, Sathyavedu, Chitoor District, 517588, A.P, India.

\*Corresponding author's E-mail: [vidyasur@rediffmail.com](mailto:vidyasur@rediffmail.com)

Received: 11-01-2021; Revised: 24-02-2021; Accepted: 02-03-2021; Published on: 20-03-2021.

### ABSTRACT

An attempt was made through this web based survey to outline the awareness among public regarding COVID-19 preventive measures and life style modifications adopted by them to combat the disease. Online survey structured questionnaires in 3 sections designed by academicians (pharmacy) and medical practitioners and developed using Google forms with an automatic consent placed and followed by questions. A snowball sampling technique was used to conduct the survey. Total 500 people were participated in the survey. Demographics included people from different age groups and various socioeconomic back grounds. Most of the participants were aware of the COVID-19 and had knowledge of necessary measures to combat the virus. Preventive practices like hand sanitization and use of face mask, vitamin supplements and homemade ayurvedic remedies were incorporated with some working style modifications in their day to day life by many of the participants. This web based survey concluded that COVID-19 has brought out many changes in the lives of people and in the light of recurrence of COVID -19, the implications of the present study are useful and throw light on practices to be adopted in current scenario and identifying the gaps that are needed to be filled.

**Keywords:** Coronavirus; ayurvedic remedies; COVID -19; life style modifications; preventive measures; Kashayam.

QUICK RESPONSE CODE →

DOI:

10.47583/ijpsrr.2021.v67i01.006



DOI link: <http://dx.doi.org/10.47583/ijpsrr.2021.v67i01.006>

### INTRODUCTION

The term pandemic is not just enough to illustrate the havoc created by novel Corona virus which has its foothold globally in 214 Countries and Territories (among 251) with a total of 67,530,912 confirmed cases and 1,545,140 deaths reported so far.<sup>1,2</sup> Corona viruses are a family of divergent viruses. Some of them cause the symptoms of flu in humans while others may infect bats, camels, and cattle. SARS-CoV-2 is thought to be transmitted to humans at one of Wuhan's open-air wet markets and likely to be originated from bats.<sup>3</sup>

The transmission of the virus is largely by inhalation of infected droplets, while a few reports suggested transmission by contact inoculation.<sup>4,5 and 6</sup> The strategies like imposing lock down, isolation of individuals exposed to corona virus, tracing the suspects and confirmation of the diagnosis and enlightening the general public about

control measures are the main approaches to control the spread of this epidemic.<sup>7</sup>

The accomplishment of confrontation against COVID-19 confide in public adherence to infection control measures, which is mostly influenced by the knowledge, attention, and the activities of the public towards this infection.

The susceptibility to the COVID 19 can be reduced in public by creating awareness about disease and its preventive measures. Those include hands sanitization, personal hygiene and avoiding contact with infected patients and wearing of nose masks.<sup>8 9 and 10</sup> People with co morbid disease conditions like diabetes, hypertension, and autoimmune diseases etc., are highly prone to the COVID-19 and it is considered as an important parameter while conducting surveys.<sup>11</sup> Travel is also considered as major contributing factor which maximizes the risk of spread of disease and its emergence and it needs to be monitored.<sup>12</sup>

The present survey outlined to convene the particulars regarding the awareness of pandemic situation generated by COVID 19 and management of the day to day activities keeping in-view of spread and prevention of COVID-19.

The aim of the study was to assess the awareness on practice needed against COVID-19 and expecting future lockdown guidelines to rigid COVID-19. As a part of this, an online survey was conducted to create awareness about



COVID- 19 and to know the pulse of people on the measures already taken by them and practice of regular lifestyle modification during this pandemic.

## METHODS

This was an online survey conducted using a snowball sampling technique. Online structured questionnaires in 3 sections designed by academicians (pharmacy) and medical practitioners and developed using Google forms with an automatic consent placed and followed by questions. A self processed, structure—consisted of 30 questions.<sup>13</sup> The study was approved by institutional ethics committee. [IEC no SPMVV/Acad/IEC/C1/IX/2020]. Informed consent was spread through link and the people accepted it from age of 18 years and above.

**Sampling method:** A snow ball sampling method<sup>14</sup> was used, total of 500 people are estimated to complete the survey. The Google form was related to know about how people are aware about the disease, practicing the preventive measures<sup>15</sup> already they have taken and following, life style modifications<sup>16,17</sup> during COVID 19.

**Survey tool:** Study contrivance composed of 4 parts. First section was with the demographic details like age, gender, area, state, educational qualification and occupation. The second part had 5 questions regarding the media through which people know the disease and whom they contact for treatment and essential steps required to get recover from the disease. Third part had 15 questions related to prevent the attack of diseases like use of masks, sanitization, exposure to sunlight, social distancing, use of immune boosters or natural traditional decoctions with its composition and so far opinion on role of lockdown to prevent the disease. Fourth part contained the questions related to changes needed in life style like travelling, attending gatherings like functions and meetings, use of outside food, online working style from home and office.<sup>18</sup>

**Data collection:** The information was obtained by means of sending the survey form which created as Google form and put it in face book, Whatsapp, LinkdIn, and mails etc., by clicking on the link it directly takes to the survey form. Data obtained was analysed in the form of percentages.

## RESULTS

**Demographic data:** Total 500 people were participated in the survey. (Table -1). Among them, 54.2% were females and 45.8% were males, as shown in Fig.1A. People of the age from 18-25 years constituted 58.8%, 26-40 years were 33.8%, 41-60 years were 6.4% and above 60 years were 1% (Fig.1B). The highest responded participants aged between 18-25 years. Educational qualification of the participants varied from schooling of 10<sup>th</sup> grade to Ph.D. They included health care professionals as well as people from other backgrounds like students were 48.6%, private employees were 26%, unemployed people were 8.4%, Govt employees were 7.2%, 4.8% of were businessmen and

remaining were home makers. (Fig.1C). The participants were mostly from Andhra Pradesh and few from other states within India. Among them 42.6% were from rural background and 57.4% belong to urban area as shown in Fig.1D.

### Section-I

About 79.4% people came to know most of the information about COVID-19 through social media, 62.6% through print and electronic media and 23.2% through personal interactions as represented in Fig.2A. People responded to prefer to contact medical practitioners (91%), pharmacist 26.8%, ayurvedic practitioner 13.4%, and homeopathic practitioners (10.4%) for advice regarding COVID treatment (Fig.2B).

When questioned on supportive cares that are important in recovering from the disease, 90% participants felt healthy diet was important, while 62.4% felt family support will be helpful. 60% of the participants regarded exercise, and 51.4% opined psychological counseling to be important in recovering from COVID-19 (Fig.2C).

On preventive front, 80.2% participants chosen home quarantine as preferred strategy, while 60.6% thought herd immunity was more effective. 36.4% chosen rigorous testing and 33.6% people selected contact tracing are the best methods to control COVID-19 (Fig.2D).

When questioned on the role of different healthcare professionals, 87.2% participants responded that the doctors, nurses and pharmacists all have important role in prevention and treatment of COVID-19 (Fig.2E) and while the remaining people thought it was only Doctor who was having major role.

### Section II

The participant's knowledge on preventive practices was tested in the further questionnaire. The survey found that 14.4% people sanitized their hands three times a day, 16% people did it four times a day while 62% of them sanitized their hands more than 4 times in a day. But 7.6% of people didn't practice hand sanitization. (Fig.3A).

Around 89.4% people practiced sunbathing early morning (Fig.3B) and 98.4% participants practiced social distancing (Fig.3C). 95.2% people used face masks while going out all the time (Fig.3D). Among them 58.3% people used cloth masks, 22.5% wore N-95 masks and 17.3% used surgical masks. (Fig.3E). 79.4% of people used disinfectants to clean surfaces, tables, doors, knobs, etc. (Table-1).

On data regarding people with co-morbid conditions, 51.4% people disclosed that none of their family members had any co-morbid conditions, while others had the following conditions (respectively), diabetic (39.4%), hypertensive (22.2%), cardiac illness (9%), respiratory problems (7.6%), cancer (2.2%) (Table-1). As per the data 1.4% participants tested positive for COVID 19 and 31%



tested negative. Rest of the respondents didn't get themselves tested. (Table-1).

93.8% of participants responded that they are aware of WHO and NIH guidelines in controlling the disease (Table-1). About 30.2% of people were using Vitamin-C and Vitamin-B complex supplements on their daily bases and 38.8% were using them occasionally. 31% people didn't use any supplements (Table-1).

The participants were questioned on the use of basic healthcare devices at home during the pandemic. Thermometer was used by 56.6% of the respondents, Pulse oximeter by 19.6%, Nebulizer by 17.4% while only a few of them used Sphygmomanometer. (Table-1)

On use of traditional preparations at home, 76.8% people said they used to prepare Kashayam at home (Fig.4A). The ingredients included ginger (79.2%), turmeric (73.2%), Lemon (67.8%), Tulasi (66%), pepper (59%), cinnamon (44.4%), pudina (34.4%) and others like black jaggery, jeera, curry leaves and moringa leaves (Fig.4B)

When bringing vegetables to home 66.4% used to wash them before consumption. 52.8% used salt for the purpose, 19.4% used Turmeric, 2.8% used soap, 2% used warm water, while 0.2% used vinegar (Table-1). When asked on government interventions 85.4% people responded that they were in favor of lockdown to control the COVID-19 (Table-1).

### Section III

Finally participants were questioned on the life style modification that they experienced during the pandemic. 78% of the participants avoided travelling to out stations (Fig.5A), 42.6% practiced yoga everyday to boost their immunity (Fig. 5B), 80.6% people avoided dining out. (Fig. 5C). 55.4% of the people preferred work from home, while 30.2% were comfortable with both online and onsite working style (Fig.5D). A few (9%) chosen onsite working environment. 5.4% people wanted to change their profession. 90% people preferred not to attend any gatherings (Fig.5E) during the pandemic.

**Table 1:** Contrivance Questionnaire and its respondents

Variable type	Explanation of Variable	% Respondents
<b>Awareness about disease</b>		
<b>Knowing</b>	Came to know about COVID through	
	1. Printing and electronic media	62.6%
	2. Social media	79.4%
	3. Personal interaction	23.2%
	4. other sources	2.6%
<b>Treatment</b>	Required contact person for COVID treatment	
	1. Medical practitioner	91%
	2. Ayurvedic Practitioner	13.4%
	3. Homeopathic Practitioner	10.4%
	4. Pharmacist	26.8%
	If any other	4.6%
<b>Recovery</b>	Which is Important to recover from disease	
	1. Healthy diet,	90%
	2. Exercise,	60%
	3. Family support,	62.4%
	4. Psychological counseling	51.4%
<b>Controlling</b>	Which one helps to control from disease	
	1. Rigorous testing,	36.4%
	2. Home quarantine,	80.2%
	3. Contact tracing,	33.6%
	4. Developing herd immunity	60.6%
<b>Preventive role</b>	Whose role is essential in prevention and treatment of COVID	
	1. Doctor	10.6%
	2. Nurse	0.6%
	3. Pharmacist	1.6%
	4. All	87.2%
<b>Prevention practices</b>		
<b>Sanitizing</b>	Frequency of Hand sanitization	
	1. Thrice per day	14.4%
	2. Four times a day,	16%
	3. More than 4 times a day,	62%
	4. None of these	7.6%
<b>Sunlight exposure</b>	Expose to sunlight in the morning	
	Yes	89.4%
	No	10.6%
<b>Distancing</b>	Maintaining social distancing in public places	
	Yes	98.4%
	No	1.6%
<b>Wearing mask</b>	Wearing mask while going out	
	1. Always,	95.2%



	2. Sometimes	4.6%
	3. Never	0.2%
<b>Type of mask</b>	Type of mask using for protection	
	1. Cloth mask,	57.2%
	2. Surgical mask,	17.6%
	3. N-95 mask	23.4%
	4. any other type	1.8%
<b>Disinfectant</b>	Use of disinfectant to clean surfaces, tables, door knobs, etc.,	
	Yes	79.4%
	No	20.6%
<b>Co morbidity</b>	Any people with co morbidity at their home	
	Cancer	2.2%
	Cardiac illness,	9%
	Diabetes	39.4%
	Hypertension,	22.2%
	Respiratory illness,	7.6%
	Nothing	51.4%
<b>Testing</b>	If undergone COVID diagnostic testing - result	
	Positive	1.4%
	Negative	31%
	Not yet done	67.6%
<b>WHO, NIH guidelines</b>	Aware of WHO and NIH guidelines to control the spread of COVID.	
	Yes	93.8%
	No	6.2%
<b>B-complex and vitamin-C</b>	Daily use of B-complex and Vitamin-C supplements	
	Yes	30.2%
	No	38.8%
	Some times	31%
<b>Devices</b>	Keeping any medical devices at home like	
	1. Thermometer	56.6%
	2. Nebulizer,	17.4%
	3. Pulse oximeter,	19.6%
	4. Any other devices	37%
<b>Decoction</b>	Use of Kashayam/ decoction for prevention	
	Yes	76.8%
	No	23.2%
<b>Ingredients of Kashayam</b>	Ingredients used for the preparation of kashayam	
	Lemon,	67.8%
	Turmeric,	73.2%
	Cinnamon	44.4%
	Pepper	59%
	Ginger	79.29%
	Tulasi	66%
	Pudina	34.4%
If any other	8%	
<b>Washing eatables</b>	Cleaning of fruits and vegetables before use with	

	1.Salt	52.8%
	2. Warm water	66.4%
	3.Turmeric	19.4
	4.Soap	2.8%
	5. Any other mixture	9.8%
<b>Lock down preference</b>	People may prefer lockdown to control the disease spread	
	Yes	85.4%
	No	14.6%
<b>Life style modifications/ changes in Pandemic</b>		
<b>Travelling</b>	Travelled to other station during pandemic situation	
	Yes	78%
	No	22%
<b>Practices</b>	Yoga practice every day to boost your immune system –	
	Yes	42.6%
	No	57.4%
<b>Outside food</b>	Outside food taken during lockdown	
	Yes	19.4%
	No	80.6%
<b>Working style</b>	Working style of preference	
	1. Online (from home),	55.4%
	2. Offline (at office),	9%
	3. Either online or offline	30.2%
	4. Change of profession	5.4%
<b>Attending gatherings</b>	Any gathering functions attended	
	Yes	10%
	No	90%

## DISCUSSION

This web based study among people brought forward a snapshot of the three different disciplines like awareness of the disease, preventive practices followed and life style modification that they experienced during COVID-19 pandemic.

## Demographic data

Among 500 respondents, female participation was 8.4 % more when compared with males, as shown in Fig.1A. People of the different age groups were actively responded for the survey. The maximum percentage of participants i.e, 58.8% were in between 18-25 years of age because, the students and trainees are mostly fall under this age group and minimum percentage of participation is seen from the people who are above 60 years (1%) might be due to the lack of general interest (Fig.1B). People participated in the survey were holding various educational qualifications starting from 10<sup>th</sup> grade to Ph.D and were in different occupations (Fig.1C). The participants were mostly from Andhra Pradesh and few from other states within India. Urban area respondents were found higher than rural area due to their less



accessibility to internet and communication abilities with others. Fig.1D.

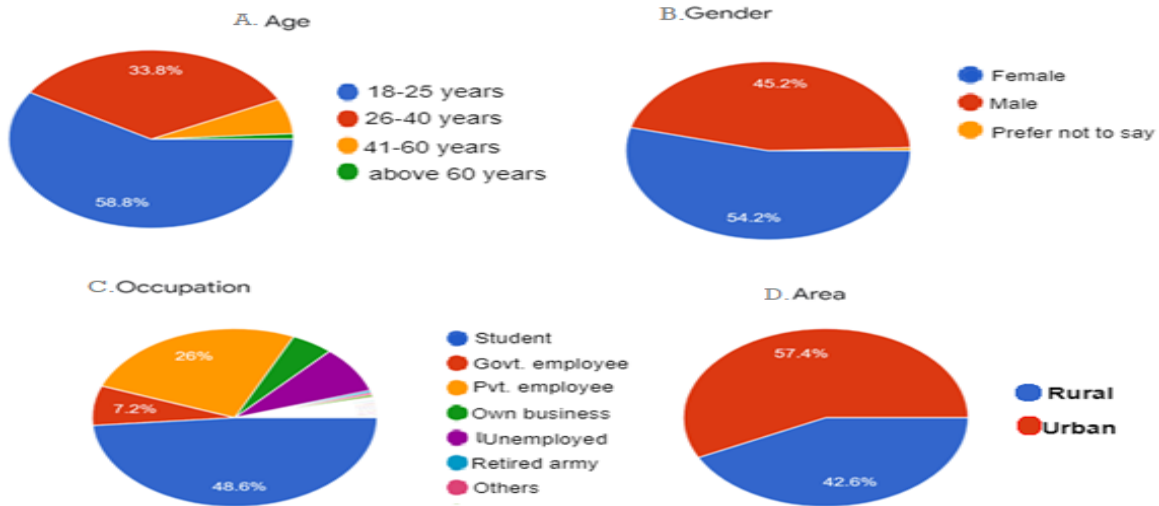


Figure 1: Distribution of respondents as per demographic data.

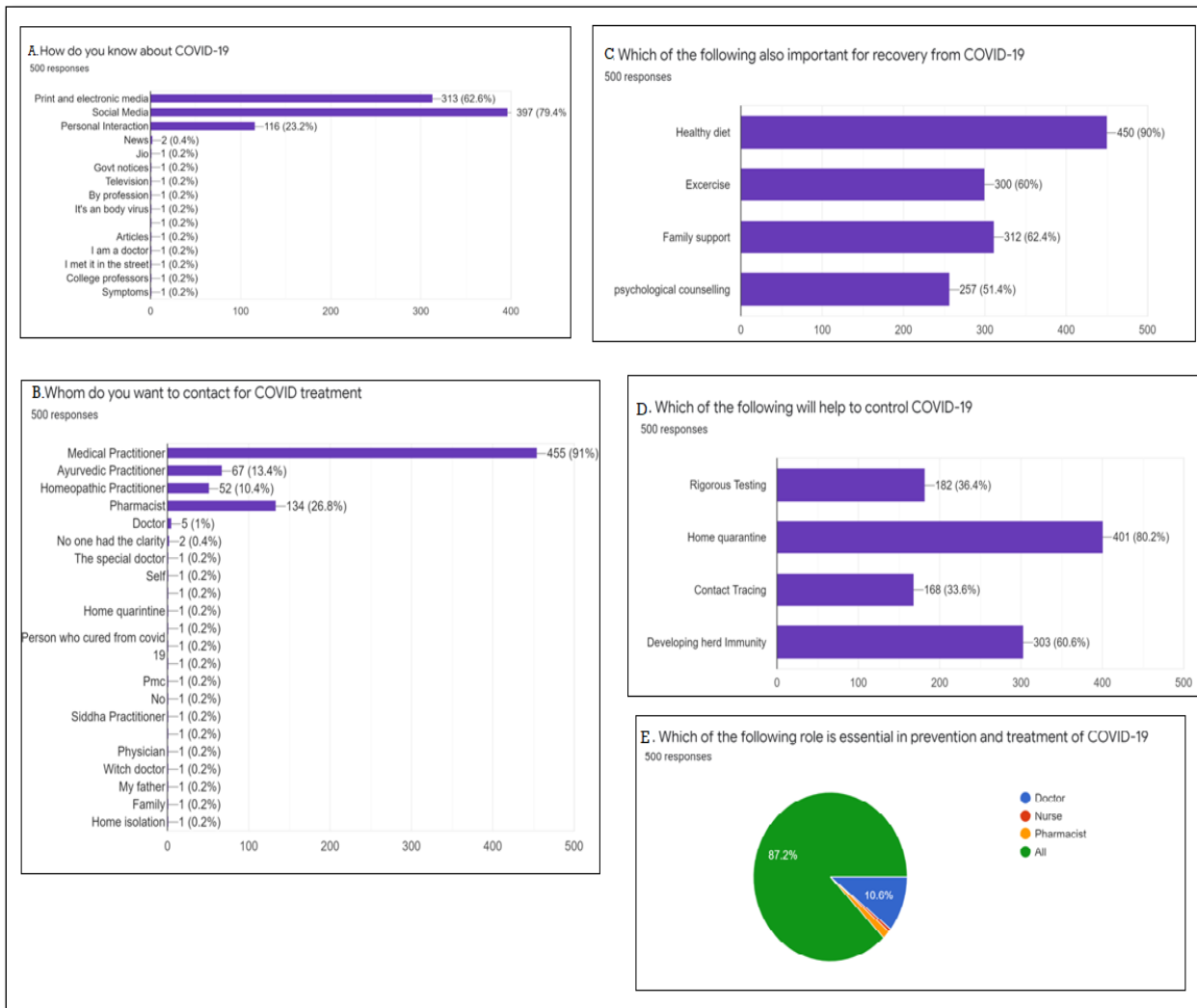


Figure 2: Awareness about disease



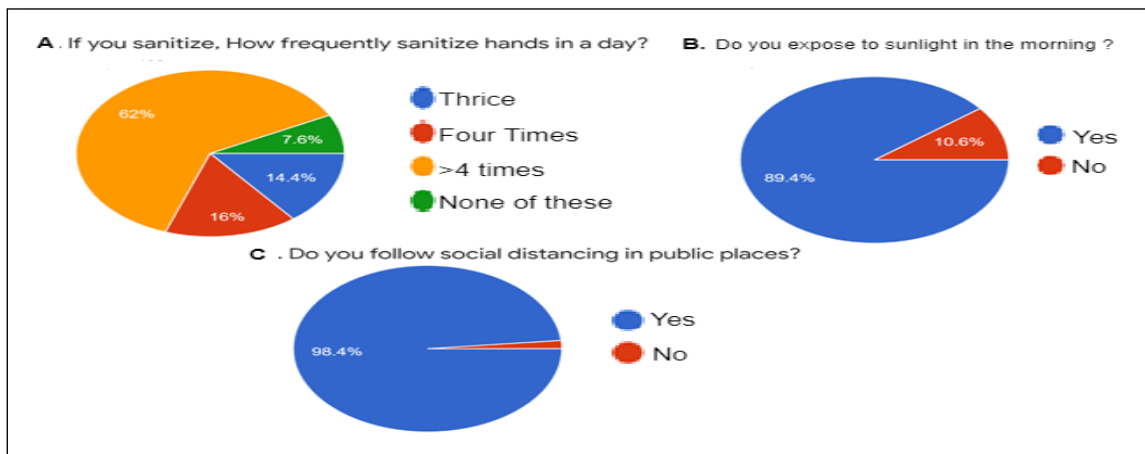


Figure 3: Prevention practices

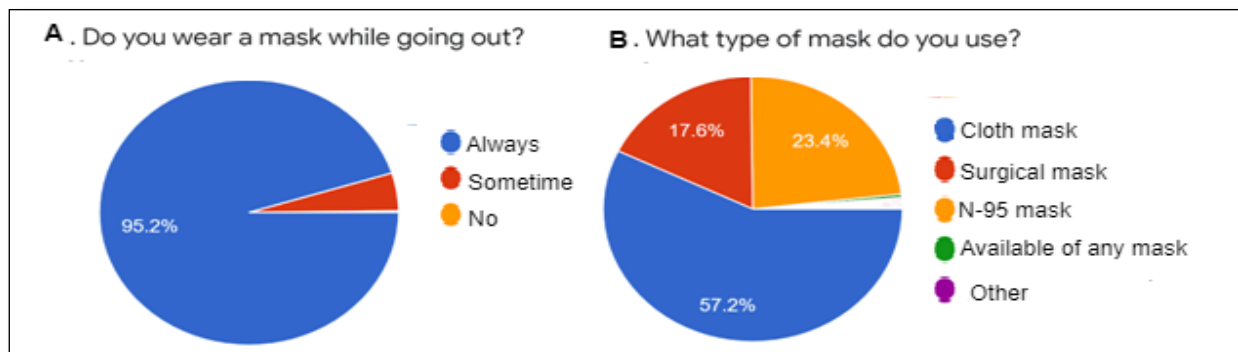


Figure 4: Usage of face mask and type of mask by participants.

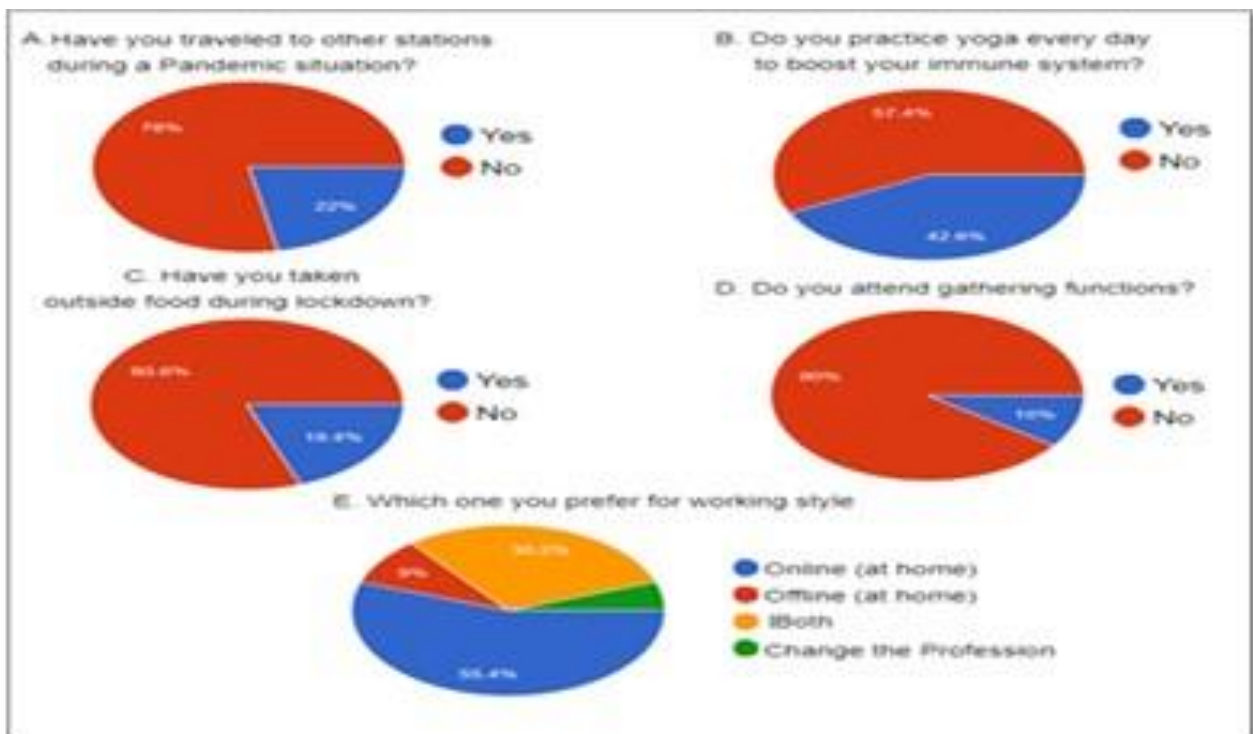


Figure 5: Lifestyle modifications and changes adopted by respondents during pandemic.

## Section-I

The prime source for COVID-19 information was social media followed by print and electronic media through personal interactions as represented in Fig.2A. Similar findings were also observed in the study conducted by Zhong et al<sup>19</sup> in China and Narayana.G et al<sup>13</sup> in India. The high percentage of awareness of COVID-19 among surveyed people was due to the awareness campaign through television, Aarogya Setu mobile application and caller tones and messages forwarded by the government of India and state governments and active foot forward by media. Among respondents highest percentage were i.e., 91 % would prefer to contact medical practitioners followed by pharmacist, ayurvedic practitioner, and homeopathic practitioners for advice when they had symptoms of the disease (Fig.2B). The reason behind this is respondents have clear idea about the seriousness of the disease and they even know that immediate medical attention is required to relieve from the symptoms. Highest percentage of respondents felt healthy diet is very essential supportive care followed by family support, exercise and psychological counseling to recover from the COVID-19 along with treatment (Fig.2C).

Home quarantine was chosen by highest percentage of people as preferred preventive strategy to control COVID-19, followed by the herd immunity, rigorous testing and selected contact tracing (Fig.2D). Survey population believed that different healthcare professionals like doctors, nurses and pharmacists have important role in treatment of COVID-19 while very few thought it was only Doctor has vital role in treatment. (Fig.2E). It indicated that all the health care professionals played an essential role and are approachable to people.

**Section II:** The knowledge on preventive practices like usage of sanitizer, exposure to sun and wearing of mask and practice of social distancing was tested. Highest percentage of people sanitized more than 4 times per day followed by 4 times, 3 times but interestingly it was found that, there are people who didn't practice hand sanitization due to their innocence or unaware of seriousness of disease. (Fig.3A). It was found that significantly higher respondents practiced hand sanitization indicated that the importance of the hand sanitization is well perceived by the people which further depicts the role of practice of hand sanitization in control of COVID as per WHO/NIH guidelines.

Exposure to sunlight improves the vitamin-D levels in the body. Most of the participants practiced sunbathing (Fig.3B). Most of the respondents were aware of social distancing norms. (Fig.3C). Highest percentage of participants used face masks while going out all the time (Fig.3D). Among them people used cloth masks were higher when compared with people using N-95 masks and surgical mask (Fig.3E). This variation might be due to cost and ease of availability of masks in different areas. Three

fourth of the participants have used disinfectants to clean surfaces, tables, doors, knobs, etc. to avoid the contact of virus and further spread of COVID (Table-1).

On data corresponding to people with co-morbid conditions, 51.4% respondents disclosed that their family members do not have any co-morbid conditions, remaining stated that, among co morbidities, people with diabetes were highest followed by hypertension, cardiac illness, respiratory problems and cancer (Table-1). The data on this question was collected to create awareness on increased care and precautions required in co-morbid conditions due to delay or difficulty faced in treatment of COVID in people with this co-morbid conditions.<sup>20</sup>

Numbers of respondents tested positive were very less as per the data acquired and among tested 31% tested negative. Most of the respondents didn't test themselves (Table-1).

Most of the respondents were aware of WHO and NIH guidelines in controlling the disease which is very important in control of the COVID pandemic globally (Table-1).

Among people surveyed, the highest percentage of participants used Vitamin-C and Vitamin-B complex supplements occasionally followed by people who didn't use any supplements and those used regularly, which depicted that the people believed in the use of nutrients or vitamin supplements to increase the strength to fight against COVID (Table-1).

The participants were surveyed on the use of basic healthcare devices at home during the pandemic. Most of the respondents maintained Thermometer followed by Pulse oximeter, Nebulizer and Sphygmomanometer. (Table-1) The purpose for the inclusion of this question was to get the people aware about the names of the some devices specially pulse oximeter as it is essential to know the severity or status of breathlessness including oxygen saturation levels

In India traditional medicine has lot of importance and Ayurvedic system of medicine is said to be the valuable heritage and wealth of India. People were surveyed about the usage of traditional medicine interestingly more than 90% of the respondents prepared and included in their daily diet. (Fig.4A) The highest percentage of people surveyed included ginger as an ingredient followed by turmeric, lemon, tulasi, pepper, cinnamon and pudina. Some of the participants even mentioned other ingredients like black jaggery, jeera, curry leaves and moringa leaves (Fig.4B). Most of these were reported to have anti-oxidant, anti-microbial and anti-viral properties.<sup>21</sup>

Most of the respondents used to wash vegetables before cook and highest percentage used salt for the purpose followed by turmeric, soap , warm water and vinegar .(



Table-1). More than three fourth of the people responded that they were in favor of lockdown to control the COVID-19 (Table-1). These types of measures are important to prevent the spread of COVID-19 and the present study proved that the most of the preventive measures are taking by people.

### Section III

Life style modification is also an important factor to be considered while surveying. In life style modifications, information about travel interest, immunity boost up practices and preferred work style was acquired. More respondents showed less interest or zero interest to travel to out stations (Fig. 5A). More than half percentage of participants practiced yoga everyday to boost their immunity (Fig. 5B), and about 80.6% people avoided taking of outside food (Fig. 5C). Highest percentage of people preferred work from home followed by online and onsite working style and onsite working environment (Fig. 5D). Some of the respondents even preferred to change their profession. Most of the respondents preferred not to attend any gatherings (Fig. 5E) during the pandemic. This indicated that change is an essence of life and people would be able to tackle the present serious situation.

### CONCLUSION

This web based survey successfully outlined the awareness among respondents regarding COVID-19 preventive measures and life style modifications adopted by them to combat the disease. This study concluded that COVID-19 has brought out many changes in the lives of people and it is evident that people are being acclimatized and accustomed to the new lifestyle duly following special health care precautions. In the light of recurrence of second COVID wave in affected countries and number of case reports recorded daily, the implications of the present study are useful and throw light on practices to be adopted in current scenario and identifying the gaps that are needed to be filled.

### REFERENCES

- World Health Organization. 2020. Disease outbreaks by year. WHO Web Site; 2020 [updated 18 Mar 2020; cited 10 July 2020]; Available from: <https://www.who.int/csr/don/archive/year/en/>
- World Health Organization. (2020). Novel Coronavirus (2019-nCoV): situation report, [updated 09 Dec. 2020]; Available from: <https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200227-sitrep-38-covid-19.pdf>
- Carlos WG, Dela Cruz CS, Cao B, Pasnick S, Jamil S., COVID-19 Disease due to SARS-CoV-2 (Novel Coronavirus). *Am J. Respir Crit. Care Med.* 2020; 201(4): 7-8.
- Wang C, Horby PW, Hayden FG, Gao GF A novel coronavirus outbreak of global health concern. *The Lancet.* 2020; 395(10223): 470-473.
- Bai Y, Yao L, Wei T, Tian F, Jin DY, Chen L, Wang M., Presumed asymptomatic carrier transmission of COVID-19. *Jama.* 2020; 323(14): 1406-7.
- Cunningham AC, Goh HP, Koh D., Treatment of COVID-19: old tricks for new challenges. *Crit Care.* 2020; 24(91): 1-2.
- Lai S, Ruktanonchai NW, Zhou L, Prosper O, Luo W, Floyd JR et al., Effect of non-pharmaceutical interventions to contain COVID-19 in China. 2020. <http://nrs.harvard.edu/urn-3:HUL.InstRepos:42661263>
- Funk S, Gilad E, Watkins C, Jansen VA., The spread of awareness and its impact on epidemic outbreaks. *Proc. Natl. Acad. Sci.* 2009; 106.16: 6872-6877.
- Freiman AJ, Montgomery JP, Green JJ, Thomas DL, Kleiner AM, Boulton ML, Did H1N1 influenza prevention messages reach the vulnerable population along the Mississippi Gulf Coast?. *J. Public Health Manag. Pract.* 2011; 17(1): 52-58.
- Seng SL, Lim PS, Ng MY, Wong HB, Emmanuel SC., A study on SARS awareness and health-seeking behaviour-findings from a sampled population attending National Healthcare Group Polyclinics. *AAMS,* 2004; 33(5), 623-629.
- Munster VJ, Koopmans M, van Doremalen N, van Riel D, de Wit E., A novel coronavirus emerging in China—key questions for impact assessment. *N. Engl. J. Med.* 2020; 382(8), 692-694.
- Hay SI, Tatem AJ, Graham AJ, Goetz SJ, Rogers DJ., Global environmental data for mapping infectious disease distribution. *Adv. Parasitol.* 2006; 62: 37-77.
- Narayana G, Pradeepkumar B, Ramaiah JD, Jayasree T, Yadav DL, Kumar BK., Knowledge, Perception, and Practices towards COVID-19 Pandemic among General Public of India: A Cross-sectional online survey. *Curr Medi.Res and Pract.* 2020; 10(4): 153–159.
- Saefi M, Fauzi A, Kristiana E, Adi WC, Muchson M, Setiawan ME, Islami NN et al., Survey data of COVID-19-related Knowledge, Attitude, and Practices among Indonesian Undergraduate Students. *Data in Brief* 2020; 105855.
- Pandey S, Gupta A, Bhansali R, Balhara S, Katira P and Fernandes G., Corona Virus (COVID-19) Awareness Assessment-A Survey Study Amongst the Indian Population. *J Clin Med Res* 2020; 2.4: 1-10.
- World Health Organization. Water, sanitation, hygiene and waste management for COVID-19: technical brief, 03 March 2020. No. WHO/2019-NCoV/IPC\_WASH/2020.1. World Health Organization, 2020.
- Matusiak Ł, Szepietowska M, Krajewski P K, Białyński-Birula R, & Szepietowski J C., The use of face masks during the COVID-19 pandemic in Poland: A survey study of 2315 young adults. *Dermatol Ther.* 2020 ; e13909.
- Chiodini J. Maps, masks and media—Traveller and practitioner resources for 2019 novel coronavirus (2019-nCoV) acute respiratory virus. *Trav. Med. Infect Dis.* 2020; 33: 101574.
- Zhong BL, Luo W, Li HM, Zhang QQ, Liu XG, Li WT, Li Y., Knowledge, attitudes, and practices towards COVID-19 among Chinese residents during the rapid rise period of the





- COVID-19 outbreak: a quick online cross-sectional survey, Int. J. Biol. Sci. 2020; 16(10): 1745.
20. Zhou Y, Yang Q, Chi J, Dong B, Lv W, Shen L, Wang Y., Comorbidities and the risk of severe or fatal outcomes associated with coronavirus disease 2019: A systematic review and meta-analysis. Int. J. Infect. Dis. 2020; 99: 47-56.
21. Kokate C.K. Ayurvedic system of medicine and ayurvedic preparations. Kokate C K, Purohit A P, & Gokhale S B , editors. *Pharmacognosy*. 53<sup>rd</sup> ed. India: Nirali Prakashan.2008. pp. 1.5-1.6 and 20.3.

**Source of Support:** None declared.

**Conflict of Interest:** None declared.

For any question relates to this article, please reach us at: [editor@globalresearchonline.net](mailto:editor@globalresearchonline.net)

New manuscripts for publication can be submitted at: [submit@globalresearchonline.net](mailto:submit@globalresearchonline.net) and [submit\\_ijpsrr@rediffmail.com](mailto:submit_ijpsrr@rediffmail.com)

