

Original Research Article

Social implications and perceptions of the urban Indian population in the current scenario of COVID-19: a comprehensive survey

Dayanand M. Kannur^{1*}, Suvarna P. Ingale¹, Digambar B. Ambikar¹, Dhruvi A. Gosar¹,
Shubham V. Pawar¹, Anahga M. Joshi¹, Pallavi S. Sajanapwar²

¹Department of Community Medicine, SCES'S Indira college of Pharmacy, Pune, India

²SCES's, Indira Institute of Management, Tathwade, Pune, India

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*Correspondence:

Dr. Dayanand M. Kannur,

E-mail: dmkannur@rediffmail.com

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ABSTRACT

Background: The goal of this questionnaire is to understand the social implications and the knowledge urban populations has about COVID-19, and are people are taking proper precautions against the disease.

Methods: Since there is no proven validated vaccine for prevention of COVID-19 to date, isolation of high-risk individuals and social distancing is the only solution to limit the spread. Since the government of India imposed the national lockdown on 22 March. A cross-sectional questionnaire-based study was carried out by dispensing the questionnaire to individuals through online mode. A total of 633 responses were collected from individuals by a pre-designed. In our study we studied the knowledge of the Indian population about COVID-19. 64.8 % reported that they are well versed in the details of the pandemic COVID-19. More than 94 % of individuals stated that they are properly prepared and are taking proper precautions. Moreover approximately 95% of the population feels the seriousness about COVID-19 increased after lockdown. The majority of people are aware of the measures to be taken for avoiding transmission of COVID-19 infection. But some people are still not aware of the precautions to be taken to avoid the spread of the disorder.

Conclusions: Along with isolation and social distancing, creating awareness about the disease by educating the people about COVID-19 is also important. Physical health taking care of the mental health of individuals is equally important.

Keywords: Coronavirus, COVID-19, Mental health, Social distancing

INTRODUCTION

In December 2019, a large number of pneumonia cases, caused by a newly identified β -coronavirus, occurred in Wuhan, China. This coronavirus was initially named as the 2019 novel coronavirus (2019-nCoV) on 12 January 2020 by World Health Organization (WHO). WHO officially named the disease as coronavirus disease 2019 (COVID- 19) (WHO, 2020).¹ The coronavirus belongs to a family of viruses, which once infected to humans may

lead to various symptoms such as pneumonia, fever, breathing difficulty, and lung infection (Lu et al).²

COVID-19 is spreading throughout the world, has sickened more than 36 lakh people and claimed over 2 lakh lives in approximately 202 countries at the time of writing with no sign of slowing down (WHO 2020). Some decline in death rate is observed in some countries. As per the information given by the ministry of health and the government of India, the majority of Indian

patients had a good prognosis. But the patients with chronic underlying diseases such as diabetes, hypertension, respiratory disorder, and cardiovascular diseases were in critical condition, especially the geriatric patient. As of 30 April 2020, a total of 34,765 cases of COVID-19 pandemic have been confirmed in India including 1,151 deaths (Ministry of health and family welfare, 2020).³

COVID-19 is an emerging acute respiratory infectious disease that primarily spreads through the respiratory tract, by droplets, respiratory secretions, and direct contact (Li et al) for a low infective dose (Lee et al).⁴⁻⁶ This pandemic has been compared to the Second World War or the Great Depression in terms of its wide scope and broad impact (Zheng).⁶

In the current global home confinement situation due to COVID-19 outbreak, many individuals have developed stress and strain (Ellemarije et al).⁷ The probable reason for this may be isolation and quarantine of individuals nationwide. This lockdown is of course necessary but people are not habitual for this type of situation. Quarantine or physical isolation is a well-known technique used to limit the spread of infection since long back.

To control or limit the spread of disease, it's always better to isolate those who have been infected by a contagious disease and also who may have the risk of getting infected (Usher et al).⁸ Imposed quarantine or isolation by the government of India is an unfamiliar and unpleasant experience that involves separation from friends and family, and a departure from usual, everyday routines. Most of routine normal activities are prohibited. One may compare this isolation and quarantine as in corrections with other prison contexts; isolation is a form of punishment or censure.

Isolation leads to the development of various psychosocial conditions, especially for those recognized as vulnerable (Perrin et al).⁹ Furthermore, the widely implemented social distancing measure also generated one unprecedented shift in human communication and social life. Because of this the various types of human social interactions are shifted from offline to majorly online. In the current situation different nations have been using different techniques for social isolations but the principal method is the same in every nation.

The various method for isolation is included voluntary self-isolation, mandatory quarantine, travel restrictions, stay-at-home order, shutdowns of restaurants, theatres, temples, religious institutions, sports venues, museums, and other social organizations, shutting down of schools and universities, working at home, limits or termination of transportations such as airplanes, trains, buses, and ships, the lockdown of country borders. Moreover, these methods also include declaring a state of emergency, lockdowns of entire state, cities, regions, and the entire

country. Nowadays, social distancing has become the latest buzzword in the headlines of media covering the COVID-19 pandemic (Zheng).⁶

In light of the above, it is evident that, it is important to know the knowledge of people about COVID-19, their attitude towards combating disease, and perception towards available information. A search of the literature has shown that knowledge, attitude, and perception of urban Indian populations from Maharashtra towards COVID-19 has never been studied. So, this study has attempted to fill this gap through a questioner based observational study. Looking at nationwide lockdown the study was conducted by online survey mode.

The goal of this study was to understand the social implications and the knowledge urban populations about COVID-19, and are people are taking proper precautions against the disease.

METHODS

This cross-sectional study was carried out over 17 days (27th March 2020 to 14th April 2020). This duration is selected based on the duration of lockdown, which was from 23rd March 2020 to 14th April 2020 initially. Since this survey was conducted during a nationwide lockdown the survey was conducted online at SCES Indira college of Pharmacy.

The urban Indian populations especially from Maharashtra were included in the study. This study was carried out with the sole purpose to assess the knowledge and attitude of the urban Indian population regarding the COVID-19 and information related to self-care by the Indian community in the advent of pandemic COVID-19. The development and evaluation of this questionnaire were carried out in three steps, including questionnaire generation, pilot study to assess the content and face validity of the questionnaire, and final validation of the questionnaire in 633 Indian individuals.

Questions were drafted after an extensive literature review. Search for knowledge, attitude, and perception of the urban Indian population especially from Maharashtra using the various resources revealed that there was no reliable and valid tool to assess the Indians' knowledge and attitude regarding the COVID-19 pandemic. Based on a review of literature, the final questionnaire included 50 close-ended questions to assess the knowledge and attitude. Internal consistency reliability (Cronbach's Alpha) was determined in the pilot study in 25 participants.

For face validity, three experts in the field have reviewed the questionnaire separately and answer "how well the questionnaire measures the knowledge, attitude, and practice of Indian community about COVID-19 pandemic". The content validity of the questionnaire was determined for its clarity, relevancy, and consistency of

each question in 3 Academic experts from the field of pharmacy (Streiner et al).¹⁰

The purpose of the survey and the objective of the study is clearly explained to participants before participation. After a complete explanation of the objective, methods, benefits, and potential hazards of study, all the participants agreed for participation. Each individual with access to an online mode of survey were asked to fill the questionnaire.

The questionnaire was administered in interviewer mode in cases where the participants were unable to fill the form by him. Such participants were identified and addressed individually by us (through telephonic and online communication), to remove any doubts about the study. According to the sample size calculation, 569 responses were required according to an estimation error of 5% (0.05) and a 90% confidence level. Data obtained from each questionnaire were tabulated based on the response obtained for every choice per question divided by the total number of responses obtained. The percentage of responses for each category was calculated based on the number of option answer divided by the total number of responses. Average±SEM was used for expressing quantitative variables. The analysis was performed by using SPSS 20 (SPSS Inc. Chicago, Illinois, USA) and Microsoft Excel software. A p value of <0.05 was considered statistically significant. This study was conducted in full compliance with the principles of the Declaration of Helsinki III and accordance with the International Ethical Guidelines for biomedical research involving human subjects.

The confidentiality of participants was respected and no information on the participant's name or identity was released or published in any form. The questioner includes knowledge attributes such as questions related to information about COVID-19, protection measures for the same, attachment of people to their family doctors and family pharmacist, guideline given by WHO, people awareness regarding COVID-19, etc. From this tentative conclusion can be drawn for knowledge of people about COVID-19. To know the attitude of people towards the COVID-19, various questions are asked about social distancing, isolation, participation in nationwide lockdown, etc.

To know about their perception towards the entire situation, a set of questions is asked about their reaction to isolation and lockdown, use of online media for the spread of information as well as the source of information, willingness to participate in nationwide lockdown.

Inclusion criteria

Population of age above 18 were included in the survey. Population of all sex were included in the survey

Exclusion criteria:

Population below the age of 18.

RESULTS

We at Indira college of pharmacy thought of surveying the responses of masses to the coronavirus pandemic we designer questionnaire which was circulated and responses work collected from 633 individuals these responses were from various people in India most of who were from Maharashtra the results obtained, were much impressive we wish to highlight the trend of the people and the method in which they have reacted to this pandemic.

Here we tried to analyze the impact of COVID-19, lockdown effect, and the various measures people have taken to counter it. How they have responded to the current scenario, we also tried to analyze the impact of social media on the common man's mind-set and the way it has affected the day-to-day activity. Our questionnaire was circulated amongst various individuals with the help of Whatsapp and we tried to reach out to people from 27th March 2020, the responses were accepted till 12th April. A total of 633 responses were received.

Coming to the Analysis, Indian nationals were asked to participate. Out of 633 responses 53.9 % were Males and 46.1 % were female responses. Coming to the age, approximately 15 % of responses were from the age group less than 20. 43.3% between 20 and 30 years, 18 % between 30 and 40 years, 13.3 % between 40 to 45 years, 6.8 % between 50 and 60 years, and 3% over 60 years so the data is comprehensive and all the age groups have responded to this questionnaire. Considering the population distribution nearly 89.7 % are Maharashtra residents and 10.3 % other state residents who responded to the questionnaire.

If we consider the occupational status then 46.7 % were salaried class of people, 40% of students, 8.6 % own business 3.2 % were housewives 1.5 % daily wages who responded to our questions.

When the information regarding family doctor was asked 56.1 % of respondents claimed that they had a family doctor, 28.4 % do not have a family doctor. 17.2 % visit a physician and only 5.7 % visit Hospital OPD.

Similarly when we inquiry about having a family pharmacist 52.3 % responded positively but 45 % said that there was no family pharmacist. 2.7 % had more than one pharmacist.

When we enquired about the significant role and contribution of pharmacists in this COVID-19 situation 86.6 % of people acknowledged the significant role played by the pharmacist.

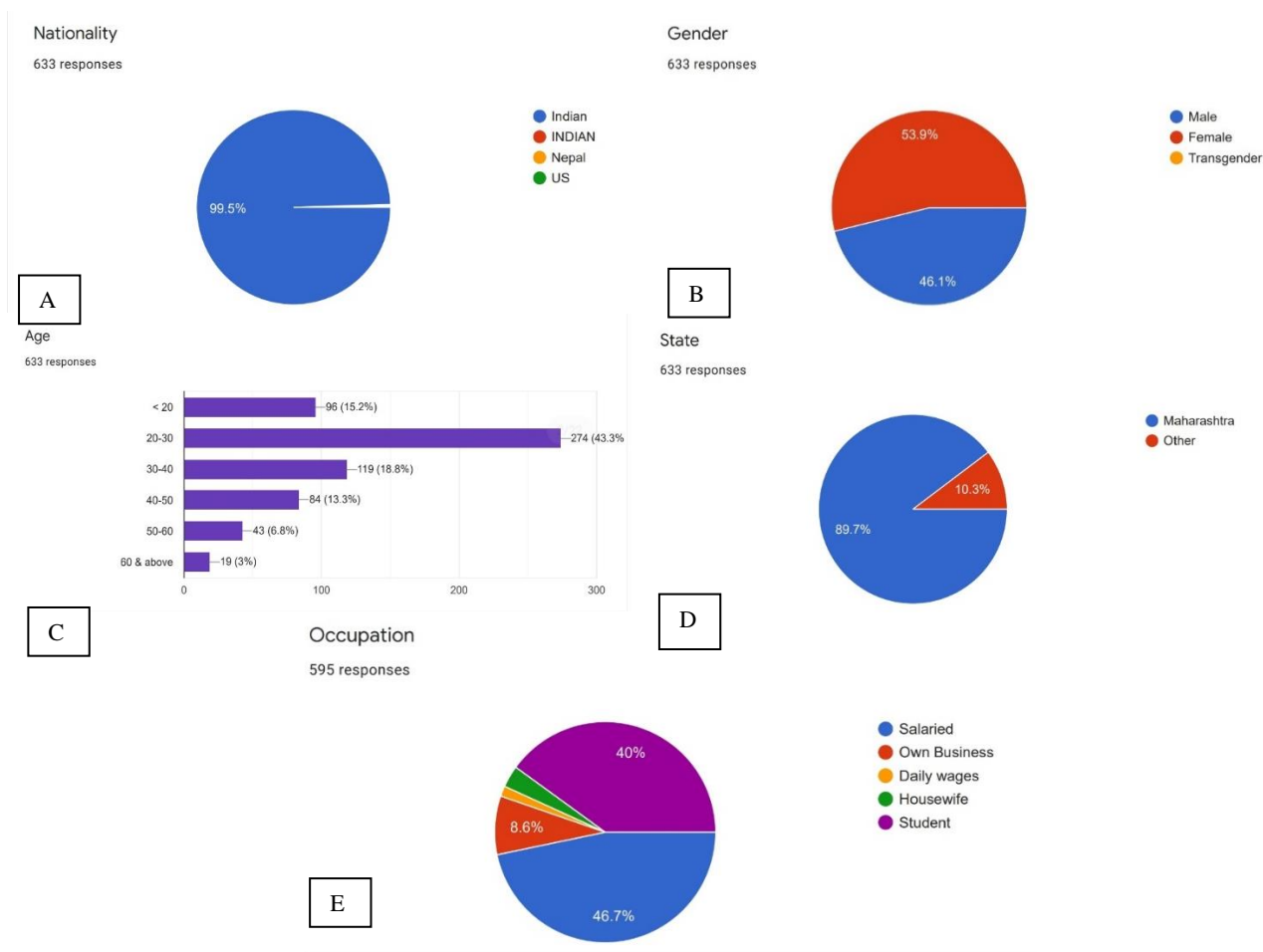


Figure 1 (A-E): General information.

90 % of the respondents agreed that despite the high risk involved the pharmacist was available for them. 58.5 % of respondents, defined the role of the pharmacist as outstanding whereas 32.5 % said it was good 7.3 % of people found it to be satisfactory.

Next we focused upon the tendency of people to self-medicate. Here the results were a big eye-opener amongst 633 respondent 62.9 % claimed that they do not self-medicate. Whereas 7.9 % claimed they self-medicated, and 28.8 % claimed occasionally or at times they self-medicate.

When we asked if people were well versed with the details of pandemic COVID-19? 64.8 % of people responded positively whereas 28.8 % of people were not sure 6.5 % of people said they were unaware of details of the pandemic.

When asked if they were taking proper precautions 94.3% person people claimed the word taking precautions where has 5.4 % of people were not sure about the same. Further on enquiring about the methods inculcated for the prevention and precaution of this Pandemic. 91.6% said they were at home with moderate activity. 94.2% claimed that they were strictly following social distancing. 88.8%

of people had increased cleanliness and hygiene. 58.8% of people were regularly using masks. 80.4% of the people were regularly using sanitizers.

23.4% were taking multivitamins whereas 27.5% consuming immunity boosters. The most important of the entire 633 responses 69.5% people claimed that they had locked themselves inside their own houses. 23.4% were taking multivitamins whereas 27.5% consuming immunity boosters. The most important of the entire 633 responses 69.5% people claimed that they had locked themselves inside their own houses.

When enquired if masks and sanitizers were easily available 52.9 % of people said that it was not easily available where has 47.1 % said it was easily available in the market. 62 % of people said that they bought the mask and sanitizer at higher rates than regular. 36.8 people stated that they got things at a normal rate.

We also asked if people washed their hands regularly and 94% claimed that yes they were washing hands regularly.

3.5% claimed they were not that frequent whereas 2.5% of people said they were not washing their hands that often.

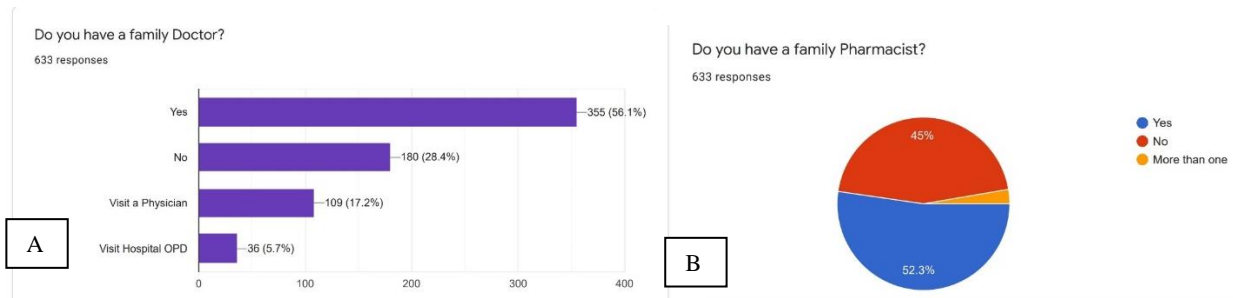


Figure 2 (A and B): Family doctor and family pharmacist.

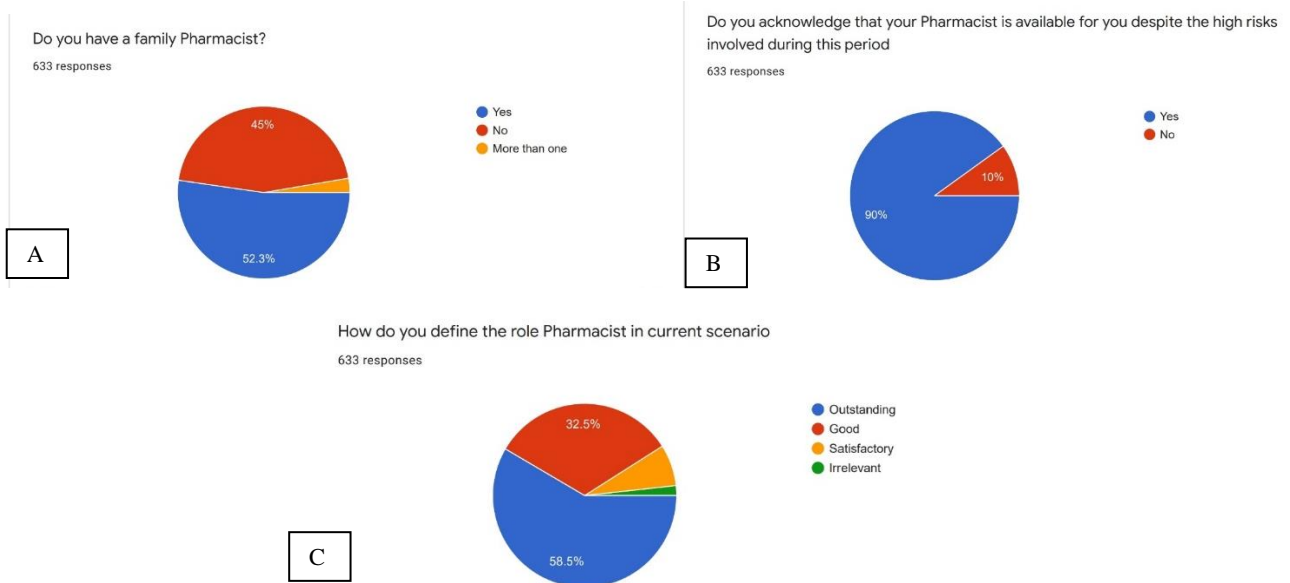


Figure 3 (A-C): Pharmacist's role and importance in COVID-19 pandemic

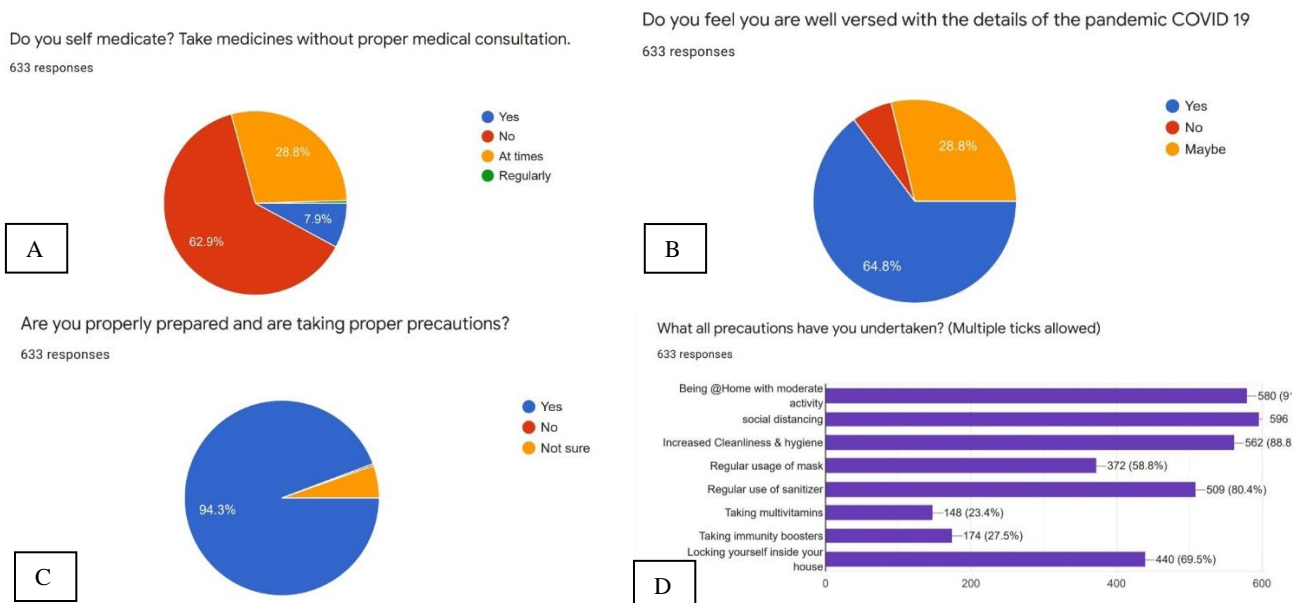


Figure 4 (A-D): People's knowledge about COVID-19.

When asked how many times they were washing their hands other than visiting the toilet, 25% said every time

returning from outside, 42.2 % claimed that they were washing hands even if inside the house.

7% claimed that even if they visited the balcony or house terrace they would wash their hands, whereas 25.9 % of people claimed that after every household activity they were washing their hands.

When asked if they were still venturing out for purchasing daily needs? 55.5 % said occasionally they were going out, 16 % of people claimed they were moving out regularly were 28.6 % has said they were not going out for anything. When we asked if people were washing their faces every time after returning from outside, 68.1% respondents said yes 18.5% said occasionally they were washing where are 13.4% said they do not wash their face after returning from outside.

We also inquired how many times the people used to lift or elevator. 59.9% of the respondents said that they strictly never used the lift, 24.6% said occasionally they used, 6.2% were using regularly using, whereas 9.3% of people claimed that they had no choice as they were staying in high rise buildings.

When asked if objects were used to press the elevator keys, 32 % of people said they used an object, while 28% they pressed by manual touch. 38.9 % said they used other means.

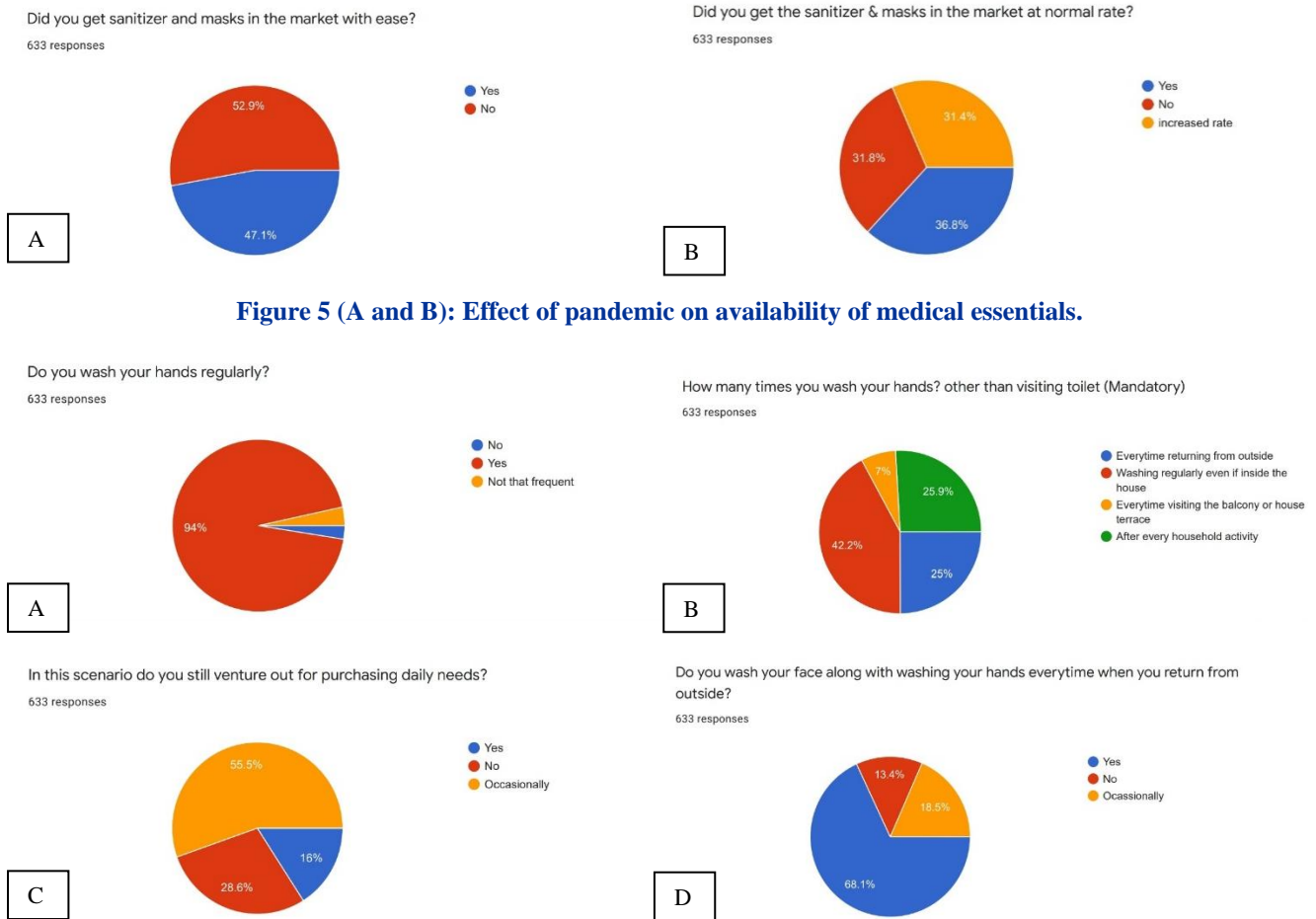


Figure 5 (A and B): Effect of pandemic on availability of medical essentials.

Figure 6 (A-D): Preparedness of people for COVID-19.

As it is a lockdown and movement is restricted we enquired if maids were still working? 87% said that maids were on leave, 6.8% of households had a maid working, whereas 6.2 % of households had made on visit on call.

When inquired about which type of leave would be sanctioned? 84.4 % of people said they will make it a full paid leave whereas 15.6% of people respondents said that it will be unpaid leave, they will not pay to the non-working maids.

Considering that there were no maids we asked if the male members of the household contributed responsibly in the daily tasks and to everyone's surprise, 37.6% respondents said they were contributing efficiently 27.3% said it was a moderate contribution, 20.5% said it was ok. While the remaining commented that there was a meager contribution in the sharing of household tasks and help.

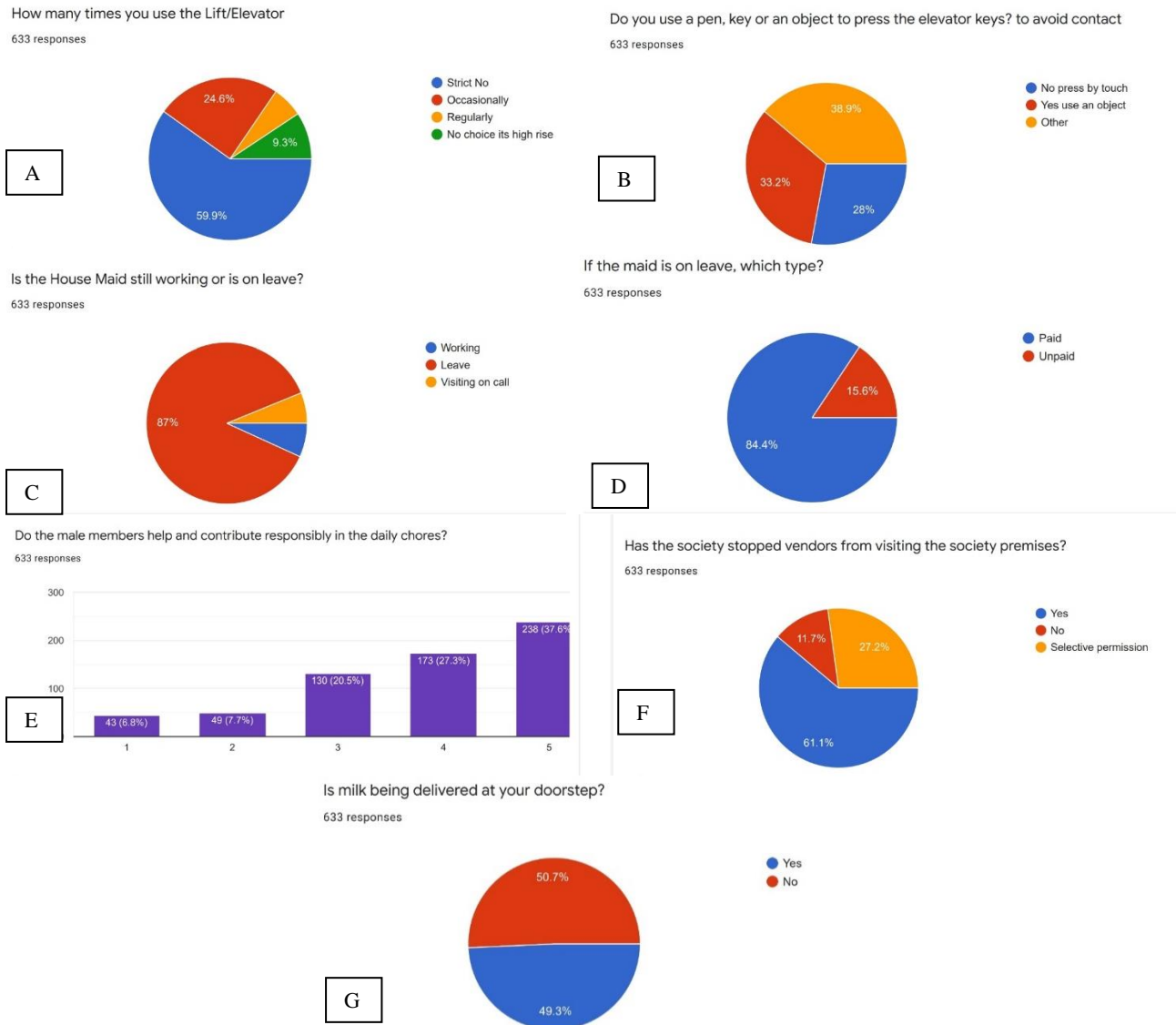


Figure 7 (A-G): Perception of people towards nation wide lockdown.

Considering the lockdown imposed, we enquired if housing society had stopped vendors from visiting the society premises.

61.1 % of the respondents said that the society had stopped vendors from visiting, 27.2 % said there was selective permission whereas in the case of 11.7% there was no restriction, and vendors were not stopped from visiting the premises. It was inquired if milk was being delivered at their doorstep 51% yes whereas 49% responded No. We also inquired if the newspapers were stopped?? 86.6% of the people said yes they had stopped receiving the newspaper, whereas 13.4% had continued with the daily newspapers.

On enquiring if they refer to e-paper e-newspapers, 87.4% of people said yes they were referring to the e-papers of the online versions of the newspapers whereas 12.6% said they were or not. 64.6% of people said electronic edition of the newspaper is user friendly

whereas 35.4 % of respondents claimed that the daily printed newspaper was user-friendly.

To analyze the impact of the lockdown and restrictions on the movement of the people and also about being at home what was the people's perception about their change in daily routine, 46.1% people said it was good to them whereas 30.2% people claimed it was bad, 11.1% said it was hopelessly bad and 12.6% people said that it had no impact on their lifestyles whatsoever.

We inquired how many of the respondents used WhatsApp. 89.7% said they were regular users of WhatsApp, 4.6% used WhatsApp occasionally whereas 5.5% used WhatsApp excessively.

On asking about the authenticity of messages received from WhatsApp, 10.9% said they believed in them, 40.9% somewhat believed, whereas 28.9% said they did not believe at all in these messages, and 19.3% thought they were maximum fake.

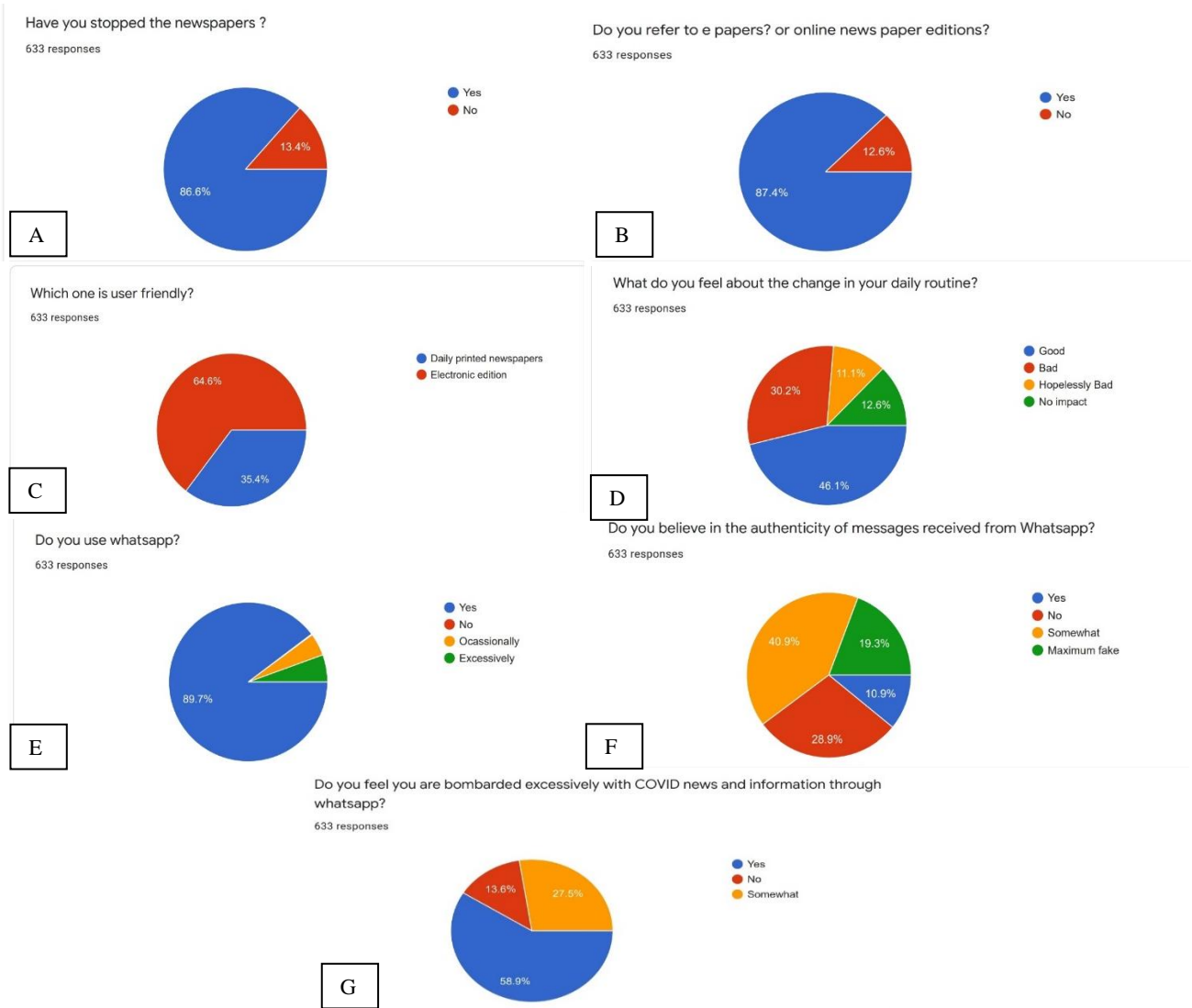


Figure 8 (A-G): Source of news, information and social media impact.

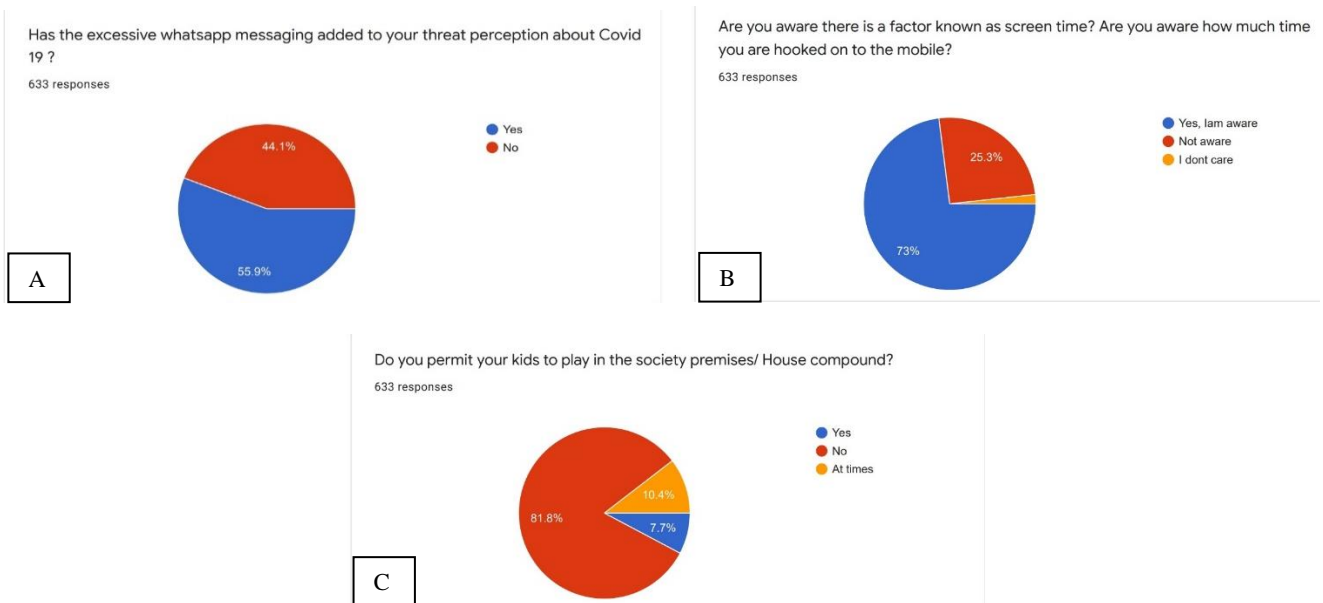


Figure 9 (A-C): Impact of social media on attitude of people.

This analysis is an eye-opener, as it exhibits people's apprehensions about the news circulated on WhatsApp regarded and related to coping with the current situation.

We inquired if the masses were bombarded excessively by these messages on WhatsApp? And out of 633 responses 58.9% affirmed that they felt that they were excessively being bombarded. 27.5% of people thought that the bombardments were to a moderate extent. 13.6% of people felt there was no bombardment.

So we can conclude approximately 86% of people that WhatsApp is being used as a bombarding media.

We tried to analyze if excessive WhatsApp messaging added to the threat perception, and about 56 % of people

said yes that is added to the threat perception whereas only 44% of people felt it did not add.

Considering the current scenario of Limited movement and outdoor activities it is been constantly observed that people are on screen maximum time. To have an idea about awareness of the threat of being overtime on screen, we inquired if they were aware of a factor known as screen time? 73% of people responded positively whereas 25% were unaware of the screen time factor and approximately 1.7 % of people said they didn't care about this. In these testing times where everyone is at home with Limited outward movement the biggest challenge for a family is to take care of the kids. It is extremely difficult for all the younger ones to be inside the house for long hours, considering the same we tried to analyze how the people have reacted to this situation.

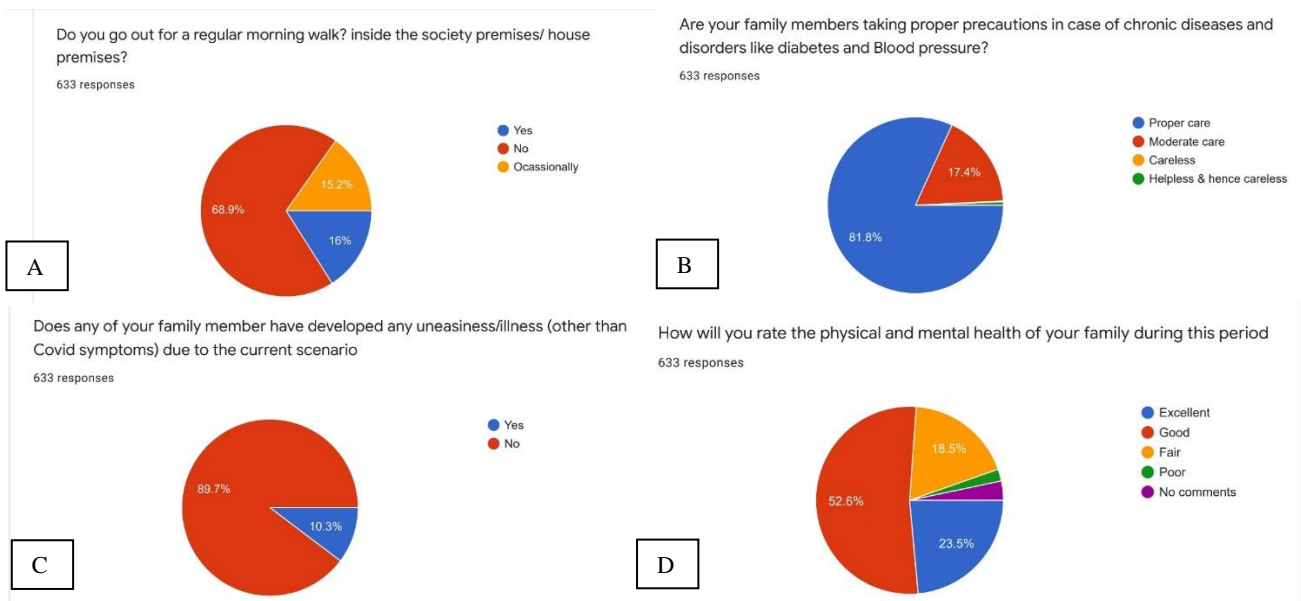


Figure 10 (A-D): Maintenance of physical and mental fitness during lockdown.

When we enquired if the respondents were allowing kids to play in the household compound or society premises 81.8% of people said strictly no, kids were not allowed to play. Whereas 10.4% of people we are allowing occasional playing in the premises and 7.7% of people had given the full freedom to play for the kids.

We also enquired about the regular exercises and morning walk people tend do take inside the society premises and 68.9% of people said they were not taking any morning walks, 15.2% said they were occasionally having morning walks. 16% of respondents had regular morning walks.

We then inquired if the family members were taking proper precaution in case of chronic diseases and disorders like diabetes hypertension etc, 81.8% of people claimed that they were enduring proper care where has 17.4 % claimed that they were having moderate care. This data indicates that the maximum population was taking the utmost care for regular ailments other than COVID-19.

Considering the long term impact of the lockdown and having people inside their own houses with a very high amount of restricted movement as well as the psychological effect of not being together with their loved near and dear ones and not able to even move out of the house, not even visit temples, these all restrictions I have created some more other psychological impacts on the masses.

Considering this we enquired if any of the family members may have developed any discomfort, illness due to the current scenario other than the COVID symptoms. Yes as per the expectations nearly 10% of the respondent population claimed that there was some symptom of uneasiness developed but at the same time approximately 90% of the population sad there were no such symptoms.

Coming to the physical and mental health of the family nearly 23.5% claimed that they had excellent mental and physical health, 52.6% claimed good, 18.5% thought fair 2.1% thought poor and 3.3% did not comment.



Figure 11 (A-G): Impact of pandemic on financial management.

We also included how many members of the family were covered under health insurance? Nearly, 62.9% of the respondent population said they were covered under the health insurance but at the same time, the alarming number of 37.1% people said they did not have any health insurance cover.

We also tried to learn as to how much %age of the population was having coverage under the term insurance. The results are quite disturbing with only 44.5% of the people having coverage under term insurance whereas 55.5% of people did not have any term insurance. The most interesting part was when inquiry if that hot that neighbors also serious undertaking equal care 70% of the people said yes the neighbors wear seriously taking good care where is 22.9% people said they can't

say and did not wish to comment but 6.8% respondent said that the neighbors were careless.

Inquiring about the perception of threatened seriousness about COVID19 from the beginning approximately more than 50% of the population said they were serious about COVID right before March 2020.

At the same time, 70% of the respondents said that the seriousness about COVID threat increased after the declaration of the lockdown and nearly 24% of the people said that it was to a great extent increased only 5% of the respondents said that there was no seriousness after the declaration of lockdown.

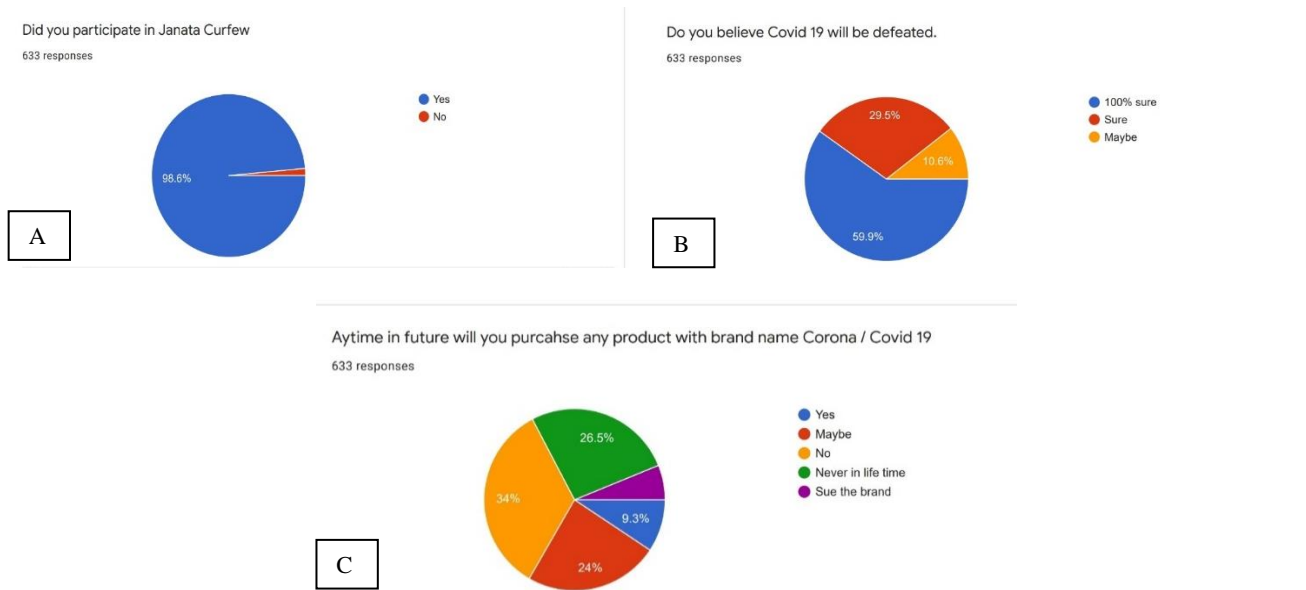


Figure 12 (A-C): Attitude and perception of people towards Janata curfew and COVID-19.

This indicates that the government measures taken in the form of declaration of the lockdown created a great impact in making people serious about the threat perception of COVID-19 and making them take good care of themselves. We tried to have just an overview of the financial scenario due to the Covid 19 lockdown, considering the respondents nearly 60 to 70% of the respondent said that they were feeling financially insecure.

Also around more than 50% of the respondent population felt that it will impact the earnings, where has 26% of the respondent felt that there would be no impact whatsoever on the earnings.

When inquired if the respondents participated in the Janata curfew 99% of the population said that they had participated in the Janata curfew.

When asked about the success of the campaign against COVID-19, 59.9% of the population claimed that they were 100% sure that COVID-19 will be defeated approximately 29.5% were sure and only 10.6% of the population was apprehensive about the success of the campaign.

Then just out of curiosity about the impact corona and COVID will have in the future, we inquired that if any product with the brand name of corona or COVID-19, is launched what will be the response of the respondent population?

Out of 633 respondents nearly 34% said they will never purchase any product, 26% said they will never purchase such products in their lifetime. 6.2% said they will sue the brand. 24% were apprehensive about it and only 9.3% said they might purchase such a brand.

DISCUSSION

At present, every government and scientists globally are curious and furious about the novel coronavirus disease, COVID-19. It is a new disease, caused by a coronavirus, which spreads speedily, and epidemics can grow at an exponential rate. Currently there is no treatment or vaccine to treat or prevent COVID-19. However, WHO is very much instrumental in guiding all countries about their level of preparedness, alert, and response to identify, manage, and care for new cases of COVID-19 (WHO. COVID-19, 2020) WHO has also guided basic protective measures against the new coronavirus. The main goal for all countries is to control the COVID-19 pandemic by slowing down the transmission and reducing mortality which will minimize the impact of the epidemic on health systems, social services, and economic activity (WHO, 2020).

One of the major strategic objectives of WHO's to control and prevent COVID-19 is to interrupt human-to-human transmission through a combination of public health measures, such as rapid identification, diagnosis and management of the cases, identification and follow up of the contacts, infection prevention and control in health care settings, implementation of health measures for travelers, awareness-raising in the population and risk communication (WHO, April 2020).¹¹

Of these, awareness-raising in the population is an utmost important measure as in this pandemic situation of COVID-19, the general public is at risk and they can only protect themselves with awareness about this pandemic. Hence following the objective of WHO, we tried to study knowledge, awareness about COVID-19 and its impact on the general population in this study through an online questionnaire.¹²

WHO situation report-1 published that, as of 20 January 2020, 282 confirmed cases of 2019-nCoV have been reported from four countries including China (278 cases), Thailand (2 cases), Japan (1 case) and the Republic of Korea (1 case) (WHO, January 2020); which were increased to 2,241,778 globally as on 19 April 2020 (WHO, April 2020).¹³ These rising figures in about three months shows the alarming rate of spread of COVID-19.

This made us use a speedy way of collecting data in the form of an online questionnaire. Such fast online surveys are the encouraging way to study and evaluate knowledge and perceptions of the general population in the middle of rapidly spreading infectious disease outbreaks such as COVID -19. With this, the general public is well informed about a condition like COVID-19 which can be helpful to reduce pointless anxiety as well as reduce disease transmission to achieve the strategic objective.¹⁴

At present, all the health care workers including doctors are working hard to control the pandemic situation. So the public is aware of the role of doctors in the health care system. However, pharmacists are unsung healthcare heroes who make essential contributions to the delivery of care.

Pharmacists do not only fill prescriptions but also involved in dispensing medicines, educating patients about medications, and explaining health plan drug coverage, providing other clinical services (Zheng et al).¹⁵ Pharmacists are the most accessible healthcare providers and the first touchpoint of patient engagement with the healthcare system.¹⁶

In this survey, we observed that 56.1% of respondents had family doctors and 52.3% had family pharmacists. Besides 86.6% of people acknowledged the significant role played by the pharmacist and 58.5% of respondents defined the role of the pharmacist as outstanding. These results revealed that the public is equally aware of and accepts the role of the pharmacist as doctors in this pandemic situation which will help to facilitate the strategic plan of WHO to control and prevent COVID-19.

Self-medication is one of the essential components of self-care, which includes health-related decision-making of individuals and family members. Given the limited access to the health care system and scarcity of health care providers in resource-constrained settings, self-medication has been well recognized as an alternative option to relieve symptoms associated with minor illnesses (Mahapatra et al).¹⁷

Despite potential benefits, unfortunately self-medication from being a safe practice has turned into irresponsible behavior. Use of previously prescribed or leftover drugs for own, family members, friends, incomplete adherence to the treatment regimen, and change in applied dose of prescribed drugs were some of the potential threats to self-medication (Shaghghi et al).¹⁸

According to “The Hindu Business Line” report published on April 18, 2020, Indian Council of Medical Research (ICMR) stated that some health care workers serving in novel coronavirus settings in India self-medicated themselves with anti-malaria drug Hydroxychloroquine as preventive or prophylactic treatment and suffered side effects.¹⁹

Several studies on self-medication all over the world have revealed that NSAIDs are the most commonly used drugs as self-medication for fever, pain, and inflammation (Thapa et al).²⁰ There are many controversies on the use of NSAIDs in COVID-19 (BMJ. COVID-19: 2020) (Lei Fang April 2020).^{21,22} In the present study, 62.9% of respondents claimed that they do not self-medicate which assure that self-medication shall not further complicate the treatment of patients in this pandemic situation.²³

It is needless to mention that community awareness and thereby preparedness during any pandemic situation is the major priority of any strategic plan and WHO’s strategic plan is no exception to this. Various government authorities like WHO, ICMR, Ministry of Health and Family Welfare Government of India, CDCSO, viz. are creating awareness among society through leaflets, posters, articles, advertisements, etc.

In this survey, 64.8% people claimed that they were well aware of pandemic COVID-19 and 94.3% people reported that they are preparing themselves by taking necessary precautions like staying at home with moderate activity, following social distancing,

Cleanliness and hygiene, using masks and sanitizers, taking multivitamins, consuming immunity boosters and

Most important by following the lockdown measure imposed by the government. It was observed only 55.5% respondents were venturing out for purchasing daily needs occasionally, 59.9% of the respondents never used the lift, 87% said that maids were on full paid leave, 61.1% of the respondents said that the society had stopped vendors from visiting, 86.6% of the people said that they had stopped receiving the newspaper and were referring to the e-papers of the online versions of the newspapers. Thus, it can be stated that community awareness and so preparedness is significantly high and shall help us to face this pandemic more efficiently.

Recent studies have reported hypertension, diabetes, coronary heart diseases, and cerebrovascular disease as the most frequent comorbidities with COVID-19 (Yang et al, Guan et al and Zhang et al).²⁴⁻²⁶ Even all governments are guiding people to take extra care of family members suffering from hypertension, diabetes, coronary heart diseases, and cerebrovascular disease.

In the present study, 81.8% of people claimed that they were taking proper care of such comorbid diseases other than COVID-19. This will restrict the morbidity and mortality associated with COVID-19.

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REFERENCES

1. WHO. Coronavirus disease (COVID-2019) situation reports. 2020. Available at: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situationreports>. Accessed on 29 April 2020.
2. Lu R, Zhao X, Li J, Niu P, Yang B, Wu H, et al. Genomic characterisation and epidemiology of 2019 novel coronavirus: implications for virus origins and receptor binding. *Lancet*. 2020;395(10224):565-74.
3. Ministry of health and family welfare, 2020. Available at: <https://www.mohfw.gov.in/>. Accessed on 29 April 2020.
4. Li Q, Guan X, Wu P, Wang X, Zhou L, Tong Y, et al. Early transmission dynamics in Wuhan, China, of novel coronavirus-infected pneumonia. *N Engl J Med*. 2020;8:45-8.
5. Lee PI, Hsueh PR. Emerging threats from zoonotic coronaviruses-from SARS and MERS to 2019-nCoV. *J Microbiol Immunol Infect*. 2020;8:95-106.
6. Zheng Y. Unprecedented pandemic, unprecedented shift, and unprecedented opportunity. *Hum Behav and Emerg Tech*. 2020;7:1-3
7. Ellemarije A, Chiara B, Jason GE, Dimitri G, Lukas F, Dieter R. dealing with sleep problems during home confinement due to COVID-19 outbreak: Practical recommendations from a task force of the European CBT I academy. *J of sleep Res* 2020.
8. Kim U, Navjot B, Debra J. Life in the pandemic: Social isolation and mental health. *J of clinical Nursing*. Accessed on 29 April 2020.
9. Perrin PC, McCabe OL, Everly GS Jr, Links JM. Preparing for an influenza pandemic: Mental health considerations. *Prehosp Disaster Med*. 2009;24(3):223-30.
10. Streiner DL, Norman GR, Cairney J. Health measurement scales: A practical guide to their development and use: Oxford university press; 2014.
11. WHO. COVID-19 strategy update. Available at: <https://www.who.int/publications-detail/strategic-preparedness-and-response-plan-for-the-new-coronavirus>. Accessed on 14 April 2020.
12. WHO. Critical preparedness, readiness and response actions for COVID-19. Interim guidance 22 March 2020. Accessed on 20 August 2020.
13. WHO, Coronavirus disease 2019 (COVID-19) Situation Report. Available at: https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200419-sitrep-90-covid19.pdf?sfvrsn=551d47fd_4. Accessed on 20 August 2020.
14. WHO. Novel Coronavirus (2019-nCoV) situation report. Available at https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200121-sitrep-1-2019-ncov.pdf?sfvrsn=20a99c10_4. Accessed on 20 August 2020.
15. Zheng SQ, Yang L, Zhou PX, Li HB, Liu F, Zhao RS. Recommendations and guidance for providing pharmaceutical care services during COVID-19 pandemic: A China perspective. *Res Social Adm Pharm*. 2020;S1551-7411(20):30284-9.
16. Pharmacist in covid. Available at https://www.pharmacist.com/sites/default/files/files/APHA%20Meeting%20Update/PHARMACISTS_COVID19-Final-3-20-20.pdf. Accessed on 20 August 2020.
17. Mahapatra T. Self-care and self-medication: A commentary. *Ann Trop Med Public Health*. 2017;10:505-6.
18. Shaghghi A, Asadi M, Allahverdipour H. Predictors of self-medication behavior: A systematic review. *Iran J Public Health* 2014;43:136-46.
19. ICMR. Available at <https://www.thehindubusinessline.com/news/some-health-workers-used-hydroxylchloroquine-as-self-medication-show-side-effects-icmr/article31376773.ece>. Accessed on 20 August 2020.
20. Thapa S, Shankar PR, Palaian S, Aljadhey H. Promoting rational self-medication of nonsteroidal anti-inflammatory drugs in Nepal. *Arch Pharma Pract*. 2016;7:61-6.
21. BMJ. COVID-19: NICE advises against using NSAIDs for fever in patients with suspected cases BMJ 2020. Available at <https://doi.org/10.1136/bmj.m1409>. Accessed on 20 August 2020.
22. Fang L, Karakiulakis G, Roth M. Are patients with hypertension and diabetes mellitus at increased risk for COVID-19 infection? 2020;8(4):116.
23. NSAIDS. Available at <https://www.fda.gov/drugs/drug-safety-and-availability/fda-advises-patients-use-non-steroidal-anti-inflammatory-drugs-nsaids-covid-19>. Accessed on 20 August 2020.
24. Yang X, Yu Y, Xu J. Clinical course and outcomes of critically ill patients with SARS-CoV-2 pneumonia in Wuhan, China: a single-centered, retrospective, observational study. *Lancet Respir Med* 2020;2600(20)30079-5.
25. Guan W, Ni Z, Hu Y. Clinical characteristics of coronavirus disease 2019 in China. *N Engl J Med*. 2020;7:23-9.
26. Zhang JJ, Dong X, Cao YY. Clinical characteristics of 140 patients infected by SARS-CoV-2 in Wuhan, China. *Allergy*. 2020;3:76-9.

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