Knowledge and Attitudes Regarding COVID-19 Among Rural Population: A Cross-Sectional Survey

By

Vibhor Gupta

Dissertation submitted in partial fulfillment of the requirements of the degree

MBA Hospital and Health Management

Academic year, 2018-2020

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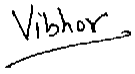
CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled **"Knowledge and attitudes regarding COVID-19 among rural population: A cross-sectional survey"** submitted by **Vibhor Gupta** Enrollment no. 0857 under the supervision of **Dr. Sandesh Kumar Sharma** for award of MBA Hospital and Health Management of the University carried out during the dissertation period embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other institute or other similar institution of higher learning.



Signature

Abstract

TITLE - Knowledge and attitudes regarding COVID-19 among rural population: a cross-sectional survey

INTRODUCTION

India reported its first COVID-19 case on January 30, 2020 and numbers began to rise in late March 2020, at a low rate, which may be due to several government policies including terminating all international flights and implementing a nation-wide lockdown at an early stage of the pandemic. Uttar Pradesh is one of the poorest states in India, thus is at particularly high risk of adverse health and economic effects of a COVID-19 outbreak and ongoing lockdown, since most people from this state and Bihar work in the informal sector.

RESEARCH DESIGN

A Descriptive, cross-sectional and Observational study was performed by conducting a survey to assess knowledge, attitude and practice towards spread and prevention of COVID-19 among Indian rural population. Data was collected from people of Kharela town in Mahoba District of Uttar Pradesh through Google form. The total sample size incorporated in the study was 120. Convenience sampling technique was used for this purpose to obtain this data.

RESULTS

Data shows that about 95% respondents know about the Corona virus but only 64% respondents were aware about COVID-19. Television and mobile phones are the primary source of information for the respondents. The overall knowledge of the respondents regarding Corona virus infection was adequate. People have a positive attitude towards the steps taken by the govt in order win the war against the virus.

CONCLUSION

With total number of confirmed COVID-19 cases touching 200k, it is now becoming extremely important that people should strictly follow the necessary preventive measures People are aware about the various ways through which this virus can make them sick. The positive attitude of the people towards govt actions in curbing the pandemic was of utmost importance since we need to fight virus at the individual level. It is not only the duty of govt or the Corona fighters to help us get rid of this virus, but is should be a cumulative effort from each and every individual if we really want to eliminate this virus.

KEYWORDS

Corona, COVID-19, Knowledge, Attitude, Practice, Media, Indian, Rural, Primary, Uttar Pradesh

Acknowledgement

I am appreciative to omnipotent for invigorating me the to effectively complete my work and for continuing my endeavors which many a time did oscillate.

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I additionally recognize with profound feeling of love, the appreciation I feel towards my folks for remaining by me and keeping in confidence in the entirety of my choices. Can never express gratitude toward them enough for the steady quality and backing.

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TABLE OF CONTENTS

Table of Figures

1. Introduction

COVID-19 (name given by WHO in February,2020 for the illness brought about by the novel coronavirus SARS-CoV-2) began in December like a viral flare-up in Wuhan city of focal Hubei region of China. A bunch of around 40 instances of pneumonia of obscure reason was accounted for to the Chinese WHO office in December. WHO along with the Chinese specialists began cooperating and the unknow cause was before long settled to be another infection and was named Novel Corona Virus (2019-nCoV). Over half a month this infection spread over the globe in a quick pace. Taking a gander at the stretch of nations this infection spread to, WHO proclaimed it a general wellbeing crisis of International worry on 30th January ,2020. On eleventh March,2020 WHO pronounced COVID-19 - a pandemic as by then around 114 nations were being influenced by the infection.

Corona viruses, so named due to the due to its envelope studded with projecting glycoproteins which resembles to a crown like structure (‘corona’ in Latin) and surrounds a core which consisted of matrix protein enclosed within. Corona virus are from a family of enveloped RNA viruses. In humans, several coronaviruses are known to cause respiratory infections ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS)

India reported its first COVID-19 case on January 30, 2020 and numbers began to rise in late March 2020, at a low rate, which may be due to several government policies including terminating all international flights and implementing a nation-wide lockdown at an early stage of the pandemic. By early April 2020, country officials had identified several areas as hotspots of COVID-19 infections in the country. India faces threat of a serious outbreak due to deep challenges in practicing social distancing and access to water and soap for handwashing, with densely populated urban areas and a highly mobile population in some states. The country announced an initial 3-week lockdown period on March 24, now extended until May 31, triggering rapid migrations from the cities to rural areas in some parts of the country among rising fears of fast spread of infections. The extension of the initial lockdown period poses further challenges to the already distressed population and to ensuring strict compliance with social distancing guidelines.

The Indian Ministry of Health and Family Welfare (MOHFW) along with state-level health departments have been providing information on COVID-19 through both subnational communication channels and through a mobile app, Aarogya-Setu.

In India, where approximately 80% of the workforce is employed in the informal sector and about a third are employed as day-laborers, the lockdown policy may exacerbate existing health and economic inequalities (The Lancet, 2020). Uttar Pradesh is one of the poorest states in India,

thus is at particularly high risk of adverse health and economic effects of a COVID-19 outbreak and ongoing lockdown, since most people from this state and Bihar work in the informal sector.

Broad communications is instrumental in influencing information and perspectives of individuals for receiving/keeping up sound way of life. Media impacts our conduct toward wellbeing conviction by advising and instructing individuals. Broad communications mediations have extraordinary effect on everyday citizens' information, mentalities and conduct towards COVID-19 pandemic.

2. Literature review

Jais Merlin P. Augustine and Dr.M.S. Hari Kumar (2017). contemplated that Mass media assume a basic job in dispersing general wellbeing data, improving wellbeing information and changing wellbeing practices. This examination was done to comprehend the job and effect of famous broad communications in Malayalam. The significant target was to discover the most solid and viable hotspot for wellbeing correspondence among the individuals living in a hillock town in the Idukki region of Central Kerala. A sentiment overview has uncovered that the every day papers followed by Television and web assume a key job in scattering news on and about Health to rustic populace. The sexual orientation and instruction of the individuals were additionally seen as unequivocal with regards to the understanding inclinations and determination of different classifications of news, highlights and articles from the print media

Rajib Acharya et al., (2020). Led an examination on Knowledge, disposition and practices among young people and families in Uttar Pradesh and Bihar through quick telephone based studies to help the endeavors of the Ministry of Health and Family to realize an inhabitants' capacity to follow sanitation and social removing insurances under a countrywide lockdown so as to all the more likely get them and properly give them alleviation measures.

Deblina Roy et al., (2020). Considered information, disposition, uneasiness and saw mental human services need in Indian populace during COVID-19 pandemic. They discovered through their examination that the responders had a moderate degree of information about the COVID-19 disease and have sufficient information about its preventive viewpoints. The disposition towards COVID-19 demonstrated people groups' ability to follow government rules on isolate and social separating. The tension levels recognized in the investigation were high

Timothy Abuya etal., (2020) examined introductory anticipation and alleviation measures. Of concern are the thickly packed, poor urban ghettos where sanitation and social separating measures are close to incomprehensible. COVID-19 would spread quickly and be destroying under these conditions. To advise the Taskforce system, we used quick telephone put together overviews to assortment data with respect to information, mentalities and practices among a longitudinal accomplice of heads of family unit.

A.K. Gupta and N. Jain (1998) contemplated that educating, engaging, and convincing, broad communications, particularly TV, is an incredible factor in the working of and change in any general public. Broad communications can be concentrated in its different jobs as an operator of social change, a reflector of predominant qualities, and as a reinforcer of prevailing qualities.

Results from a 1997 spot study of 150 TV advertisements introduced on Doordarshan over a 4-week time span bolster the job of the broad communications in India as a reflector and reinforcer of prevailing social qualities.

Shengjun Sun et al., (2011) figured a SIS plague model on two patches. In each fix, media inclusion about the cases present in the neighborhood populace drives people to constrain the quantity of contacts they have with others, prompting a decrease in the pace of transmission of the disease. A worldwide subjective examination is completed, indicating that the commonplace limit conduct holds, with arrangements either keeping an eye on a balance without ailment, or the framework being steady and arrangements uniting to an endemic harmony. Numerical examination was utilized to pick up knowledge in both the systematically tractable and obstinate cases; these reenactments demonstrate that media inclusion can lessen the weight of the scourge and abbreviate the length of the illness episode.

Meridith Young et al., (2013) contemplated that irresistible infection episodes are questionable and possibly dangerous occasions that regularly draw in huge media consideration. Accoding to past researchs, paying little heed to their goal seriousness, infections accepting more prominent inclusion in the media are viewed as increasingly genuine and more delegate of a sickness than those getting less inclusion. This examination evaluates the job of media inclusion in estimations of populace hazard (estimated as apparent frequency among a particular populace inside a 1-year timespan) and individual hazard (estimated as apparent individual probability of disease). Ailments with higher media inclusion were viewed as increasingly genuine and progressively illustrative of a malady, and evaluated to have lower rate, than ailments less every now and again found in the media. No distinction in assessments of individual hazard was found. A critical relationship between's evaluations of populace and individual hazard was found for infections rarely announced in the media.

Shi-Yan Ren et al., (2020) contemplated momentum crown infection ailment 2019 flare-up brought about by serious intense respiratory disorder coronavirus 2 began in Wuhan, China in December 2019 and has put the world on alert. To defend Chinese residents and to reinforce worldwide wellbeing security, China has put forth extraordinary attempts to control the plague. Numerous in the worldwide network have joined China to confine the plague. Be that as it may, segregation and bias driven by dread or deception have been streaming universally, overriding proof and risking the counter extreme intense respiratory disorder coronavirus 2 endeavors. We investigate this wonder and its basic causes and propose down to earth arrangements.

Casero-Ripollés and Andreu (2020) considered the elements of data utilization is exceptionally pertinent both for its capacity to change the media framework and for its frequency in vote based system. The goal of this examination is to break down the impact of the Coronavirus on news utilization, the believability given by residents to the media just as their capacity to recognize counterfeit news. To address these inquiries, we have directed an exploratory examination dependent on the auxiliary information from the online reviews of the Pew Research Center's American Trends Panel in the United States, looking at information when the episode. The outcomes affirm the effect of COVID-19 on the media framework. The discoveries recommend the rise of significant improvements, for example, the resurgence of the job of heritage media, particularly TV, and the way that residents who generally stay a long way from the data have reconnected with the news. In this way, the current imbalances with respect to news utilization

among residents have been diminished, to a limited extent. This creates possible advantages for popular government regarding balance and availability concerning open issues.
Patralekha Chatterje (2020) reports that Under-investment in public health-care system poses a challenge to India's COVID 19 containment plans.

3. Rationale

As the vaccine for COVID-19 is still under developmental phase, the best protection right now against this viral outbreak is prevention. Since the virus is highly infectious, it is now more important that people should have proper information about the spread and prevention of the virus so that they can protect themselves against the virus as well as prevent it from further spreading. The study was conducted in a rural setting to know about the awareness of people towards COVID-19 pandemic as well as to know about people's attitude towards govt actions

4. Aim of the study

The primary aim is to determine the knowledge about COVID-19 among the rural population and the secondary aim is to assess the people's attitude towards govt actions

5. Research Question

- Do people know about signs and symptoms of COVID-19?
- Do people know about its methods of spread and prevention?
- Do people believe in Govt actions taken in order to curb the pandemic?

6. Objectives -

- To assess people's knowledge about COVID-19 signs and symptoms
- To assess people's knowledge about spread and prevention of COVID-19
- To assess people's attitude towards govt actions

7. Methodology

- **Study design**: Cross sectional, Descriptive
- **Study location**: Kharela town of Mahoba district in Uttar Pradesh
- **Duration of study**:90 days
- **Sample size**: 120
- **Sampling technique**: Convenience Sampling, people visiting the shop were interviewed on their consent and the data was recorded as per their response in the google form
- **Data Type**: Primary Data
- **Data Collection** – A self-administered questionnaire was used to collect the data.
- **Data Analysis** – Responses were analyzed using Microsoft Excel. Graphical representations were used for data analysis. Primarily, pie charts and histograms were used for depiction of results obtained through responses from various people

8. Results

8.1 Age of respondents

Out of 120 respondents, 79.2% people belong to age group 18-55 years.

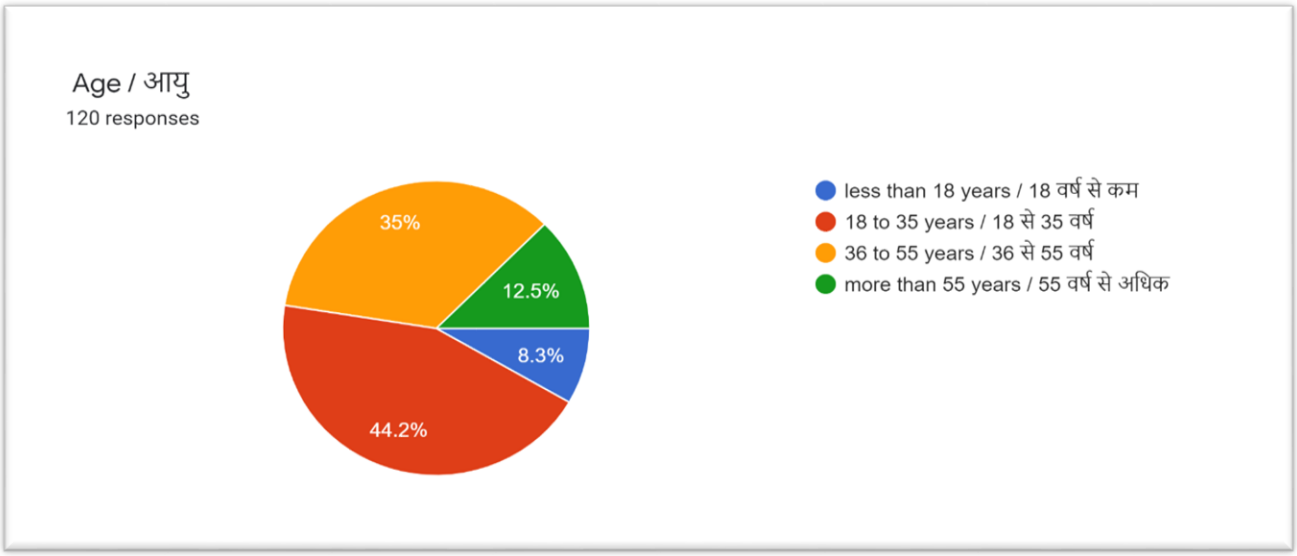

Fig 8.1: Age of respondents

8.2 Occupation

Majorly respondents were students followed by people having their own business

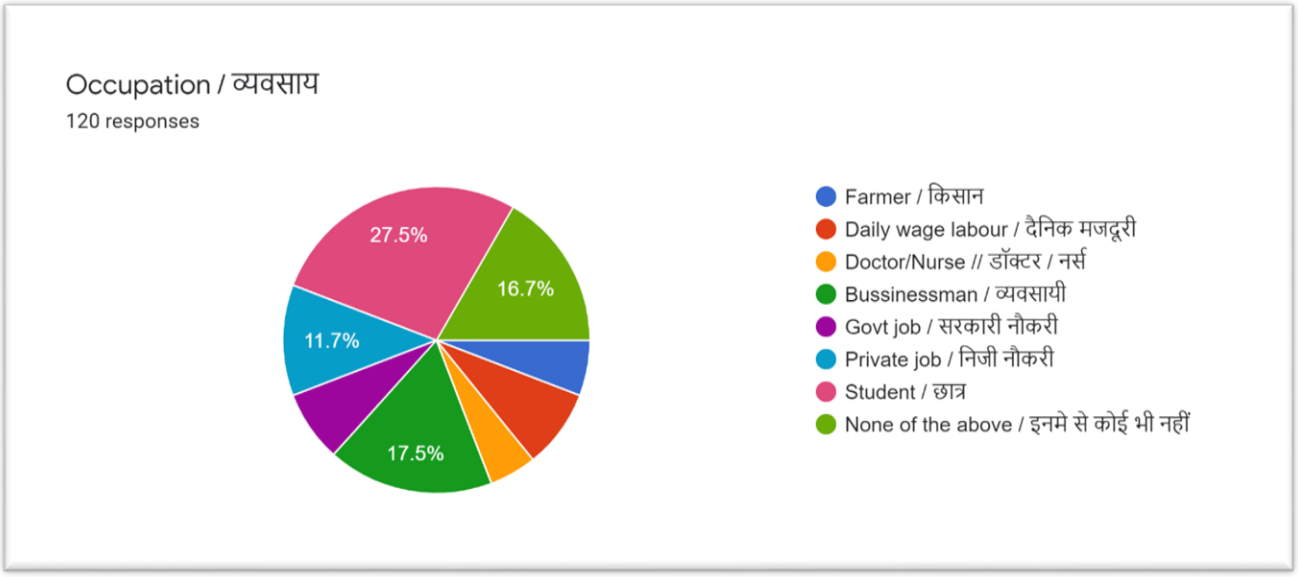

Fig 8.2: Occupation

8.3 Gender

77.5% of the respondents were male and the remaining 22.5% were females

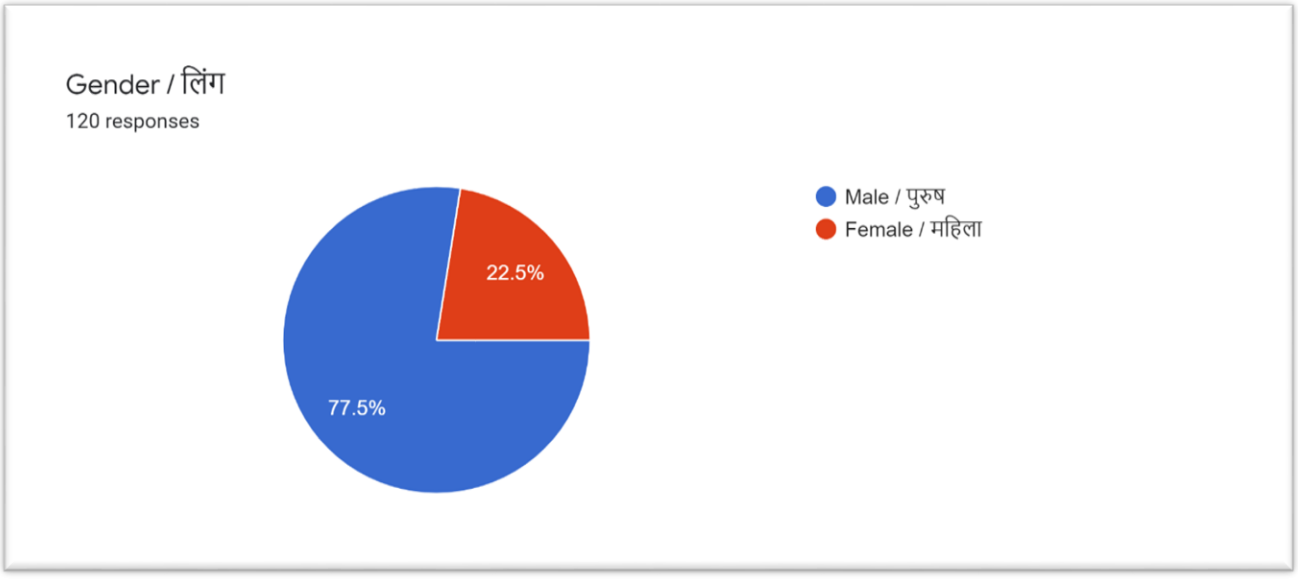

Fig 8.3: Gender

8.4 Do you know about COVID-19?

64.2% of the respondents were aware about the COVID-19 pandemic

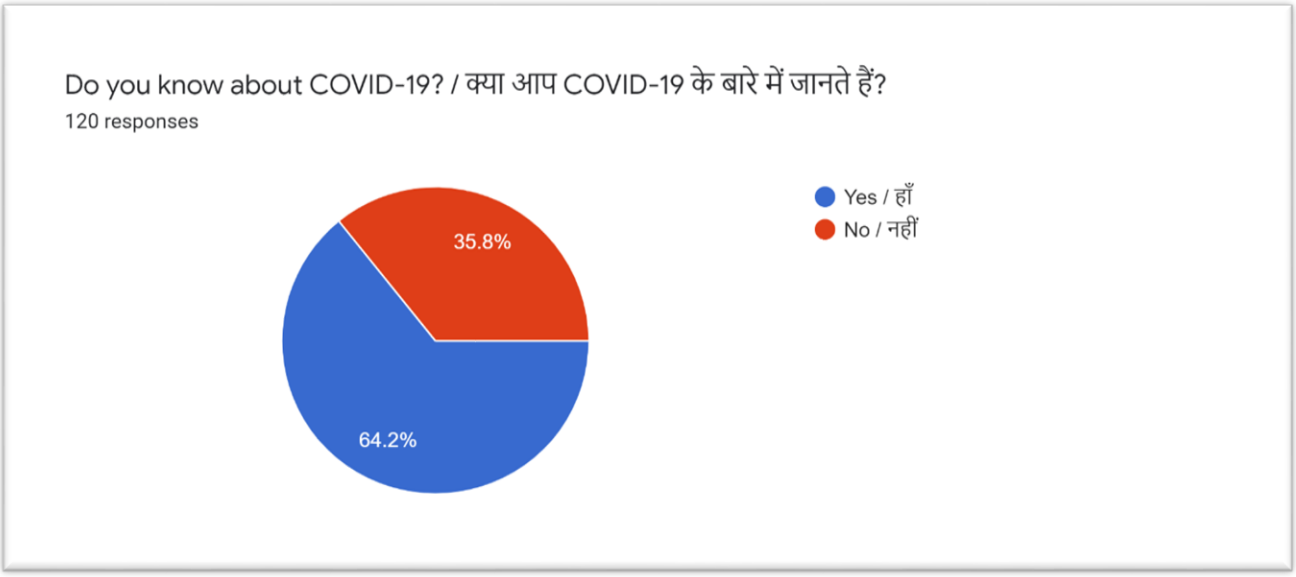

Fig 8.4: COVID-19 awareness

8.5 Do you know about Corona virus?

95% of respondents are aware about the Corona virus

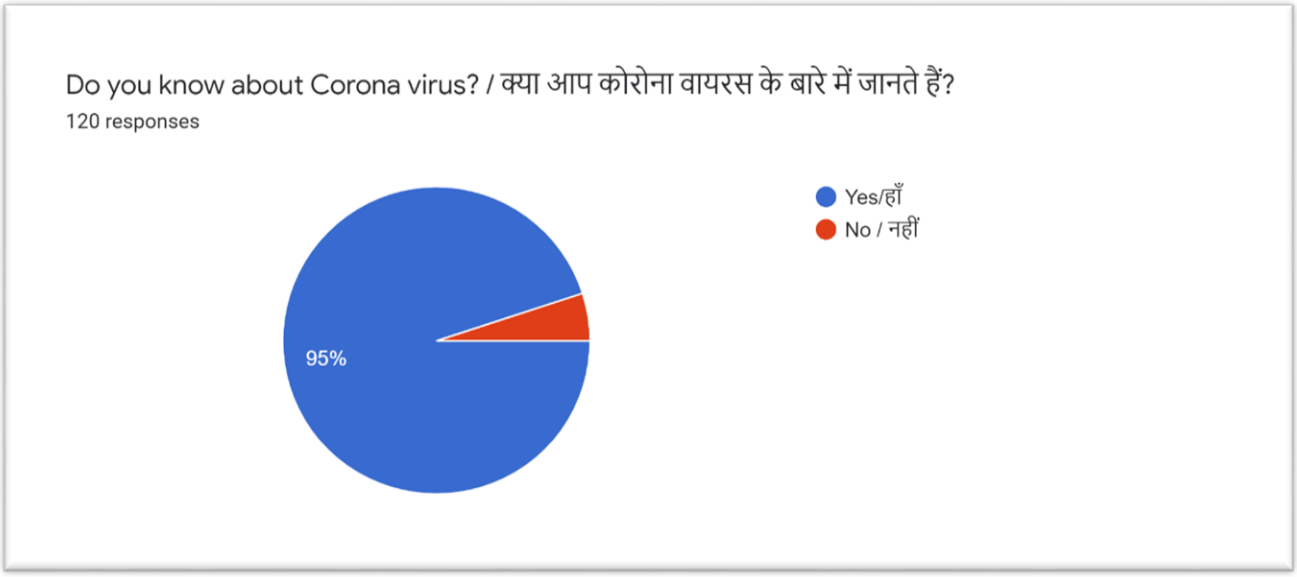

Fig 8.5 Corona virus awareness

8.6 Primary source of information regarding Corona virus news and updates

Television is the primary source of information for the respondents followed by mobile

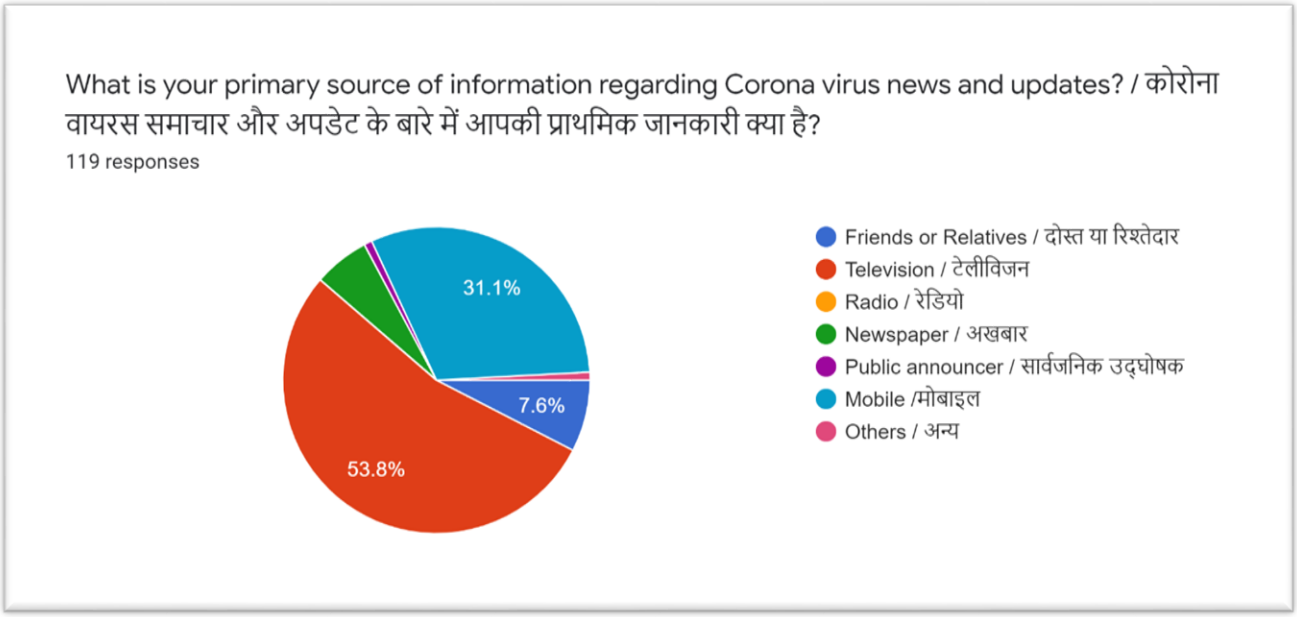

Fig 8.6: Primary source of information

8.7 Symptoms of Corona virus infection

More than 80% of the respondents choose difficulty in breathing, fever and dry cough as the symptoms of Corona virus infection

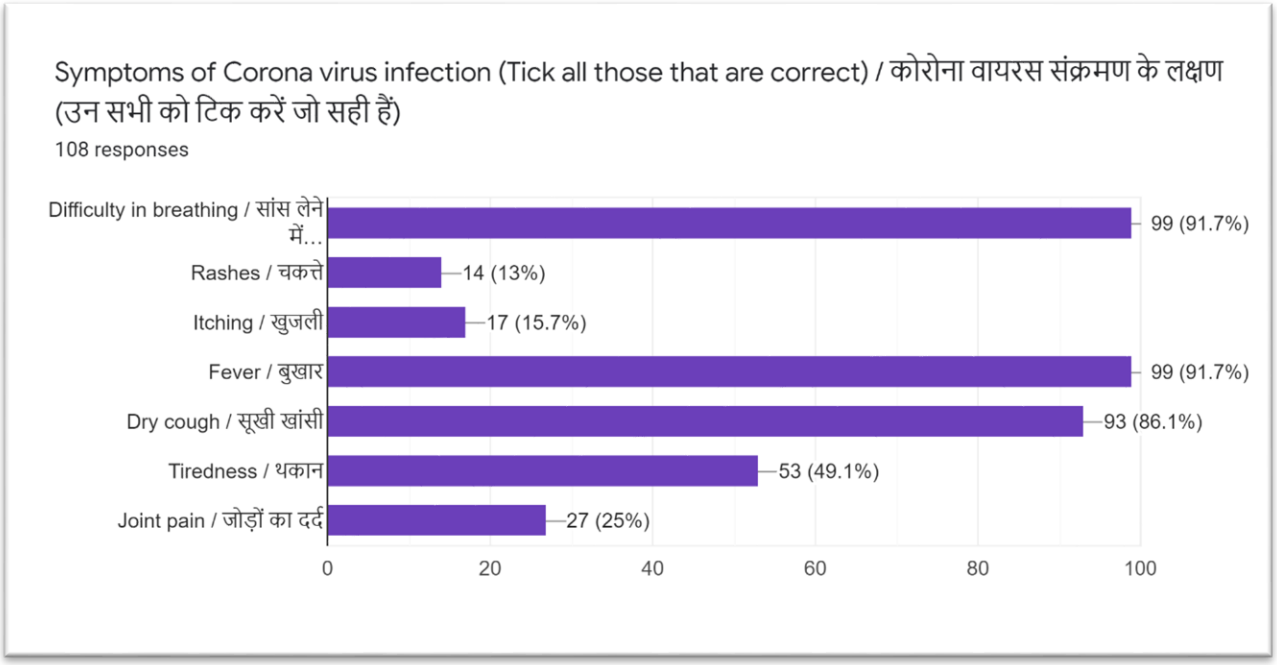

Fig 8.7: Symptoms of Corona virus infection

8.8 How does the virus spreads?

82.3% of the people accept that virus spreads through Coughing, Sneezing and Touching

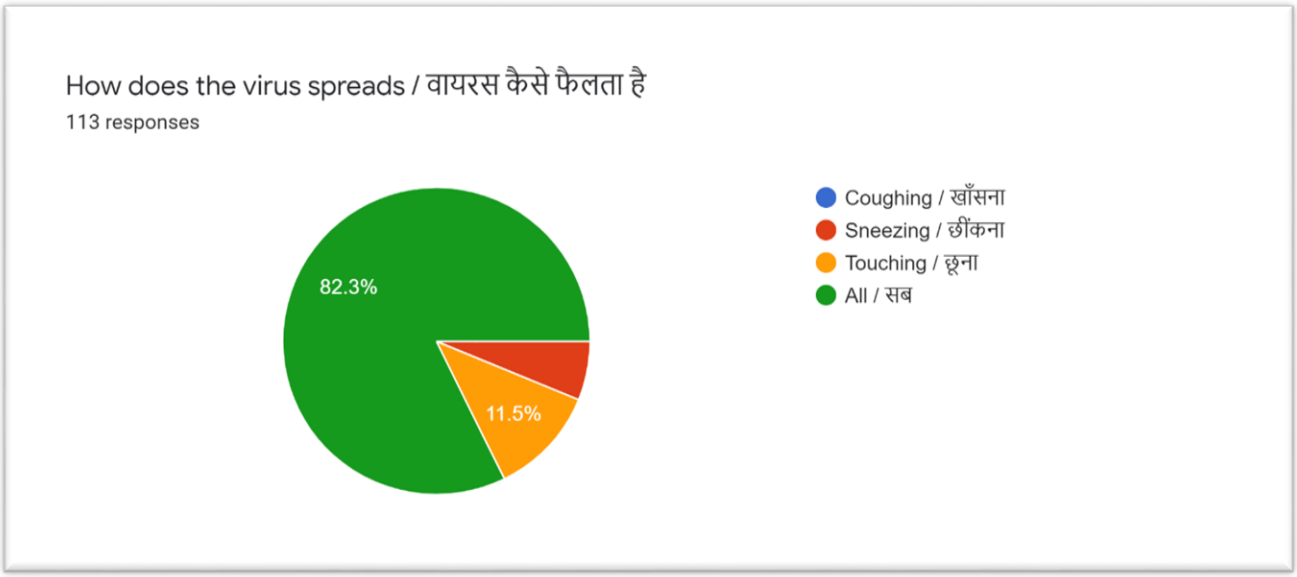

Fig 8.8: Spread of virus

8.9 Ways to prevent virus spread

More than 70% of the respondents are aware of the ways to prevent virus spread and more than 50% refrains from preferring self-medication and staying at home

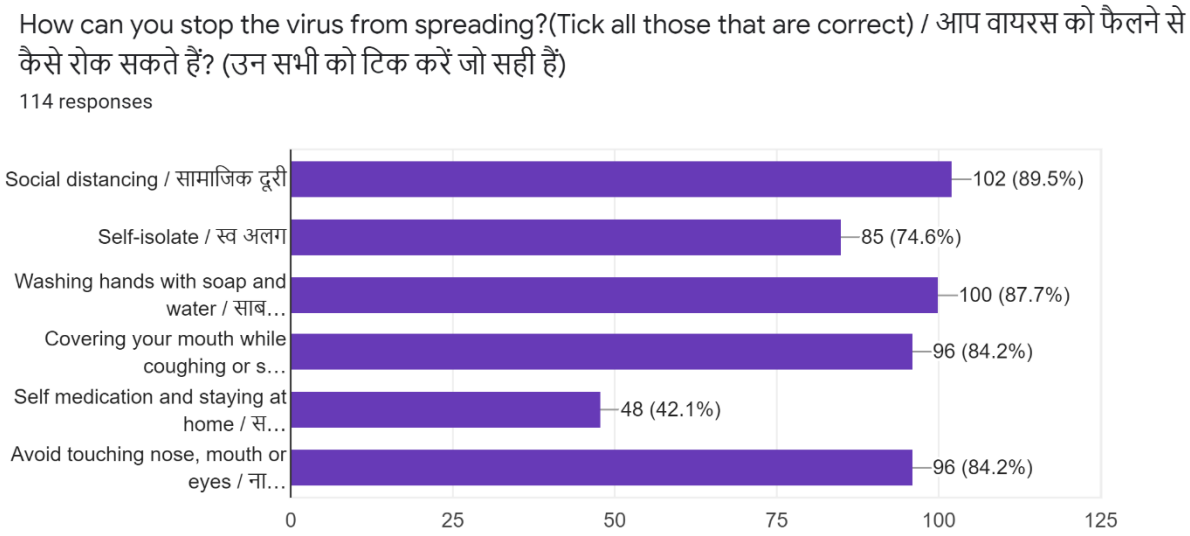

Fig 8.9: Ways to prevent virus spread

8.10 Distance to be maintained with each other

More than 80% of the respondents are aware that at least 3ft distance is to be maintained with each other

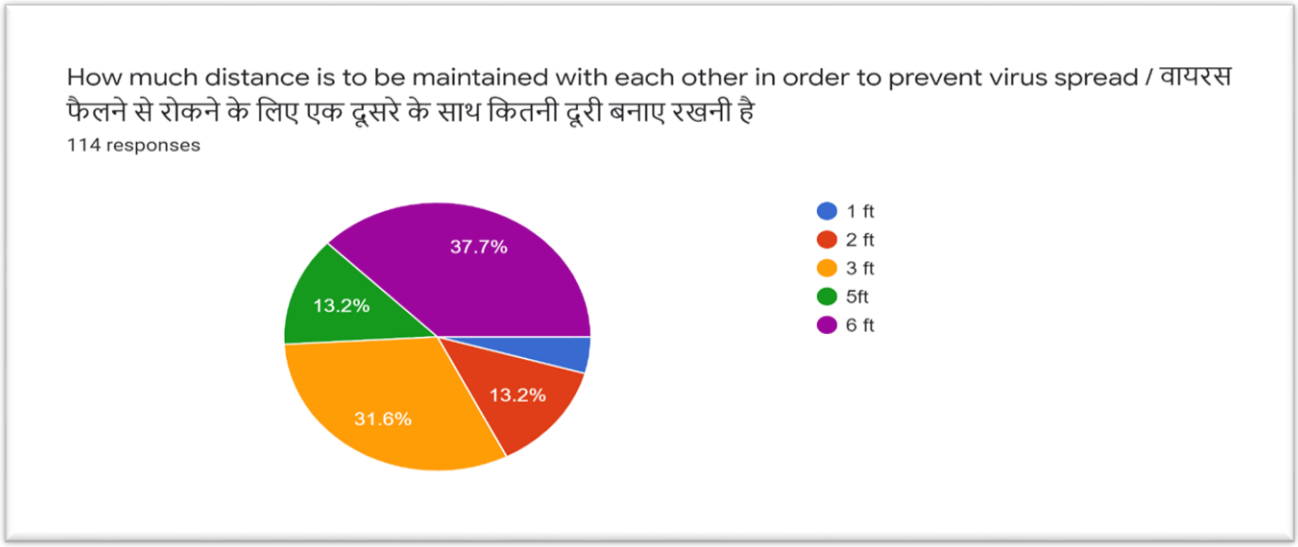

Fig 8.10: Distance maintained

8.11 Covering of mouth

More than 80% of the respondents think that covering the mouth with a cloth will prevent the spread of corona virus

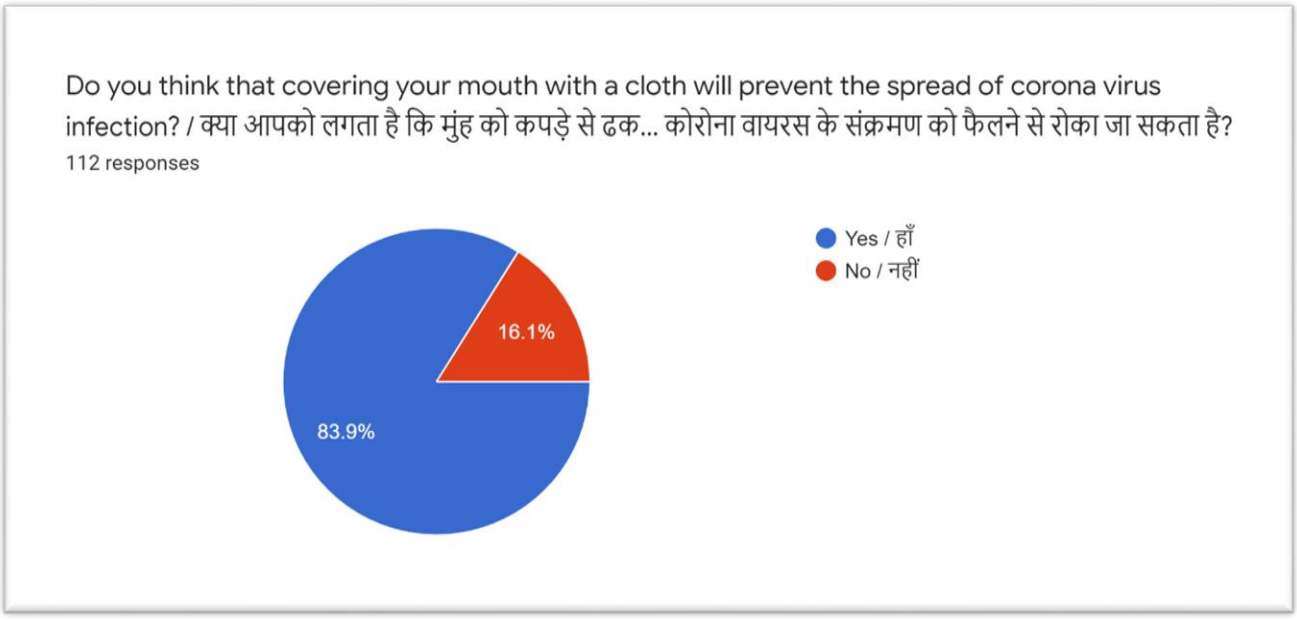

Fig 8.11: Covering of mouth

8.12 Do you think that person infected with corona virus will show no symptoms?

58.6% of respondents dont think that person infected with corona virus will show no symptom

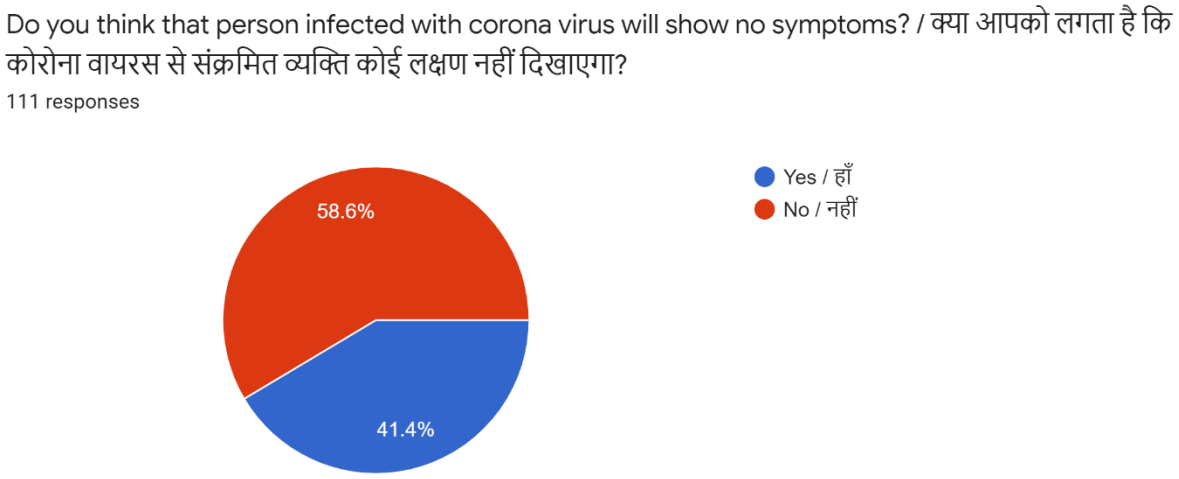

Fig 8.12: Infected person showing no symptoms of the infection

8.13 Type of mask usage

More than 50% of the respondents use cloth as a measure of prevention against the infection

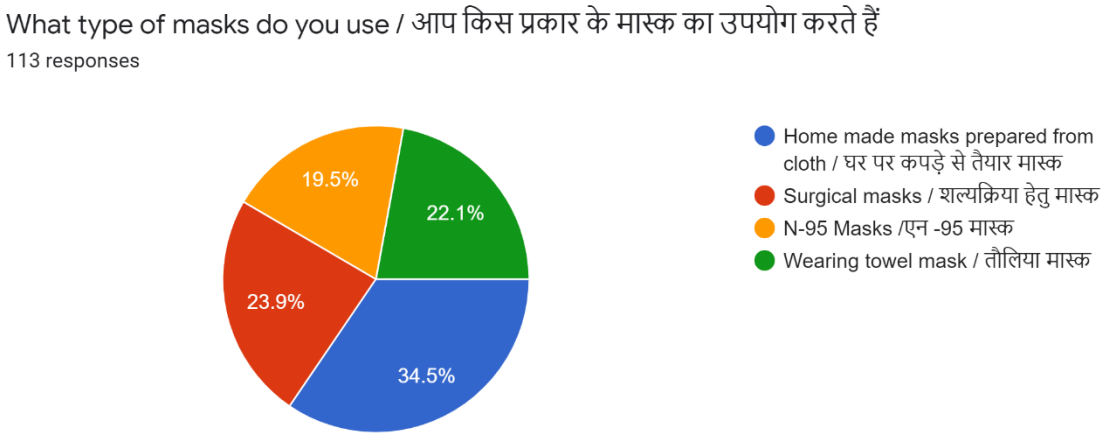

Fig 8.13: Type of mask usage

8.14 Adequacy of information provided by the govt

More than 50% of the respondents strongly agree with the fact that govt is providing adequate information regarding spread and prevention of Corona virus infection

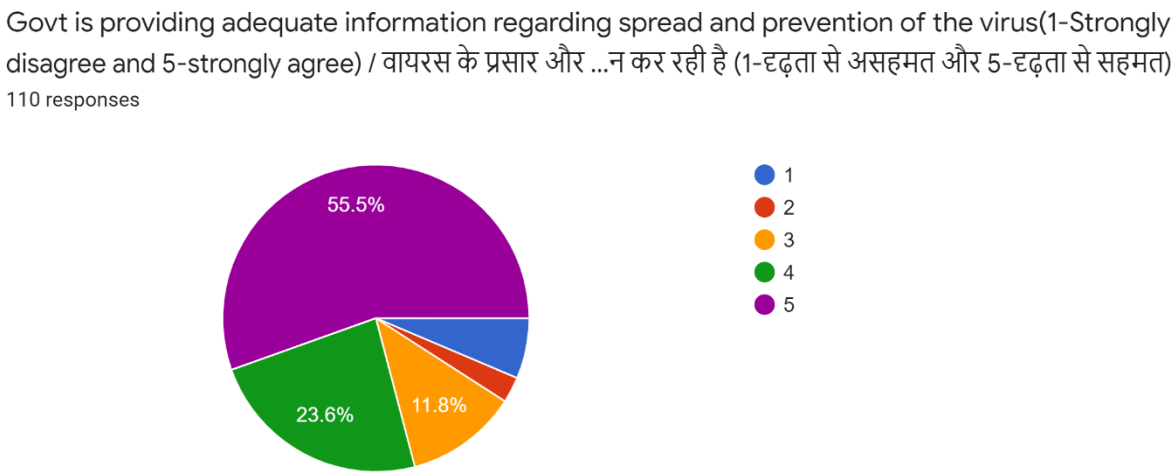

Fig 8.14: Adequacy of information by the govt

8.15 Will India win the war against Corona virus?

94.6% of the respondents believe that India will win the war against Corona virus.

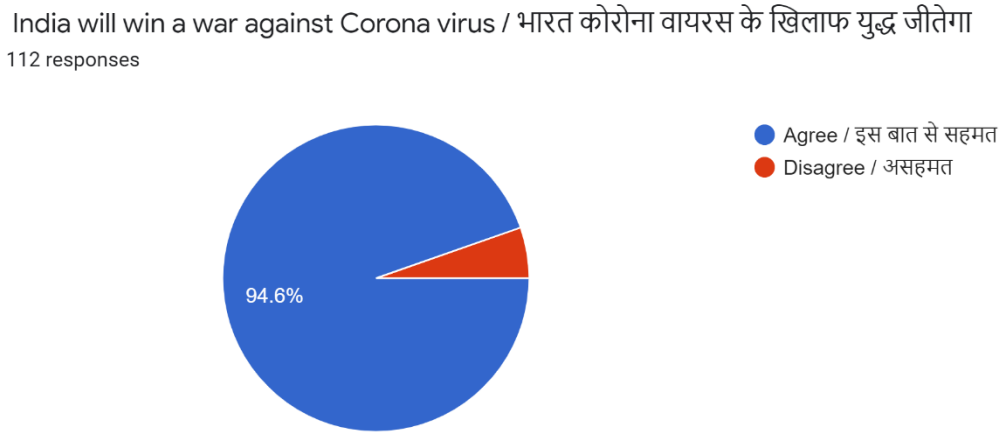

Fig 8.15: War against Corona virus

8.16 Mask sharing

More than 85% of the respondents don't share their masks with anyone else

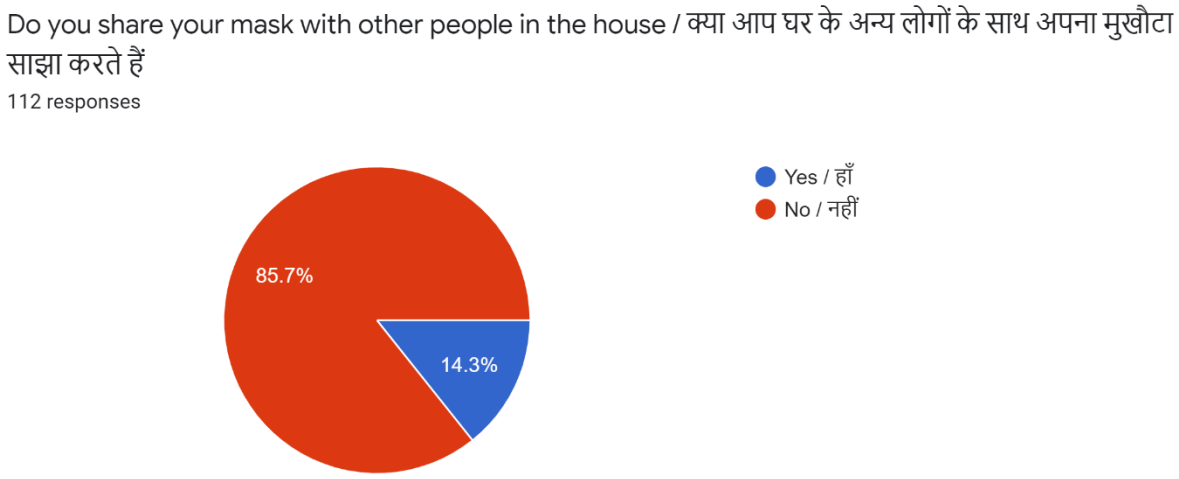

Fig 8.16: Mask sharing

8.17 Separate Mask for each member of the household

94.3% of the respondents have separate masks for each member of their house

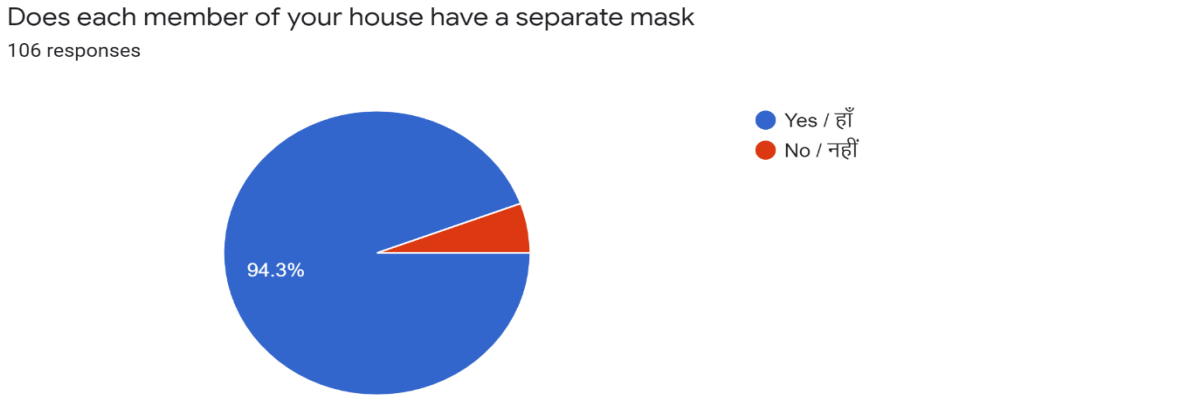

Fig 8.17: Separate mask for each member of the household

8.18 Action taken in case of having symptoms

92% of the respondents prefer to seek medical help in case of having fever with dry cough and difficulty in breathing

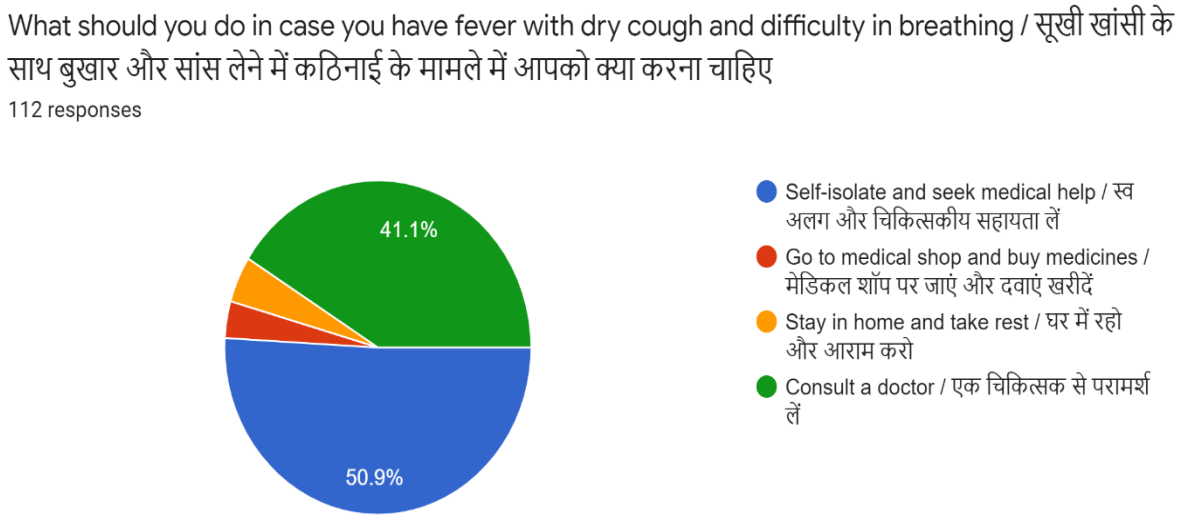

Fig 8.18: Action taken

9. Discussion

- Epidemics and Pandemics are a periodic phenomenon. People in the society or community face several challenges during such time. Lack of awareness often leads to an unconcerned attitude, which may affect the measured taken to tackle these challenges. Mostly educated ones and the health professionals are generally aware of the situation and steps to be taken in order to curb the pandemic but when it comes for rural setting, it become a challenge for the govt and media to provide proper and adequate information regarding the pandemic. Hence, this study attempts to assess the knowledge, attitude and practice regarding the spread and prevention of the virus in the rural setting.
- The study was conducted to assess awareness towards the spread and prevention of Corona virus among the people of Kharela town of Mahoba district in Uttar Pradesh. Despite the fact that 95% of the respondents are aware about Corona virus but only about 62% of them know about COVID-19.
- Data shows that about 79% of the respondents belong to the age group of 18-55 which is generally considered as working group. The results from this study suggests that these people primarily use television and mobile phones as a means to get information regarding the spread and prevention of corona virus.

- Television and mobile phones which are the primary source of information for the respondents were reliable and adequate in providing basic information related to spread and prevention of the virus infection.
- More than 50% of the respondents are aware about the most common symptoms of Corona virus infection. About 92% of them are aware about the serious complication of this virus infection which shows that media is able to provide information to a large no of people regarding the most common and serious symptoms of the virus infection.
- More than 80% of respondents are aware that virus spreads through different modes such as by contact, sneezing and coughing. The respondents are also aware about the various ways to prevent the spread of virus, more than 85% people consider that virus can be prevented from spreading by social distancing, practicing hand hygiene and by not touching eyes, nose or mouth. More than 50%of the respondents believe that self-medication shouldn't be practiced as a way to prevent virus spread.
- More than 80% of the respondents are aware of the fact that at least 3ft or more distance should be maintained with each other in order to prevent virus spread. Here, more than 80% of the respondents believe that by wrapping cloth around their mouth can help them against virus infection. This shows that media is able to provide people with information on how they can still protect themselves if they don't have a proper mask and moreover buying the surgical or N-95 masks is not economically feasible for the rural population. The data shows that more than 50% respondents wear towel or mask prepared at home from cloth as a preventive measure against the virus infection.
- More than 50% of the respondents strongly agree that govt is providing adequate information regarding the spread and prevention of Corona virus and 94.6% people believe that India will win a war against the Corona virus infection. It is the duty of every Indian right now to abide by govt rules and regulations and to stand together with Corona fighters so that we can together come out of this difficult time. This data shows that people are satisfied with the media role and actions taken by the govt in order to curb the Corona virus pandemic.
- The data shows that more than 90% respondents have a separate mask for each member of their house and more than 85% respondents deny sharing their mask with other people in the house. This data shows that people are aware of the importance of mask at this time. The data also shows that more than 90% of the respondents are going to seek medical help in case they have fever with dry cough and difficulty in breathing. It shows that people are not only aware about the preventive steps, but they are also practicing the necessary precautionary measures against this virus infection.

10. Suggestions

- Results show that more people prefer to wear Cloth masks or towel as a protective barrier against the infection. Keeping this in mind, govt should also try to focus on maintaining proper hygiene of the clothes we use.
- Mobile is one of the primary sources of information for the respondents, so it should be monitored that the information which people receive through internet or various social media platforms is authentic. Govt should also try to keep a strict check on sensitive and fake content too.

11. Conclusion

With total number of confirmed COVID-19 cases touching 200k, it is now becoming extremely important that people should strictly follow the necessary preventive measures such as Social distancing, practicing hand and respiratory hygiene, wearing masks when necessary, etc. The results from this study depicts that there is adequate knowledge among the respondents regarding COVID-19. People are aware about the various ways through which this virus can make them sick, they are also aware about the preventive measure to be taken at this time of pandemic and what to do if in case they show symptoms of the virus infection. Television and mobile phones play a big role in reaching masses even in rural setting. The positive attitude of the people towards govt actions in curbing the pandemic was of utmost importance since we need to fight virus at the individual level. It is not only the duty of govt or the Corona fighters to help us get rid of this virus, but is should be a cumulative effort from each and every individual if we really want to eliminate this virus.

12. Annexure

Questionnare

1. **Age**
   - less than 18 years
   - 18 to 35 years
   - 36 to 55 years
   - more than 55 years

2. **Gender**
   - Male
   - Female

3. **Occupation**
    - Farmer
    - Daily wage labour
    - Doctor/Nurse
    - Bussinessman
    - Govt job
    - Private job
    - Student
    - None of the above

4. **Do you know about COVID-19?**
    - Yes
    - No

5. **Do you know about Corona virus?**
    - Yes
    - No

6. **What is your primary source of information regarding Corona virus news and updates?**
    - Friends or relatives
    - Television
        - Radio
        - Newspaper
        - Public announcer
        - Mobile
        - Others

7. **Symptoms of Corona virus infection**
        - Difficulty in breathing
        - Rashes
        - Itching
        - Fever
        - Dry cough
        - Tiredness
        - Joint pain

8. **How does the virus spreads?**
        - Coughing
        - Sneezing
        - Touching
        - All

9. **How can you stop the virus from spreading?**
    - Social distancing
    - Self-isolate
    - Washing hands with soap and water
    - Covering your mouth while coughing or sneezing
    - Self-medication and staying at home
    - Avoid touching nose, mouth or eyes

10. **How much distance is to be maintained with each other in order to prevent virus spread?**
    - 1 ft
    - 2 ft
    - 3 ft
    - 5ft
    - 6 ft

11. **Do you think that covering your mouth with a cloth will prevent the spread of corona virus infection?**
    - Yes
    - No

12. **Do you think that person infected with corona virus will show no symptoms?**
    - Yes
    - No

13. **What type of masks do you use?**
    - Homemade masks prepared from cloth
    - Surgical masks
    - N-95 Masks
    - Wearing towel mask

14. **Govt is providing adequate information regarding spread and prevention of the virus(Strongly disagree and 5 strongly agree)**
    - **1**
    - **2**
    - **3**
    - **4**
    - **5**

15. India will win a war against Corona virus?

- Agree
- Disagree

16. Do you share your mask with other people in the house?

- Yes
- No

17. Does each member of your house have a separate mask?

- Yes
- no

18. What should you do in case you have fever with dry cough and difficulty in breathing?

- Self-isolate and seek medical help
- Go to medical shop and buy medicines
- Stay in home and take rest
- Consult a doctor

13.References

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