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A Study to Assess the Impact of COVID-19 Pandemic and Lockdown on Rural Population of District Ghaziabad

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Abstract

Background: COVID-19 brought a huge nation like India to a halt. The country wide lockdown was one of the initial steps taken by the government of India to curb the spread of this disease. Lockdown further induced economic losses to the rural population and severely affected their livelihoods. This study was thus, undertaken to study the awareness levels among the agrarian population of District Ghaziabad. To assess how they withstood various challenges during the pandemic and identify the best strategies to combat these unforeseen challenges.

Objectives: To assess the knowledge, attitude and practices during the COVID-19 pandemic and its impact on the agrarian population of District Ghaziabad.

Methods: A community based cross sectional study was conducted among the rural residents of district Ghaziabad. Two hundred households were selected and the adult present at the time of survey was interviewed using a pre-designed and semi-structured questionnaire through door to door visits. Approval from the Institutional ethical committee was taken prior to the study. Data was compiled and analyzed in MS Excel.

Results: About 40% of the Heads of the households surveyed were farmers & the remaining were pursuing other professions. It was observed that 93.5% of them were aware that COVID-19 is a communicable disease. Around 83% felt that COVID19 is a dangerous disease. Majority 85.5% of the study participants used soap and water for washing hands. More than half of the respondents, 56.5% of the respondents mentioned that they had accessibility to health facility when in need during the period.

Conclusion: About 19%, 10% & 9.5% of the rural households did not get adequate groceries, water & electricity supply respectively during the lockdowns due to COVID-19 pandemic. Thus, they had to bear a major brunt of the lockdown worsening of the already poor socio-economic conditions. The lockdown led to an unprecedented tragedy which still needs to be understood well so that the Government can direct the the outreach of the relief schemes and other strategies making their working effective.

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1. Introduction

The COVID-19 pandemic brought the entire nation to a halt(1) Health officials and medical professionals were struggling to containing the disease, testing and treating the affected people.(2)

The national level lockdown enforced from 25th March 2020 affected the lives and livelihoods throughout the nation severely.(3) Majority of India's Population dwells in the rural areas engaged in Agriculture and Allied sectors.(4) Agriculture and allied sectors employ more than half of the workforce of the country. A major proportion of farmers (85%) in India, are small scale and marginal farmers who possess less than two hectares of land.(5)

Risk of spread of COVID-19 in the rural areas is heightened due to a number of factors, viz., lack of proper awareness, limited supply of clean water, low availability of food supply and most importantly, ill-equipped and insufficient health facilities.(6) Poor health seeking behaviors and practices of the people also plays a synergistic role in spreading the disease and delaying the process of containing the pandemic(7)

The lockdown has affected broadly three kinds of activities in rural areas, viz., agriculture and allied activities, local non-farm sectors and rural-urban migration. This impacts the health & survival of the people adversely especially during the times of pandemic.(8)

Proactive measures are needed on the part of the government and civil society organizations to safeguard the vulnerable rural populations from economic fallout of the current and future pandemics.(9)

With this information, the present study was proposed to assess the Knowledge, Attitude Practices during the COVID-19 Pandemic and its Impact on the agrarian population of District Ghaziabad.

Objectives

1. To study awareness levels among the agrarian population of District Ghaziabad.
2. To assess how they withstood various challenges posed by the Pandemic on their daily life.
3. To identify the best strategies or measures adopted by them to combat the challenges.

2. Materials and Methods

A community based door to door survey was conducted in 5 villages (Asalatnagar, Shobapur, Nabipur, Saintali & Kanoja) covered by the Rural Health & Training Centre, Asalatnagar, Department of Community Medicine, Santosh Medical College, Ghaziabad.

From every village, 40 households were visited by systematic random sampling method & responses from the Head of the family or any adult person was collected.

A predesigned and semi-structured questionnaire was used to collect the data. A total of 200 Households were visited on 26th & 27th June 2020 by a team of doctors from Santosh Medical & Dental College under the guidance of dedicated research team.

Approval from the institutional ethics committee of was taken prior to starting the survey.

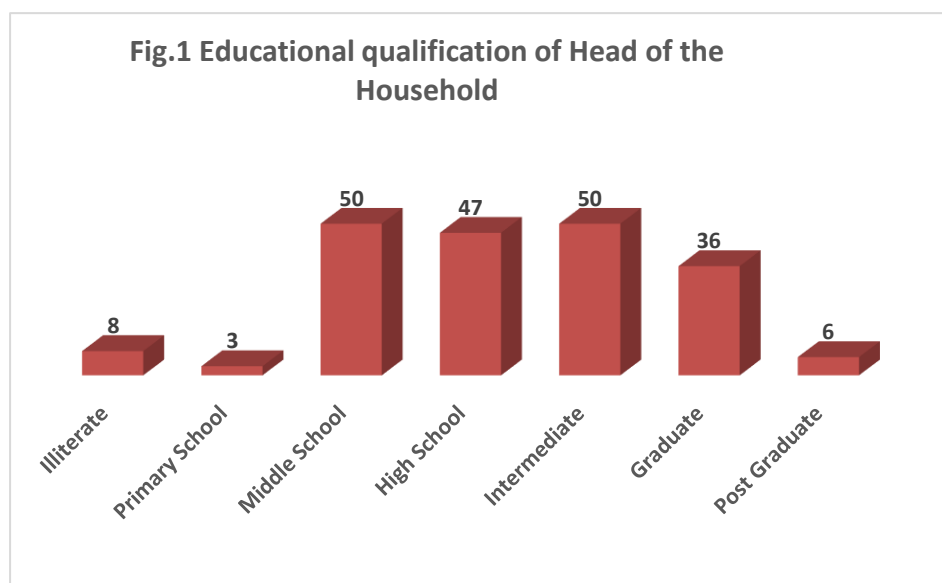
3. Results

Demographic characteristics

A total of 200 households visited from 5 villages namely - Asalatnagar, Shobapur, Nabipur, Saintali & Kanoja. Among these households a sum of 1130 population was surveyed. Among whom there were 605 males & 525 females with a sex ratio of 1:0.87.

About 40% of the Heads of the households were farmers & the remaining were in other professions.

Figure.1 Shows distribution of the educational qualifications of Heads of the households



Knowledge

Among all the respondents, 55% claimed to have complete knowledge of Coronavirus, followed by 41.5% who said they have some knowledge, whereas hardly 3.5% said they didn't have any

knowledge. It was observed that 93.5% of them were aware that COVID-19 is a communicable disease & 98% knew that it is spread through droplets produced during coughing & sneezing of an infected person by Corona virus.

Figure.2 shows the level of awareness regarding prevention from Coronavirus.

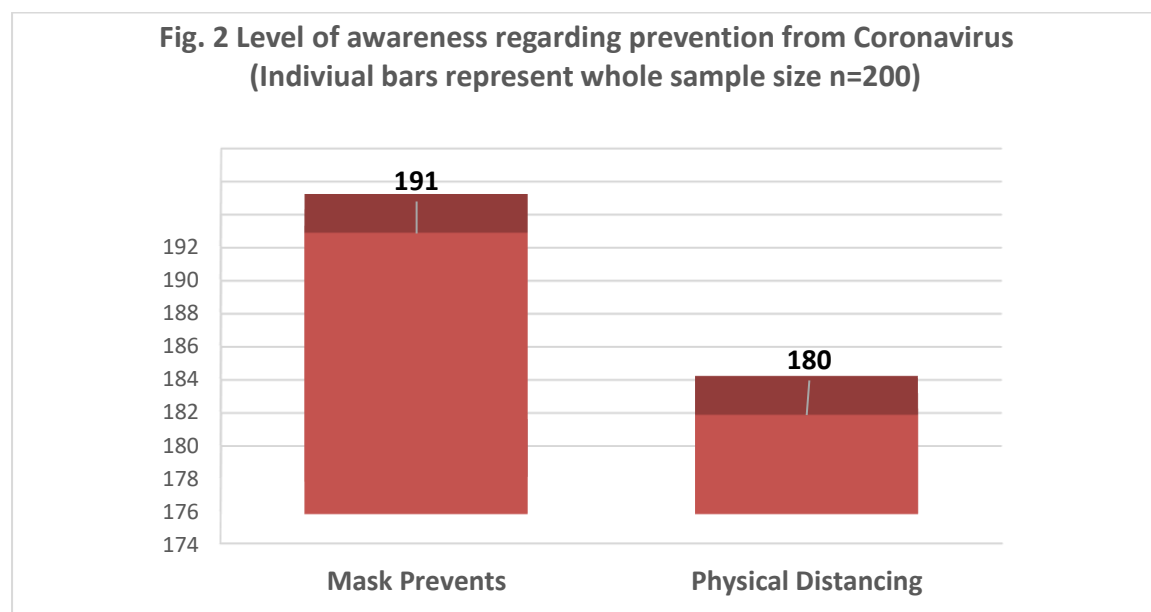
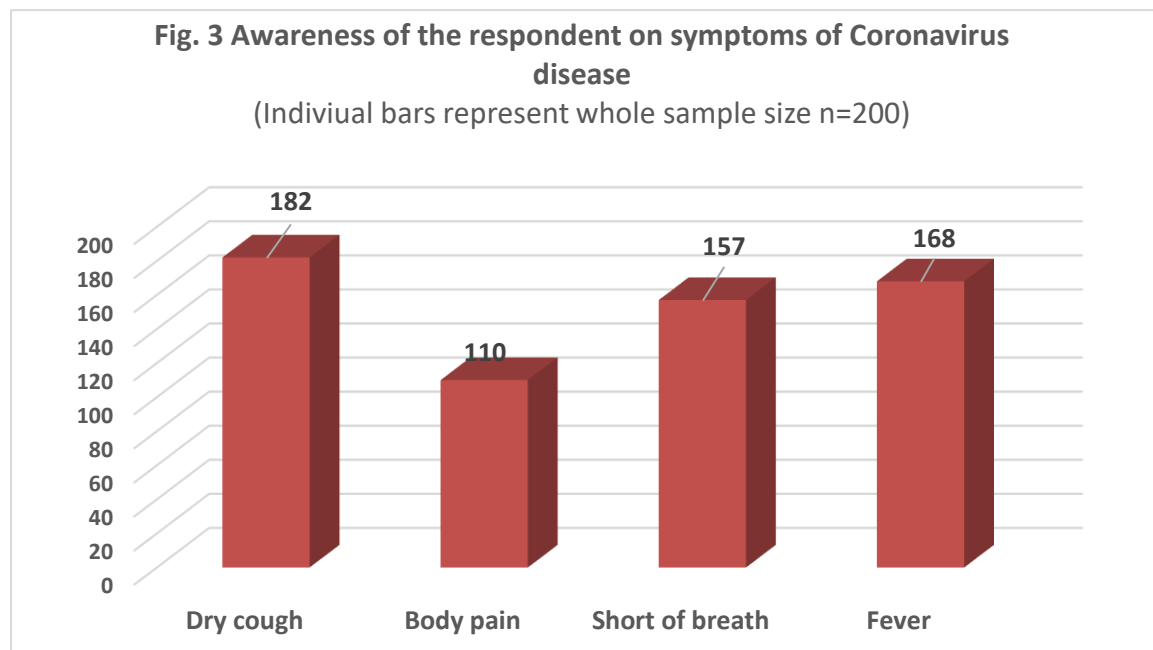


Figure. 3 Shows awareness of the respondent on common presenting symptoms of Coronavirus disease.



Attitude

Among all the respondents 83% feel that COVID19 is a dangerous disease. About 75% feel that any one of their family members may get infected. Regarding Nationwide Lockdown, 81.5% of the

respondents felt it was a good strategy to control the pandemic.

Out of all the respondents, 95% of them had positive attitude towards getting tested for COVID infection &/or get admitted to COVID hospital, if they ever showed symptoms.

Practices

Figure 4. Shows practice of hand wash followed by the respondents & their family members.

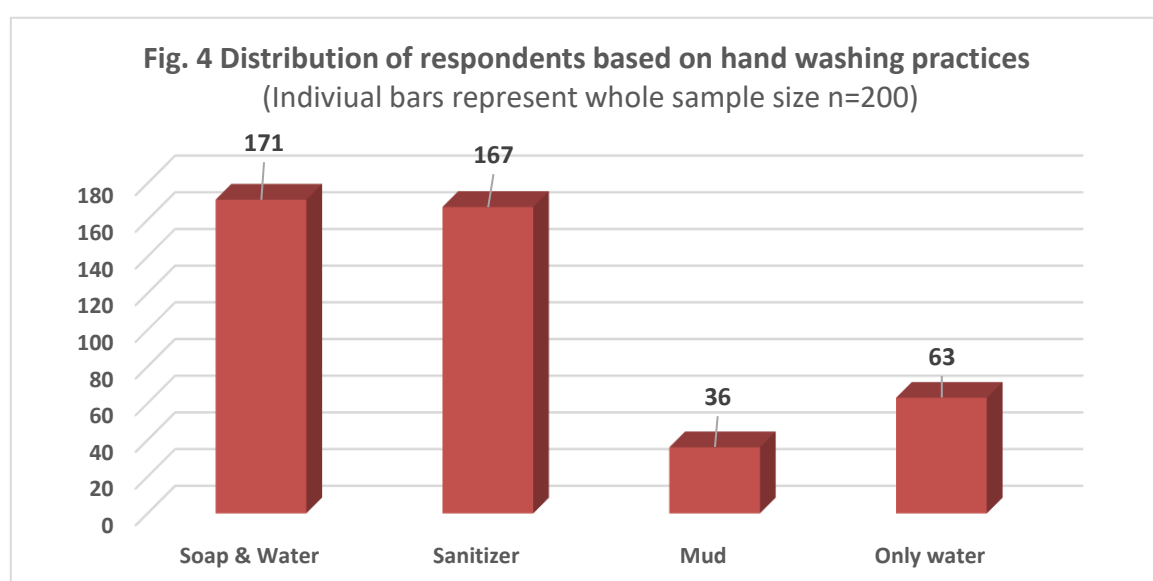
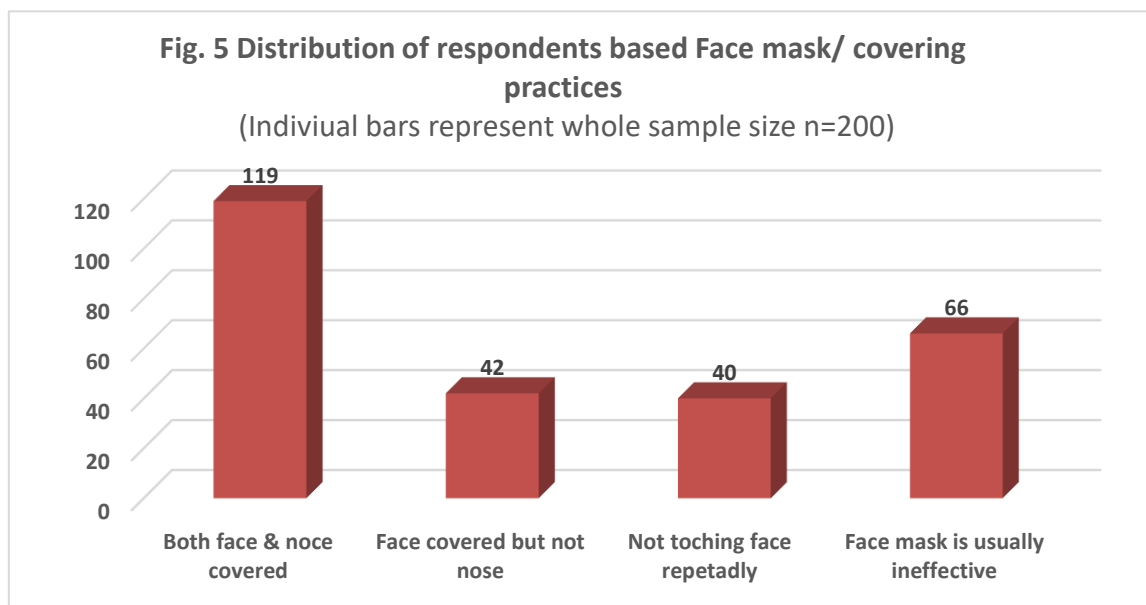


Figure 5. Shows practice of Face mask/ cover followed by the respondents & their family members.



Impact on day to day life

In 7.5% of the households, at least one or more family member had lost their jobs during the lockdown period.

Around 23% of the households had incurred loss in theirs salary.

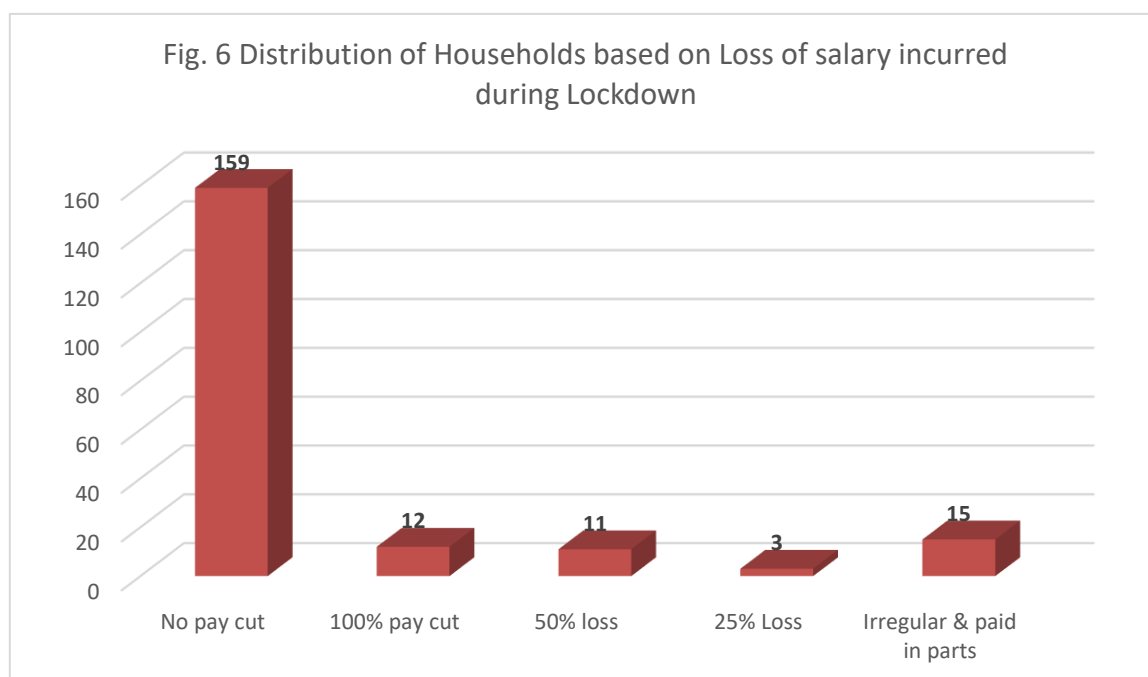
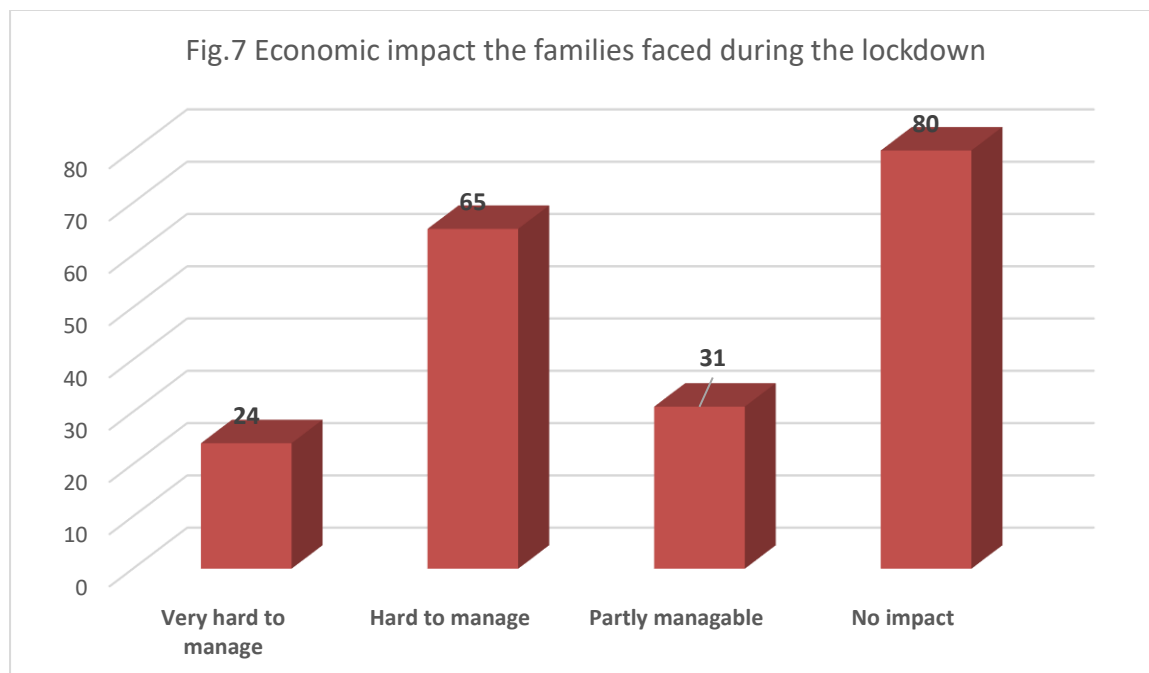


Figure 6 shows the distribution of households based on loss of salary incurred during the lockdown.

Figure 7 shows the economic impact the families faced during the lockdown.



Among all the households, 11% of them experienced loss of their crop / agricultural produce. The causes of the loss were due to excess rain 1.8%, Sold at low cost 0.9% and 6.4% of them lost due to lack of transportation facilities (n=22).

About 19%, 10% & 9.5% of the households did not get adequate groceries, water supply & electricity supply respectively. Around 56.5% of the respondents mentioned that they had accessibility to health facility when in need during the period.

4. Discussion

In this study, it was observed that 93.5% of the study participants were aware that COVID-19 is a communicable disease. In a study done by Prachi Agarwal et al(10) in Indian population 97.38% of the study participants knew COVID-19 is a highly transmissible disease.

Almost 98% of the subjects in this study knew that COVID-19 spreads through droplets produced during coughing & sneezing of a person infected with coronavirus. Similarly, in a study done by Tomar et al (11) 91.7% of the study participants knew the correct mode of transmission. Whereas, in another Indian study by Prachi Agarwal et al(10)

only three fourths, 76.24% of the study population had the right knowledge regarding the same.

In this study knowledge regarding the prevention of coronavirus was high with 95.5% of the study participants knowing that wearing of mask is protective against COVID-19 and 90% knew that physical distancing is preventive. In a study done by Tomar et al(11) 97.05% knew that social distancing is an important tool to prevent COVID-19 infection.

Awareness regarding symptoms of COVID-19 was as follows with 91% knowing dry cough to be a symptom, followed by 84% knowing about fever. Almost four-fifths of the study subjects 78.5% knew shortness of breath as a common symptom. But only 55% knew body pain could be a symptom. In a meta-analysis done in Bangladesh by Ahsan Raquib et al (12) the most common symptom known by the Bangladeshi population was fever (93.54%) followed by dry cough (85.54%). In a study done by Prachi Agarwal et al(10) 97.96% of the study participants knew these common symptoms of COVID-19.

Among all the respondents 83% felt that COVID-19 is a dangerous disease. In their study Taksande A et al(13) found a lesser percentage 68.94% of

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study participants believing that COVID-19 is a serious disease.

About 75% feel that any one of their family members may get infected. Similarly, in a Cameroon based study (14) only 35.53% of the respondents believed that they could fully protect themselves against COVID-19

Regarding Nationwide Lockdown, 81.5% of the respondents felt it was a good strategy to control the pandemic. In a study done by Prachi Agarwal et al(10) 57.29% of the respondents agreed that Janta Curfew was helpful in controlling COVID-19.

Out of all the respondents, 95% of them had a positive attitude towards getting tested for COVID-19 infection and getting admitted to COVID hospital, if they ever showed symptoms. In another Indian study done by Prachi Agarwal et al(10) 73.18% agreed to self-reporting of symptoms/ history of travel to COVID-19 affected areas to the necessary authorities Whereas, in a study done by Njingu AE et al(14) 60% agreed to avoid going to the hospital due to fear of COVID-19 suspicion as isolation breeds various negative emotions like fear, anger, sadness, irritability as well as confusion.(15)

In the present study, 85.5% of the study participants used soap and water for washing hands. Similarly, 83.9% of the respondents agreed to following regular hand hygiene in a study done in Cameroon by Njingu AE et al.(14)

More than half of the study participants 59.5% covered both face and nose while going out. Whereas, Taksande A et al(13) found almost all 96.89% of the study participants wore a proper mask before leaving their households.

In 7.5% of the households, at least one or more family member had lost their jobs during the lockdown period. Similarly, in a study done by Yapi R B et al (16) 4.1% of the respondents had lost their jobs and 36.2% had partially stopped working.

Around 23% of the households had incurred loss in their monthly salary. Slowing of economic activities in urban areas had an effect on rural areas

as well. Numerous studies indicate that a significant proportion of rural incomes come from migration and daily-wage laborers which got adversely impacted during the lockdown.(6)

About 19%, 10% & 9.5% of the households did not get adequate groceries, water supply & electricity supply respectively. Thus, emphasizing that there is a dire need for strong infrastructure in rural India to protect during the time of duress like this pandemic.

Limitations

This study was conducted in only rural areas of one district in India. Therefore, its findings cannot be extrapolated in the vast Indian settings. More studies having larger demographic profile are needed to corroborate the findings of this study.

5. Conclusion

The government has to take various proactive measures to protect and safeguard the rural populations from economic fallout of COVID-19 pandemic. Both relief and rehabilitation measures to help the affected pick the threads again, overcome the loss sustained and rebuild their lives is the need of the hour. This cannot be a one -time activity but a continuous sustained effort on the part of various stakeholders.

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