

Covid-19 Appropriate Behavior General Population in Central and Rural Area

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ABSTRACT

Background and aims: The lengthy influence on life conduct such as hand washing, usage of the mask, distance, respiratory hygiene, farewell to manual shaking, prevent crowds etc. is certain to have a major impact on the COVID 19 epidemic and the concomitant restrictions. The aim of this study was to create and analyse a questionnaire for the evaluation of changes in living behaviours of individuals during COVID 19.

Materials and methods: This cross-sectional study was a broad Indian community online survey. We did the study during COVID-19 outbreak. We obtained the data using demographic and preventative behaviour surveys. This study was a fast, wider online cross-section study in several towns, cities and villages in India during the unlocking period. The data were gathered utilizing the web interview and phone interview platform of Google Form. The researcher members of the group shared a typical invite message with a link to the online survey through email, Facebook, Insta, and WhatsApp via personal and social connections.

Result: A research among the general population of central India and rural Indians was carried out in this respect, taking appropriate behaviour, and ensuring that the covid-19 virus is safe and prevented. Finally, in order to evaluate the particular area which displays a divergence from the predicted findings, certain actions may be implemented if the exact impacts are found, and such a deviation would further enhance our understanding of this specific issue. The knowledge and awareness at a higher level, such as the research design, would certainly aid in evaluating the effects.

Key words: Behavior, Covid-19, Cough etiquettes, Hand hygiene, Physical distancing

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INTRODUCTION

COVID-19 is an inflammatory illness that was originally found in 2019 due to a new type of coronavirus. By 2020, a worldwide pandemic occurred at COVID-19. People with COVID-19 are more at risk of having significant consequences from the disease than those with underlying medical problems. Since the virus is supposed to spread via respiratory gout, guidelines for physical distance were made to prevent the development of the sickness [1].

The COVID-19 epidemic enabled the adoption of many acceptable modifications in people's behavior in India.

While the Central Government and State Governments are effectively leading the essential actions to combat the spread of (COVID 19), there is a need to highlight the importance of preventative measures and practices in a sustained way in order to deal with the disease in the long run [2]. Frequent hand washing, physical distance maintenance, face shield, cough labels, avoiding personal contact best regards, dread of spitting and urinating in public areas, and avoiding outside eating are some of the proper behaviors that were or the COVID epidemic was learned. The continuous shutdown showed individuals how to distinguish "want" and "needs," local manufacturing needs, and the importance of social media and the internet in our daily lives.

SARS-Cov-2 that is severe acute respiratory syndrome coronavirus 2 is the causative organism of acute respiratory infection which is coronavirus disease 2019. It has caused an explosive catastrophic pandemic that affected almost all part of the world, and produced significant loss of lives and the worst financial crisis recorded ever, since World War II. SARS-CoV-2 began in China and spread aggressively around the world over a

span of 3-4 months, making it one of the fastest spreading infectious diseases in humans. It was first identified in December 2019 in Wuhan, China, which produced a large cluster of pneumonia cases- hence, the virus was initially called as the 'Wuhan Virus'. Subsequently it was named as the 2019-novel coronavirus (2019-nCoV. Further research work revealed that it is a B-Coronavirus with a genome that is almost identical (96 percent homology) to the SARS-like bat coronavirus which is indicating that bats are the natural host. The epidemic was labeled a "Public Health Emergency of International Concern (PHEIC)" on January 30, 2020, as the number of cases remained high. WHO announced the official name to the newly emerging virus as 'COVID-19' on 11th February 2020. The virus was also renamed as SARS-Cov-2 due to its close structural similarity to the previously found SARS-Cov. According to the reports which are available till now it is indicated that the newly found corona virus disease infection 2019 [COVID-19] affects the respiratory system. . The exacerbations of this particular syndrome can lead to catastrophic consequences like renal failure, sever acute respiratory syndrome [SARS], cardiac arrhythmia, pneumonia which may progress to multiple organ failure, and also could prove fatal. [1] Corona virus infection is seen transferred by respiratory and extra pulmonary pathways, which may explain its rapid spread leading to the worldwide pandemic as on 11 March, 2020, World Health Organization (WHO) labeled this new coronavirus (COVID-19) spread worldwide as a pandemic [2,3]. As on July 14, 2021, there have been 187,519,798 confirmed COVID-19 cases worldwide, including 36,196,974 in Southeast Asia and 30,946,074 in India [4]. Situation in India (As of August 2020: India was one among those countries where the COVID-19 pandemic had a slower growth curve to reach its peak. The first report was from Kerala in January 2020. It was the first cluster reported in India. 15 Italian visitors were detected to be positive at Jaipur, in March 2020. Following the Tablighi Jamaat (TJ), a religious gathering held in Delhi's 1. Nizamuddin Markaz Mosque in early March 2020, an explosive epidemic of COVID-19 occurred, resulting in over 4,000 cases.

The SARS-Cov-2 virus contains nucleocapsid and it is seen that this virus is covered by an envelope. virus is of 120 nm in its size and has a helical type of symmetrical structure. Virus is composed of 4 major proteins they are [N, S, M, E]. There are several other proteins and 16 non-structural proteins are present in the virus. Nucleocapsid protein [N] is the nucleocapsid which is surrounded by virus. The nucleocapsid contains the positive sense single stranded RNA with the 30 kb genomic size. .The envelope is lipoprotein in nature; the lipid part is host-derived into which a number of proteins are embedded such as, Spike protein (S): Helps in the attachment to the host cells. Neutralizing antibodies are produced against S protein are protective in nature. It has two subunits. The receptor-binding domain (RBD) of the S1 subunit interacts to a particular receptor on the host cell surface, S2 subunit facilitates virus-cell membrane fusion. The

most commonly present structural proteins that is membrane glycoprotein [M] which provides shape to the virus. Envelope protein (E) is a transmembrane protein having ion channel function that is only present in trace amounts. On-structural proteins: They include several enzymes J which help in replication of the virus, e.g. RNA-dependent RNA polymerase (RdRp), helicase, etc.

COVID-19 virus is typically spread by respiratory droplets and direct touch. Droplet Transmission: when COVID-19 infected person comes in contact with the no infected person within 1 meter of area then there is a high chance of droplet infection, sneezing, coughing and a close contact results in transmission of droplets. Droplets can be expelled from nose, mouth or conjunctiva. Mask can protect from the droplet transmission. Contact Transmission: COVID- 19 virus transmission occurs either directly or indirectly through direct contact with infected persons or contaminated surfaces in the surrounding environment., objects used on or by the infected person or fomites (inanimate objects) in the surrounding environment around the infected person's (e.g. infected clothes, utensils, furniture). The virus may only be transferred by touching the contaminated hand to a person's mouth, nose, or conjunctiva after contact (direct or indirect). Frequent hand hygiene following potential contact exposure is crucial to prevent this type of transmission. Aerosol Transmission: Aerosol transmission (spread of the infected droplet nuclei beyond one meter) is not documented yet, although active research is on-going in this regard In particular situations where aerosol-generating procedures such as endotracheal intubation are undertaken, aerosol. COVID-19 disease shows incubation period of 5-6 but sometimes it may show up to 14 days.it shows the symptoms which are as follows: Common features: Fever, cough with expectoration, fatigue, shortness of breath, myalgia, rhinorrhoea, sore throat, diarrhea. Before the onset of respiratory infection there may be loss of taste and smell. Atypical symptoms: Particularly seen in older people and immune-suppressed patients such as loss of appetite, delirium fatigue, reduced alertness, diarrhea, and absence of fever. Throat swab and nasal swabs are preferred specimens. Dacron or polyester flocculated swabs are used, dipped in viral transport media [VTM] after collection. Alternate specimens included: nasopharyngeal swabs, bronchoalveolar lavage [BAL] or endotracheal POS is a uncommonly found disease which is marked by orthostatic oxygen desaturation and positional dyspnoea when the patient moves from supine to upright" [5]. Dyspnoea (difficulty in breathing) is the third most frequent symptom reported by COVID 19 affected patients [6]. Platypnoea is a type of shortness of breath that happens when the patient is standing. Orthodeoxia is defined as the oxygen deficiency in a supine posture. It's been seen in diseases involving blood shunting. It is characterized as a diminution in peripheral oxygen saturation (SpO2 > 5%) in sitting position compared to the supine position, which is accompanied by dyspnoea in the sitting/standing position [7]. POS

can be elicited bedside by measuring SpO2 in the sitting as well as in supine position during a patient's clinical evaluation. To capture changes in oxygen saturation when shifting positions, we need a pulse oximeter. Pulse oximetry is now the fifth vital sign to look for during a clinical evaluation [8]. It is observed that patients with COVID-19 might exhibit postural variation of respiratory distress which is utilized in the awake proning approach therapy of COVID-19 ARDS. Pulmonary fibrosis and [ARDS] acute respiratory distress syndrome and are two respiratory symptoms of COVID-19. In cases of COVID-19, POS has only been documented on a few occasions [9]. Micro thrombi and vasculoplegia along with mainly the basal distribution of the consolidative changes which occurs in severe infection of COVID-19 disease. Platypnea orthodeoxia syndrome develops as a result of enhanced basal physiological shunting and higher zone dead space ventilation as a result of gravitational redistribution of pulmonary blood flow [10]. Platypnea orthodeoxia syndrome responds comparatively in a good way to chest physiotherapy and steroids along with oxygen therapy medication [11].

The COVID-19 outbreak is a major health concern that must be addressed wreaking havoc on people all over the world. Until now, most common therapies such as social spacing, widespread use of personal protection (PP) equipment (e.g., maskers, guard or mitten, hand washing, and cleaning are non-pharmacological, as well as other therapeutic options. Until a viable cure or vaccination is discovered, these precautions will very certainly be enforced in the medium or even long term. One apparent solution would be to do "socially remote"

research such as maintaining a safe distance and forcing students and staff to wear EPP. Though this method of facts collecting would be similar to pre-COVID eras, it would have a number of unforeseen repercussions [3]. The COVID-19 incident has resulted in a number of positive improvements in people's conduct in India. To some degree, the Ministry of India's health promotion initiatives, motivating efforts, and regulation are responsible for these suitable behavioural adjustments (GoI). When there is no therapy for contagious diseases, individuals seek to prevent becoming infected by modifying their behaviour. The bimodal distribution of SARS-2, as well as the possibility of a THIRD wave of SARS-2 emerging in the near future, emphasize the importance of these appropriate measures. During COVID-19, the TTM Model explains the different stages of behaviour change in India. The shift in health compoment is a six-stage transition according to the trans theoretical paradigm (Figure 1) [4,5].

Covid 19 Appropriate behaviour changes

Hand washing

Hand cleanliness is the easiest, cheapest, but also most essential approach to avoid illness.it yet remains an undervalued tactic. The most common diseases spread by unclean hands are gastrointestinal, respiratory, skin, and eye infections. This practice can be an important milestone in preventing many other gastrointestinal and respiratory illnesses in the future [6].

Face cover

As part of a doctor's apparel, masks were historically

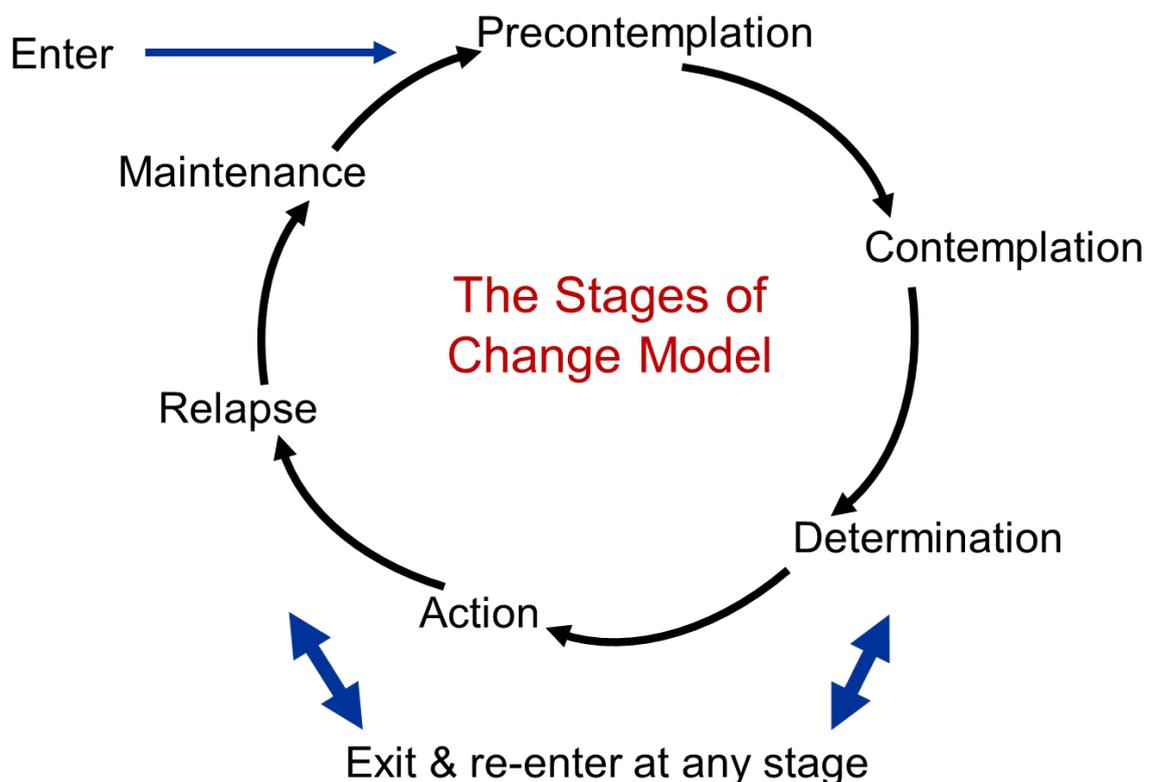


Figure 1: TTM model.

acceptable. In controlled and hospital conditions, both the N95 mask and the triple-layered surgical mask were shown to be equally efficient against virus particles [6]. During the SARS pandemic, the general public's usage of masks and hand cleanliness was found to reduce the percentage of different respiratory viruses [7].

Good bye to handshake

"Namaste" and "Smile" have been scientifically shown by touching to reduce the spread of infections rather than any other method of greeting.

Cough etiquettes

The efficacy of cough etiquette in interfering with airborne transmission has been demonstrated. The maintenance of a healthy atmosphere also requires respiratory hygiene. GoI encouraged the use of different IEC materials to improve breathing hygiene during this epidemic. Awareness of the following respiratory hygiene has also been proved a key predictor [9].

No spitting at public places

It is equally important to avoid bad practices. The Ministry of Health in India has committed a criminal offence in public to control COVID-19, according to the Disaster Management Act. The Ministry also called on all states to prohibit people's usage and spitting in public areas for the spread of COVID-19 in non-smoked tobacco [10]. The enforcement legislation against such hygiene practices might modify people's behaviour, prevent spread of diseases and also aesthetically enhance the surroundings [11,12].

Minimize meetings & overcrowded locations

All Indian states were directed by GoI not to allow specific religious assemblies [13]. There are numerous unexpected events that might put people's health at danger, and outbreaks of illnesses are one of them.

Learn how "need" and "want" vary from one other

Savings is one of everybody's regular decisions at the edge of the New Year. This epidemic has enabled individuals to economize on needless expense. They were also taught a valuable financial lesson by the lockdown: that only if you "need" and not "desire" to acquire goods [14].

Work--life balance

COVID-19 and the worldwide move to remote work have made many entrepreneurs more aware of the need for a balance between working and living even more difficult to accomplish. And it has consequences for the talent pool accessible [15,16]. The COVID-19 issue has shown some inattentive good results over the last several months: for one thing it demonstrated that many enterprises give priority to the well-being of their employees and are ready and prepared to do so. It also revealed that employers are ready to match health and safety with incentives to assist employees better cope with the situation: from higher health insurance to

more caregivers, to increased generosity in flexible work arrangements.

Recognize the value of technology

During COVID-19, technology proved to be a key component. To make consumers more aware of actual updates and accurate data, GoI released trackers and dashboards, as well as the "Aarogya Setu" touch tracking programme. When the health service was overloaded with COVID-19 prevention and management, this epidemic provided momentum for the introduction of the telehealth idea, which emerged as a viable alternative. The Ministry of Health and Family Welfare, in collaboration with NITI Aayog and the Indian Medical association (MCI), has released long-awaited telehealth guidelines. Initially, both physicians and patients were against expanding on this idea. People, on the other hand, are becoming accustomed to these continuous debates.

The whole educational system was forced to go virtual as a result of the outbreak. This unintentional change was deemed unsuitable for educational purpose. Instructors and learners quickly became used to the technique, and classroom teaching began to match quality. This encounter generated numerous ideas for future breakthroughs and advances.

Learn to enjoy the beauty of nature

Humans have wreaked much too much havoc on the earth for everyone to learn about ecology and biodiversity. People were delighted by the sounds of wildlife rather than human-made sounds during the Lockdown. Significant changes in water and air quality were observed during the shutdowns. These enormous climate shifts were seen for the first historical moment, and they showed humanity that if humans allowed it, Mother Nature might come back to life.

Aim

The study's goal was to measure covid 19 suitable behaviours in the general population of India's central and rural areas.

MATERIAL AND METHODS

The analysis of COVID-19 has been conducted on the web with web-based cross-sectional surveys of the general community in India, including hand washing, face shielding, physical distance, avoiding crowds, activity and sleep patterns.

This study was a fast, wider online cross-section study in several towns, cities and villages in India during the unlocking period. The data were gathered utilizing the web interview and phone interview platform of Google Form. The researcher members of the group shared a typical invite message with a link to the online survey through email, Facebook, Insta, and WhatsApp via personal and social connections. We also urged the members, in particular in the pandemic scenario, to

share the study website in an attempt to expand the study participants. In instances with inadequate literacy or technical expertise to complete.

Before managing the shared questionnaire via the Google Form, participants were given a short explanation of the study, its aim and the commitment of privacy & confidentiality. All participants received written consent at the time of registration. In their replies, participants were also asked to be honest.

Setting

An anonymous, self-administered, web based, survey via google forms should be conducted after explanation about the project, and informed consent (on google form) is required.

Outcome

To assess covid 19 awareness and understand and behaviour in the general population.

Site

An anonymous, self-administered, web based, survey via google forms should be conducted after explanation about the project, and informed consent (on google form) is required.

Study population

Study in local rural and central population in India.

Sample size

Study will be conducted in India general population. Total Sample size will be 1000 general population.

Ethical committee

For ethical clearance.

Implication

This study shows that adapting unfavourable attitude behaviours to reduce coronavirus infection is one of the probable outcomes of COVID-19 pandemics, along with western literature. This is, to our knowledge, the first study in India to grasp the magnitude of lifestyle-related behavioural changes and their particular causes underpinning COVID-19 to oppose such changes for maintaining optimal health at the level of individuals and communities. Human behaviour comes from a mix of environmental, cultural, economic and social elements as all of them fluctuate with shifting COVID-19 circumstances.

The first pan-India study aimed at recruiting a representative population for data gathering utilizing a previously questionnaire method to investigate COVID-19's impact on life-style behaviour. Some limitations in the research are the possibility of reporting bias, as e-surveys are a major concern in online surveys that the investigator attempts to tackle with a differentiated strategy as outlined in the section on methodology.

Statistical method

As frequencies and percentages for categorical categories, descriptive statistics of the participant's basic characteristics and replies were supplied. The median and standard deviation or median and variety according to distribution were presented as continuous variables. Responses to lifestyles scores before-COVID-19 and to lifestyle scores for-COVID-19 were evaluated and these scores were deducted for each item with mean demographic variable values. A Chi-squares or Fisher's Perfect test was used to evaluate the relationship between categorical.

RESULTS

A research among the general population of central India and rural Indians was carried out in this respect, taking appropriate behaviour, and ensuring that the covid-19 virus is safe and prevented. Finally, in order to evaluate the particular area which displays a divergence from the predicted findings, certain actions may be implemented if the exact impacts are found, and such a deviation would further enhance our understanding of this specific issue. The knowledge and awareness at a higher level, such as the research design, would certainly aid in evaluating the effects.

DISCUSSION

The present study is one of those previous papers measuring knowledge and preventative actions regarding COVID-19 in the Central and Rural Areas India. Environment, taking into account participants from various vocations. The article's main features are its huge sample size and district-level mapping, which give a deeper understanding of the COVID-19 reality in INDIA. Previous research showed that men' careless behaviors about COVID-19 prevention methods were to blame for their greater vulnerability to the disease than women. This study also discovered that women had greater knowledge and preventative actions than men. This conclusion was consistent with some of the prior research [17]. Women are thought to be more aware of preventative actions for certain concerns, such as the continuing COVID-19 epidemic. Furthermore, awareness and preventative behaviour were shown to be considerably greater in cigarette smokers compared to non-smokers, while the converse was seen in alcohol users; this has not before been documented in any other study. Furthermore, in this study, individuals with significant illnesses reported poorer preventative activity. The scenario appears to be concerning because illnesses are the most probable variables to exacerbate the COVID-19 predicament. Previous research has found that people living in cities had a greater degree of knowledge, which is consistent with the findings of the current study.

One reason for this might be because information is more easily accessible in such regions than in the suburbs. Higher-educated individuals are more likely to have better awareness and preventive action in this

COVID-19 circumstance, which is consistent with the current findings. However, the current study found that having greater information about COVID-19 heightened the more preventative COVID-19 behaviours. The latest research was cross-sectional in design and does not take into account several key behavioural factors, which limits the results' generalization. Moreover, because the survey was performed through an online platform, the number of non-educated participants was reduced. Since a result, the findings' generalization for the entire population may be restricted, as they are more appropriate to educate youth. Finally, there was insufficient data to examine objectively the relationship among 'person engagement in approaches' and 'efficacy of methods for disease prevention and control,' which may be considered one of the shortcomings. Furthermore, research is needed to examine COVID-19-related preventative behaviours throughout time, taking into account fear of COVID-19-related difficulties, in order for the government to take the appropriate steps to address the COVID-19 epidemic [18-22].

CONCLUSION

The primary COVID-19 acceptable behaviours implemented throughout this outbreak were hand cleanliness, physical distance, usage of a face shield, social interaction. The government's enforcement, ego and terror inspiration or realizations with time were the primary cogs of those behavioural modifications. These behaviours have moved from "precontemplation" to "action," according to the "Trans-Theoretical Model." Despite the fact that the current attention is still on reacting to the outbreak and coping with its immediate consequences, it is equally vital to focus on the lessons learned and to maintain these necessary behavioural adjustments. Because the restoration of social functioning is prioritized over pro-environmental activities, these beneficial changes in behaviour are diminishing with time. Given the bimodal distribution of the SARAS 2 and the likelihood of a second wave of SARAS 2 appearing in the near future, maintaining these acceptable behaviours is critical. Apart from the general populace, the duty of the government and politicians in supporting and maintaining these appropriate behaviour changes through establishing an enabling environment is equally critical.

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