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Knowledge, Attitude and Perception Towards COVID-19 Appropriate Behaviour in South India on General Public

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ABSTRACT

The global pandemic of the Coronavirus illness (COVID-19) is creating unprecedented levels of morbidity and mortality. In an effort to alleviate the burden on healthcare systems and flatten the curve, the majority of nations throughout the world have implemented emergency lockdown. The objective of the study to evaluate the basic knowledge, attitude, and perception among the rural and urban Indian population toward the ongoing COVID -19 pandemic and to assess the understand the practices of appropriate behaviour among the general public.

Methodology: This study was questionnaire-based descriptive cross-sectional study conducted online. Compilation and assessment of the online data in the form of responses were done as for descriptive studies. A total of 520 responses were collected by using google forms, belonged to urban areas and rural areas.

Results: Most of them (92.9%) respondent's perceived that early detection will have a better outcome from COVID-19. The assessment of the parameter attitude, 89% (462) of the participants believe that controlling the spread of infection is a successful strategy, and 74.9% (389) are confident that COVID-19 can be successfully controlled. The evaluation of the COVID-19 practices revealed that, of the total respondents, 94.8% (492) wear masks when going outside, 82.2% (430) wash their hands with soap or sanitizer, 88.8% (461) in recent days from touch your hands, mouth, nose and eyes frequently 87.2% (453) of respondents frequently maintain social distance in public places.

Conclusion: It was reported wide gap exists between urban and rural population related to COVID awareness and COVID Appropriate Behaviour. Most of the rural participants had poor Knowledge on appropriate behaviour on Covid-19. Most urban participants know the four most effective preventive behaviours, as wearing mask, washing hand with soap and water and avoiding crowded place or maintaining social distance In order to improve the public's understanding of COVID-19 and encourage adherence to health protocols, masking, hand hygiene, social distancing, and vaccination to prevent expected COVID-19 subsequent episodes, the government and private agencies should continue their consistent efforts to change the public's negative behavioural attitude to positive behaviour.

Keywords: *COVID-19, KAP, Acute respiratory syndrome Coronavirus-2 (SARS-CoV-2, health education intervention, COVID Appropriate Behaviour, preventive measures*.

1. INTRODUCTION

The world is currently facing a new crisis in the pathogen responsible for the infection is name of severe acute respiratory syndrome Coronavirus-2 (SARS-CoV-2) and it was first detected in December 2019 in Wuhan City, Hubei province in China, but has now found its way across. [1] This highly contagious, zoonotic virus started infections from a small city and spread rapidly to most parts of the world and created a global health emergency. The World Health Organization (WHO) called for a collaborative effort to tackle the situation and declared it a global pandemic on March 12, 2020. [2] In India, up to date (September 24, 2020, 8:00 IST), a total of 966,382 active cases, 46,74,987 cured/discharged, 91,149 deaths, were reported according to Ministry of Health and Family Welfare (MoHFW), Government of India.[3]

The WHO has also issued specific recommendations for the prevention and control of infection in population and healthcare facilities [4-5]. It includes maintaining hand cleanliness with hand wash using alcohol-based hand sanitizers, face masks, social distancing, crowd avoidance, self-isolation, and medical attention for a person with mild symptoms (Fever, Cough and headache) [6-8]. COVID-19 is transferred mostly though the droplets produced by coughing or sneezing, although it can also be transmitted through contaminated surfaces. COVID-19 has had a huge worldwide impact, and the public health hazard it poses is the worst seen in a respiratory virus since the 1918-1919 H1N1 influenza pandemic [9]. Sequentially to control the spread and minimize overburdening healthcare institutions, many worldwide actions were proposed and adopted. The global lockdown approach included travel restrictions, the closure of schools. Universities, bars and restaurants, the prohibition of crowded activities, and social distance. [10]

The COVID 19 pandemic has led to unprecedented and unanticipated challenges requiring collective action and support from all. While all necessary measures to fight the spread of Novel Corona Virus (COVID 19) are being effectively led by the Central Government and State Governments, there is a need to reinforce the importance of preventive measures and practices in a sustained manner, to deal with the disease over the long run [11-13]. This comprehensive list of 15 preventive behavioural practices which are critical to winning this fight against the deadly virus. This fight can be won only when everyone knows their goal; everyone knows their role [14].

The population of South India, which includes the states of Andhra Pradesh, Telangana, Tamil Nadu, Karnataka, and Kerala, is diverse and has a range of socioeconomic backgrounds, cultural customs, and literacy levels [15]. The effective implementation of public health interventions in this region depends on an understanding of the population's knowledge, attitude, and perception (KAP) regarding acceptable behaviour in the face of COVID-19. While misconceptions or negative attitudes may impede efforts to contain the pandemic, positive attitudes and accurate views might improve adherence to preventive measures[16].

2. MATERIALS AND METHODS

The study Knowledge, attitude and perception of COVID-19 appropriate behaviour in South India on general public: A cross-sectional descriptive study based on a questionnaire-survey was carried out by using an online questionnaire form from the residents of South India.

Study procedure:

Respondents aged >10 years old, assessing a representative sample of the urban and rural adult population confined due to the COVID-19 pandemic, were recruited via sampling method, google forms were used to facilitate data collection, it is an offline survey that can distribution of questionnaire via directly by hand, e-mail, WhatsApp, Facebook etc., Prior approval for the study was taken from the Institutional Ethical Committee, thus the questionnaire was easily accessible to the participants. The participation in the study was voluntary and an informed consent was obtained from all the subjects before participation in the study. participants were provided with an information sheet with the questionnaire, and only those voluntarily consented to be part of the study were included in the study. It analyses and exports the results after responses have been collected.

Statistical analysis:

Data form the online platform via google form was cleaned and entered into an Excel sheet. Statistical analysis was done using Epi Info Software 7.2 (Centres for Disease Control and Prevention, Atlanta, GA). Descriptive statistics like frequency and proportion will be used to estimate the categorical variables. Summary measures like mean and standard deviation will be used to estimate the quantitative variables. Chi-square statistical will be used for univariate analysis to find the association between Knowledge, attitude and practice.

3. RESULTS

A total 520 responses were collected by using google forms, belonged to urban areas and rural areas among them the data which was incomplete and inappropriate was excluded, therefore 520 responses were included for the analysis. Among 520 study participants, 280 belonged to urban areas and 240 were from rural areas. Nearly half of the population of both

areas (Urban 53.85%) (Rural 46.15%) belonged to the 20–40 years' age group. Proportion of males was higher in urban (205/280, 73.3%) than in rural areas (140/240; 58.4%).

Knowledge response towards appropriate behaviour on Covid-19

According to the response, there are still gaps in knowledge of the COVID-19 helpline (only 47.1% aware) and vaccination side effects (only 40% aware), despite a relatively high level of understanding regarding symptoms and viral transmission (almost 80% answering correctly).

Most urban participants know the four most effective preventive behaviour's, namely wearing mask, washing hand with soap and water, and avoiding crowded place or maintaining social distance, whereas rural subjects don't know about them, respectively. most urban participants reported fever and cough as two common symptoms of Covid whereas only some rural subjects were aware of them, respectively. Only some rural study subjects could tell that Coronavirus can spread through sneezing, coughing, and through direct contact, respectively, whereas most urban subjects, respectively, could tell the same, respectively.

Table:1 Knowledge response towards appropriate behavior on Covid-19

Variables	Options	Frequency (%)
1. (Are you aware about the following regarding COVID-19) COVID -19 vaccinations in India?	Yes	173 (72.1%)
	No	67 (27.9%)
2. COVID-19 is a viral infection?	Yes	180 (75%)
	No	60 (25%)
3. Are you aware of various variants of covid-19 prevailing?	Yes	145 (60.5%)
	No	95 (39.5%)
4. Are you aware of the clinical manifestations (signs and symptoms) of covid-19?	Yes	195 (81.3%)
	No	45 (18.7%)
5. Are you aware of side effects of covid-19 vaccination?	Yes	96 (40%)
	No	144 (60%)
6. Are you aware of the helpline and information centre of covid-19?	Yes	113 (47.1%)
	No	127 (52.9%)
7. Fever, dry cough, difficulty in breathing and tiredness are common clinical symptoms of COVID-19?	Yes	194 (80.9%)
	No	46 (19.1%)
8. COVID-19 virus spread via respiratory droplets infected individuals?	Yes	205 (85.5%)
	No	35 (14.5%)
	No	115 (47.9%)

Attitude towards appropriate behaviour on COVID-19 among rural and urban population (n=520)

The assessment of the parameter attitude, 89% (462) of the participants believe that controlling the spread of infection is a successful strategy, and 74.9% (389) are confident that COVID-19 can be successfully controlled. approximately 94.9% (493) believed that early detection is essential for the treatment and successful outcome for COVID-19 and the majority of respondents 76.2% (396) believe that society is completely aware of COVID-19. When it came to the assertion that COVID-19 can be transmitted from domestic animals to people or vice versa, only 22.3% (115) of the respondents agreed.

Approximately 89.6% of respondents (465) agreed that the government should set up therapy for COVID-19 patients in a different institution. 86.7% (450) of respondents choose to impose lockdown measures once more if COVID-19 incidents rise. The socioeconomic position and education level were substantially correlated with the attitude of successfully controlling COVID-19, but the type of family, residential location, and occupation were not significantly correlated.

Table:2 Attitude response towards appropriate behavior on Covid-19

Variables	Options	Frequency (%)
1. Do you recommend others to take booster dose?	Yes	477 (91.8%)
	No	43 (8.2%)
2. In your opinion does lockdown will prevent the transmission of COVID-19?	Yes	462 (89%)
	No	58 (11%)
3. In your opinion does COVID-19 will finally be successfully controlled?	Yes	389 (74.9%)
	No	131 (25.1%)
4. Do you still follow all the safety parameters for Covid prevention?	Yes	476 (91.6)
	No	44 (8.4%)
5. In your opinion does COVID-19 disease can be transmitted through household pets to humans and vice versa?	Yes	115 (22.3%)
	No	405 (77.9%)
6. In your opinion does early detection of COVID-19 can improve treatment and outcome?	Yes	493 (94.9%)
	No	27 (5.1%)
7. In your opinion does awareness regarding COVID-19 disease in society is adequate?	Yes	396 (76.2%)
	No	124 (23.8%)
8. Are you worried one of our family members may get a COVID-19 infection?	Yes	453 (87.3%)
	No	67 (12.7%)

Practice response towards appropriate behavior on Covid-19 among rural population (N=240)

The evaluation of the COVID-19 practices revealed that, of the total respondents, 94.8% (492) wear masks when going outside, 82.2% (430) wash their hands with soap or sanitizer, 88.8% (461) in recent days from touch your hands, mouth, nose and eyes frequently 87.2% (453) of respondents frequently maintain social distance in public places. as shown in Table 5. Only 13.3% of the respondents (218) go out frequently, whereas the majority stay home until absolutely necessary.

Table 3: Practice response towards appropriate behavior on Covid-19

Variables	Options	Frequency
1. How many of you ware practicing social distance?	Yes	496 (95.5%)
	No	24 (4.5%)
2. Are you wearing mask to avoid transmission?	Yes	492 (92.8%)
	No	28(7.2%)
3. Are you sanitizing your hands regularly when you are outside?	Yes	461(88.8%)
	No	59 (21.2)
4. Are you following the strategies recommended by authorities (Eg: Ministry of health) to prevent the infection and spread of COVID-19?	Yes	432 (82.6%)
	No	88 (17.4%)
5. In recent days have you gone to any crowded place?	Yes	69 (13.3 %)
	No	451 (86.9%)
6. In recent days have you touch your mouth, nose and eyes frequently?	Yes	453 (87.2%)

	No	67 (12.8%)
7. Do you practice hand hygiene before and after eating food?	Yes	490 (94.3%)
8. Are you attending patients suspected with COVID-19?	Yes	350 (67.4%)
	No	170 (32.6%)

4. DISCUSSION

The present study was evaluated urban and rural communities' knowledge, attitudes, and practices (KAP) on COVID-19, providing important information about public awareness and behavioural reactions during the epidemic. All things considered, the results show that urban participants had a greater degree of awareness and accurate information than their rural counterparts. Respondents from urban areas showed a higher level of awareness of important preventive strategies, such as wearing masks, washing their hands, and keeping social distance. In a similar vein, people living in cities were better able to identify COVID-19 symptoms and mechanisms of transmission, like respiratory droplets.

In terms of attitudes, most individuals from both regions demonstrated a proactive and upbeat approach toward COVID-19 control. Remarkably, 94.9% of respondents thought that early discovery enhances treatment results, and 89% agreed that lockdown procedures can aid in preventing transmission. A significant majority (91.8%) advocated for booster shots, demonstrating confidence in vaccination as a preventative measure.

suggested preventive measures: 88.8% frequently cleaned their hands, 92.8% used masks outside, and 95.5% engaged in social distance. Even though these high adherence rates are positive, there is still room for improvement since a small percentage of participants continued to engage in risky behaviours such frequent face-touching (87.2%) and going to crowded settings (13.3%).

5. CONCLUSION

The study shows that, although there are some significant disparities between urban and rural people, both groups have generally high levels of awareness, favourable attitudes, and adherence to COVID-19 preventive activities. The knowledge and practice scores of urban dwellers were higher than those of their rural counterparts, suggesting disparities in health outreach and communication.

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