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ASSESSMENT OF KNOWLEDGE AND ATTITUDE OF URBAN POPULATION DURING LOCKDOWN PERIOD OF COVID-19 PANDEMIC IN ROHTAK, HARYANA

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ABSTRACT The novel corona virus disease (COVID-19) causes symptoms like fever, cough, difficulty in breathing, etc. The knowledge and attitude of the people largely influence the degree of adherence to the preventive urban population of Rohtak. 234 subjects were interviewed using a semi-structured interview schedule. Data were entered and analyzed using Microsoft Excel version 2010 and Statistical Package for Social Sciences ver.24 (SPSS.24).

The study subjects had fair knowledge about symptoms, modes of transmission and prevention from COVID-19 but poor knowledge about the surfaces on which virus stays. They had positive attitude towards the disease and 74.8% were satisfied with the lockdown. Health education programs aimed at improving COVID-19 knowledge would be helpful for the residents to hold optimistic attitudes and maintain appropriate practices.

KEYWORDS : knowledge, attitude, COVID-19, lockdown

INTRODUCTION

The corona virus disease (COVID-2019) is caused by a novel corona virus (2019- SARS CoV-2). It originated from Wuhan, China in December 2019. It has spread rapidly throughout the whole world causing huge morbidity and mortality. Due to this, the Director General of World Health Organization (WHO) declared this outbreak a Public Health Emergency of International Concern on January 30, 2020 [1]. The first case of COVID-19 in India was reported on 30 January 2020 from Kerala [2]. On the 11th of March, WHO declared COVID-19 "a pandemic" as by then, about 114 countries were affected.[3]

COVID-19 causes symptoms like fever, cough, difficulty in breathing and other respiratory problems. The disease spreads from person to person through droplets from the nose or mouth, expelled when a person with COVID-19 coughs, sneezes, or speaks. These droplets can land on objects and surfaces around the patient. People can become infected by touching their eyes, nose or mouth after touching the objects or surfaces having these droplets. [4] It is mild in most of the people but can be severe or life threatening in few cases, especially the elderly and those who have underlying health issues. The disease can be prevented by frequent hand washing or using an alcohol based sanitizer, wearing mask, following respiratory etiquette and physical distancing.

The key strategies promoted for containment of this outbreak are isolation and country wise lockdown.

As on July 1, 2020 India registered a total of 585,493 cases with 17,400 deaths due to COVID-19.[5] There were total 573 cases and seven deaths reported in Rohtak district of Haryana as on May 31,2020.[6]

The knowledge and attitude of the people are expected to largely influence the degree of adherence to the preventive

measures and ultimately the clinical outcome. Hence, it is important to study these domains in the general population. There is paucity of research regarding these factors during this pandemic in Haryana. Considering the relevance of all the above factors, this study was aimed to assess the knowledge and attitude of the community during the coronavirus pandemic in Rohtak, Haryana.

MATERIAL AND METHODS

It was a cross-sectional survey conducted among the adult population (more than 18 years of age). The study was conducted from 1st to 31st May, 2020. The study was conducted in urban field practice area attached to the Department of Community Medicine of a tertiary care centre of Rohtak, Haryana. Taking the prevalence of knowledge among Indian population about spread of corona virus as 29.5% from a study conducted by Roy et al [7] and relative precision as 20%, the minimum sample size was found to be 230.

A semi-structured interview schedule consisting of identification, socio-demographic details and questions related to knowledge and attitude during COVID-19 pandemic was used to obtain information from the study participants through house to house visit by using simple random sampling technique from household survey register. Social distancing was maintained and personal protective measures were used while interviewing the subjects. The purpose of the study was explained to each participant by the investigator. Data were collected by the investigators from 234 study participants after obtaining informed consent.

Inclusion criteria were: i) Those present at the time of data collection ii) Those willing to give informed consent for the study.

Statistical analysis: Data were entered and analysed using

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Microsoft Excel version 2010 and Statistical Package for Social Sciences ver.24 (SPSS.24) and the results were expressed as proportion.

RESULTS

A total of 234 subjects were interviewed for the purpose of the study. The mean age of the study participants was 36.6 ± 13.7 years. There were 129 (55.1%) males and 105 (44.9%) females. Majority (92.3%) of the participants had no co-morbidity. 16 subjects (6.8%) had single co-morbidity in the form of diabetes (2.6%), hypertension (3%), thyroid disorder (0.4%) and disc problem (0.4%), while, two (0.9%) subjects had dual co-morbidities i.e. diabetes with hypertension.

Table 1: Distribution of study participants according to educational status and family occupation

Educational status	Frequency (N=234)	Percentage (%)
Illiterate	13	5.6
Primary	13	5.6
Middle	25	10.7
Secondary	41	17.5
Senior secondary	46	19.7
Graduate and above	96	41
Family occupation		
Business and self- employed	85	36.3
Government job	54	23.1
Private job	37	15.8
Labourer	27	11.5
Agriculture	19	8.1
Teacher	12	5.1

As shown in Table 1, more than two-fifth (41%) of the subjects had completed their graduation or higher studies and 36.3% were engaged in business or self-employment.

I: Knowledge about COVID-19

65% subjects knew about the incubation period of COVID-19. 62.8% of the subjects knew about the mobile app related to COVID-19 and out of them, majority (90.5%) were aware of its name i.e., "Aarogya Setu" and 66.7% were using it.

2.6% of the respondents had a myth that all patients with corona disease ultimately die. High risk groups for mortality such as elderly (more than 60 years), co-morbid, children, pregnant women, immune-compromised and careless individuals were known to 72.6%, 32.9%, 26.9%, 6.4%, 10.3% and 3% of the subjects respectively.

Most (88.5%) of the participants listened to news daily. Out of these, majority (88.9%) were aware of the total number of COVID-19 cases in the country but the number of cases in the state and district were known only to 58.1% and 61.1% of the respondents respectively. Almost three-fourth of the study subjects knew the name of state with highest number of cases in the country.

Table 2: Distribution of study subjects according to their knowledge about COVID-19

Symptoms*	Frequency (N=234)	Percentage (%)
Cough	194	82.9
Fever	161	68.8
Difficulty in breathing	91	38.9
Cold	81	34.6
Sore throat	81	34.6
Body ache	21	9
Fatigue	21	9
Others	10	4.3
Modes of spread*		
Touching	185	79.1

Coughing/ sneezing	65	27.8		
Respiratory droplets	46	19.7		
Food	1	0.4		
Modes of prevention*				
Mask	145	62		
Social distancing	143	61.1		
Hand washing	99	42.3		
Staying at home	51	21.8		
Sanitizer	47	20.1		
Surfaces on which SARS CoV-2 stays*				
Metal	86	36.8		
Plastic	58	24.8		
Wood	35	15		
Clothes	35	15		
Paper	26	11.1		
Wall	8	3.5		
Glass	7	3		
Others	13	5.5		

*multiple responses

Table 2 depicts that majority of the study participants were aware of the dominant symptoms of COVID-19 like cough and fever. Other symptoms like diarrhoea, vomiting, pneumonia, reduced appetite, chills, joint pain were reported by 10(4.3%) participants. The correct knowledge about surfaces on which virus stays ranged from 3% to 36.8% for various surfaces. Regarding other surfaces like air, shoes, ground, vegetables and everywhere, 5.5% subjects told that the virus also stays on these surfaces.

II: Attitude towards COVID-19

Majority (74.8%) of the responders were satisfied with the lockdown to contain the pandemic whereas 25.2% were not satisfied. Most (82.9%) of the subjects wanted the lockdown to be continued. Out of these, 41.2% people wanted it to be continued till the pandemic subsides, whereas, 10.8%, 36.1% and 11.9% participants wanted the lockdown to continue upto15 more days, 16-30 days and 31-180 days respectively. 17.1% subjects did not want the lockdown to be continued, the main reason being economic crisis (95%) and transportation problem (5%).

The family relations were strengthened during lockdown among 40.6% of the respondents, whereas, they were same as before lockdown among 56.8% of the subjects and deteriorated in 2.6% of the families.

Most (92.3%) of the subjects believed that patients declared cured from COVID-19 should be allowed to stay within the community. All the participants believed that wearing mask can reduce the risk of contracting COVID-19. Regarding social distancing, 98.3% of the subjects believed that it can reduce corona virus transmission.



Figure 1: Pie chart showing the likeliness of study subjects to isolate themselves if they have fever and cough

Figure 1 shows that 61.5% of the subjects would always isolate themselves if they have fever and cough, whereas, 5.9% would never isolate themselves.

95.3% subjects felt that basic precautions against the disease in the form of mask (69.7%), social distancing (63.2%), hand washing (25.2%) and sanitizer (19.7%) should be continued even after lifting lockdown.

After lockdown is lifted, 82.5% of the subjects responded that they would not roam as freely as they used to roam before COVID-19 for visiting markets, religious places and would not celebrate birthdays and marriages with full pomp and show.

DISCUSSION

In the present study, majority of the study participants were aware of the dominant symptoms of COVID-19 like cough and fever while in a study conducted by Roy et al [7], only 18.2% regarded fever as a symptom of COVID-19. The present study depicted that 79.1% subjects were aware that COVID-19 spreads by coming in contact with infected person or surface, while, only 22.6% subjects reported touching as a mode of transmission in a study by Roy et al[7]. An overall score of 85% was achieved regarding the knowledge about the mode of transmission in a study by Erfani et al in Iran [8] comparable to our study.

The overall correct rate of the knowledge questionnaire was 90% in a Chinese study by Zhong et al[9]. However, high knowledge about COVID-19 was observed in 59% of the participants in a study by Alobuia et al[10]. The differences in knowledge may be attributed to different geographical settings and time period of conduct of the studies.

62% and 61.1% of the participants knew about mask and social distancing respectively as modes of prevention, while, in a study by Srichan et al [11] conducted in Thailand, 73.4% had poor knowledge of disease prevention and control.

92.3% of the respondents had positive attitude towards patients cured from COVID-19 in the present study, whereas, only 38.4% of the subjects believed that cured patients should be allowed to stay in the community in a study by Roy et al [7]. The present study showed that 61.5% subjects would always isolate themselves if they had fever and cough, while, Roy et al [7] reported it to be 86.7% in her study.

The present study showed that 74.8% of the responders were satisfied with the lockdown to contain the pandemic, while it was 96.8% in a study by Erfani et al in Iran.[8]

CONCLUSION

In the present study, 82.9% and 68.8% of the subjects had knowledge about cough and fever as symptoms of COVID-19. 79.1% of the participants knew about contact with infected person or touching infected surfaces as modes of transmission. About 62% subjects knew about mask and social distancing as modes of prevention from COVID-19. Only 36.8% and 24.8% of the participants knew that the virus stays on metal and plastic respectively. They had positive attitude towards the disease. Health education programs aimed at improving COVID-19 knowledge would be helpful for the residents to hold optimistic attitudes and maintain appropriate practices. This would ultimately contribute in reducing the burden of the disease. Proper communication between health care providers and the public is recommended to empower the public with the information needed to help the government in combating the pandemic.

REFERENCES:

 World Health Organization. (2020, January 30). Statement on the second meeting of the International Health Regulations (2005) Emergency Committee regarding the outbreak of novel coronavirus (2019-nCoV). Retrieved June 15,2020, from https://www.who.int/news-room/detail/30-01-2020-statement-on-the-second-meeting-of-the-international-healthregulations-(2005)-emergency-committee-regarding-the-outbreak-of-novelcoronavirus-(2019-ncov)

- Ministry of Health and Family Welfare. (2020, January 30). Update on Novel Coronavirus: one positive case reported in Kerala. Retrieved June 17, 2020, from https://pib.gov.in/PressReleaselframePage.aspx?PRID=1601095
- World Health Organization. (2020). Rolling Updates on Coronavirus Disease (COVID-19). Retrieved June 15, 2020, from https://www.who.int/emergencies/ diseases/novel-coronavirus-2019/events-as-they-happen
- World Health Organization. (2020, April 17). Q&A on coronaviruses (COVID-19). Retrieved June 15, 2020, from https://www.who.int/emergencies/diseases/ novel-coronavirus-2019/question-and-answers-hub/q-a-detail/q-acoronaviruses
- Ministry of Health and Family Welfare. (2020, July 1). COVID-19 INDIA as on: 1 July 2020, 08:00 IST. Retrieved July 1, 2020, from https://www.mohfw.gov.in/
- District Wise COVID-19 Cases. Retrieved July 1, 2020, from https://covidindia.org/haryana/
 Roy, D., Tripathy, S., Kar, S. K., Sharma, N., Verma, S. K., & Kaushal, V. (2020).
- Roy, D., Tripathy, S., Kar, S. K., Sharma, N., Verma, S. K., & Kaushal, V. (2020). Study of knowledge, attitude, anxiety & perceived mental healthcare need in Indian population during COVID-19 pandemic. Asian journal of psychiatry, 51, 102083. Advance online publication. https://doi.org/10.1016/j.ajp.2020. 102083
- Erfani, A., Shahriarirad, R., Ranjbar, K., Mirahmadizadeh, A., & Moghadami, M. (2020). Knowledge, Attitude and Practice toward the Novel Coronavirus (COVID-19) Outbreak: A Population-Based Survey in Iran. Bull World Health Organ. Advance online publication. http://dx.doi.org/10.2471/BLT.20.256651
- Zhong, B. L., Luo, W., Li, H. M., Zhang, Q. Q., Liu, X. G., Li, W. T., & Li, Y. (2020). Knowledge, attitudes, and practices towards COVID-19 among Chinese residents during the rapid rise period of the COVID-19 outbreak: a quick online cross-sectional survey. International journal of biological sciences, 16(10), 1745–1752. https://doi.org/10.7150/ijbs.45221
- Alobuia, W. M., Dalva-Baird, N. P., Forrester, J. D., Bendavid, E., Bhattacharya, J., & Kebebew, E. (2020). Racial disparities in knowledge, attitudes and practices related to COVID-19 in the USA. Journal of public health (Oxford, England), fdaa069. Advance online publication. https://doi.org/ 10.1093/ pubmed/fdaa069
- Srichan, P., Apidechkul, T., Tamornpark, R., Yeemard, F., Khunthason, S., Kitchanapaiboon, S., Wongnuch, P., Wongphaet, A., & Upala, P. (2020). Knowledge, Attitude and Preparedness to Respond to the 2019 Novel Coronavirus (COVID-19) Among the Bordered Population of Northern Thailand in the Early Period of the Outbreak: A Cross-Sectional Study. SSRN. http://dx.doi.org/10.2139/ssrn.3546046