

Short Communication

Knowledge and perception about the ongoing COVID-19 pandemic among patients attending a rural primary health care facility in Delhi

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ABSTRACT

Another decade is suffering from the wrath of another coronavirus. Currently, this pandemic has spread to almost all countries of the world taking lives of millions of people globally. This study has uncovered the perceived facts about COVID-19 by general population as well as the effect of IEC in modulating their perception and presenting right amount of information in a scientific manner. A cross-sectional, descriptive study was carried out at rural health training center, Barwala on patients attending out-patient department at RHTC, for a duration of 2 months. Pre-tested questionnaire for assessing public perception and awareness were used to collect data. Appropriate statistical tests were applied to find out association between different variables. Majority of study subjects (98.5%) were aware about the ongoing pandemic of COVID-19. Out of the total study subjects, 90% of them had correct knowledge about various preventive strategies undertaken to break the chain of transmission. However, only about half of the study subjects (53.1%) had correct knowledge regarding various modes of transmission of novel coronavirus. Motivating the people to report any possible infection and to follow the preventive strategies being recommended by experts on timely basis is an important aspect to curb the ongoing menace of COVID-19.

Keywords: COVID-19, Pandemic, Knowledge, Perception

INTRODUCTION

Another decade is suffering from the wrath of another coronavirus. On 31 December 2019, pneumonia like cases of unknown etiology detected in Wuhan City, Hubei Province of China, was informed to the world health organization (WHO).¹ This novel type of Coronavirus was isolated on 7 January, 2020 following which China shared its genetic sequence on 12 January, 2020 globally, for countries to use in developing specific diagnostic kits.² Currently, this pandemic has spread to almost all countries of the world taking lives of millions of people globally. For disease control and prevention, correct and rapid information disclosure is a top fetch need. Information, education and communication (IEC) campaigns should be launched to promote behavioral prevention strategies like frequent hand washing, cough

etiquette, and use of masks when visiting public places. Also, public should be motivated to report fever and other risk factors for coronavirus infection, including travel history to affected area and close contacts with confirmed or suspected cases.

Current study has uncovered the perceived facts about COVID-19 by general population as well as the effect of IEC in modulating their perception and presenting right amount of information in a scientific manner.

METHODS

A cross-sectional, descriptive study was carried out at rural health training center, Barwala on patients attending out-patient department (OPD) at RHTC, Barwala for a duration of 2 months. Children less than 10 years of age,

pregnant females and geriatric population 60 years and above attending the OPD were not included in the study whereas adolescents (10-19 years) and adult patients attending the OPD (20-59 years) were included in the study. Pre-tested questionnaire for assessing public perception & awareness were used to collect data. IEC material in the form of charts, AV aids, health talks, counselling were used to provide relevant information after completion of data collection. All patients attending OPD and meeting the inclusion criteria for the given study period were included in the study. Written and informed consent was taken from all study subjects.

Statistical analysis

Descriptive statistics were analyzed using Microsoft excel. Categorical data was expressed in frequency and proportions. Appropriate statistical tests were applied to find out association between different variables.

RESULTS

The present study was conducted to assess knowledge and perceptions about COVID-19 pandemic among the patients attending the rural primary health care facility in Delhi. Total number of study participants was 141, who were interviewed for their knowledge and perception. Out of the total subjects studied, almost two third (57.1%) were females and the rest were males. Mean age of study participants was 36.5 ± 14.17 years with none of them reporting any travel history in last 14 days to any of affected place at the time of study (Table 1).

Table 1: Baseline characteristics of the sample.

Parameters	Results
Number of subjects	141
Age (mean \pm SD)	36.5 ± 14.17 years
Sex ratio, males:females	61:80
Travel history	None

Majority of study subjects (98.5%) were aware about the ongoing pandemic of COVID-19. When asked about transmission of novel coronavirus from human to human, 97.1% of subjects responded in affirmative manner. Out of the total study subjects, 90% of them had correct knowledge about various preventive strategies undertaken to break the chain of transmission. However, only about half of the study subjects (53.1%) had correct knowledge regarding various modes of transmission of novel coronavirus (Table 2).

Out of those study subjects who were aware about the ongoing pandemic (n=139), around 97% of them responded that this infection could spread from human to human. Majority of study participants (89%) had correct knowledge about various preventive strategies undertaken to prevent transmission of novel coronavirus. However, when coming to correct knowledge about different modes

of transmission, only 53.24% had correct knowledge and rest (47%) were not aware of the same (Table 3).

Table 2: Distribution of respondents according to COVID-19 awareness status.

Parameters	Yes	No
Aware of the ongoing pandemic		
No. of respondents	139	2
Percentage	98.58	1.42
Can this infection spread from person to person		
No. of respondents	137	4
Percentage	97.16	2.84
Correct knowledge about the modes of transmission		
No. of respondents	75	66
Percentage	53.19	46.81
Correct knowledge about the preventive strategies		
No. of respondents	127	14
Percentage	90.07	9.93

Table 3: Knowledge and perception status of respondents amongst those who are aware of the pandemic.

Aspects	Aware of the ongoing pandemic (n=139)	
	N	%
Can this infection spread from person to person	Yes	135 97.12
	No	4 2.88
Correct knowledge about the modes of transmission	Yes	74 53.24
	No	65 46.76
Correct knowledge about the preventive strategies	Yes	125 89.93
	No	14 10.07

Table 4: Knowledge and perception status about spread of COVID-19 according to age and gender of respondents.

Age group (years)	Male N (%)	Female N (%)	Total
<20	11 (18.34)	4 (5.19)	15 (10.95) [#]
20-39	27 (45.0)	38 (49.35)	65 (47.45) [#]
40-59	18 (30.0)	27 (35.06)	45 (32.85) [#]
>60	4 (6.67)	8 (10.39)	12 (8.76) [#]
Grand total	60 (43.8)*	77 (56.2)*	137 (100.0)

*Row-wise percentage; #Column-wise percentage. Age-based difference: Chi-square statistic = 6.2483; p=0.100137; not significant at p<0.05. Gender-based difference: Chi-square with Yates correction: 0.056. The two-tailed p=0.8134.

Gender and age-based awareness levels regarding spread of COVID-19 infection is depicted in (Table 4). It was observed that awareness level was highest amongst population in age group 20-39 years (47.45%). However, this association was not found to be significant. Though the awareness level of females (56.2%) was higher than

males (43.8%), this association was found to be statistically non-significant. Gender and age-based awareness levels regarding strategies for prevention of COVID-19 infection is shown in (Table 5). It was observed that awareness level was highest amongst population in age group 20-39 years (47.24%). However, this association was not found to be significant. Awareness level regarding prevention strategies was higher in females (55.12%) than males (44.88%), which was found to be statistically non-significant.

Table 5: Knowledge and perception status about preventive strategies of COVID-19 according to age and gender of respondents.

Age group (years)	Male N (%)	Female N (%)	Total
<20	11 (19.30)	4 (5.71)	15 (11.81) [#]
20-39	25 (43.86)	35 (50.0)	60 (47.24) [#]
40-59	17 (29.82)	23 (32.86)	40 (31.5) [#]
>60	4 (7.02)	8 (11.43)	12 (9.45) [#]
Grand total	57 (44.8)*	70 (55.1)*	127 (100.0)

*Row-wise percentage; #Column-wise percentage. Age-based difference: Chi-square statistic = 5.8978; $p=0.116692$; not significant at $p<0.05$. Gender-based difference: Chi-square with Yates correction: 0.783. The two-tailed $p=0.3762$.

DISCUSSION

The present study was conducted with the aim of assessing awareness and perceptions regarding COVID-19 pandemic among patients attending a rural primary health care facility in Delhi. Current study shows that majority of patients attending outpatient facility were aware about ongoing COVID-19 pandemic. A study conducted by Bonyan et al, in Arab speaking countries using Online based questionnaire among general population, found that awareness score for COVID-19 was 78.5%.³ Another study conducted by Das et al among undergraduate students in Mangalore city found awareness regarding COVID-19 pandemic was 98.3% which was quite similar with results of our study.⁴ Difference in awareness can be attributed to different educational status among study participants and method by which the studies were conducted.

Present study shows that around 97% of study subjects knew about human-to-human transmission of novel coronavirus. Das et al reported that 96% of their study subjects were aware about the way infection spreads.⁴ Kebede et al found that 95% of study participants were aware about the way infection spreads.⁵ Similarity in results between our and other studies shows that public gets information about coronavirus through any media or through various approaches used by Government to spread awareness about the disease.

This study shows that 90% of study participants were having correct knowledge about various preventive strategies such as hand washing, using face mask etc.

used for preventing COVID-19 transmission. Kebede et al found that properly washing hands with soap and water (95.5%), not touching eye-nose-mouth with unwashed hands (92.7%) and avoiding crowded places (90.3%) were commonly known methods of preventing COVID-19 transmission among study participants.⁵

In our study, it was found that nearly half of study participants (53%) had correct knowledge regarding different modes of transmission of COVID-19. Kebede et al reported that a high proportion (95.1%) of the visitors knew that the COVID-19 virus spreads via respiratory droplets of infected people.⁵ However, 77 (31.2%) of the respondents reported that asymptomatic transmission is possible. Difference in results could be result of difference in education status of sample population. Another study by Banerjee et al suggested that a large number of respondents (85%) were aware about the modes of spread of the disease and preventive strategies like correct handwash practices (90%) but a significantly lower number of respondents were using a mask while going out (6%).⁶ Another study by Alahdal et al revealed that though males showed a higher level of awareness of COVID-19 as compared to female participants but when it comes to following the preventive practices towards COVID-19, females showed better behavioral practices than males.⁷ In this study, males and females of age group 20-39 years showed better awareness regarding modes of spread as well as preventive strategies as compared to other age-groups.

Limitations

Limitations of the current study were; children less than 10 years of age, pregnant females and geriatric population 60 years and above attending the OPD were not included in the study as these are high risk groups for COVID-19 infection. So, these were not considered a part of the sampled population so as to avoid their chances of exposure to infection. Also, the study sample was not very large so as to ensure adequate social distancing and least risk of exposure.

CONCLUSION

Accurate and rapid spread of information regarding the ongoing pandemic is a must felt need to create awareness amongst the community. This can be done via media/health talks/advertisements or any other platform accessible to both government and the community. Motivating the people to report any possible infection and to follow the preventive strategies being recommended by experts on timely basis is another important aspect to curb the ongoing menace of COVID-19.

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