



Impact of COVID-19 outbreak on the health consciousness and hygiene levels in the people of Hyderabad, India: A questionnaire-based community study

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ABSTRACT

Hygiene and healthy lifestyle practices were known to be important for the attainment and maintenance of positive health. On one hand hygiene helps in the prevention of communicable diseases and on the other hand health consciousness in terms of lifestyle changes has proved to have a positive impact on the immunity of a person, both of which are of the essence during the COVID-19 crisis. The study aims to understand the increase in health consciousness and hygiene practices in the people of Hyderabad, India due to the outbreak of COVID-19 pandemic. It also studies variation within age groups. This could help us learn the deficit in efforts at the individual level and awareness at the community level. It was observed that the impact of COVID-19 outbreak has definitely caused an elevation in the health consciousness and hygiene levels of the people. The people became more health-conscious in terms of looking into the diet, exercising and making other lifestyle changes respectively. The efforts to promote them, however, should be continued to reach everyone and the study has to be repeated to ensure this attitude continues. The study proves that there is no association between health consciousness and age groups but showed an association between hygiene and age groups. Thus more emphasis is required to promote hygienic practices among younger age groups to bridge the gap that was noticed.

Keywords: Hygiene, health consciousness, Coronavirus, awareness

1 INTRODUCTION

Health is and has been the most concerning issue to people. Health consciousness and hygiene are the most important steps towards maintaining a positive health. Health consciousness can be described as a person's behaviour and attitude to engage in efforts to make one's lifestyle better. A study reported that the education of the general population, proper hygiene design and adequate cleaning technique is required to maintain the level that is required (1). Hygiene refers to the conditions or practises conducive to maintaining health and preventing disease, especially through cleanliness. A study has revealed that hand hygiene should remain a priority for infection control programs (2). Health consciousness and hygiene have been the foundation of prevention. Prevention which is the most important aspect today in these hard times of COVID-19 pandemic. First case of COVID -19 was reported from Wuhan, Hubei province of China on 31 December 2019, it was initially reported as a cluster of pneumonia cases. This

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droplet borne infection, caused by SARS-CoV-2, has spread across the globe quite rapidly. As of 6 June 2020, about 7 million cases have been reported, including 400,000 deaths worldwide. Many reputed people and doctors have come forward to promote the importance of hygiene and staying active through various portals. A study showed the role of health consciousness in processing TV news that contains potential health threats and preventive recommendations (3). The knowledge of increase in health consciousness can give an estimate of how people are impacted by the news on print and electronic media. The data from the study would be useful to know where we stand in this aspect and work on the target groups showing deficits. **Aims and objectivists:** This study aims to understand the impact of COVID-19 pandemic on the hygiene levels and health consciousness levels in the people of Hyderabad, India. It also attempts to understand the correlation with gender and different age groups and the increase in effort put towards exercising and improving the eating habits.

2 RESEARCH METHODOLOGY

Once the survey questionnaire was created using Google forms, the link was mindfully shared to people of different ages, occupations and educational backgrounds from Hyderabad, India, with the help of volunteers and the people who took the survey were encouraged to make the people they were quarantining with take the survey. The survey was shared through email, WhatsApp, short message service (sms), Facebook and other social networking platforms as a strict curfew was in order throughout the city. The link opened up to the details and purpose of the study, followed by the consent. The questionnaire contained four sections, which included general questions, hygiene and health consciousness, social media impact and Psychiatric assessment. The identification details were omitted or kept optional to create a sense of anonymity and security in the subject. The responses were recorded for 48 hours following which the link was inactivated on 30th April, 2020. Before analysing the data, the duplicated submissions were excluded (n = 34). The responses received from 1208 subjects aged between 10 and 85 years (Mean age = 26.8 years, standard deviation = 11.76) were included in the study. The data from the health and hygiene section and some general questions were used in this analysis. The Microsoft Excel and the IBM statistics software SPSS were used to analyse the data.

3 RESULTS

Of the 1208 subjects included in the study, 653 were female, 542 were male and 13 were transgender or queer (as specified by the subjects after choosing the others option). The age groups wise distribution of the subjects is represented in Table 1

Age groups	Number of subjects (with percentage)
10-17 years	39 (3.22%)
18-25 years	840 (69.53%)
26-40 years	159 (13.16%)
41-55 years	131 (10.84%)
56-70 years	39 (0.22%)

3.1 HEALTH CONSCIOUSNESS

3.1.1 Increase in The Health Consciousness Levels

The data for increase in health consciousness levels in all subjects is summarised in Table 2.

Become more conscious about health due to the pandemic?	No. of subjects	Percentage of subjects
Yes	867	71.8%
No	341	28.2%

3.1.2 The Data for Increase in Health Consciousness Levels in Different Age Groups is Summarised in Table 3.

			Have you become more conscious about your health since the quarantine has begun?	
			No	Yes
Age group		Count	12	27
		% within Age group	30.8%	69.2%
	18-25	Count	249	591
		% within Age group	29.6%	70.4%
	26-40	Count	40	119
		% within Age group	25.2%	74.8%
	41-55	Count	33	98
		% within Age group	25.2%	74.8%
	56-70	Count	7	32
		% within Age group	17.9%	82.1%

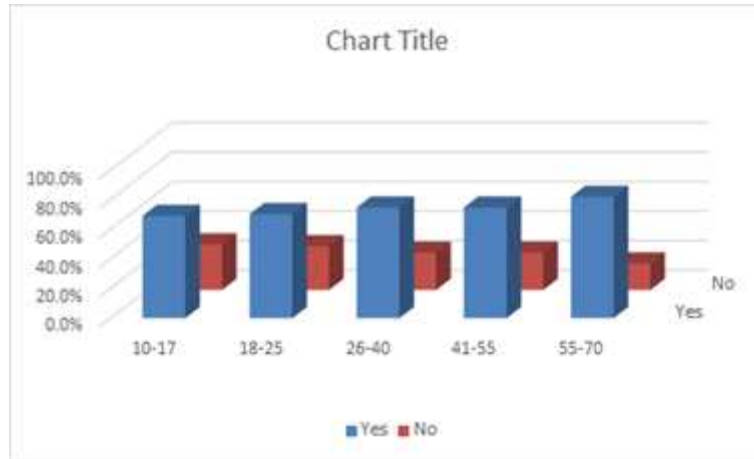


Figure 1: Health consciousness in different age groups

3.1.3 Correlation Between Age Group and Increase in Health Consciousness Levels

Correlation between age group and increase in health consciousness levels was done using Kruskal-Wallis test. The result found no significant correlation at significance levels of 0.05 and the test is represented in table 4.

Table 4: Hypothesis Test Summary				
	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Age group is the same across categories of Have you become more conscious about your health since the quarantine has begun?	Independent-Samples Kruskal-Wallis Test	0.059	Retain the null hypothesis.
Asymptotic significance is displayed. The significance level is .050.				

3.1.4 Aspects of Health Consciousness

The subjects who responded positively to becoming more conscious about health, were asked to choose the aspects of health consciousness that they have adopted insight of COVID-19 pandemic. The data obtained is represented in Table 5

Table 5: Aspects of health consciousness	
Aspects of health consciousness	Percentage
Looking into my diet	41.5%
Exercising	43.7%
Other lifestyle modifications	23.1%

3.2 HYGIENE

3.2.1 Increase in Hygiene Levels

The data for increase in hygiene all subjects is summarised in Table 6

Have you become more conscious about your hygiene due to the COVID-19 outbreak?	No. of subjects	Percentage of subjects
Yes, definitely	764	63.3%
Yes, a little	370	30.6%
No	74	6.1%

3.2.2 Hygiene Levels in Different Age Groups

The data for increase in hygiene levels in different age groups is summarised in Table 7 and Figure 2

			Have you become more hygienic of late?		
			A little	No	Yes, definitely
Age group	10-17	Count	16	3	20
		% within Age group	41.0%	7.7%	51.3%
	18-25	Count	267	54	519
		% within Age group	31.8%	6.4%	61.8%
	26-40	Count	45	10	104
		% within Age group	28.3%	6.3%	65.4%
	41-55	Count	33	6	92
		% within Age group	25.2%	4.6%	70.2%
	55-70	Count	9	1	29
		% within Age group	23.1%	2.6%	74.4%

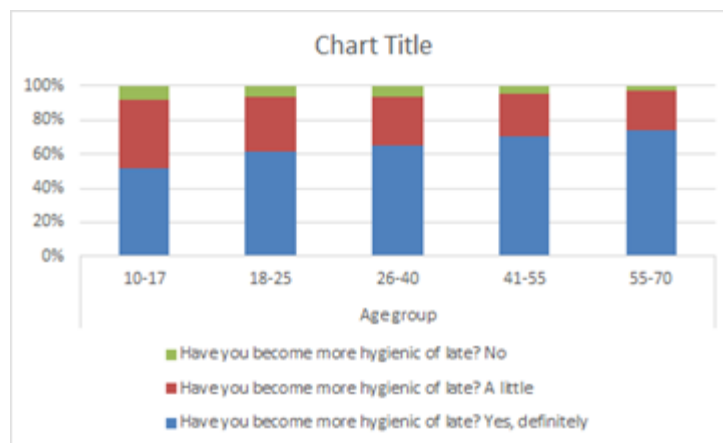


Figure 2: Hygiene levels in different age groups

3.2.3 Correlations between Age Group and Increase in Health Consciousness Levels

Correlation between age group and increase in health consciousness levels was done using Spearman's rank test. The result is significant at significance levels of 0.01 and the test is represented in Table 8.

		Age group	Have you become more hygienic of late?	
Spearman's rho	Age group	Correlation Coefficient	1.000	
		Sig. (2-tailed)	0.007	
		N	1208	
	Have you become more hygienic of late?	Correlation Coefficient	-.077**	1.000
		Sig. (2-tailed)	0.007	
		N	1208	1208

** . Correlation is significant at the 0.01 level (2-tailed).

4 DISCUSSION

There is an evident increase in health consciousness in the people of Hyderabad, India due to the COVID-19 pandemic (Table 2). Health consciousness is more by a small percentage towards the older age groups but showed no significant association between the two (Table 3). Of the subjects who became more conscious, half of them were looking into their diet, half were exercising and one fourth of the subjects made lifestyle changes (Table 5). A study has shown that the dietary changes have profound effects on our immune system and disease susceptibility (4). A study has revealed that habitual physical

activity is associated with increased life span and lowers the disease risk in elderly (5). Both the above aspects are principle in this scenario.

The data obtained on hygiene practices in view of COVID-19 pandemic shows that a significant proportion of people in Hyderabad became definitely more hygienic as compared to people who became a little more hygienic and those who did not show a variation in their hygiene levels (Table 6). Additionally, health motivation and health consciousness are also shown to influence preventive health care behaviours (6). The proportion of subjects who answered that they have become more hygienic of late was more by a small percentage towards the older age groups (10-17 years to 55-70 years) and a correlation was proved (Table 7, 8).

5 CONCLUSIONS

The study conducted in the setting of Hyderabad, India proves that the outbreak of COVID19 pandemic has a strong positive influence on health consciousness and hygiene while there is still an arguable requirement to promote them further, especially creating awareness about the dire need of hygiene in adolescents and young adults. Though the older age groups have shown to display a decent effort towards self-care and prevention, it is necessary to motivate them to continue the same, given the increased risk. Further studies are required to understand the most effective medium of spreading awareness and also to keep a check on similar attitude towards health. There is a considerable requirement to build confidence in people further about the role of diet and physical activity in immunity building and disease prevention, considering that preventive health care behaviour is strongly influenced by a person's belief that a specific action will mitigate the health threat. This outbreak can be considered a reminder of how important it is to follow simple hygiene practices, take balanced diet and make efforts towards staying active, however advanced the world has become in terms of technology and medicine.

DECLARATIONS

STUDY LIMITATIONS

The study fails to describe and give details about the hygiene practices being followed. The study does not provide information about the correlation between gender and hygiene/health consciousness.

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COMPETING INTERESTS

The author declared that no conflict of interest exists in this publication.

INFORMED CONSENT

Informed consent was taken from each respondent.

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