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Original Research

Knowledge, awareness and practice of safety guidelines among layman population regarding prevention of COVID- 19 infection

Dr. Devi Venkata Naga Akshay Varma D[1], Dr. Anmol Bagaria[2], Dr. Sharmila Kumari[3], Dr. Milind Rajan[4], Dr. Ankita Priya[5], Dr.Hetvee Brahmbhatt[6]

[1]BDS, Dr. NTR University of Health Sciences, MNR Dental College and Hospital, Sangareddy, Telangana, India;
[2]BDS (Bharati Vidyapeeth Deemed to be University's Dental College & Hospital, Navi Mumbai), Certified Ozone Dentist; FAGE (Fellow of Academy of General Education, Manipal), Private Practitioner, Mumbai, Maharashtra, India;
[3]PG 2nd year, Department Of Periodontology and Oral Implantology; Hazaribag College of Dental Sciences and Hospital, Demotand, Hazaribag, Jharkhand, India;
[4]PG 2nd year, Department of Pediatric and preventive dentistry, Coorg institute of Dental Sciences, Virajpet, Karnataka, India;
[5]Consultant Prosthodontist and implantologist, Ragiv Nagar, Patna, Bihar, India;
[6]BDS; Karnavati School of dentistry; Ahmedabad, Gujarat, India

ABSTRACT:
Background: The present study was conducted to assess knowledge, awareness and practice of safety guidelines among layman population regarding prevention of COVID- 19 infection. **Materials & Methods:** 170 persons from layman population of both genders were provided with a questionnaire regarding knowledge and practice against towards COVID-19 infection. **Results:** 82% showed that SARS-CoV-2 is the cause of COVID- 19. 84% replied that 2-14 days is the incubation period of covid- 19, 71% correctly replied that 6.8 % is the incubation period for COVID- 19 and 85 % replied that rRT-PCR is the laboratory test available for detection of COVID- 19. There was significant difference regarding knowledge and practice regarding COVID- 19 infection. **Conclusion:** Most of the persons had sufficient knowledge, awareness and practice of safety guidelines regarding prevention of COVID-19 infection.
Key words: Awareness, COVID-19., Knowledge.

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Correspondence: Dr. Devi Venkata Naga Akshay Varma D, BDS, Dr. NTR University of Health Sciences, MNR Dental College and Hospital, Sangareddy, Telangana, India

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INTRODUCTION

COVID-19 is becoming a big threat to human civilization as consequences, online awareness programs were initiated and conducted worldwide by WHO.[1] Due to its rapid spread across the globe, novel coronavirus disease (COVID-19) outbreak was declared a pandemic on March 11, 2020 and on March 24, a nationwide lockdown was announced in India for 21 days to control the spread of the disease.[2] The clinical symptoms are varied and manifest as fever, nasal congestion, sore throat, sneezing, loss of taste and smell. People with co-morbidities, including diabetes and hypertension, who are treated with the drugs such as thiazolidinediones, angiotensin-converting enzyme (ACE) inhibitors, and angiotensin-II receptor blockers (ARBs) have an increased expression of angiotensin-converting enzyme-2 (ACE-2).[3] Since, SARS-CoV-2 binds to their target cells through ACE-2, it was suggested that patients with cardiac disease, hypertension, and diabetes are at the higher risk of developing severe to fatal COVID-19.[4] In India, the Central Government also imposed a

nationwide lockdown for the first time on March 22, 2020 and continued it up to till date, that is, on May 30, 2020.[5] All transport, manufacturing, hotel industry, educational sector, service industry and so forth were closed immediately, people were left to remain as to where they were at the time of lockdown announcement and during lockdown people started working from home, school and colleges classes are running online, a large number of people shifted on a digital platform.[6] The present study was conducted to assess Knowledge, awareness and practice of safety guidelines among layman population regarding prevention of COVID- 19 infection.

MATERIALS & METHODS

The present study was conducted in the department of community dentistry. It comprised of 170 persons of both genders. All were informed regarding the study and their consent was obtained. Ethical clearance was obtained before starting the study.

Data such as name, age, gender etc. was recorded. All subjects were provided with a questionnaire regarding knowledge and practice against towards COVID- 19 infection. Results were tabulated and subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table I Distribution of subjects

Age group (Years)	Male (90)	Female (80)	P value
25-30	18	10	0.021
30-40	22	15	
40-50	35	25	
>50	25	30	
Undergraduate	50	45	0.15
Postgraduate	40	35	

Table I, graph I shows that age group 25-30 years had 18 males and 10 females, 30-40 years had 22 males and 15 females, 40-50 years had 35 males and 25 females and >50 years had 25 males and 30 females. There were 50 male undergraduate and 45 female undergraduate and 40 male postgraduate and 35 female postgraduate. The difference was significant (P< 0.05).

Table II Evaluation of knowledge among layman population

Questionnaires	Correct response
COVID- 19 is causes by which virus?	
SARS-CoV-2	SARS-CoV-2 (82%)
MERS-CoV	
SARS-CoV	
Do not know	
What is the incubation period of COVID- 19?	
1-7 days	2-14 days (84%)
2-7 days	
2-14 days	
Don't know	
What is overall mortality of COVID- 19?	
3.2%	6.8% (71%)
6.8%	
10.4%	
What are laboratory test available to detect COVID- 19?	
ELISA	rRT-PCR- (85%)
rRT-PCR	
Western Blot	
Do not know	

Table II shows that 82% showed that SARS-CoV-2 is the cause of COVID- 19. 84% replied that 2-14 days is the incubation period of covid- 19, 71% correctly replied that 6.8 % is the incubation period for COVID- 19 and 85 % replied that rRT-PCR is the laboratory test available for detection of COVID- 19.

Graph I Distribution of subjects

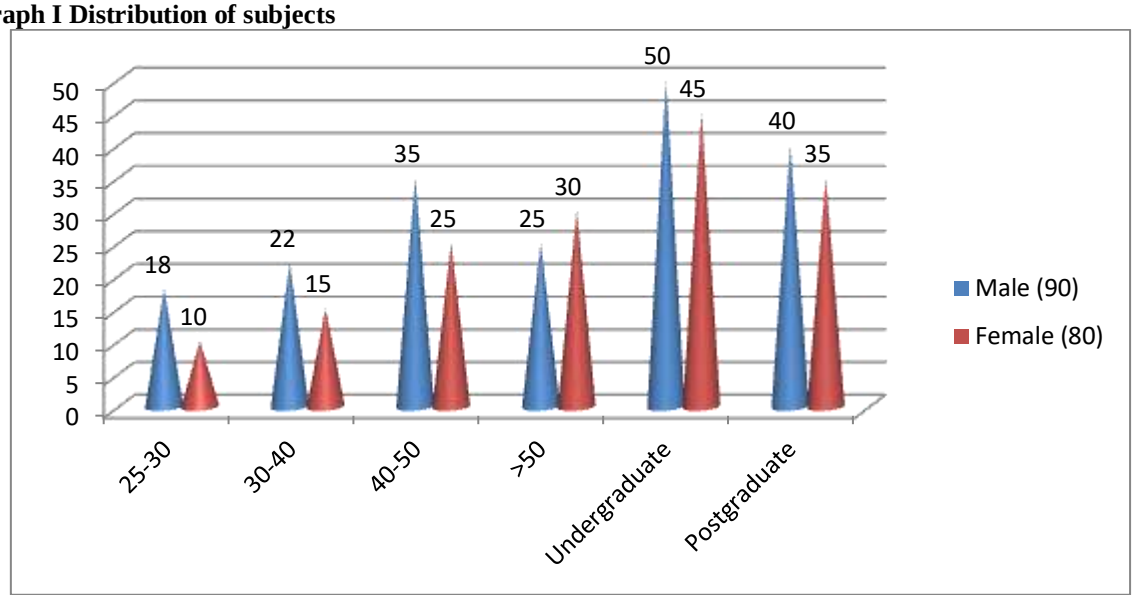

Table III: Knowledge of layman population about COVID infection

Statements	**Correct**
	%
Knowledge on the cause	
Corona is caused by a virus	92.2
Knowledge on the communicability of the disease	
Contagious and leads to death	82.5
Knowledge on the incubation period of the disease	
5–14 days	12.5
Knowledge on the transmission	
The disease is transmitted by camels	44.5
The disease is transmitted by bats	12.8
The disease is transmitted by domestic animals	4.2
The disease is transmitted by infected persons	36.5
Knowledge of symptoms of the disease	
The disease has upper respiratory symptoms	52.5
The disease has lower respiratory symptoms	20.8
Fever and muscle pain are symptoms of the disease	14.5
The disease has gastrointestinal symptoms	13.5
The disease has central nervous system symptoms	4.5
Knowledge on disease prevention	
Hand washing with alcohol could prevent the disease	34.8
Covering nose and mouth could prevent the disease	42.5
Keep in good general health could prevent the disease	9.8
Vaccine could prevent the disease	24.2
There is no preventive measure	8.2
Knowledge on disease treatment	
Supportive treatment at home is a measure of treatment	6.4
Hospitalization is a measure of treatment	4.2
Intensive care is a measure of treatment	55.6
No drug treatment available	34.8

DISCUSSION

The fight against COVID-19 continues globally, and to guarantee success, people's adherence to preventive measures is essential.[7] It is mostly affected by their awareness and preparedness toward COVID-19.[8,9] Knowledge and attitudes toward infectious diseases are often associated with the level of panic among the population, which could further complicate the measures taken to prevent the spread of the disease.[10] The present study was conducted to assess knowledge, awareness and practice of safety guidelines regarding prevention of COVID-19 infection. We found that age group 25-30 years had 18 males and 10 females, 30-40 years had 22 males and 15 females, 40-50 years had 35 males and 25 females and >50 years had 25 males and 30 females. There were 50 male undergraduate and 45 female undergraduate and 40 male postgraduate and 35 female postgraduate. The difference was significant. Tripathy et al[11] found that among 1,000 participants, 36.7% were HCWs, 53.9% were female, and 44.1% were aged ≥ 30 years. Majority of respondents showed awareness of COVID-19 (98.7%) as a deadly, contagious, and life-threatening disease (99.6%) that is transmitted through human-to-human contact (97.7%). They were familiar with the associated symptoms and common causes of COVID-19. Health organizations were chosen as the most reliable source of information by majority of the participants (89.6%). Hand hygiene (92.7%) and social distancing (92.3%) were the most common preventive measures taken by respondents that were followed by avoiding traveling (86.9%) to an infected area or country and wearing face masks (86.5%). Significant proportions of HCWs ($P < 0.05$) and more educated participants ($P < 0.05$) showed considerable knowledge of the disease, and all respondents displayed good preparedness for the prevention and control of COVID-19. Age, gender, and area were non-significant predictors of COVID-19 awareness.

We found that 82% showed that SARS-CoV-2 is the cause of COVID- 19. 84% replied that 2-14 days is the incubation period of covid- 19, 71% correctly replied that 6.8 % is the incubation period for COVID- 19 and 85 % replied that rRT-PCR is the laboratory test available for detection of COVID- 19. Singh et al[12] a total of 522 responses from all over India were received. The respondents have adequate awareness for COVID-19 outbreak and its preventive measures, out of total, 98% (513) answered that the virus spreads from one person to another, 95% (494) answered that the disease is caused by a virus. Peoples understand the importance of social distancing and other preventive measures prescribed by the government with good attitude for coronavirus. Peoples are following trusted sources for corona information, having confidence to defeat disease but showed their concern for corona threat, are aware about the virus, its common symptoms and prevention, govt. testing and medical facilities. Principal component analysis was used to identify the latent dimensions regarding people's preventive measures and was found that they are majorly adopting three methods, that is, lockdown, naturopathy and social distancing

The limitation of the study is small sample size.

CONCLUSION

Authors found that most of the enrolled individuals had sufficient knowledge, awareness and practice of safety guidelines regarding prevention of COVID-19 infection.

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