National Journal of Physiology, Pharmacy and Pharmacology

RESEARCH ARTICLE

Knowledge and attitude regarding the COVID-19 pandemic among healthcare workers at a medical college and hospital in South India

Madhavi Singh[1], Devraj Lath[2], Jayasri Reddy[3], Balakrishna N[4]

[1]Department of Anaesthesia, Apollo Institute of Medical Sciences and Research, Hyderabad, Telangana, India, [2]Medical Intern, Christian Medical College, Vellore, Tamil Nadu, India, [3]Department of Respiratory Medicine, Apollo Institute of Medical Sciences and Research, Hyderabad, Telangana, India, [4]Department of Biostatistics, Apollo Institute of Medical Sciences and Research, Hyderabad, Telangana, India

Correspondence to: Madhavi Singh, E-mail: madhavilath@hotmail.com

Received: July 11, 2020; **Accepted:** August 04, 2020

ABSTRACT

Background: The ongoing COVID-19 pandemic has provided multiple challenges within the health-care sector. There is an urgency to rapidly update and prepare all staff members not only for effective patient care but also decrease risk of occupational exposure. Earlier studies conducted indicate that non-physicians, non-nursing staff may possess significant lacunae within the required knowledge base. **Aims and Objectives:** We decided to study knowledge and associated attitude among healthcare workers at our hospital to enable further policies regarding awareness programs. **Materials and Methods:** We provided 104 employees (front desk, housekeeping, pharmacists, security, and technical staff) with a validated questionnaire to assess knowledge and attitude regarding the COVID-19 pandemic. Descriptive statistics, Chi-square test for association, and logistic regression analysis were conducted to analyze the results. **Results:** About 69.2% of respondents demonstrated a good knowledge level while positive attitude was obtained in 74% respondents. Higher education and profession (technical staff) showed a trend in determining a good level of knowledge. Less than 80% score in the attitude section was associated with the source of information being newspaper ($P = 0.02$) and peers/family ($P = 0.014$). Logistic regression analysis with multiple independent factors indicated increased age (>33 years), security, housekeeping, and pharmacy-related work as risk factors for a poor level of COVID-19 related knowledge. **Conclusions:** The knowledge score and attitude regarding COVID-19 is satisfactory within the hospital staff. Increased educational input involving the housekeeping, security, and pharmacy staff may improve COVID-19 related knowledge.

KEY WORDS: Attitude; COVID-19; Knowledge

INTRODUCTION

Following the declaration of coronavirus disease (COVID-19) pandemic by the WHO in March 2020, we organized a series of lectures and training programs at our medical college and hospital. A committee consisting of various specialties termed "COVID think tank" was active in conducting these programs not just for frontline healthcare workers (HCW) but all staff members such as front desk, security, technicians, and the housekeeping staff. Mock drills within the outpatient clinics, emergency facility, operating suites, intensive care units, and wards to educate HCWs were conducted. Reasons cited for the patient to HCW transmission include poor institutional infection control measures, lack of awareness/preparedness, as well as poor compliance.[1] The role of anesthetists now encompasses much more than the operating room and includes active involvement in health-care education. Studies done earlier have clearly demonstrated

Access this article online	
Website: www.njppp.com	Quick Response code
DOI: 10.5455/njppp.2020.10.08212202004082020	

a significant gap between physician and nursing staff knowledge when compared to other HCWs.[2-4] While different levels of knowledge, based on clinical management and treatment, are required for physicians and nursing staff, other members need to know steps of hygiene measures, transmission routes, and day to day preventive measures to break the chain of transmission. To understand gaps in our training program and develop relevant educational policies, we decided to conduct a survey among our hospital staff. We designed the questionnaire specifically to address awareness in staff, excluding doctors and nurses in accordance to CDC guidelines.[5] We reviewed multiple articles to incorporate important aspects of knowledge essential for health workers in the current pandemic.[6,7] These included questions on the nature, etiology, symptoms, and disease transmission of COVID-19 with emphasis on precautions. Attitude was assessed by a set of validated statements regarding proactive measures to protect and prevent disease transmission among HCWs as well as ascertain confidence at work and level of fear of contracting/transmitting COVID-19.

MATERIALS AND METHODS

The printed questionnaire consisted of demographic data including sources of information such as radio, television (TV), pamphlets, internet, peers/family, newspapers and seminars (Part 1), questions to assess knowledge (Part 2), and attitude (Part 3) with respect to the novel coronavirus in line with CDC guidelines. Participants included technical staff, security, front desk staff, pharmacists, and housekeeping staff. The questionnaire was available in English and Telugu with additional help by the investigator for relevant interpretation if needed. Informed consent was obtained in either language from all participants. Computation of knowledge and attitude score: Each correct response was awarded one point, incorrect answer and "do not know" were given 0 point in the knowledge section. For assessing the attitude, we gave 1 point for strongly agree and agree. 0 point was awarded for not sure, disagree, or strongly disagree, respectively. Cutoff values for both knowledge and attitude prevalence were considered as <80%.

Sample Size

Using an online sample size calculator, 5% level of significance, SD of knowledge is 1.69, precision is 0.35, including a dropout rate is 10%, and the required sample size was 100.

Statistical Analysis

The analysis was done using the IBM SPSS 24 (SPSS Inc, Chicago, Illinois, USA) software with a two-tailed $P < 0.05$ considered statistically significant. Chi-square test was used to study the association between knowledge, attitude with age, gender, educational status, profession, and source of information variables. Risk estimate (odds ratio with 95% CI) was calculated using multivariate logistic regression analysis with respect to all variables. Validity and reliability of the questionnaires were done through Cronbach's alpha of 0.73 and 0.79 for knowledge and attitude, respectively.

Ethical Approval

Institutional review board approval was taken before the conduct of the study. Signed consent was taken from all the participants.

RESULTS

Among the104 respondents, there were 72 (69.2%) men and 32 (30.8%) women. Technical staff constituted 44.2%, pharmacists 9.7%, housekeeping staff 17.5%, front desk staff 16.5%, and security guards 11.6% [Table 1]. The mean age was 30.9 years with a standard deviation of 7.35. About 39.4% had completed an undergraduate degree and the levels of education in the study population are shown in Table 1. TV was the most common source of knowledge with 83.7% getting COVID-19 related information from TV followed by the internet (69.2%) and newspaper (66.3%), as shown in Table 1. Seminars or lectures related to COVID-19 were the source of information in 50% of the respondents.

The second part of the questionnaire was meant to test the basic knowledge about coronavirus among HCWs. The results of this are summarized in Table 2.

Coronavirus was correctly stated as the causative organism by 93% respondents and the triad of fever, cough, and breathlessness was confirmed by 91, 94, and 95% of the staff. While knowledge remained high about clinical illness, only 65.4% correctly stated the fact that asymptomatic carriers may transmit the infection to healthy individuals. Foreign travel has been highlighted as an independent risk factor and this was correctly noted by 80.8% of the respondents. Only 60.6% correctly stated that domestic animals are not the source of Corona infection implying that 27.9% of people do attribute the spread of infection partly to animals, while 11.5% stated that they do not know the correct answer. About 86.5% stated that testing is available for diagnosis of the disease and existing comorbidities were identified as a risk factor by 76.9%. The importance of social distancing was stressed by 93.3% choosing "yes" for both 3 feet gap and use of mask by healthy individuals. The importance of handwashing was noted by 97.1% respondents. About 89.4% respondents were aware of it being a notifiable disease. The overall performance was satisfactory with 69.4% of respondents obtaining a score >80%. The complete set of results obtained from analysis of the "knowledge" section of the questionnaire is tabulated in Table 2.

Table 1: Demographics of healthcare workers (*n*=104)

Variable	Category	%
Gender	Male	69.2
	Female	30.8
Age (years)	<30	31.2
	30–32	35.5
	≥33	33.3
Mean age	-	30.9±7.35
Profession	Working in pharmacy	9.7
	Technical	44.7
	House keeping	17.5
	Front desk	16.5
	Security	11.6
Education	Primary	10.6
	Middle	1.9
	High	31.7
	Under graduate	39.4
	Graduate and above	16.3
Source of information		
Radio	Yes	28.8
	No	71.2
Television	Yes	83.7
	No	16.4
Poster/pamphlets	Yes	44.2
	No	55.8
Peers family	Yes	60.6
	No	39.4
Internet	Yes	69.2
	No	30.8
Newspaper	Yes	66.3
	No	33.7
LEC seminar	Yes	50.0
	No	50.0

Table 2: Knowledge (%) about the COVID 19 pandemic

Variable	%
COVID 19 is caused by a coronavirus	89.4
Fever is an important symptom?	91.3
Cough is an important symptom?	94.2
Shortness of breath is an important symptom?	95.2
COVID-19 patients can develop severe respiratory illness	93.3
Incubation period is up to 2 weeks	93.3
COVID-19 spreads between people through droplets in the air	84.6
Infected cases can spread COVID-19 only if they develop symptoms	65.4
History of foreign travel in a person with symptoms is significant	80.8
Pets/farm animals and poultry are an important source of COVID-19 spread to human beings	60.6
There are tests available to correctly diagnose COVID-19	86.5
People with diabetes, kidney disease, or cancer are more likely to die after COVID 19 infection?	76.9
An effective vaccine is available for COVID-19	70.2
Minimum distance of 1 m (3 feet) should be maintained as per WHO guideline	93.3
Routine use of face masks in healthy individuals is important prevention	93.3
Hand washing at frequent intervals with soap and water for at least 20 s is required by all	97.1
It is required by law to report diagnosed cases of COVID-19 to the health authorities	89.4
Knowledge score*	81.8±14.49
Lack of knowledge (<80%)	30.6

*Mean±SD

The last part of the questionnaire dealt with the attitude of the HCWs during the current COVID pandemic. The findings are summarized in Table 3. About 99% respondents agreed on the importance of mask, social distancing, and hygiene as important precautions during the pandemic. Soap and water, alcohol sanitizer as well as isolation were approved by 94.2% of the staff. Role of contact tracing was acknowledged by 96.2%, while 3.8% were undecided about the significance of primary contacts. 95.2% felt adequately prepared to safely perform their respective jobs. Rumours and false news via social media have a serious concern in the pandemic. However, it was reassuring to note that 93.3% of staff felt correct information could be obtained only from government or reliable sources. About 58.6% of the respondents agreed to harbor fear of contracting the virus. A clear majority (95.2%) felt that they were responsible for acquiring and spreading correct information in their community. We took a cutoff score of 80% as consistent with a favorable attitude toward the ongoing pandemic; 74% respondents achieved this score. In our study, 52.9% of the respondents showed a favorable level of both knowledge and attitude simultaneously.

Respondents were divided into two groups (>80% and <80% score) for both knowledge and attitude as we wanted to study the significance of various factors in the overall performance [Table 4]. A positive trend between higher education and technical profession could be seen for achieving a score >80% in the knowledge section but did not reach statistical significance. We found a statistically significant correlation between <80% score in the respondents' attitude when the source of information was a newspaper ($P = 0.02$), peer and family ($P = 0.014$).

Multiple logistic regression for risk estimation with respect to knowledge, attitude, and both knowledge and attitude were conducted against the studied variables [Table 5]. This revealed a statistically significant increase in risk of lower knowledge with an increase in age. The OR was 8.7 (CI

Table 3: Attitude (%) of respondents

Variable	%
Precautions such as wearing a mask, social distancing, and frequent handwashing can help prevent the spread of COVID-19	99.0
Frequent hand hygiene with soap/water or alcohol-based hand rubs can decrease the spread of COVID-19	94.2
Patients diagnosed with COVID 19 should be isolated in a health-care facility	97.1
Contact tracing should be undertaken for all positive patients	96.2
Respiratory hygiene is important to reduce spread of COVID-19	95.1
Only information from reliable sources such as the hospital, government or WHO should be distributed	93.3
I feel that I am adequately prepared and confident in my knowledge about COVID 19 to safely perform my job	95.2
I am afraid of working in a hospital as I may contract the disease or spread it to my family members	58.6
Healthcare workers are responsible for acquiring and spreading correct information to their community	95.2
Lack of attitude (<80%)	26.0
Attitude score (%)*	84.1±21.44

*Mean±SD

1.4–5.4) and 9.6 (1.52–6.98) for 30–32 years, and >33 years. Age was also statistically significant when both knowledge and attitude were combined and analyzed with OR of 4.6 (CI 1.07–19.33). Those who did not attend seminars had an increased chance of lower knowledge level, OR was 5.0 (CI 1.1–23.6). Working in the pharmacy (OR 15.2, CI 2.27–102.07) and housekeeping (OR 7.13, CI 1.33–38.4) showed a statistically significant increased risk of lowered knowledge. Pharmacy related work showed a statistically significant risk of lowered knowledge as well as attitude with an OR of 7.03 (CI 1.33–37.13).

DISCUSSION

In our study, an acceptable level of knowledge was noted in 69.2% of the respondents. Technical staff was found to achieve a higher score in the knowledge section when compared to housekeeping, pharmacy as well as security personnel, although this did not reach statistical significance (P = 0.053). We divided the respondents into two groups based on their performance in both sections; those who scored >80% and those who did not get the pass score. Tests of

Table 4: Prevalence of knowledge and attitude with sociodemographic variables

Variable	Category	*n*	<80% Knowledge	*P*-value	<80% Attitude	*P*-value
Age	<30	29	37.9	0.258	24.1	0.766
	30–32	33	33.3		21.2	
	≥33	31	19.4		29.0	
Gender	Male	72	29.2	0.754	26.4	0.951
	Female	32	32.3		25.8	
Profession	Working in pharmacy	10	60.0	0.053	10.0	0.545
	Technical	46	19.6		23.9	
	Housekeeping	18	44.4		38.9	
	Admin	17	23.5		23.5	
	Security	12	41.7		25.0	
Education	Up to high school	46	39.1	0.100	26.1	0.979
	College	58	24.1		25.9	
Source of information						
Radio	Yes	30	36.7	0.407	13.3	0.061
	No	74	28.4		31.1	
Television	Yes	87	31.0	0.895	25.3	0.723
	No	17	29.4		29.4	
Posters/pamphlets	Yes	46	32.6	0.717	17.4	0.076
	No	58	29.3		32.8	
Peers family	Yes	63	28.6	0.541	17.5	0.014
	No	41	34.1		39.0	
Internet	Yes	72	30.6	0.944	22.2	0.192
	No	32	31.3		34.4	
Newspaper	Yes	69	31.9	0.729	18.8	0.020
	No	35	28.6		40.0	
LEC seminar	Yes	52	26.9	0.395	21.2	0.263
	No	52	34.6		30.8	

Table 5: Multiple logistic regression analysis for knowledge and attitude with respect to independent variables

Variable	Categories	Knowledge		Attitude		Knowledge and attitude	
		Odds ratio	95% CI	Odds ratio	95% CI	Odds ratio	95% CI
Gender	Male	Reference (1.0)		1.0		Reference (1.0)	
	Female	0.76	0.20–2.86	0.49	0.12–1.95	0.62	0.20–1.96
Education	College	1.0		1.0		1.0	
	Up to high school	1.95	0.53–7.21		0.21–2.70	0.98	0.33–2.96
Age groups (years)	<30	1.0		1.0		1.0	
	30–32	8.71*	1.37–55.40	1.59	0.39–6.45	4.56*	1.07–19.33
	≥33	9.62*	1.52–6.98	1.07	0.27–4.22	3.85	1.0–14.77
Radio	Yes	1.0		1.0		1.0	
	No	0.37	0.06–2.25	2.32	0.36–14.83	0.87	0.21–3.64
TV	Yes	1.0		1.0		1.0	
	No	0.65	0.14–2.96	0.43	0.08–2.37	0.61	0.15–2.40
Pamphlets	Yes	1.0		1.0		1.0	
	No	0.94	0.12–7.20	0.71	0.12–4.10	0.54	0.11–2.65
Peers family	Yes	1.0		1.0		1.0	
	No	4.61(T)	0.93–22.91	2.20	0.59–8.15	3.61	0.97–13.40
Internet	Yes	1.0		1.0		1.0	
	No	0.46	0.08–2.67	0.94	0.22–4.01	0.36	0.08–1.77
News paper	Yes	1.0		1.0		1.0	
	No	0.46	0.08–2.60	2.59	0.61–10.99	2.10	0.47–9.35
Seminar	Yes	1.0		1.0		1.0	
	No	5.0*	1.06–23.64	1.13	0.28–4.47	1.94	0.55–6.82
Job	Technical	1.0		1.0		1.0	
	Working in pharmacy	15.21*	2.27–102.07	0.37	0.03–4.26	3.02	0.61–15.07
	HK	7.13*	1.33–38.40	1.74	0.35–8.64	7.03*	1.33–37.13
	Admin	0.61	0.07–5.19	0.96	0.18–5.20	0.82	0.17–3.86
	Security	8.07(T)	0.87–74.70	1.50	0.22–10.27	4.08	0.65–25.65

T: Trend, *P<0.05

significance were performed with respect to demographics; there was no statistically significant association [Table 4]. Attitude is regarded to be a function of knowledge and the hypothesis is that a satisfactory level of awareness about the disease process will manifest as a positive attitude and confidence regarding preventive measures to be undertaken with minimal health risk. Seventy-seven respondents (74%) demonstrated a positive attitude by strongly agreeing or agreeing to questions which checked perceptions on health and hygiene practices. In fact, we noted that a positive attitude was seen in a slightly higher proportion of respondents when compared to good knowledge, that is, 77 (74%) and 72 (69.2%) respondents. Tests of significance were undertaken with respect to demographics, education, and profession amidst the two groups regarding the prevalence of attitude. We found <80% attitude scoring is statistically significantly associated with respondents who obtain information from peers/family (P = 0.014) as well as newspapers (P = 0.020). [Table 4]. Multiple logistic regression for risk estimation with respect to knowledge, attitude, and both knowledge and attitude were conducted against the studied variables [Table 5]. This revealed a statistically significant increase in risk of lower knowledge with an increase in age and nonattendance of seminars. Working at pharmacy was associated with both lower knowledge and attitude; housekeeping too was associated with increased risk of lower knowledge scores.

Our questionnaire containing questions pertaining to knowledge and attitude has been validated in earlier trials and was specifically designed for non-medical staff at the hospital.[6] Review of study undertaken by Modi *et al*.[4] has shown that HCWs had an average score of 71.2% in the COVID-19 related knowledge section; hence, we took a score of 80% as an acceptable level of knowledge for our study. The same group found the knowledge score to be only 53.6% in the administrative staff, highlighting a lower level of awareness amidst this section of HCWs.[4] About 89% of HCWs demonstrated sufficient knowledge as per the WHO guidelines in a study conducted at Hunan, China.[2] The level of knowledge reported in this study is significantly higher than in our study. They, however, included doctors,

nurses, and paramedics. Physicians were found to have significantly higher scores when compared to nurses, who, in turn, performed significantly better than paramedics.[2] COVID-19 awareness was assessed at a tertiary hospital in Nepal and they reported good awareness levels in 17.7% of support staff, 69.2% of technical staff, and 80.1% of the doctors.[8] This highlights a lower level of COVID-19 awareness among the support staff. In our study, we found a good level of knowledge regarding etiology, symptoms, and precautions (>90% in all these sections) which is consistent with other investigations on MERS as well as COVID-19.[2-4,6,7] Investigators in middle-eastern countries have reported high knowledge scores across all sections of HCWs when questioned about clinical symptoms in patients as well as precautions to be undertaken to prevent infection as well as transmission of MERS.[3,6,7] The same was noted in Hunan2 and Nepal[8] as paramedics matched physicians and nurses in their awareness regarding etiology, clinical symptoms, and preventive measures. Of serious concern was the fact that only 65.4% respondents acknowledged the role of asymptomatic carriers in transmitting COVID-19 in our study. This was noted by investigators at Navi Mumbai too as <50% respondents were able to define "close contact" in the current pandemic.[4] Asymptomatic carriers as disease transmitters were acknowledged by 63.3% of HCW at Chennai, which is similar to our finding.[9] Adequate awareness regarding infectivity from both asymptomatic patients and close contacts is vital in containment measures and must be stressed in the upcoming educational programs. Our questionnaire revealed that 60.6% staff attributed the spread of coronavirus to humans from farm animals. The avian flu and news coverage of the Chinese wet markets may explain this finding in our study. Misconception surrounding the spread of the virus in Asia was also noted by Bhagavathula *et al*. who found that 61% of HCW attributed animals as vectors for COVID-19 and 20% were unsure about the consumption of cooked meat.[10] We noted 88.5% of respondents felt adequately prepared to discharge their duty in the pandemic, yet 42.3% harbored fear about contracting or transmitting COVID-19 to family members. In China, Zhou *et al*. found 85% of health workers harbored a fear of contracting the virus.[2] They demonstrated a significant correlation between being overworked and having less clinical experience to a higher level of a fear of getting infected. We feel being confident regarding work and having a fear of infection is a positive attitude as it may influence hygiene practice, social distancing, and use of face masks at all times. In our study, tests of significance were performed with respect to demographics which showed no statistically significant association [Table 4]. This is different from the results obtained in middle eastern countries wherein MERS related knowledge score was significantly higher among male respondents.[11,12] Studies done earlier have consistently shown a statistically significant relationship between profession, education, and performance.[2,4,12] While TV was the most widely available source of knowledge in our study, others report social media as a primary source of information.[3,6,11]

Limitations

The small numbers involved in the study are an important limitation in our study. This study was confined to a single hospital with considerable educational input in the month leading up to the survey. When we started the study and prepared the questionnaire, a significant referral was made to the MERS studies.

CONCLUSIONS

Health workers demonstrated a satisfactory level of knowledge and a positive attitude toward the ongoing COVID-19 pandemic at our teaching hospital. Seminars and teaching programs should aim at stressing role of asymptomatic human carriers and need to use protective gear during patient care at all times with emphasis on security, housekeeping, and pharmacy staff members.

REFERENCES

1. Xiao J, Fang M, Chen Q, He B. SARS, MERS and COVID-19 among healthcare workers: A narrative review. J Infect Public Health 2020;13:843-8.
2. Zhou M, Tang F, Wang Y, Nie H, Zhang L, You G, *et al*. Knowledge, attitude, and practice regarding COVID-19 among healthcare workers in Henan, China. J Hosp Infect 2020;105:183-7.
3. Asaad AM, El-Sokkary RH, Alzamanan MA, El-Shafei M. Knowledge and attitudes towards Middle East respiratory sydrome-coronavirus (MERS-CoV) among health care workers in South-Western Saudi Arabia. East Mediterr Health J 2020;26:435-42.
4. Modi PD, Nair G, Uppe A, Modi J, Tuppekar B, Gharpure AS, *et al*. COVID-19 awareness among healthcare students and professionals in Mumbai Metropolitan Region: A questionnaire-based survey. Cureus 2020;12:e7514.
5. Information for Healthcare Professionals; 2020. Available from: https://www.cdc.gov/coronavirus/2019/-ncov/hcp/index.html. [Last accessed on 2020 Mar 19].
6. Abdollahi M, Ghahramanian A, Shahbazi S, Rezaei F, Naghili B, Asghari-Jafarabadi M. Developing a questionnaire to assess Iranian nurses' knowledge of and attitude to middle east respiratory syndrome. East Mediterr Health J 2020;26:506-16.
7. Kharma MY, Alalwani MS, Amer MF, Tarakji B, Aws G. Assessment of the awareness level of dental students toward middle east respiratory syndrome-coronavirus. J Int Soc Prev Community Dent 2015;5:163-9.
8. Acharya S, Maharjan K, Dongol D, Ghimire A. Awareness of COVID-19 and perception of work satisfaction among healthcare workers at Patan Hospital, Nepal. J Patan Acad Health Sci 2020;7:31-6.
9. Kamineni SR, Balu P, Sivaganana P, Chellapandian P, Chelladurai UM, Jayasheelan VP, *et al*. Knowledge of

COVID-19 among nursing and allied health care professionals working in tertiary care hospital. Int J Res Pharm Sci 2020;11:103-9.
10. Bhagavathula AS, Aldhaleei WA, Rahmani J, Mahabadi MA, Bandari DK. Knowledge and perceptions of COVID-19 among health care workers: Cross-sectional study. JMIR Public Health Surveill 2020;6:e19160.
11. Khan MU, Shah S, Ahmad A, Fatokun O. Knowledge and attitude of healthcare workers about middle east respiratory syndrome in multispecialty hospitals of Qassim, Saudi Arabia. BMC Public Health 2014;14:1281.
12. Albarrak AI, Mohammed R, Al Elayan A, Al Fawaz F, Al Masry M, Al Shammari M, *et al*. Middle East respiratory syndrome (MERS): Comparing the knowledge, attitude and practices of different health care workers. J Infect Public Health 2019;617:6-13.

How to cite this article: Singh M, Lath D, Reddy J, Balakrishna N. Knowledge and attitude regarding the COVID-19 pandemic among healthcare workers at a medical college and hospital in South India. Natl J Physiol Pharm Pharmacol 2020;10(12):1065-1071.

Source of Support: Nil, **Conflicts of Interest:** None declared.