

ASSESSMENT OF KNOWLEDGE, ATTITUDE AND PRACTICE TOWARDS COVID-19 AMONG PHARMACY STUDENTS IN SOUTH INDIA DURING LOCKDOWN: A CROSS SECTIONAL STUDY

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Abstract-

Background and Objectives: Corona virus caused by SARS-CoV-2 is a fatal disease, and has become a global public health concern at present. The focus of this study was to assess pharmacy students' knowledge, attitudes, and practices in South India about the coronavirus disease 2019 (COVID-19) during the nationwide lockdown.

Methods: Present cross-sectional study was carried out by administering a structured questionnaire (created through Google forms) circulated to students across India through e-mail and WhatsApp. Demographics of the participant, knowledge, attitude, and practice towards COVID-19 were collected. Data was further analyzed statistically using independent samples t-test and bivariate analysis.

Results: A total of 437 pharmacy students participated in present study. Majority of them were females (62.01%). Most of the participants (99.5% & 99.3%) had correct knowledge about the symptoms of COVID-19 and were aware regarding personal hygiene, wearing face mask, social distancing. To about 89.7% of participants expressed confidence in India's ability to defeat COVID-19. During the epidemic, the vast majority of respondents (99.7%) had excellent practice in keeping social distance and avoiding unnecessary travel or outings (98.1 %).

Conclusion: Based on the findings of this study, we presume that pharmacy students had a good understanding, attitude, and practice towards COVID-19. The majority of pharmacy students were aware of the COVID-19 transmission and the precautions that should be taken. Studies examining potential factors affecting COVID-19 pandemic awareness among HCPs and other segments of society are crucial.

Index Terms- COVID-19, KAP, Pharmacy students, Pandemic, India.

I. INTRODUCTION

The coronavirus, SARS-CoV-2, has sparked an epidemic that has recently drawn the attention of the scientific community.[1] In December 2019, China became the epicenter of a Coronavirus Disease 2019 (COVID-19) outbreak, which received worldwide attention not only in China but also around the globe.[2] New cases have continued to rise globally in the last week, with over 3 million new cases reported, up 10% from the

previous week. Following a peak in early January 2021, when there were just under 5 million cases, new cases fell to around 2.5 million in the week beginning February 15, 2021, but have since risen again in the last three weeks.[3] The highest numbers of new cases were reported from Brazil (494 153 new cases; 20% increase), the United States of America (461 190 new cases; 8% increase), Italy (155 076 new cases; 12% increase), France (150 434 new cases; 5% increase) and India (148 249 new cases; 30%).[3] Increase The rising number of cases and geographic spread of COVID-19 raised serious concerns about the outbreak's potential trajectory.

The SARS outbreak, which began in 2002, resulted in approximately 8,000 infected persons and 770 deaths, costing up to \$100 billion globally. MERS, In the other hand, it had smaller illnesses but larger nosocomial outbreaks and a marginally higher mortality rate (around 35 percent), and it has yet to be eradicated, with over 90,000 cases recorded to date and over 2,500 fatalities.[4] On March 11, 2020, the World Health Organization (WHO) declared COVID-19 an international pandemic public health emergency. The epidemics of COVID-19 was reported in 200 countries worldwide, territories, and areas on March 19, 2021, with 121 464 666 confirmed cases and 2 684 093 death cases.[5] A verified case of COVID-19 was detected in India on January 30, 2020, in a student who had travelled from Wuhan, China. On February 14, 2020, he successfully recovered from the infection. On March 19th, 2021, the Ministry of Health and Family Welfare announced a total of 11,555,284 confirmed cases, 11,107,332 cured/ discharged cases, and 15,9558 death cases in 32 states/union territories across the country.[6]

Pharmacists are an integral aspect of healthcare team, and their role in coronavirus outbreak control is pivotal. On March 19, 2020, the International Pharmaceutical Federation (FIP) released a guideline to clarify the necessary coronavirus information for pharmacists and the pharmaceutical workforce, as well as community and hospital pharmacists' obligations and duties in the outbreak's control.[7] Pharmacists play a critical role in patient care as members of the healthcare team. This includes participating in the multidisciplinary health care team's decision-making process, administering medications, and evaluating patient care. Furthermore, pharmacists' knowledge, attitude, and

practices, in collaboration with physicians, are critical in preventing and controlling the disease.[8]

A knowledge, attitude, and practice poll provide a framework for evaluating current initiatives and identifying successful strategies for societal behavior change. As a result, the current research was conducted to assess pharmacy students' understanding of COVID-19 in order to determine their awareness of the virus, its effects, and readiness to assist in the management of epidemics and pandemics. Specifically, we aimed to investigate participants' awareness regarding the current COVID-19 pandemic and knowledge as well as their perspective of pharmaceutical professional roles during this emergent situation. Study also aimed at identifying the potential determinants which could affect the knowledge, attitude and practice within the pharmacy students. This is the first study to look at pharmacy students' skills, behaviors, and practice in the context of the COVID-19 pandemic in South India, to the best of the authors' knowledge.

II. MATERIALS & METHODS

A. Participants and data collection:

During the lockdown stage, a cross-section online survey was carried out from July 10 to July 21, 2020. Keeping in mind the Government norms regarding social distancing, instead of carrying out a community-based survey, present study collected the data as an online survey using Google form platform.[9] The Google form link was shared on several social media platforms, including a WhatsApp group and the students' email addresses. At the start of the survey, each participant was informed about the research objectives for filling out the questionnaire and the survey's confidentiality, and each gave informed consent. All participants were told that their identity would be kept confidential and that the findings would only be used for study purposes. A Total of 437 pharmacy students participated in the present study. Student participants meeting the study criteria filled the data collection form which had demographic information, socio-economic status, and mobile phone related information. Participants also filled Neck Disability Index scale (NDI), Smartphone Addiction scale (SAS) and Pittsburg Sleep Quality Index scale (PSQI). Later all the students were subjected for neck angle measurements using Universal Goniometer followed by deep neck flexor endurance test. Research work was executed in accordance with the ethical principles of "Declaration of Helsinki" after obtaining prior voluntary consent from the study participants. Wherever required, study team aided participants in filling the data collection form.

B. Ethical clearance and Sample Size:

The institutional ethics committee of K L E College of Pharmacy, Hubli, reviewed and endorsed the project plan. The Raosoft sample size calculator was used to quantify the sample size.[10] A minimum of 385 participants were needed with a 5% margin of error, a 95% confidence interval (CI), and a population size of 1 billion at a 50% response distribution. However, we were able to enroll 437 pharmacy students in the study in the end.

C. Questionnaire:

Following a comprehensive review of the literature, a self-designed questionnaire was created using the most up-to-date data

from the World Health Organization, the Centers for Disease Control and Prevention, and the Indian Ministry of Health and Family Welfare. The demographics of the participants were covered in the first segment of the questionnaire, while the KAP assessment questions were addressed in the second. The questionnaire had 10 questions about knowledge, 06 questions about attitude, and 06 questions about practices. The majority of the knowledge questions focused on the participants' understanding of clinical symptoms, transmission pathways, severity and risk groups, COVID-19 prevention, and control. These questions were answered with a yes/no choice as well as a "I don't know." Yes, replies received one point, while no and I don't know responses received 0 point. COVID-19 understanding was demonstrated by higher scores. The attitude questionnaire offered similar choices for questions about media coverage, government directives, and quarantine measures. While only two choices, 'Agree' and 'Disagree,' were assigned for the questions about COVID-19 practice, which included questions about sanitation, symptoms, and social distancing. The KAP Questionnaire was subjected to three Physicians for independent review and content validation. Apart from two grammatical changes no major suggestions were received.

STATISTICAL ANALYSIS:

All the data from the Google forms were directly imported into Excel spread sheets. Data was further checked for any errors or incomplete forms. Finally, we were able to obtain responses from 437 pharmacy students without any errors. Data was further subjected to coding and final knowledge, attitude and practice scores from the participants were calculated. Statistical analysis was carried out using SPSS Version 16.0[11] and MedCalc statistical software.[12] Comparisons between the mean knowledge, attitude and practice scores within the demographic characteristics were performed using independent samples t-test. Demographic variables were also subjected for bi-variate analysis in order to identify potential determinants for good knowledge, attitude and practice within the study participants. Statistical significance was described as a 'p' value of 0.05.

III. RESULTS:

A total of 437 pharmacy students volunteered to take part in the research and gave their consent. Most of the respondents were females between the age group of 20 and 25. Majority of the participants were Indians and belonged to undergraduate course. Nearly one third of the participants reported that one of their family members working as a health care professional. Table-1 summarizes the demographic profile of research participants.

Table 1: Demographics of the study population and prevalence of better knowledge, attitude and practice within the study population

| Demographic characteristic | Total Number (%) | Participants with better Knowledge | Participants with better Attitude | Participants with better Practice |
|---|------------------|------------------------------------|-----------------------------------|-----------------------------------|
| | | Score > 6 [n(%)] | Score > 4 [n(%)] | Score > 4 [n(%)] |
| Sex | | | | |
| Male | 271 (62.01) | 270 (99.6) | 256 (94.4) | 271 (100) |
| Female | 166 (37.98) | 166 (100) | 158 (95.1) | 165 (99.3) |
| Age (in years) | | | | |
| Less than 20 | 46 (10.52) | 46 (100) | 42 (91.3) | 46 (100) |
| Greater than 20 | 391 (89.47) | 390 (99.7) | 372 (95.1) | 387 (98.9) |
| Current Academic status | | | | |
| Under graduate | 227 (51.94) | 227 (100) | 215 (94.7) | 227 (100) |
| Post graduate | 210 (48.05) | 209 (99.5) | 199 (94.7) | 210 (100) |
| At least one family member working as Health care professional | | | | |
| Yes | 161 (36.84) | 161 (100) | 152 (94.4) | 161 (100) |
| No | 276 (63.15) | 275 (99.6) | 262 (94.9) | 276 (100) |
| Current location | | | | |
| India | 425 (97.25) | 424 (99.7) | 405 (95.20) | 425 (100) |
| Abroad | 12 (2.74) | 12 (100) | 12 (100) | 12 (100) |

A. Knowledge:

Majority of the participants (99.5%) had accurate understanding of COVID-19's primary symptoms. Furthermore, 99.3 percent of the participants understood the value of personal hygiene, the use of face masks, and the use of social distancing to prevent the transmission of infection. Majority of the participants were aware of the virus's transmission pathways, risk groups, and incubation

time. Furthermore, 82.3 percent of those surveyed were aware that there is currently no vaccine on the market, and 96.10 % said there is currently no adequate cure for COVID-19, but that early symptomatic and supportive care would help most patients recover from disease. Furthermore, 90.6% participants agreed that COVID-19 leads to life threatening conditions and can be fatal. The questionnaire responses with respect to knowledge, attitude and practice domains are given in Table-2.

Table 2: Findings of the knowledge, attitude and practice survey (n=437).

| Domain | Options | | |
|--|-------------|-----------|--------------------|
| | Yes [n (%)] | No [n(%)] | Don't Know [n (%)] |
| Knowledge | | | |
| 1. COVID-19 is a viral infection? | 432(98.8) | 05(1.14) | - |
| 2. Fever, cough, sore throat, and shortness of breath are the possible symptoms of COVID-19? | 435(99.5) | 02(.46) | - |
| 3. COVID-19 is transmitted through air, contact and faecal-oral route? | 350(80.0) | 70(16.01) | 17(3.8) |
| 4. The incubation period of COVID-19 is 2-14 days? | 419(95.8) | 12(2.7) | 06(1.3) |
| 5. COVID-19 leads life threatening condition and can be fatal? | 396(90.6) | 34(7.78) | 07(1.60) |
| 6. Personal Hygiene, wearing face mask and social distancing is the way to prevent spreading? | 434(99.3) | 03(0.6) | - |
| 7. It is necessary for paediatric and geriatric population to take extra precautions to prevent COVID-19 infection? | 431(98.6) | 04(0.91) | 02(0.46) |
| 8. Patients with underlying chronic diseases are at higher risk of infection and death? | 424(97.0) | 05(1.14) | 08(1.83) |
| 9. There is currently no appropriate cure for COVID-19 but early symptomatic and supportive care will help most patients recover from the disease. | 420(96.10) | 08(1.83) | 09(2.06) |
| 10. Vaccine is available for COVID-19? | 43(9.83) | 360(82.3) | 34(7.7) |

| Attitude | Yes [n (%)] | No [n(%)] | Don't Know [n (%)] |
|---|--------------------------|-----------------------------|-------------------------------|
| 1. I am worried that one of my family members may get an infection? | 211(48.2) | 185(42.3) | 41(9.3) |
| 2. If I experience symptoms, I voluntarily get tested for COVID-19 and follow quarantine measures? | 415(94.9) | 18(4.11) | 04(0.9) |
| 3. I strictly adhere to the governmental directions to contain COVID-19 spread? | 421(96.3) | 13(2.97) | 03(0.68) |
| 4. Media Coverage (print media, television and online) gives much exposure to the news about COVID-19. | 375(85.8) | 49(11.2) | 13(2.97) |
| 5. If situation worsens, I volunteer as healthcare professional? | 363(83.0) | 09(2.05) | M- 65(14.8) |
| 6. India can win fight against COVID-19? | 392(89.7) | 09(2.05) | 36(8.23) |
| Practice | Agree [n (%)] | Disagree [n (%)] | |
| 1. I will carry hand sanitizer with me and I frequently sanitize with soap or sanitizer? | 432(98.8) | 05(1.14) | - |
| 2. I will not make an unnecessary effort to travel, to minimize the risk of infection? | 429(98.1) | 08(1.83) | - |
| 3. I cover mouth and nose during a cough or sneeze? | 437(100) | 00(0) | - |
| 4. I make an effort to inform the local authorities, if someone around me get suspect to have COVID-19? | 436(99.7) | 01(0.28) | - |
| 5. I practice self-distancing and avoid getting into crowded places? | 436(99.7) | 01(0.28) | - |
| 6. I will continue socializing with the person who recovered from COVID-19? | 379(86.7) | 58(13.27) | - |

B. Attitude:

About 48.2 percent of participants were concerned that COVID-19 would infect their family members. Furthermore, a substantial majority of students (85.8%) acknowledged that media coverage of the COVID-19 virus (e.g., newspaper, television, and online) provides a lot of information about the virus. India will win the COVID-19 fight, according to 89.7% of those surveyed. 94.9 percent of participants, on the other hand, chose to voluntarily test for COVID-19 and adhere to quarantine measures if they experience any coronavirus symptoms. In addition, 96.3 percent of the participants stated that they exclusively follow government instructions to prevent the spread of COVID-19.

C. Practice:

Six elements of the questionnaire were focused on current practices during the COVID-19 disease scenario. Majority of respondents had good practise in each of the elements, with the highest level of practise in Maintaining social isolation throughout the epidemic. (99.7%), staying away from unnecessary travel and outings during the outbreak (98.1%) and using a mask and a tissue to conceal a cough and sneeze (100%). Also, a high percentage (99.7%) of participants agreed that they will make an effort to inform the local authorities, if someone around them gets suspected to have COVID-19. Furthermore, 86.7% of the

participants reported that they will continue socializing with the person who recovered from COVID-19.

D. Analysis of KAP results in reference to demographic variables:

Out of the three domains assessed within the research study, knowledge domain consisted of 10 questions, attitude and practice domain consisted of 6 questions each. For each question, a score of '1' was given if the participant gave the correct answer and a score of '0' was given if the participant gave the wrong answer or told that they were not aware of the answer. All these scores were added at the end and a total domain score was calculated independently for knowledge, attitude and practice. Independent samples t-test was applied to compare the differences between the knowledge, attitude and practice with the various demographic characteristics of the study population. Within the knowledge, attitude, and practice, none of the demographic factors showed a significant difference. Finally, at the end of the analysis study team came to an understanding that there was no much differences in the knowledge, attitude and practice irrespective of the differences in sex, academic status, family history of a health care professional, and current location. The detailed results of the independent samples t-test are given in Table-3. Only, one exception was observed within the study, participants aged greater than 20 years had better knowledge scores when compared to participants lesser than 20 years. The difference was statistically significant with a *p* value of 0.01.

Table 3: Comparison of the demographic characteristics of the study population with respect to knowledge, attitude and practice domains.

| Demographic characteristic | Knowledge | | | Attitude | | | Practice | | |
|---|-----------------|---------|----------------|-----------------|---------|----------------|-----------------|---------|----------------|
| | Mean \pm SD | 95 % CI | <i>p</i> value | Mean \pm SD | 95 % CI | <i>p</i> value | Mean \pm SD | 95 % CI | <i>p</i> value |
| Sex | | | | | | | | | |
| Male | 9.44 \pm 0.70 | 0.05- | 0.205 | 4.98 \pm 0.85 | -0.20- | 0.622 | 5.84 \pm 0.38 | -0.06- | 0.668 |
| Female | 9.34 \pm 0.84 | 0.25 | | 5.02 \pm 0.85 | 0.12 | | 5.82 \pm 0.40 | 0.09 | |
| Age (in years) | | | | | | | | | |
| Less than 20 | 9.10 \pm 0.76 | -0.54- | 0.01* | 4.86 \pm 0.85 | -0.42- | 0.226 | 5.84 \pm 0.36 | -0.10- | 0.789 |
| Greater than 20 | 9.41 \pm 0.78 | 0.06 | | 5.03 \pm 0.85 | 0.10 | | 5.83 \pm 0.40 | 0.13 | |
| Current Academic status | | | | | | | | | |
| Under graduate | 9.35 \pm 0.78 | -0.20- | 0.449 | 5.00 \pm 0.83 | -0.18- | 0.813 | 5.84 \pm 0.39 | -0.05- | 0.644 |
| Post graduate | 9.41 \pm 0.79 | 0.09 | | 5.02 \pm 0.87 | 0.14 | | 5.82 \pm 0.40 | 0.09 | |
| At least one family member working as Health care professional | | | | | | | | | |
| Yes | 9.39 \pm 0.75 | -0.13- | 0.819 | 5.05 \pm 0.83 | -0.99- | 0.478 | 5.84 \pm 0.38 | -0.05- | 0.637 |
| No | 9.37 \pm 0.81 | 0.17 | | 4.98 \pm 0.87 | 0.23 | | 5.82 \pm 0.40 | 0.09 | |
| Current location | | | | | | | | | |
| India | 9.37 \pm 0.79 | -0.74- | 0.211 | 5.02 \pm 0.84 | 0.03- | 0.034 | 5.83 \pm 0.39 | -0.14- | 0.464 |
| Abroad | 9.66 \pm 0.65 | 0.16 | | 4.50 \pm 1.08 | 1.01 | | 5.75 \pm 0.45 | 0.31 | |

* Statistically significant *p* value

Study team also aimed at assessing the demographic determinants which predicted good knowledge, attitude and practice. For this purpose, a cut off of 60% score was set for each domain i.e., knowledge, attitude and practice. Based on this cut-off, participants with a final score of ≥ 6 were grouped separately in the knowledge domain and participants with a final score of ≥ 4 were grouped separately in attitude and practice domains respectively. This segregated data was taken up for executing the bi-variate analysis separately for knowledge, attitude and practice.

Details of the participants with better knowledge, attitude and practice are represented in Table-1. Even though few demographic factors demonstrated Odds ratio values greater than 1, none of them were statistically significant. Finally, at the end of bi-variate analysis, none of the demographic variables emerged out as potential determinants for knowledge, attitude and practice. The detailed results of bivariate analysis are represented in Table-4.

Table 4: Bivariate analysis for assessing the determinants affecting the knowledge, attitude and practice

| Demographic | Knowledge | | | Attitude | | | Practice | | |
|---|------------|---------|----------------|------------|---------|----------------|------------|---------|----------------|
| | Odds ratio | 95 % CI | <i>p</i> value | Odds ratio | 95 % CI | <i>p</i> value | Odds ratio | 95 % CI | <i>p</i> value |
| Sex | | | | | | | | | |
| Female | 0.54 | 0.02- | 0.70 | 0.86 | 0.35- | 0.74 | 4.92 | 0.19- | 0.33 |
| Male | 1 (Ref) | 13.37 | | 1(Ref) | 2.08 | | 1(Ref) | 121.52 | |
| Age (in years) | | | | | | | | | |
| Less than 20 | 0.35 | 0.01- | 0.53 | 0.530 | 0.17- | 0.27 | 1.08 | 0.05- | 0.95 |
| Greater than 20 | 1 (Ref) | 8.89 | | 1(Ref) | 1.65 | | 1(Ref) | 20.37 | |
| Current Academic status | | | | | | | | | |
| Under graduate | 3.25 | 0.13- | 0.47 | 0.99 | 0.42- | 0.98 | 1.08 | 0.02- | 0.03 |
| Post graduate | 1 (Ref) | 80.41 | | 1(Ref) | 2.29 | | 1(Ref) | 54.71 | |
| At least one family member working as Health care professional | | | | | | | | | |
| Yes | 1.75 | 0.07- | 0.73 | 0.90 | 0.38- | 0.81 | 0.58 | 0.07- | 0.78 |
| No | 1 (Ref) | 43.42 | | 1 (Ref) | 2.13 | | 1 (Ref) | 29.58 | |
| Current location | | | | | | | | | |
| India | 11.32 | 0.43- | 0.14 | 0.79 | 0.04- | 0.16 | 34.04 | 0.64- | 0.08 |
| Abroad | 1 (Ref) | 291.86 | | 1(Ref) | 13.83 | | 1(Ref) | 1785.9 | |

IV. DISCUSSION:

COVID-19 is a rapidly emerging global health threat affecting general public.[13] Pharmacists are pivotal in offering patients, caregivers, and healthcare providers with drug-related information (HCPs). [14] It is therefore paramount that pharmacy practitioners all over the world have an extensive knowledge about the disease, including clinical manifestations, diagnosis, proposed treatments, and formulated prevention strategies. [15]

The knowledge, attitude, and practices of pharmacy students toward COVID-19 were evaluated in this study. During the COVID-19 pandemic, 93.9 percent of the participants had a thorough understanding of the virus. Furthermore, COVID-19 was viewed positively by more than 82.98 percent of the participants. When gender was a variable in our study, we found no significant differences in mean knowledge, attitude, or practice scores. Both the genders demonstrated similar levels of knowledge, attitude and practice, When compared to a similar study conducted in the United States, which found that women had more knowledge than men, this finding was surprising [16] and Gender may have an impact on practice scores, according to another study done in China.[17]

From our study a significant difference in knowledge is observed with respect to age, wherein people who were greater than 20 years have better knowledge than compared to people with less than 20 years of age group. However, when it comes to the attitude and practice towards COVID-19, no significant differences were observed. A research study from Saudi Arabia demonstrated a significant difference in the practice score within different age groups. Better practice was observed amongst the 18–49 age group participants when compared to those above 60 years of age.[18]

Our results demonstrated no significant difference in knowledge, attitude or practice between undergraduate and postgraduate's pharmacy students. Therefore, it is evident from the results that both the groups demonstrated almost similar scores in knowledge, attitude and practice towards COVID-19. One more interesting finding of our study was that there was no difference in knowledge, attitude or practice seen, despite the fact at least one of the family-member working as a healthcare professional. None of the demographic variables emerged out as potential determinants for knowledge, attitude or practice within our study. Even though few variables demonstrated Odds ratio of greater than 1, but none of them were statistically significant. However, a study conducted on Chinese residents demonstrated that marital status, increasing age and education act as the potential determinants for knowledge, attitude and practice.[17]

By observing the results of our study, we are of the opinion that almost all the pharmacy students demonstrated good levels of knowledge, attitude and practice whether India or abroad, male or female, undergraduate or postgraduate. The results could be attributed to the extensive awareness programs organized by the Government as well as private organizations. Efforts put forth by the academic institutions as well as organizations like World health organization are highly appreciable. The launch of the 'ArogyaSetu' android location-based application to connect health services and the people of India in the combined fight against

COVID-19 is another commendable effort from the Indian government.[19] Constant monitoring as well as educational programs have led to enhanced awareness within our study population regarding the knowledge, attitude and practice. In our study, about 83% of participants expressed a willingness to volunteer as healthcare professionals if the condition worsens. Whereas the study conducted in Saudi Arabia, reported that students expressed their reluctance to work in healthcare facilities in the management of infected patients during the MERS-CoV pandemic.[20] If necessary, the young undergraduate and postgraduate pharmacy students of India are willing to serve the nation as COVID-19 warriors to fight the pandemic. This study has a few limitations. Being an online survey, results of the present study are completely based on the responses provided by the participants. Hence, we cannot completely ignore the recall bias which can potentially affect the results within the study participants.

V. CONCLUSION

By observing the results of the present study, we are of the opinion that the pharmacy students had good knowledge, attitude and practice about COVID-19. The majority of pharmacy students were aware of COVID-19 transmission and the precautions that should be taken. The current research is the first to examine future pharmacists' knowledge, attitudes, and perceptions of COVID-19 in south India. Studies assessing potential factors affecting awareness regarding COVID pandemic within the HCPs and other segments of society are required. Although the findings are encouraging, it is recommended that the general public and healthcare professionals continue to update their understanding, attitudes, and practices in order for India to win the COVID-19 battle.

CONFLICT OF INTEREST:

The authors declare no conflict of interest.

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