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## RESEARCH ARTICLE

# COVID-19 AWARENESS AMONG PHYSIOTHERAPY STUDENTS – A QUESTIONNAIRE BASED SURVEY

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### ABSTRACT

**Introduction:** The rapid and extensive spread of the COVID-19 pandemic has become a major cause of concern for the healthcare profession. With this mode of transmission, healthcare workers including physiotherapists are among the highest risk of being infected. Thus it is essential for the physiotherapy students to have awareness about COVID-19 transmission. The objective of this study is to assess the awareness of COVID-19 disease among physiotherapy students. **Method:** A cross sectional questionnaire was conducted among physiotherapy students of Padmashree Institute of Physiotherapy, Bangalore, Karnataka. The population of students included UG students, Interns and PG students. An online questionnaire consisting 20 questions about awareness of COVID-19 was sent to the students through google forms and the data was collected. **Results:** A total of 60 students participated in this survey (13 males and 47 females). The overall awareness for all the participants was adequate with more than 70% students being highly aware. The findings of this study revealed that 74.76% of masters in physiotherapy and 73.58% of bachelors in physiotherapy students have good awareness of COVID-19. **Conclusion:** This study concludes that there is sufficient awareness among physiotherapy students of Padmashree Institute of Physiotherapy, Bengaluru, Karnataka on COVID-19.

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## INTRODUCTION

India braces for the COVID-19 pandemic; the virus that causes COVID -19 was initially called as 2019-nCoV and was then termed as syndrome coronavirus 2 (SARS-CoV-2) by the International Committee on Taxonomy of Viruses (ICTV).<sup>1</sup> It is a new strain discovered in 2019 which was not found previously in humans. This pandemic started in Wuhan, China in December 2019, possibly due to cross-species transmission.<sup>2</sup> Previously, the severe acute respiratory syndrome-coronavirus (SARS-CoV) and the Middle East respiratory syndrome-coronavirus (MERS-CoV) have been known to affect humans. Outbreaks of respiratory disease caused by these viruses seem to have originated in animals before moving into other hosts like humans.<sup>3</sup> In 2020, a new global pandemic has emerged, caused by a new strain of CoV called SARS-CoV-2.<sup>2</sup> The SARS-CoV-2 virus is different from its previous predecessors in that it is highly contagious and easily transmitted from human to human via respiratory droplets and direct contact which led to this enormous number of infected people.<sup>4</sup>

The day-to-day numbers are still on the rise and the magnitude of rising numbers of new cases and deaths is hitting the global population hard. Multiple studies have emerged assessing the virologic characteristics and clinical consequences of COVID-19,<sup>5</sup> however, not enough studies focused on exploring the knowledge, perceived severity and controllability of the COVID-19 among the communities living this pandemic. The awareness and behavior assessment of the public toward such outbreaks is essential, especially due to the large amount of misconceptions and false information that are circulating on social media in regard to transmission of the disease and methods of acquisition.<sup>6</sup> With this mode of transmission, healthcare workers are among the highest risk of being infected. The highly contagious SARS-CoV-2 virus is an additional hazard for the healthcare system apart from the burden of extended work hours, physical and psychological stress, burnout, and fatigue.<sup>7</sup> This is of importance to healthcare professionals, service providers and physiotherapy students. Such assessments have proven useful as an important means in the education and raising awareness of best practice in previous viral outbreaks including SARS, MERS, and Ebola.<sup>8-10</sup>

It is essential for the physiotherapy students to have awareness about COVID-19 transmission as they are involved in post-COVID rehab and are in direct contact with the patients. The objective of this study is to assess the awareness of COVID-19 disease among physiotherapy students in the healthcare scenario in this changed pandemic environment.

## METHODOLOGY

A cross sectional online survey was conducted among students of physiotherapy in Padmashree Institute of Physiotherapy which includes UG students, Interns and PG students. The survey was conducted in the form of an online self-administered questionnaire using google forms. The questionnaire was used to assess the awareness about COVID-19 of the subjects. There were 20 questions in the awareness domain. For each question, a Likert scale (strongly disagree, disagree, neutral, agree and strongly agree) was used. Strongly agree and agree representing adequate awareness. For awareness of COVID-19, the knowledge based questions were derived from the World Health Organization COVID-19 facts and myth busters.<sup>11</sup>

The questionnaire was sent through various platforms on social media to all the subjects for their response via google form. Informed consent was taken from all the subjects along with their demographic details. All the responses were analyzed in Excel. The subjects included were as follows: (i) Age group between 18-30 years (ii) Both male and female (iii) Students of Padmashree Institute of Physiotherapy. The exclusion criteria were as follows: (i) Suffering from any mental disorder (ii) Students who have been previously infected or diagnosed with COVID-19.

## RESULTS

Total sixty (n = 60) subjects met the eligibility criteria and agreed to participate in the study [Table 1] and responded to the questionnaire provided within 24 hour time frame. There were 21 MPT students and 39 BPT students. In MPT students, out of total 420 responses, 314 (74.76%) were aware (strongly agree + agree) [Table 2] In BPT students, out of total 780 responses, 574 (73.58%) were in favour of having good awareness. [Table 3]

**Table 1. Demographic characteristics of the subjects**

| Characteristics      | Mean $\pm$ SD    |
|----------------------|------------------|
| Age                  | 22.83 $\pm$ 2.76 |
| Gender (male/female) | 13/47            |

SD = Standard deviation

**Table 2: Perception on awareness on COVID-19 among Masters in Physiotherapy students (MPT) and their responses (total 21 $\times$ 20=420)**

| Perception on Awareness | Responses (N)*    | %     |
|-------------------------|-------------------|-------|
| Aware                   | Strongly Agree    | 41.42 |
|                         | Agree             | 33.33 |
|                         | Neutral           | 3.33  |
| Not Aware               | Disagree          | 16.66 |
|                         | Strongly Disagree | 5.23  |

\*N=total number of responses from 21 MPT students  $\times$  20 responses each = 420

**Table 3. Perception on awareness on COVID-19 among Bachelors in Physiotherapy students (BPT) and their responses (total 39 $\times$ 20=780)**

| Perception on Awareness | Responses (N)*    | %     |
|-------------------------|-------------------|-------|
| Aware                   | Strongly Agree    | 26.02 |
|                         | Agree             | 47.56 |
|                         | Neutral           | 2.94  |
| Not Aware               | Disagree          | 21.2  |
|                         | Strongly Disagree | 2.17  |

\*N=total number of responses from 39 BPT students  $\times$  20 responses each = 780

## DISCUSSION

This survey provides an insight of the level of awareness of COVID-19 in Physiotherapy students. The study included a sample of Padmashree Institute of Physiotherapy Students. Females were predominant in this sample, which might be explained because the number of female physiotherapy students is higher than the number of male physiotherapy students based on The Australian Journal of Physiotherapy.<sup>12</sup> This study highlights that both Masters of Physiotherapy and Bachelors of Physiotherapy students were aware of COVID-19. The findings of this study revealed that the students scored more than 70% in the given questionnaire of World Health Organization COVID-19 facts and myth busters, which depicts that they have good awareness about COVID-19. According to a survey by Modi et al. that took place in 2020, medical practitioners and students from the Mumbai zone exhibited consciousness of COVID-19 with a percentage of 71.2% accurate responses.<sup>13</sup>

Also a study conducted by Mandeep Kumar concludes in his study that physiotherapy students have good knowledge and are all aware to combat COVID-19 infection where the subjects scored more than 60% of awareness about COVID-19 infection.<sup>14</sup> The Master of Physiotherapy students showed little more awareness when compared to Bachelor of Physiotherapy students. The awareness could be because the post graduation has more experience and had more exposure practically. Similarly a study conducted by Khader et al. to assess the level of awareness regarding the COVID-19 and infection control among Jordanian dentists, majority of the post graduation students were well aware about the transmission of COVID-19 as they had attended lectures on COVID-19 prior the survey.<sup>15</sup> According to this bachelor of physiotherapy students should also follow the same to become more aware regarding the awareness.

Hence we should improve the knowledge of physiotherapy students on diagnostic measures, treatment strategy on COVID-19 by webinars, educational workshops and awareness campaigns. On the basis of the above findings, we established that physiotherapy students are well aware about COVID-19 infection. Through this study future researchers can benefit by generalising how much more awareness is needed in population if healthcare workers are lacking in certain aspects and how to fulfill it. Apart from these, there are certain limitations of this study like different clusters of the healthcare population would have been included and the sample size taken from only one institute. This study concludes that there is sufficient awareness among physiotherapy students of Padmashree Institute of Physiotherapy, Bengaluru, Karnataka on COVID-19.

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