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\*Corresponding author: Dr. Aadil Ameer Ali, Lecturer Physiotherapy, Institute of Physiotherapy & Rehabilitation Sciences, Shaheed Mohtarma Benazir Bhutto Medical University, Larkana, Pakistan, Tel: +923002929464; E-mail: aadilamirali@hotmail.com

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## Research Article

# Assess the awareness of COVID-19 among the physiotherapists working in different hospitals of Sindh, Pakistan: A cross sectional survey

Aadil Ameer Ali<sup>1\*</sup>, Sana Naqi<sup>2</sup>, Muhammad Khan Bugti<sup>3</sup>, Muhammad Rafeeq<sup>4</sup>, Muhammad Ishaque M.R<sup>5</sup>, Taufiq Ahmad<sup>5</sup>, Amjad Hussain<sup>5</sup>, Shabana Yasmeen<sup>6</sup> and Hafsa Imtiaz Khokhar<sup>5</sup>

<sup>1</sup>Institute of Physiotherapy & Rehabilitation Sciences, Shaheed Mohtarma Benazir Bhutto Medical University, Larkana, Pakistan

<sup>2</sup>Institute of Physiotherapy & Rehabilitation Sciences, Liaquat University of Medical & Health Sciences, Jamshoro, Pakistan

<sup>3</sup>Department of Physiotherapy, Shaheed Mohtarma Benazir Bhutto Institute of Trauma, Karachi, Pakistan

<sup>4</sup>Department of Statistics, University of Sindh, Pakistan

<sup>5</sup>Faculty of Pharmacy and Health Sciences, University of Balochistan, Quetta, Pakistan

<sup>6</sup>Agriculture Research Institute, Mastung, Pakistan

## Abstract

**Background:** To assess the awareness of Covid-19 among the Physiotherapists of Sindh, Pakistan, in order to check the level of knowledge present regarding the pandemics among the working physiotherapist of Pakistan.

**Material & Methods:** A cross sectional study was carried out in different hospitals of Sindh, Pakistan from June to July 2020. A self-constructed questionnaire by Pursuing the clinical and community administration of COVID-19 given by the National Health Commission of the People's Republic of China was used among the 343 Physiotherapists and SPSS version 23 was used to analyze the data.

**Results:** The majority (n=207, 60.3%) were male, having age between 33 and above years (n=227, 66.2%) and (n=304, 88.6%) were married. In educational status (n=230, 67.1%) were postgraduate and (n=304, 88.6%) belongs to urban area. During the assessment of awareness towards COVID-19 results showed that majority (n=321, 93.6%) were aware of COVID-19.

**Conclusion:** This Study concluded that the physiotherapists who are working in different hospitals of Sindh, Pakistan are well aware of COVID-19. The awareness can be due to their self-interest in infection preventive measure and quality of education being provided by their respective institutions.

## Introduction

At the end of 2019, thousands of people suddenly started visiting the hospitals of Wuhan, China with the serious symptoms of fever, chest congestion, cough, muscular pain, the female patients presented with the additional symptom of tastelessness, furthermore the periodic gastrointestinal symptoms, acute respiratory distress syndrome (ARDS), viral pneumonia with unknown cause and even the death was reported in some severe cases [1-5]. Whereas most of the patients were found asymptomatic as well [4,6]. During the onset of this pandemic situation no one is able to identify the disease but later on this was classified as Novel Corona virus frequently abbreviated as "COVID-19, found with zoonotic origination from the food market of china [7]. Older people are more prone to get infected from covid-19, people with diabetes, hypertension or have any other pathology have more chances to get infected adversely from Covid-19 due to compromised immunity [8,9]. As the Covid-19 is communicable and yet treatment is not discovered the only way to keep ourselves safe is prevention [10]. The Covid-19 is airborne and mostly spreading through the sneezing of infected person or with the close contact of contaminated surfaces [11,12]. Globally the mortality rate ranges between 2.9% to 20%, whereas in Pakistan it was observed at a peak of 20% [13]. In Pakistan majority of patients were found asymptomatic as well [14].

Among all the health care providers the physiotherapists are important health care individuals therefore the assessment of physiotherapist who are working in different hospital is mandatory, regarding the Covid-19 is important in order to reduce the spread of this pandemic [5,15].

## Material and Methods

### Study design, settings, and duration

A cross sectional survey was carried out in the month of June & July 2020 and data was collected from physiotherapist who are working in different hospital of Sindh, Pakistan.

### Sampling

Convenient Non-Probability Sampling Technique was applied among 343 physiotherapists. The sample size was calculated by using Raosoft sample size calculator. Those physiotherapist were included who were working and volunteered themselves to participate in the study. While, the physiotherapists were working out of Sindh province and unwilling to sign consent form were excluded.

### Data collection tool

The questionnaire consisted of two parts: first is consist on the demographics which includes age, gender, matrimonial status, educational level and locality. Second one consist of 10 awareness items by Pursuing the recommendations for clinical and community administration of COVID-19 given by the National Health Commission of the People's Republic of China [10,16].

## Data collection procedure

The data was collected online through e- questionnaire, because in undefined period of lockdown it was not possible to conduct a sampling study based on hardcopy questionnaire. The link of e- questionnaire was send to the Physiotherapists by using their e-mails and by using different social media applications.

## Data analysis procedure

Data was evaluated and presented in frequency and percentages for categorical variables, mean and standard deviations were presented for continuous variables. 23rd version of Statistical Package for Social Sciences was used.

## Ethical consideration

The approval was received from the ethical inspection committee of Faculty of Pharmacy & Health Sciences, University of Balochistan, Quetta, Pakistan. Informed consent was taken from participants containing that their participation is voluntary, their information will be kept confidential and they can leave the study anytime, after that the proforma was filled for data collection.

## Results

### Demographic characteristics

Demographic Characteristics are described in table 1, which states that the majority (n=227, 66.2%) belongs to age group of 33 and above years and (n=207, 60.3%) were male. After checking the marital status we found that majority (n=304, 88.6%) were married. In education (n=230, 67.1%) were post-graduate and (n=304, 88.6%) were permanent residents of urban areas of Sindh province (Table 1).

**Table 1:** Demographic Characteristics.

Characteristics	Frequency	Percentage
<b>Age group</b>		
22-32 years	116	33.8
33 and above	227	66.2
<b>Gender</b>		
Male	207	60.3
Female	136	39.7
<b>Marital status</b>		
Married	304	88.6
Unmarried	39	11.4
<b>Education</b>		
Graduate	113	32.9
Post graduate	230	67.1
Doctorate	00	00
<b>Locality</b>		
Urban	304	88.6
Rural	39	11.4



### Response to COVID-19 awareness items

Response to COVID-19 Awareness items are described in table 2, which states that the majority (n=339, 98.6%) were aware regarding the first patient which was reported in the end of 2019 in china. The (n=321, 93.4%) were aware about the particular clinical symptoms (Fever, fatigue, dry cough, myalgia, loss of taste and smell) of COVID-19.

Furthermore, (n=246, 71.8%) were know that the both virus (SARS & SARS-CoV-2) causes the novel COVID-19. Majority (n=340, 98.9%) were aware and know that the respiratory driblets are strong mode of transmission form person to another person. In current pandemic situation of COVID-19 (n=343, 100%) physiotherapists were aware regarding the wearing of mask when they leaves the home and regarding the sanitization of hands (n=312, 90.7%) physiotherapists were aware and cleaning their hands at least for 20 seconds after visiting each patient. 341(99.2)

In personal protective equipment's (n=341, 99.2%) were aware and agreed that physiotherapists who are working among the patients of novel COVID-19 should wear the proper personal equipment's. In addition to this (n=342, 99.5%) were aware and acknowledge that the patient who are affected by COVID-19 should be kept in isolation for the period of 14 days at least. Among all the (n= 227, 66%) were aware about that the physiotherapy is showing good results among the patients of COVID-19.

### Awareness regarding COVID-19

Awareness Regarding COVID-19 is described in table 3, which states that the Majority of physiotherapists (n=321, 93.6%) were aware to COVID-19 (Table 3).

### Cross tabulation between the demographics and awareness

Cross tabulation between the demographics and awareness is described in table 4, which states that the Majority (n=222) were aware and belongs to age group of 34 and above years, and (n=192) were male. After checking their marital status we found that (n=286) were married. In educational status the majority (n=230) were post-graduate students and (n=286) were related to urban areas of Sindh province.

### Discussion

The current study disclosed that the majority (96.3%) of physiotherapist working in different hospitals of Sindh, Pakistan are aware of Novel Corona virus (Covid-19), the current study were in line with different analysis conducted in different parts of the world by Pedersini et al and [17] Salman et al in 2020 and concluded that the physiotherapist who are working in various health care facilities were found well aware regarding the preventive strategies from different infectious diseases specially in the pandemic situations [15,18]. However some studies have contradictory results conducted globally, by Guan et al and Pegado et al in 2020 and finalized that the physiotherapists working in health care facilities

Table 2: COVID-19 Knowledge item.

COVID-19 Knowledge item	Correct	Incorrect
	N (%)	N (%)
The first case of Novel COVID-19 was reported in end of 2019 from china.	339(98.6)	04(1.16)
Fever, fatigue, dry cough, muscular pain, lack of smell and taste can be the clinical symptoms of COVID-19.	321(93.4)	22(6.4)
Both virus which give rise to Novel COVID-19 are Severe Acute Respiratory Syndrome Coronavirus (SARS) & Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2).	246(71.8)	97(28.2)
From one person to another the respiratory driblets are the major source of transmission for Novel COVID-19.	340(98.9)	03(0.87)
Wearing of mask in current pandemic (Novel COVID-19.) is necessary, when going outside of home.	343(100)	00
After visiting every patient, do you sanitizes your hands at least for 20 seconds?	312(90.7)	31(9.0)
Is wearing of personal protective equipment (PPE), necessary for the physiotherapist who are working with Novel COVID-19 patients.	341(99.2)	02(0.58)
Is your hospital providing you the proper personal protective equipment (PPE).	289(84)	54(15.7)
Is it necessary that the, Patient of Covid-19, must be isolated for 14 days	342(99.5)	01(0.29)
Is physiotherapy showing good results among the patient of COVID-19?	227(66)	116(33.7)

Table 3: Awareness Regarding COVID-19.

Variable	Frequency	Percentage
Aware	321	93.6
Un aware	22	6.4

Table 4: Cross tabulation between the demographics and awareness.

Characteristics	N	Aware	Unaware
<b>Age group</b>			
23-33 years	116	104	12
34 and above	227	222	05
<b>Gender</b>			
Male	207	192	15
Female	136	129	07
<b>Marital status</b>			
Married	304	286	18
Unmarried	39	35	04
<b>Education</b>			
Graduate	113	102	11
Post graduate	230	221	09
Doctorate	00	00	00
<b>Locality</b>			
Urban	304	286	18
Rural	39	35	04

were needed more awareness regarding the preventive measures of infectious diseases, In future different academic seminars and professional trainings regarding preventive measures in disease outbreak should be conducted especially by government in order to keep the physiotherapist updated regarding the preventive measures and give them knowledge regarding the safe handling of patients in the disease outbreak such as Covid-19 pandemic because during the physiotherapy



session it's not possible to maintain more than 2 feet's of interpersonal distance between the therapist and a patient. That trainings will educate the physiotherapists that how they can reduce the communication of airborne diseases in such a narrow distance [19,20].

In addition to this it's necessary for post Covid-19 patients to attend the physiotherapy out door patients department in order to regain their strength specially the respiratory strength because the covid-19 mostly affects the respiratory health of patients [17,21]. whereas most of the physiotherapy out door patients department are being visited by older individuals, who are more prone to get infected by infectious diseases due to suppressed immunity [22], so its duty of physiotherapist to bring most of their knowledge into practice to avoid the unnecessary communication of infectious diseases specially in pandemics. Although its obligation of physiotherapist being a health care provider they should implement their enhanced knowledge of handling preventive measure in their daily practice in order to protect their patients from such type of diseases and maintain their quality of life of older patients wisely in the narrow space between physiotherapist and patient during the treatment sessions [12,23,24].

The study revealed that the majority of physiotherapist were found aware of Covid-19 pandemic that can be due to the huge interest of physiotherapist in their primary education which is being delivered to them by the worthy institutions of Pakistan [15,18,25,26].

## Conclusion

The study finalized that the majority of physiotherapist were aware of Covid-19 that highlights that the physiotherapist of Sindh, Pakistan have sound knowledge regarding the preventive measure of disease outbreak and they were using their knowledge in order to make their practice as good as their knowledge is.

## Recommendation

The awareness regarding Covid-19 should be checked in other health care providers as well, especially in those who served for covid-19 patients.

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