

Fear of COVID-19 among Physiotherapists and Physiotherapy Students of Western India: An Online Survey

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ABSTRACT

Background: COVID-19 has been a major turning point in human history affecting human beings in all aspects of life. Being directly and indirectly involved in management and rehabilitation of COVID-19 infected patients, it is imperative to study physiotherapists' mental health issues. This study aims to evaluate fear of COVID-19 in physiotherapy professionals and students of Gujarat state from western region of India.

Methodology: An online cross-sectional survey including physiotherapists and physiotherapy students across Gujarat, using Google form platform including demographic and fear of COVID-19 questionnaire details was sent through various electronic media platforms and responses from 228 participants was received. Mean (SD) and frequency (%) for participants' characteristics; and independent t-tests and ANOVA for the mean differences in the FCoV-19S scores were used.

Results: Significant differences for fear scores were seen in different age groups and different geographical regions for participants ($p < 0.001$). 32.01%, 28.95%, 24.12%, 42.11%, 39.92%, 19.74%, and 22.37% participants agreed to be afraid, uncomfortable, feeling clamminess, fearful of losing life, being nervous or anxious, and experienced sleeplessness and palpitation due to COVID-19.

Conclusion: Though significant amount of fear was not reported among physiotherapy professionals and students of Gujarat, having better health literacy and greater social connectivity along with better implementation of strategic public health interventions can help reducing fear and promotion of mental health among physiotherapy professionals and students.

Keywords: COVID-19, fear, mental Health, pandemic, physiotherapy.

INTRODUCTION

Emergence and spread of corona virus (COVID-19) associated infection has led to global crisis and as per the recent statistics 26, 71, 84, 623 confirmed cases and 52, 77, 327 deaths have been reported worldwide¹. For India, the data reveals total 3, 46, 66, 241 confirmed cases and 474111 deaths as on 8th December, 2021¹. Total number of vaccinations doses administered in India is reported to be 1,29,46,08,045 which is approximately 15.87% of the global doses (i.e., 8, 15, 88, 15, 265) delivered until 8th December, 2021¹. Initially imposed strict

nationwide lockdown has been reported to be effective in control of spread of infection during the first wave of COVID-19 pandemic. Second wave of COVID-19 in India affected the population rapidly infecting around 25385043 people and causing 280683 deaths in initial one-month duration^{2,3}. India began its vaccination program for COVID-19 in January-2021 and has crossed mark of 100 crore doses in October-2021⁴. Consistent reduction in number of new and active cases after May-2021 has been said to enter low to moderate level transmission phase and almost

everyone has started to learn the ways of 'new normal' lifestyle which includes distancing, face mask, frequent sanitization, and vaccination for protection against COVID-19.

Fear is an unpleasant internal emotion the source of which is known and can be a threat to a person's behavior or physiological system⁵. Findings of recent studies have confirmed the meaningful psychological impact of the COVID-19 on people such as significant concerns among people in various countries, including Canada, the United States, India and other countries^{3, 6-10}. In surveys, a quarter of Americans are concerned more about the corona virus than the 2014 Ebola virus outbreak⁶. Similar signs of psychological distress have been also observed among Chinese people in a recent study, wherein it was reported that more than half of the respondents suffered from a moderate-to-severe psychological effects because of the fear and about 75% of them were worried about their family members¹¹. More specifically, individuals may have elevated psychological distress and perform inappropriate life-threatening behaviors induced by the elevated distress due to the COVID-19 pandemic^{12, 13}. Fear and anxiety of COVID-19 are largely unknown due to the novelty of the disease¹⁴. During the second wave of COVID-19, India faced lack of medical infrastructure, health services and oxygen production as well as supplying compared to the sudden surge in requirements for the same². This created the status of panic and anxiety among normal as well as healthcare personnel. Reports of COVID-19 associated stress, anxiety, phobias, and depression have been reported increasingly and are supposedly worsened by myths and misconceptions which were spread through social media¹⁵.

Majority of studies across the world are mainly focused on epidemiology, pathophysiology, infection control, treatments, and vaccination for COVID-19. Whereas, the COVID-19 related social and psychological aspects are explored by

western researchers on a larger extent, Indian studies focusing on the same are very less in numbers. Gradual relaxation of measures like lockdown, curfew, quarantine duration, geographical isolation of affected areas, etc. has created a general impression of relief and slow increase in carefree attitude towards the gravity of COVID-19 and its effects on society. Being an integral part of healthcare services, physiotherapists have played major role in rehabilitation of COVID-19 patients and mental health of physiotherapists also has vital significance for maintaining better standards in healthcare delivery. Therefore, this study intended to provide comprehensive and fundamental information about the status of fear of COVID-19 among physiotherapists and physiotherapy students in Gujarat, India.

MATERIALS & METHODS

Sample & sample size determination

The study participants were recruited through online advertisements using social media platforms (e.g., WhatsApp, Facebook, Twitter, Instagram, Telegram). In total, final sample consisted of 228 respondents, representing 11 different districts of Gujarat state from western India. The minimal sample size of this study was estimated to be at least 162 at 50% expected frequency and 80% confidence level. Larger sample size was allowed, to increase the statistical power for detecting smaller effects and strengthen the robustness of the findings. Data collection was stopped after 10 days due to the collection of sufficient responses.

Materials & Procedure

Survey Administration

The questionnaire was delivered through an online survey using the Google forms platform. The online survey could be completed with the use of a personal computer/laptop, tablets, or smart phone. The complete survey consisted of 15 self-report items including electronic

participation consent and took approximately 7-10 minutes to complete.

Outcome measures

Demographic information. As demographic information, respondents were asked to indicate the gender (“male”, “female”, “prefer not to say”); age (in decade categories); their highest educational qualifications in case of physiotherapists (“BPT”, “MPT”, “Doctorate”) and current course (“BPT”, “MPT”); field of work in case of physiotherapists (“Clinical”, “Academia”, “Others”); whether they already got infected by the virus (“Yes”, “No”, “Not sure”); whether any of their family member/ relative/ friend already got infected by the virus (“Yes”, “No”, “Not sure”) and their district of residence.

*Fear of COVID-19 scale*¹⁶. Fear of the COVID-19 was measured using a 7-item scale developed and validated by Ahorsu DK, et al (2020) (further referred to as the Fear of COVID-19 Scale; FCoV-19S). Respondents were asked to rate their level of agreement with each statement on a 5-point Likert scale (1- “Strongly disagree; 5- “Strongly agree”). A total score could be calculated by adding up each item score and

ranged from 7-35. The internal consistency of the FCoV-19S was acceptable (Cronbach’s alpha = 0.82)¹⁶.

Statistical analyses

Mean (SD) and frequency (%) is used to depict participants’ characteristics. Independent t-tests and ANOVA evaluated the mean differences in the FCoV-19S score by participants’ characteristics. The bar graph (Figure 1) shows the older adults’ responses towards agreement or disagreement with the seven items of FCoV-19S.

RESULT

Table 1 describes physiotherapists’ and physiotherapy students’ characteristics and their bivariate association with the COVID-19 fear score. Among the 228 respondents, 65.35% were aged 21-30 years, 66.67% were female, 48.68% were students, and out of total 51.32% qualified physiotherapists 25.88% were from academia. Most of the participants were from Surat district (40.35%), and had no known history of COVID-19 infection to self (72.37%) or for relatives, friends, and family members (60.09%) (Table 1).

Table 1. Participant’s characteristics and COVID-19 fear using bivariate analysis

	Frequency	%	COVID-19 fear score		
			Mean	SD	p
Total	228	100	20.23	3.96	
Age (Years)	16-20	39	17.11	22.51	< 0.001
	21-30	149	65.35	19.61	
	31-40	16	7.02	21.69	
	41-50	13	5.70	17.69	
	51-60	8	3.51	21.75	
	61-70	3	1.32	21.00	
Gender	Male	76	33.33	20.83	0.56
	Female	152	66.67	19.94	
Qualification	BPT	77	33.77	20.03	0.37
	MPT	35	15.35	20.43	
	Ph.D.	5	2.19	17.40	
	Student	111	48.68	20.45	
Studying in-	Under Graduate	76	33.33	20.67	0.50
	Post Graduate	35	15.35	19.97	
	Not Applicable	117	51.32	20.03	
Field of Work	Clinical	46	20.18	19.96	0.88
	Academia	59	25.88	20.10	
	Others	12	5.26	20.00	
	Not Applicable	111	48.68	20.45	

Table 1. Participant’s characteristics and COVID-19 fear using bivariate analysis (Cont.)

	Frequency	%	COVID-19 fear score		
			Mean	SD	p
Total	228	100	20.23	3.96	
District	Ahmedabad	43	18.86	20.56	<0.001
	Gandhinagar	14	6.14	22.71	

	Vadodadra	25	10.96	20.96	3.85	
	Bharuch	5	2.19	24.00	2.24	
	Surat	92	40.35	19.23	4.49	
	Tapi	9	3.95	24.11	1.83	
	Mehsana	16	7.02	18.38	4.06	
	Rajkot	13	5.70	20.69	2.06	
	Morbi	3	1.32	21.00	0.00	
	Jamnagar	7	3.07	19.14	3.89	
	Botad	1	0.44	22.00	0.00	
Were you infected by COVID-19?	Yes	63	27.63	20.29	4.17	0.91
	No	165	72.37	20.22	3.89	
	Not Sure	0	0.00	0.00	0.00	
Were any of your family/ relatives/ friends infected by COVID-19?	Yes	61	27.60	19.94	4.28	0.59
	No	137	60.09	20.25	3.89	
	Not Sure	28	12.28	20.86	3.58	

The mean score of the FCV-19S was 20.23 ± 3.96 (Table 1). Mean differences in fear of COVID-19 were noted for several independent variables ($p < 0.05$), including age category, gender, qualification, course in which the student is studying, field of work for professionals, district of residence and history of infection to self or any of their family members, relatives, or friends during COVID-19 pandemic (Table 1).

Physiotherapists' and physiotherapy students' agreement on the seven items of FCoV-19 scores is shown in figure 1, whereby 32.01%, 28.95%, 24.12%, 42.11%, 39.92%, 19.74%, and 22.37% participants agreed being afraid, uncomfortable, feeling clamminess, fearful of losing life, being nervous or anxious, and experienced sleeplessness and palpitation due to COVID-19, respectively.

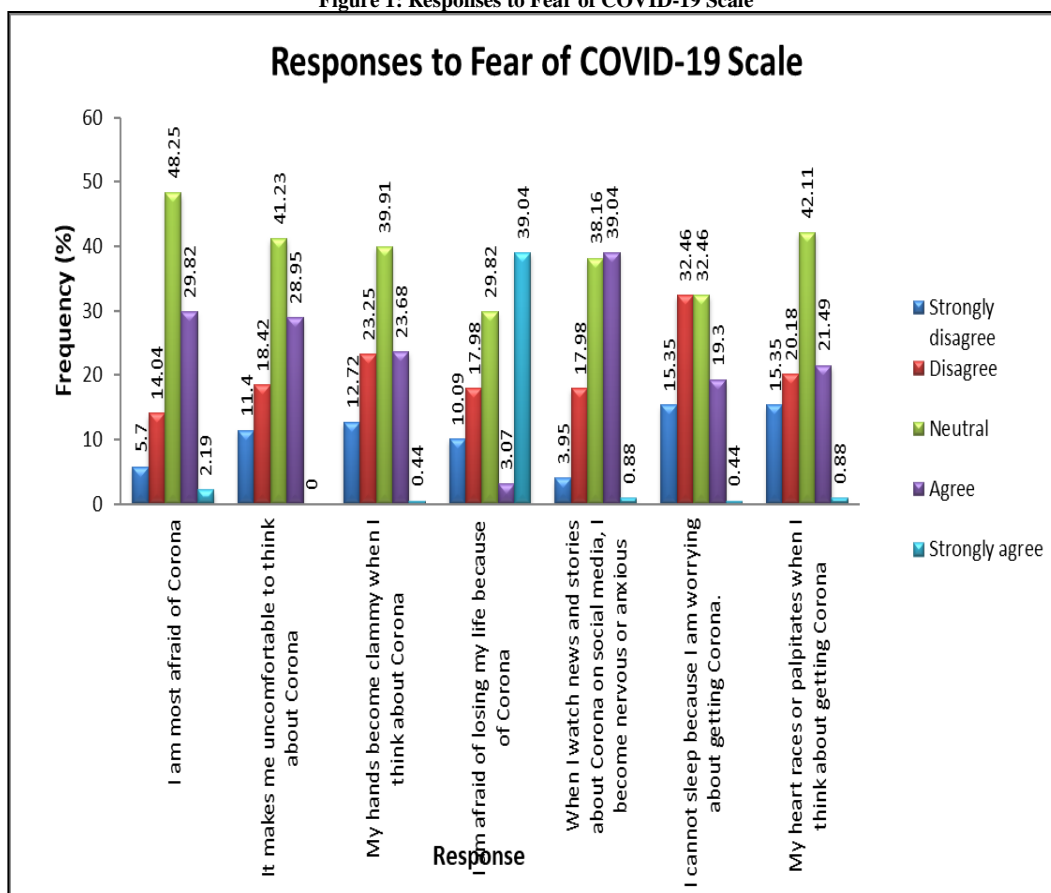
DISCUSSION

In the current research, physiotherapists and physiotherapy students living in western India indicated different levels of fear from COVID-19 on the seven items of the used fear scale. A sizable proportion of respondents reported an agreement (ranging between 19%-42%) on the seven items of FCoV-19S. Although the literature on fear of COVID-19 among adults is insufficient

from India, previous research work has reported that COVID-19 has heavily affected mental health of people worldwide because of the fear and anxiety problems during the pandemic¹⁷⁻¹⁹. While there is scarce evidence on COVID-19 fear among physiotherapy professionals and students, our findings are concurrent with the recently published research evidence reporting fear, psychosocial effects, and uncertainty due to COVID-19 in India and other settings²⁰⁻²³.

Recent studies from Nepal and Bangladesh reported higher levels of fear related to COVID-19 among Nepali and Bangladeshi older adults having age group of > 60 years^{24, 25}. In present study, only 3 responses were received from similar age group which had fear scores almost equal to the mean fear score of total population. Variations in adult's responses have been reported to be dependent on difference of levels of emotional responses to the phenomenology of the pandemic, e.g., uncertainty, frequent and excessive warnings, and concern over known people's death during COVID-19 duration^{26, 27}. The fear of COVID-19 may be also associated with impact of COVID-19 in terms of hospitalizations, ICU admissions, and fatality rate, which are reported to be higher among older adults^{28, 29}.

Figure 1: Responses to Fear of COVID-19 Scale



Geographic analysis of the responses based upon the mean fear scores from different districts shows that the differences in fear scores were significant ($p < 0.001$). Responses of residents from smaller districts showed higher mean fear scores as compared to those from the larger districts. This may be in part due to smaller number of responses received from smaller districts, but the socio-economic and health services related inequalities between the larger and smaller districts may have affected the perceived levels of fear among the respondents. Being distant from the health services facilities (i.e., remoteness to the health facility) was found to be associated with greater fear of COVID-19 by researchers in their studies among Indian and Nepalese population^{3, 9, 10, 24}.

Risk of infection for loved ones has been proposed as one of the important predictors of fear among people of Netherlands by Mertens et al (2020) in a study using online survey⁷. Here in the present study, history of

COVID-19 infection to self (27.63%) and to the family, relatives, and friends (27.60%) was reported but mean fear scores for both the incidences were not reported to be much different, i.e. 20.29 ± 4.17 and 19.94 ± 4.28 , respectively. This may be because fear of unknown effects of COVID-19 associated lethal outcomes has been found to cause distress but having experienced or dealt with the actual effects of infection and better availability of medical infrastructure, health services, oxygen supply, etc. along with relaxation of measures like lockdown, curfew, quarantine duration, geographical isolation of affected areas, etc. may be probable reasons for the observed outcomes. It was seen that physiotherapists and students with different gender, professional qualification and education or field of practice did not have significantly different levels of fear due to COVID-19. This may be associated with the presence of knowledge regarding COVID-19 and its preventive as well treatment measures²³.

Further investigations regarding the knowledge, attitudes and practices can be conducted among similar population to find out any existing association. Previous studies illustrated that the prevalence of anxiety and depression of graduate female students was higher than that of male students³⁰.

The current study has some limitations. Firstly, as it was an online survey it was not possible to diagnose any psychological disorder in the respondents (e.g., anxiety or depression), which would have helped to check the sensitivity and specificity of the scale. Secondly, causal associations cannot be drawn because of its cross-sectional design. Thirdly, the respondents were from limited geographical area of western India. Therefore, the finding of this study should be generalized to similar population with caution. Future studies may be aimed to address the above-mentioned limitations. Despite these limitations, findings of the study describe the phenomenon of the fear which was spread across country during pandemic and clarifies status of fear during so-called relatively relaxed period. The findings also help to raise hypotheses for further research related to fear of COVID-19 and relevant lifestyle changes, and suggests means to increase preparedness for possible future pandemics.

CONCLUSION

There have been only few studies exploring fear and distress related to COVID-19 in India, this study seems to be first of its kind among the physiotherapists and physiotherapy students. Factors such as gender, professional qualification and education or field of practice were not found to significantly affecting perception of fear. Levels of fear across all age groups were found high and geographical regions with smaller population or lesser access to healthcare services may have higher perceived fear of COVID-19. Having better health literacy and greater social connectivity along with better implementation of strategic public health

interventions may help in prevention or reduction of fear and promotion of mental health among physiotherapy professionals and students.

Declaration by Authors

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