

ORIGINAL ARTICLE

Perceptions and Preparedness for Covid-19 Pandemic among Students of a Medical University

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ABSTRACT

Background: The accomplishment of control of Covid-19 pandemic depends upon people's readiness & preparedness of the medical professionals. The current study is expected to benefit the communities by assessing the knowledge of medical students regarding containment of this pandemic.

Objectives:

1. To assess the perceptions and readiness of the medical students regarding COVID-19.
2. To determine association between various socio- demographic profile of study participants and their perceptions regarding Covid-19.

Methodology: Three hundred & eighty four medical & dental students were selected by convenience sampling. Besides socio-demographic variables of medical students, students level of knowledge & perceptions regarding Covid-19 were recorded on a pre-designed & pre-validated questionnaire. Besides computing frequencies & percentages, the association among variables was performed by applying Chi-square test by taking p-value <0.05 as level of significance.

Results: The response rate was 92.53%. The study participants had a high level of information (93.75%) regarding COVID19 outbreak. We did not find a single insignificant association between age of students & their perceptions regarding Covid-19 pandemic ($p \leq 0.01$). Similar associations were observed between gender & level of education to the knowledge & perceptions regarding Covid-19 pandemic ($p \leq 0.01$).

Conclusions: The medical & dental students are very well aware about the Covid-19 pandemic & its control measures undertaken by government.

Keywords: Covid-19, Pandemic, Perceptions, Preparedness, Medical students, Dental students.

INTRODUCTION

Novel corona virus (COVID-19) has appeared as a major public health emergency affecting whole world.¹ All countries have adopted a commonality alleviations in order to reduce the burden of this pandemic.² Potent and updated knowledge, efficacious tools linked to covid-19 is required to secure people protection as extensive unsound directions are related to public anxiety.³ Well built effective infection control measures are the standard meditation to keep down the spread of this pandemic.⁴ Ultimately, the people's attachment to the proposed measures against Covid-19 can lead to reduction of the crisis of this pandemic.⁵ Accomplishment of control of this pandemic depends upon people's readiness to get this infection contained.⁶ The guidelines regarding prevention & control of this infection are being provided from governments from time-to-time & these are continuously being modified as per results arising from research.⁷

It is very necessary to know about risk perceptions and knowledge about COVID-19 to believe the informed policies given by health agencies and public health organizations.⁸ Health organizations have prescribed structured applications of safety measures with attempt to reduce the burden of this disease.⁹ Deficit information regarding the pandemic is connected with fatalistic impression in public that can in turn add to increased

burden of this disease.¹⁰ Attachment in sickness perceptions regarding this outbreak, anxiety, distress signs and self-governance determinations can lead to transient and extended outcomes of this virus.¹¹⁻¹³

The purpose of this study is to assess the preparedness and perceptions linked to COVID-19 among medical students who are the ambassadors of medical knowledge; this would be beneficial to overcome the deficit of knowledge among medical personnel's as well as in community.

METHODOLOGY

This Cross-sectional study with non-probability convenience sampling having sample size of 384 was carried out at Liaquat University of Medical & Health Sciences Jamshoro, Sindh, Pakistan from 1st August 2021 to 31st October 2021. All the students currently studying at designated study setting were the study population. Due to dearth of literature on this aspect of research, the proportion of students' relevant perceptions for COVID-19 was assumed as 50%.

Inclusion criteria: Both male and female undergraduate & postgraduate students, who consented for research, were included in this study.

Exclusion Criteria: Those who did not consented, house officers and faculty members were excluded from study.

Variables for study:

A. Demographic variables:

- Age
- Gender
- Discipline of education
- Level of study

B. Variables related to student’s perceptions

- Awareness about COVID-19
- Student’s perceptions for COVID-19

Data Collection Procedure and Data Analysis: After the approval from Research Ethics Committee, the data was collected on a preformed & validated questionnaire from medical and dental students studying at LUMHS. The written consent was taken from all the respondents before participating in the study. The reliability index as checked in piloting & tested by Chronbach’s reliability index was computed as 7.2. After editing, the data was analyzed in SPSS version 23.0 for windows. The mean \pm standard deviation was computed for the continuous variables e.g age etc. The frequencies were computed for the categorical variables e.g gender, perceptions of students etc. Chi-square test was applied for seeking the association between various socio-demographic variables of study participants and perceptions by students. The p-value of ≤ 0.05 was set as the cut-off for level of significance.

RESULTS

Four hundred & fifteen students were approached to get the complete responses of desired number of students i.e. 384. The response rate was computed as 92.53%. The Table 1 shows the socio-demographic distribution of the study subjects. Detailed responses have been mentioned in Table 2 to 4.

Table 1: Socio-Demographic Profile Of Study Subjects

Socio-demographic Profile	Attributes	Frequencies (%)
Age	18-20 years	140 (36.46%)
	21-23 years	139 (36.20%)
	24-27 years	105 (27.34%)
Gender	Males	203 (52.86%)
	Females	181 (47.14%)
Discipline	MBBS	204 (53.13%)
	BDS	180 (46.87%)
Level of study	Undergraduate	309 (80.47%)
	Postgraduate	75 (19.53%)

Table 2: Association Between Age And Perceptions About Covid-19

PERCEPTIONS	AGE	YES/NO	p-value
Do you think COVID-19 does exist?	18-20	YES=129	≤ 0.01
	Years:140	NO=11	
	21-23	YES=134	
	Years:139	NO=5	
Are you adopting safety measures given by health organizations?	24-27 Years:	YES=101	≤ 0.01
	NO=4		
	18-20	YES=125	
	Years:140	NO=15	
Have you	21-23	YES=115	≤ 0.01
	Years:139	NO=24	
	24-27	YES=96	
	Years:105	NO=9	

received vaccine shots against covid-19?	Years:140 21-23 Years:139 24-27 Years:105	NO=24 YES=129 NO=10 YES=98 NO=7	0.01
Is Covid-19 a terrible disease?	18-20 Years:140 21-23 Years:139 24-27 Years:105	YES=105 NO=35 YES=136 NO=3 YES=99 NO=6	≤ 0.01
Do you follow updates about the disease?	18-20 Years:140 21-23 Years:139 24-27 Years:105	YES=107 NO=33 YES=128 NO=11 YES=97 NO=8	≤ 0.01
Do you wash your hands with soap or hand- sanitizer as more than usual?	18-20 Years:140 21-23 Years:139 24-27 Years:105	YES=127 NO=13 YES=131 NO=9 YES=94 NO=10	≤ 0.01
Do you believe in effective measures given by health organizations?	18-20 Years:140 21-23 Years:139 24-27 Years:	YES=121 NO=19 YES=128 NO=11 YES=97 NO=8	≤ 0.01
Has COVID-19 affected your life?	18-20 Years:140 21-23 Years:139 24-27 Years:105	YES=132 NO=8 YES=136 NO=3 YES=99 NO=6	≤ 0.01

Table- 3: Association Between Gender And Perceptions About Covid-19

PERCEPTIONS	GENDER	YES/NO
Do you think COVID-19 does exist?	Male=203	YES=190 NO=13
	Female=181	YES=174 NO=7
p-value : ≤ 0.01		
Are you adopting safety measures given by health organizations?	Male=203	YES=174 NO=29
	Female=181	YES=162 NO=19
p-value : ≤ 0.01		
Have you received vaccine shots against covid-19?	Male=203	YES=170 NO=33
	Female=181	YES=173 NO=8
p-value : ≤ 0.01		
Is Covid-19 a terrible disease?	Male=203	YES=171 NO=32
	Female=181	YES=169 NO=12
p-value : ≤ 0.01		
Do you follow updates about the disease?	Male=203	YES=165 NO=38
	Female=181	YES=167 NO=14
p-value : ≤ 0.01		
Do you wash your hands with soap or hand- sanitizer as more than usual?	Male=203	YES=186 NO=17
	Female=181	YES=166 NO=15
p-value : ≤ 0.01		
Do you believe in effective measures given by health organizations?	Male=203	YES=180 NO=23
	Female=181	YES=166 NO=15
p-value : ≤ 0.01		
Has COVID-19 affected your life?	Male=203	YES=189 NO=14
	Female=181	YES=178 NO=3
p-value : ≤ 0.013		

Table 4: Association Between Level Of Study And Perceptions For Covid-19

PERCEPTIONS	LEVEL OF STUDY	YES/NO
Do you think COVID-19 does exist?	Undergraduate=309 Postgraduate=75	YES=298 NO=11 YES=66 NO=9 p-value : ≤ 0.01
Are you adopting safety measures given by health organizations?	Undergraduate=309 Postgraduate=75	YES=282 NO=27 YES=54 NO=21 p-value : ≤ 0.01
Have you received vaccine shots against covid-19?	Undergraduate=309 Postgraduate=75	YES=292 NO=17 YES=51 NO=24 p-value : ≤ 0.01
Is Covid-19 a terrible disease?	Undergraduate=309 Postgraduate=75	YES=270 NO=39 YES=70 NO=5 p-value : ≤ 0.012
Do you follow updates about the disease?	Undergraduate=309 Postgraduate=75	YES=285 NO=24 YES=47 NO=28 p-value : ≤ 0.01
Do you wash your hands with soap or hand- sanitizer as more than usual?	Undergraduate=309 Postgraduate=75	YES=293 NO=16 YES=59 NO=16 p-value : ≤ 0.01
Do you believe in effective measures given by health organizations?	Undergraduate=309 Postgraduate=75	YES=286 NO=23 YES=60 NO=15 p-value : ≤ 0.01
Has COVID-19 affected your life ?	Undergraduate=309 Postgraduate=75	YES=306 NO=3 YES=61 NO=14 p-value : ≤ 0.01

DISCUSSION

Coronavirus infection was initially detected during the flare-up of extreme intense respiratory disorder in Wuhan, China, in December 2019. The infection had spread in excess of two hundred nations with a death pace of around 5.7%.¹⁴⁻¹⁶ Indeed it is a nascent public health concern all over the world and because of the lack of clarity of this original infection, there has been tremendous disarray and misconception about the actual infection as to how it can be spread and the fundamental safety measures that ought to be taken to prevent this disease.¹⁷ Various facets of everyday life have been significantly impacted due to this pandemic. Enormous extent of subjects has embraced evasion practices which were prescribed by the health cabinets.¹⁸ Many countries that have an insufficient number of physicians and other health care personnel, and the need for the inclusion of medical students as part of the health teams is a very important issue. It has been recommended that medical students work as volunteers, have appropriate training, do not undertake any activity beyond their level of competence, have continuous supervision and adequate personal protective equipment.¹⁹

Our findings indicate that students are worried about the threat of COVID-19 in all aspects of life and they were very well known and conscious about the pandemic. Although they had a high level of information (93.75%) about the flow circumstance of the COVID19 outbreak. As generally speaking great information about the illness

spread was especially expected to defeat the obstructions. Most of the participants agreed the imposed forced proportions of social separation and had great conviction in the safety measures advocated by health agencies for this outbreak.²⁰ It is observed in our study that students routinely looks for COVID-19 updates through home information resources inclusive of television ,print media and official websites that could indicate conscience conformance in preventive actions.

Our findings demonstrate that students are alarmed due to danger of this pandemic to the health sector, personally, their circle of relatives and that they observe the continued pandemic a serious hassle on each country wide and worldwide ranges. Hazard discernment and information on COVID-19 were reliably and altogether higher in our subjects and also had a strong understanding of the condition and a positive attitude toward precautionary initiatives.²¹⁻²³

As subsequently the commencement of this review, more exploration is distributed on this point. The outcomes of surveys done in US, UK and China put an emphasis upon responder’s comprehension of OVID-19 and assess understanding of the illness course.²⁴⁻²⁶

This work contributes to comprehension and mindfulness and marketing tactics amid pandemic occasions. This study pointed toward giving early proof with regards to the information, hazard insights and readiness towards COVID-19 among medical students. A more prominent extent of study members were males, matured between 18-27 years, well educated populace.

CONCLUSIONS AND RECOMMENDATIONS

In the current era of Covid-19 pandemic, majority of the medical & dental students are well aware about the current situation (p≤ 0.01). Besides this, the students thinking the disease as a terrible one, prefers to adopt the safety measures including receiving vaccine shots among both gender strata (p≤ 0.01). They also prefer to get updates about this infection (p≤ 0.01) at all levels of their medical education. The up-to-date knowledge of the medical & dental students should be properly utilized in spreading the preventive messages regarding this pandemic in the community.

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