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Fear of COVID-19 Among Undergraduate and Postgraduate Students in Pakistan

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Abstract

The coronavirus disease 2019 (COVID-19) pandemic has changed the lifestyles of individuals all over the world, induced a fear of virus transmission and confusion, and brought about many other potentially devastating psychological impacts. To minimize the spread of COVID-19, governments all over the world have implemented various practices including lockdowns, home quarantines, spatial distancing, and online teaching within schools, colleges, and/or universities. The present cross-sectional study was carried out to investigate the associations between socio-demographic factors and fear of COVID-19 among undergraduate and postgraduate students in public universities Lahore, Pakistan. Data were collected utilizing an online *Google Forms* survey based on a convenience sample of 397 undergraduate and postgraduate students of public universities (78% female; mean age = 24 years), enrolled in the subject of education (54%) and psychology (46%) when the virus was spreading rapidly throughout Pakistan. All the participants completed the Fear of COVID-19 Scale and questions concerning socio-demographic variables. Results indicated that the fear of COVID-19 was higher among the education students and female students. Fear of COVID-19 (i.e., scores on the FCV-19S) was positively associated with the participants' personal or family history of illness and number of deaths in family. The level of fear of COVID-19 was different among the students who had physical illness, psychological illness, and no any history of illness personally or in their family.

Keywords COVID-19 · Fear · Education students · Psychology students · Undergraduate and postgraduate students

Introduction

In December 2019, the outbreak of the coronavirus disease 2019 (COVID-19) was reported in Wuhan (China) and began spreading rapidly to other countries. The World Health Organization (WHO) declared the disease a pandemic on March 11, 2020. All over the world, countries started to report the cases of COVID-19 (World Health Organization, 2020a, 2020b). In Pakistan (with a population of 222 million individuals, and where the present study was carried out), the situation was no different. On February 26, 2020, the first case was reported in Karachi. On February 27, 2020, the Ministry of Health identified two individuals infected with COVID-19 who returned back to Pakistan from Iran.

The virus has spread into various regions nationwide in Pakistan and has become a national epidemic (Abid, Bari, Younas, Javaid & Imran, 2020). Lahore, the country's second-largest city (and where the present study was conducted) had recorded over 53,000 cases of COVID-19, approximately half of the total 112, 000 confirmed cases reported in Punjab province of Pakistan. The resurgence of the second wave of virus in the first week of November worried the country's health experts (Chaudhry, 2020). The authorities in some countries have been succeeded in controlling the spread of the virus but the disease is unpredictable (World Health Organization, 2020a). In two neighboring countries of Pakistan (i.e., China and Iran), there was an upturn in the number of COVID-19 cases (at the time of writing). These

worsening circumstances forced the Pakistan government to take extraordinary measures to minimize the spread of COVID-19. This included closing its border with China because this was the epicenter of this virus. Additionally, Pakistan installed stringent screening methods on its border with Iran, including suspension of travel and trade. Unfortunately, in the early days of the pandemic, Pakistan lacked testing kits, masks, medics, and ventilators. Consequently, Pakistan had to rely on other countries such as China, US, UK, Italy, and Japan for such resources.

The Pakistan federal government launched "*The National Action Plan for The Corona Virus Disease (COVID-19) Pakistan"* in collaboration with the Ministry of Health. The agenda of this plan was to devise a national policy and pattern to help the provincial governments to curb the effects of the virus. Due to this action plan, quarantine centers were set up in the two biggest cities of Pakistan (i.e., Karachi and Lahore). In addition, a quarantine center was also built in Taftan city along the Pakistan-Iran border to segregate and quarantine infected individuals returning from Iran. Another quarantine center containing 300 beds with advanced facilities was established in Islamabad (Javed, Sarwer, Soto, & Mashwani, 2020). The Pakistan government implemented a strategy of regional blockade including stay-at-home lockdown intended to stop the spread of the virus to break the cyclic spread (Chen et al., 2020) as well as quarantine.

Quarantine is one of the traditional methods that are found to be most effective in controlling the contagious outbreaks of such diseases. Spatial (i.e., physical) distancing is also helpful to prevent the spread of viruses and is designed to reduce the interactions among the individuals who may be infected but have not yet been identified and therefore not yet quarantined (Burdorf et al., 2020). A complete lockdown was imposed in Pakistan on March 23, 2020. This lock down was then replaced by a 'smart lockdown' on May 9, 2020 (only those areas where a large number of COVID-19 cases were reported remained in lockdown). To resume the day-to-day important activities of work life and education, many workplaces have shifted to virtual systems to minimize the physical and mental health risks for the individuals of all ages (Kaleem, 2020). Pakistan pursued similar harm-minimization policies to many other countries in its fight against COVID-19 including regional quarantine, self-isolation, suspension of large public gatherings, termination of all on-campus activities at schools and universities, suspension of flights to and from the country, reduced railway travel, closed borders, and mandatory use of masks and hand sanitizers.

It has recently been argued that there are four root pillars of fear of COVID-19 comprising fear of the body, significant others, uncertainty, and action/inaction which can put the individuals' physical and mental health at risk (Schimmenti et al., 2020). Although the outbreak of COVID-19 has affected the world at large, the situation is comparatively worse in those countries with a weaker healthcare system (Khalid & Ali, 2020). Pakistan is one of under- developed countries spending less than 1% of its GDP on health and the doctor-patient ratio is 1:1300 (i.e., there is only one doctor per 1300 individuals) which is very low based on WHO recommendations (Khan, 2019). In Pakistan to deal with mental illness, there is approximately one psychiatrist per 10,000 individuals suffering from mental disorders (Mubbashar, 2019). This weak healthcare system is one of the major causes of fear and deterioration of mental health conditions during the period of COVID-19 in Pakistan (Gates, 2020; Khalid & Ali, 2020). In Pakistan, COVID-19 has impacted 42 million school-going learners (from primary to higher education level) (UNICEF, 2020). At the time of writing (December 1, 2020) there had been over 400, 000 cases of COVID-19 and over 8,000 deaths (Worldometer, 2020).

The mental health of university students has also been impacted by bogus information associated with the origin and spread of the virus, rampant transmission of the virus, dramatic reporting of COVID-19 by media, closure of educational institutes, isolation from classmates, teachers, friends, and unsuitable environments for taking online classes (Sahu, 2020; Khan, Mamun, Griffiths, & Ullah, 2020). Many students have lost their part-time jobs because of the closure of local businesses during lock down (Lee, 2020). Students who are living in the university hostels far away from their families for study purposes are most afraid of getting infected and not to seeing their families again for an unknown period of time due to travel restrictions during the COVID-19 (Sahu, 2020; Zhai & Du, 2020). These factors have psychologically affected students in many ways and given rise to fear, anxiety, depression, domestic violence and financial pressure (Salman, Asif, Mustafa, Khan, Shehzadi, Hussain, & Khan, 2020; Khan et al., 2020; Kimhi, Eshel, Marciano & Adini, 2020).

To deal with this unpredictable pandemic situation the general population (including students, healthcare personnel, school children, hospitality, sport, and entertainment industry employees and other vulnerable groups) need mental health professionals and psychologists to help maintain and/or improve their mental well-being because many researchers have reported that communicable diseases (e.g., COVID-19), bring about psychological distress (Bao et al., 2020; Shigemura et al., 2020; Khan, Mamun, Griffiths, & Ullah, 2020; Pakpour and Griffiths, 2020). These psychological problems can include stress, anxiety, depression, insomnia, anger, fear, and stigma (Lin 2020; Pakpour & Griffiths 2020; Torales et al., 2020). As well as infected individuals, healthy individuals may also suffer from exaggerated psychological symptoms, which make them more prone to mental health disorders. It has also been shown that pandemics can leave a long lasting negative psychosocial impact even after it ends which can continue for long

periods (Ornell et al., 2020; Shigemura et al., 2020). As was the case with Ebola, the reported death rate (even after the end of the epidemic) was the result of the indirect negative psychosocial effect of the epidemic (Shultz et al., 2016).

Health authorities have documented the decline of mental health among individuals due to COVID-19 (WHO, 2020d). One study showed that Chinese college students reported some level of fear and anxiety due to COVID-19 (Cao et al., 2020) while considerable stress, anxiety, and depression has been reported among the Chinese general population (Wang et al., 2020b). The same findings have been reported by other researchers in other countries (e.g., Harper et al., 2020; Khan et al., 2020; Khalid & Ali, 2020; Mertens, Gerritsen, Duijndam, Salemink, & Engelhard, 2020; Mahmood, Jafree, & Qureshi, 2020; Perz, Lang, & Harrington, 2020; Reznik, Gritsenko, Konstantinov, Khamenka, & Isralowitz, 2020; Sorokin et al., 2020; Yehudai, Bender, Gritsenko, Konstantinov, Reznik, & Isralowitz, 2020; Zolotov, Reznik, Bender, & Isralowitz, 2020). The COVID-19, pandemic has been a cause of fear among individuals including the fear of death, fear of getting the virus, and fear of infecting loved ones, alongside anxiety, aggression, depression, and other mental health related issues (Lai et al., 2020; Mukhtar, 2020; Pakpour & Griffiths, 2020; Rana et al., 2020). Knipe et al., (2020) reported that individuals were searching more on *Google* related to self-care, and which can be an indirect indication of mental distress (i.e., fear, depression, anxiety, loneliness and suicidal ideation). Fear is a multi-faceted construct, and may be one of the psychological consequences which can impair the mental well-being of an individual during the COVID-19 (Kumar & Nayar, 2020).

Study Rationale and Objectives

Because of the scarcity of information regarding the mental health of students during COVID-19 pandemic (Grubic et al., 2020) and lack of research in Pakistan regarding this situation, it is important to examine fear among undergraduate and postgraduate students during the pandemic. Fear may be one of the psychological consequences which can impair the mental well-being of individuals during the COVID-19 pandemic (Kumar & Nayar, 2020). Preventive measures (i.e., social distancing) during this pandemic are the reasons of developing psychological symptoms (de Duarte et al., 2020; Wang et al., 2020a; Patias et al., 2021) and this risk may vary in different groups of population. Several studies proved more symptoms of anxiety, depression and stress among undergraduate and postgraduate students than the other population in ordinary times (Arino & Bardagi 2018; Gomes et al. 2020; Maia & Dias 2020). So, it is possible that the undergraduate and postgraduate students could be at a greater risk during the pandemic. The results of studies conducted in different cultures has also shown the variations in fear based on the age, gender, country, education, religion, religiosity, marital, employment and academic status factors, and that greater fear was associated with poorer mental health functioning (Mahmood, Jafree, & Qureshi, 2020; Perz, Lang, & Harrington, 2020; Reznik, Gritsenko, Konstantinov, Khamenka, & Isralowitz, 2020; Yehudai, Bender, Gritsenko, Konstantinov, Reznik, & Isralowitz, 2020; Zolotov, Reznik, Bender, & Isralowitz, 2020).

The first reported case of COVID-19 in Pakistan on (February 2020) was a student (ZME Science, 2020). There have only been a few studies that have been carried out examining the fear of COVID-19 in the context of Pakistan (i.e., Mahmood, Jafree, & Qureshi, 2020; Khalid & Ali, 2020). The lack of health practitioners, psychiatrists and psychologists in a country such as Pakistan is a big challenge in mitigating the mental health consequences of the COVID-19 pandemic. To handle the situation, simple and economically viable counseling help is needed that can be delivered on-site in hospitals, homes and educational institutes. In order to address the situation, there is a need to establish online health and counseling services at hospitals, community health care centers, and universities (Liu et al., 2020).

Psychology can make a significant difference in all aspects of individuals' lives (Zimbardo, 2004). Moreover, education and psychology are both are important subjects in the social sciences. Like psychology students, education students in Pakistan have some knowledge concerning human nature and behavior because they study educational psychology as part of their courses (Lohse-Bossenz, Kunina-Habenicht, & Kunter, 2013; Nezhad, & Vahedi, 2011). Therefore, the present study examined the fear of COVID-19 among the undergraduate and postgraduate students (studying subject of education and psychology) in the public universities of Lahore. Additionally, the associations between socio-demographics and fear of COVID-19 among the study's participants were also examined.

Methods

Design, Participants, Procedures, and Ethics

The present study utilized cross-sectional correlation design and a convenience sampling strategy. Researchers collected data online utilizing *Google Forms* survey software (due to the imposition of lockdown in Pakistan). All the students studying education and psychology in the public universities of Lahore comprised the target population (approximately 1000 students). The online *Google Forms* link was shared with potential participants by means of *Whats App* and direct e-mails. The objectives of the study were clearly explained to the potential participants and informed consent was provided by the participants to data collection. Approval of the study was granted by the research team's university ethics committee. A total of 397 students completed the survey. The data were collected during May and June 2020.

Measures

Socio-demographic Variables

Information was collected concerning the socio-demographic characteristics of the participants including age, gender, subject of study, type of family system (i.e., nuclear and joint), history of illness, type of illness, number of COVID-19 related deaths in neighborhood and number of COVID-19 related deaths in family (i.e., parents, siblings, uncle, aunt, and grandfather/mother) from the start of outbreak of COVID-19 disease in Pakistan February 26, 2020 to June 31, 2020 (the end day of data collection of this study). In addition, the students who had a history of any illness (psychological or physical) either in their family or personally were also asked to name of the illness.

Fear of COVID-19 Scale (FCV-19S)

The FCV-19S assesses the fear of COVID-19 and comprises seven self-report items (e.g., "*It makes me uncomfortable to think about COVID-19" and "I am afraid of losing my life because of COVID-19"*) which are responded to on a five-point Likert scale (Ahorsu et al., 2020). The original version of the scale demonstrated very good internal reliability (α =.82) and test-retest reliability of (ICC =.72). The FCV-19S showed good reliability in the present study (α =.79). The higher scores on the scale the higher the fear of COVID-19 among the participants.

Statistical Analysis

The statistical analysis was conducted using the Statistical Package for Social Sciences IBM SPSS version 26. Measures of central tendency (means, standard deviations), frequencies, and percentages were calculated. Analysis was conducted to assess the reliability of the FCV-19S. Pearson's correlation, *t*-tests, and one-way ANOVAs were applied for the continuous variables of the study. To examine the normality of the data, Shapiro-Wilk Normality tests were also applied. Hochberg post hoc tests were also used to assess the mean differences of the fear of COVID-19 on the basis of type of illness (physical, psychological, absence of illness). Linear regression was performed to test the predictive power of gender, subject of study, personal and family history of illness, and number of deaths in family on fear of COVID-19.

Results

The results of the descriptive statistics showed that of the 397 participants 88 (22.2%) were males and 309 (77.8%) were females. The major age group of 232 participants ranged between 20-30 years (58.4%), 105 ranged between 31-40 years (26.4%) and only 60 participants ranged between 41-50 years (15.1%). In study participants, 36.8% students were having 14 years, 44.6% were having 16 years and 18.6% were having 18 years and above education level. Most of the participants were studying Education (*n*=213; 53.7%) in comparison to those studying Psychology (*n*=184; 46.3%). The majority of the students belonged to nuclear family system (*n*=238; 59.9%) as compared to joint family system (*n*=159; 40.1%). A majority of the students reported that they had a personal or family history of physical illness (e.g., dust allergy, asthma, diabetes, stomach problem) (*n*=236; 59.4%) as compared to psychological history of illness (e.g., anxiety, depression, etc.) (*n*=27; 6.8%). Some participants reported that they had no any personal or family history of physical or psychological illness (*n*=134; 33.8%). Most of the students (*n*=250; 63%) reported deaths in their neighborhood due to COVID-19 rather than the deaths in their family (*n*=147; 37%). To examine the normality

of the data Shapiro-Wilk Normality test was conducted which showed the normal curve of the histogram (w (397) =.99; p=.08). Table 1 provides information concerning the demographic characteristics of the participants.

Table 1 Demographic characteristics of the sample (N=397)

Variables	Frequency	Percentage
Age (in years)		
20-30	232	58.4
31-40	105	26.4
41-50	60	15.1
Gender		
Males	88	22.2
Females	309	77.8
Level of Education		
14 years	146	36.8
16 years	177	44.6
18 years and above	74	18.6
Subject of study		
Psychology	184	46.3
Education	213	53.7
Family type		
Nuclear	238	59.9
Joint	159	40.1
Personal or family history of illness		
Psychological (depression, anxiety)	27	6.8
Physical (dust allergy, asthma, diabetes)	236	59.4
Absence of illness	134	33.8
Deaths due to COVID-19		
Deaths in family	147	37
Deaths in neighborhood	250	63

The findings of the present study showed a non-significant correlation between the age of participants and fear of COVID-19 (r =0.18) while gender showed a positive correlation with the fear of COVID-19 (r=.26, p<.001). A significant association was also found between the fear among students during COVID-19 and their subject of study (education and psychology) (r = .55, p<.001). There was also a significant fear of COVID-19 among those participants who have a personal and family history of illness (r=.47, p<.001). The number of COVID-19 related deaths in family positively correlated with the fear of COVID-19 (r=.45, p<.01). The family system and number of COVID-19 related deaths in neighborhood did not show any significant correlation with COVID-19 fear (Table 2).

Table 2 Correlation between demographic characteristics and fear of COVID-19 among undergraduate and postgraduate students (N=397)

	Variables	1	2	3	4	5	6	7	8
1	Age	-	.02	.10	-.04	.56***	.07	.13	.18
2	Gender	-	-	.02	-.22	.12	.10	.07	.26***
3	Subject of study (Education and Psychology)	-	-	-	.08	-.00	-.07	-.09	.55***
4	Family system	-	-	-	-	-.08	-.01	.10	-.03
5	Personal or family history of illness	-	-	-	-	-	.14	.21	.47***
6	No. of deaths in family	-	-	-	-	-	-	.66	.45**
7	No. of deaths in neighborhood	-	-	-	-	-	-	-	-.04
8	Fear of Covid-19	-	-	-	-	-	-	-	-

*p<.05, **p<.01, ***p<.001*

Table 3 shows the results of the regression analyses. Fear of COVID-19 among undergraduate and postgraduate students was predicted by gender (p<.001, with an R^2 of .07), subject of study (p<.001, with an R^2 of .30), personal or family history of illness (p≤.05, with an R^2 of .07), number of COVID-19 related deaths in family (p<.01, with an R^2 of .20). Subject of study (Education and Psychology) was the strongest predictor of fear of COVID-19 followed by number of deaths in family, personal or family history of illness and gender. The number of COVID-19 related deaths in neighborhood did not predict the fear of COVID-19 among the undergraduate and postgraduate students.

Table 3 Linear regression of COVID-19 fear onto gender, subject of study, personal and family history of illness, number of deaths in family and neighborhood

Dependent Variable	Predictors	B	Standard Error B	B	t	Regression results
	Gender	3.52	.65	.26	5.40	R =.26; R^2 =.07 F =29.14 p<.001
	Subject of study (Education and Psychology)	5.77	.48	.55	11.97	R =.55; R^2 =.30 F =143.27 p<.001
COVID-19 Fear	Personal or family history of illness	2.57	.38	.27	3.44	R =.27; R^2=.07 F =.24 p≤.05
	No. of deaths in family	1.30	.49	.45	2.65	R =.45; R^2=.20 F =7.00 p≤.01
	No. of deaths in neighborhood	-.23	.30	-.04	-.77	R =.04; R^2=.00 F =.59 p<.44

More specifically, results showed that the fear of COVID-19 was significantly higher among female students than male students (t_{395} =-5.398, p<.001) with a medium effect size (Cohen's d =.67). Moreover, the fear of COVID-19 was significantly higher among education students than psychology students (t_{394} =-11.970, p<.001) with a large effect size (Cohen's d =1.23) (Table 4).

Table 4 Fear of COVID-19 by gender and subject of study (Education and Psychology) (N=397)

Groups	Fear of COVID-19 M (SD)	df	t	p-value
Gender				
Male (n =88)	16.81(5.13)	395	-5.398	<.001
Female (n =309)	20.34 (5.47)			
Subject				
Psychology (n =184)	16.46 (3.58)	364	-11.970	<.001
Education (n =213)	22.23 (5.62)			

Results showed the comparison of mean values for each item of the FCV-19S by Ahorsu et al., (2020) with respect to both subjects (Education and Psychology). This showed lower fear of COVID-19 among psychology students than education students (Table 5 and Figure 1). The result of one-way ANOVA showed that the level of fear was different on the basis of the personal or family history of illness (physical illness, psychological illness, absence of illness) ($F_{2,394}$ =5.070; p=.007) among the students of both education and psychology students. A Hochberg post hoc test showed there was a significant mean difference in the fear of COVID-19 between the students who had a history of physical and psychological illness. Those who had psychological illness (mean =22.81, p<.01) showed a higher level of the fear of COVID-19 as compared to physical illness (mean =19.27, p<.01).

Table 5 Comparison of Fear between education and psychology students (N =397)

|	Items	Subjects	
		Education (n=213)	Psychology (n=184)
1	I am most afraid of COVID-19.	3.46 (1.02)***	2.68 (.90) ***
2	It makes me uncomfortable to think about COVID-19.	3.67 (.93) ***	2.90 (.98) ***
3	My hands become clammy (sweaty) when I think about COVID-19.	2.59 (.99) ***	1.80 (.68) ***
4	I am afraid of losing my life because of COVID-19.	3.31 (1.20)***	2.38 (1.02)***
5	When I watch news and stories about COVID-19 on social media, I become nervous or anxious.	3.80 (1.08)***	3.03 (1.10)***
6	I cannot sleep because I am worrying about getting COVID-19.	2.48 (1.08)***	1.72 (.63) ***
7	My heart races or palpitates when I think about getting COVID-19.	2.93 (1.19)***	1.96 (.76) ***

***p<.001(t-test)
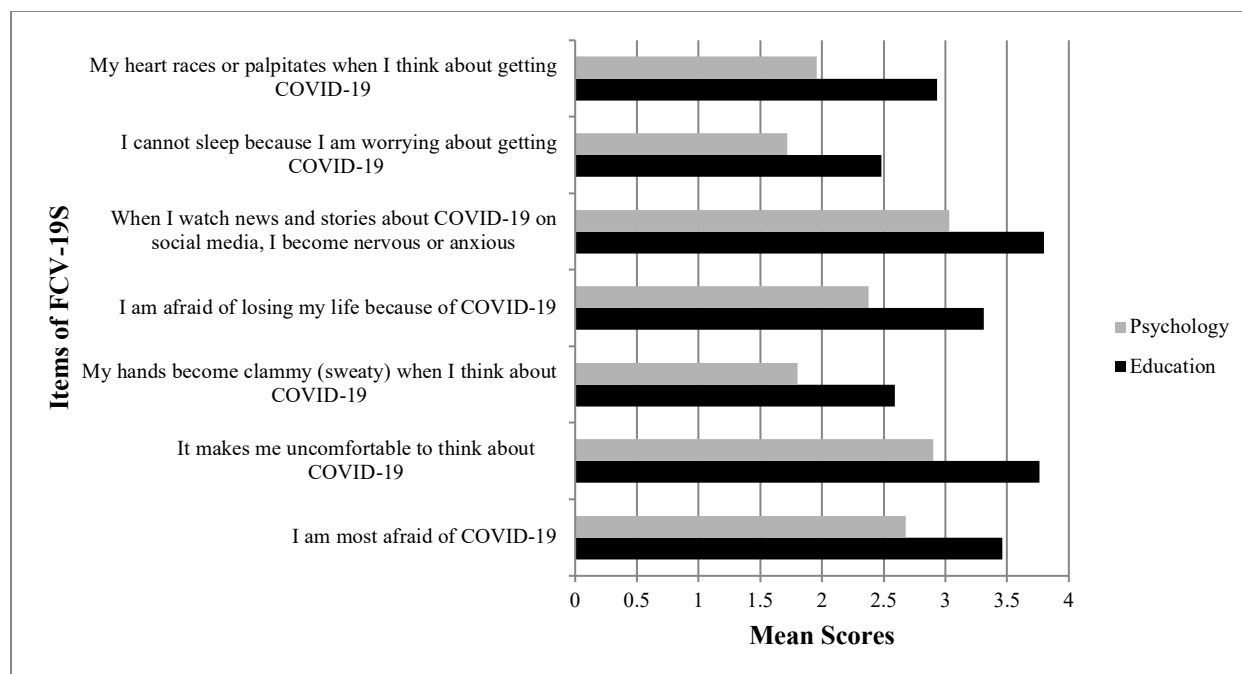
Fig.1 Distribution values of fear of COVID-19 (item-wise)

Discussion

It is important to alleviate the fear of COVID-19 to prevent the negative impact of fear and anxiety on the mental health and well-being of individuals. The outbreak of COVID-19 declared as a public health emergency of international concern by the World Health Organization (WHO, 2020c). Mei et al. (2011) argued that individuals in any public health emergency can result in negative psychological mood states including fear, anxiety, and worry among students. This can especially be the case in disadvantaged societies where individuals have a lack of health facilities, and is where the chances of psychological distress may increase. The primary goal of the present study was to examine the fear of COVID-19 among undergraduate and postgraduate students studying either education and psychology in Lahore city of Pakistan. The results showed that COVID-19 fear among undergraduate and postgraduate students significantly different in terms of their (i) subject of study, (ii) gender, and (iii) personal and/or family history of physical and psychological illness. Furthermore, findings also showed that subject of study (Education and Psychology) was the strongest predictor of fear of COVID-19 followed by number of deaths in family, personal or family history of illness and gender. However, the number of deaths in the local neighborhood was not a predictor of the fear of COVID-19 among undergraduate and postgraduate students. The fear of COVID-19 was high among those students who have deaths in their family because the social discounting modulates risk perception among individuals (Jarmolowicz et al., 2018).

Psychology students were less fearful during the pandemic because they may have a better knowledge than education students in dealing with the psychological illness and perhaps better manage their stress and anxiety as compared to education students who received little assistance and guidance in how to maintain their mental health during the COVID-19 pandemic. The present study also found that the level of fear was significantly higher among female students than male students. It may be that female students have more insecurities regarding their health and are more psychologically vulnerable than male students (Kimhi et al., 2021), which may have led to a higher level of fear. In line with the results of the present study, several studies conducted in different cultures have reported similar results regarding the fear of COVID-19 based on gender, and field of study, particularly medicine and social work (Ahorsu et al., 2020; Mahmood, Jafree, & Qureshi, 2020; Reznik, Gritsenko, Konstantinov, Khamenka, & Isralowitz, 2020; Yehudai, Bender, Gritsenko, Konstantinov, Reznik, & Isralowitz, 2020; Zolotov, Reznik, Bender, & Isralowitz, 2020).

Moreover, the findings also showed that the students who had a personal and family history of psychological illness were more fearful than the students with physical history of illness. In relation to physical history of illness, most of the students reported dust allergies, asthma, diabetes and stomach problems. Anxiety and depression were found to be

prevalent among those reporting a history of psychological illness. Students with a psychological history of illness are likely to face more challenges in coping up with their fear and anxiety during the pandemic because they may be more psychologically vulnerable than those reporting no illness and/or a history of physical illness. Mental health and immunity are both important factors in survival during a pandemic. Findings of the present study may be of interest for psychologists, educationists, policy makers, curriculum developers, and practitioners. Prospective teachers and trainee psychologists may be able to understand the importance of psychology in dealing with the public health emergency situations.

The Pakistan government closed the educational institutes on March 14, 2020, and reopened educational institutes on September 15, 2020, by following standard operating procedures (SOPs) of COVID-19 (i.e., avoiding crowds, using face masks, using hand sanitizers, and avoiding touching of the face, eyes, nose and mouth, etc.) after the first wave of the pandemic when the situation was under control (Abbasi, 2020). However, after the resurgence of the virus (second wave), the government closed educational institutes again from November 26, 2020, to January 10, 2021, in Pakistan (Dawn, 2020). It is recommended that the government should arrange (online and/or physical) training and counseling sessions with the collaboration of educational institutions and psychologists to reduce fear (and likely anxiety) among the students along following the SOPs of COVID-19.

Limitations and future directions

The present study has various limitations including the data being collected online, and the convenience sampling method utilized which both reduce the generalizability of the findings. Also, self-report alone in the context of a survey is not enough to know the participants' true level of psychological distress. Assessment by mental health practitioners is needed to assess genuine mental health issues. Qualitative and mixed-method approaches should be adopted in future research to provide deeper insight into the fear of COVID-19. More longitudinal research is needed across locations with different cohorts to evaluate the utility of FCV-19S in planning for interventions and policy purposes.

Declarations

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