

Mediating Role of Social Interaction Anxiety between Fear of COVID-19 and Psychological DistressFaiqa Yaseen¹, Rafia Bibi², Yousaf Jamal³**Abstract**

Youth is the backbone of any society. Their mental health is worsening in these terrible times of pandemic. Therefore, the purpose of this study was to investigate a relationship between fear of COVID-19 and psychological distress, and whether this relationship was mediated by social interaction anxiety. A cross-sectional research design was used to recruit online 200 university students of Lahore, Pakistan through Google docs via purposive sampling technique by introducing them to a demographic questionnaire consisting of fear of COVID-19, social interaction anxiety and psychological distress scales respectively. The sample included both male and female students (men =53%, women =46%) whose age ranged from 17-24 years ($M = 21.04$, $SD = 2.52$). Data were analyzed by using SPSS version 25. Pearson Product moment correlation and mediation analysis were used to analyze data. It was found that there was a significant positive association between fear of COVID-19 and psychological distress. The findings also revealed that social interaction anxiety fully mediated the association between psychological distress and fear of COVID-19. It is recommended that counselors and psychologists develop social support programs that can assist students to manage themselves well in the present pandemic environment.

Keywords: *Fear of COVID-19, Social Interaction Anxiety, Psychological Distress*

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Introduction

Corona Virus is a deadly virus that is affecting the lives of millions across multiple countries and is labeled as the 6th public health emergency (Moghanibashi - Mansourieh, 2020). Corona Virus is officially abbreviated as COVID-19 and is a kind of disease that has been reported as a

threat to humankind (Taylor, 2019). More than thousands of deaths have been reported worldwide due to COVID-19 (WHO, 2020). Due to the increasing number of deaths, people started isolating and restricting themselves from social interaction (Duan & Zhu, 2020). Social interaction is a process in which individuals choose to act and react to other members of a social group. Youth is the period in which an individual found happiness in interacting with peers (Lansford et al., 2014; Slot et al., 2018). But in these challenging times of the COVID-19 pandemic, this very thought of interaction may play a significant role in developing a fear of COVID-19 (FOC) which may consequently distress youngsters (Arden et al., 2020). FOC is the extreme feeling of helplessness in the human population (Libre-Guerra et al., 2020). This feeling is mainly due to the uncertainty about how the virus will spread, the absence and inefficiency of a vaccine, the evolution of the disease and the immunity of patients (Orellana & Orellana,

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2020; Ornell et al., 2020). Moreover, the increase in death rate and lack of control on social media over misleading information has also caused more FOC (Barua et al., 2020; Ahmad & Murad, 2020), an individual is not only scared for himself but also scared of the risk of losing closed ones (Moghanibashi - Mansourieh, 2020; Weir, 2020). FOC produces an immense level of death anxiety, depression and consequently psychological distress in individuals (Menzies & Menzies, 2020). Psychological distress (PD) is a state of emotional suffering associated with stressors and demands that are difficult to cope with in daily life. There is a significant relationship between psychological distress and death anxiety. Humans are afraid of death because it is a necessary and universal part of their lives (Ilyas & Muazzam, 2015). According to Becker (1974), humans evolved from an underlying biological desire to disregard death's horror to cope with this basic uneasiness. Terror management theory (TMT) was proposed by Greenberg et al. (1997) based on his views regarding death fear, which stated that mortality-related thoughts are suppressed and denied by people whenever they became aware of them. According to the Terror Management Theory (Greenberg et al., 1986), people's behavior is determined by how they deal with death-related fears (Pyszczynski et al., 2015). Fear of mortality, according to this theoretical perspective, can be experienced on two levels: the contextual level, in which the context emphasizes the inevitability of death; and the dispositional level, in which individual differences in how each person reacts to life's contingencies that indicate the inevitability of death (Greenberg et al., 1994). As a result, a person's anxiety and subsequent psychological malaise can be caused by a defective fear of death (Pyszczynski et al., 2020). Death anxiety is a common occurrence, but it can induce significant fear and worry in some

people and is significantly related to fear of COVID-19 (Menzies & Menzies, 2020).

According to previous studies, there is a positive relationship between FOC and PD (Di Blasi et al., 2021; Feng et al., 2020; Guo et al., 2020; Rodríguez-Hidalgo et al., 2020; Satici et al., 2020;). Similar findings were also reported by Ardan et al. (2020) that the COVID-19 pandemic negatively affects the psychological health of students. Plenty of researches have also examined the association of FOC and PD (Chen et al., 2021; Hasan & Bao, 2020; Kapasia et al., 2020; Nishimura et al., 2021; Saravanan et al., 2020; Tang et al., 2020) and concluded that there is a positive association in FOC and PD. Similarly, the study conducted by Khattak et al. (2021) and Xu et al. (2021) found a positive significant relationship between FOC and PD of nurses in Pakistan. There is a relationship between fear of COVID-19 and psychological distress suggested by previous literature but there is no empirical investigation regarding the mediating role of social interaction anxiety (SIA) between fear of COVID-19 and psychological distress. The increasing number of social interactions minimize the risks of psychological distress (Feng & Astell-Burt, 2016) but it is observed that in COVID-19, social interaction causes anxiety and consequently distress. Therefore, this study is aimed to explore the mediating role of social interaction anxiety (MV) between fear of COVID-19 (IV) and psychological distress (DV). The well-positioned theoretical framework for the investigation of this research study is terror management theory. It was hypothesized that (1) There would be a positive relationship in fear of COVID-19, psychological distress and social interaction anxiety. (2) Social interaction anxiety would mediate between the association of fear of COVID-19 and psychological distress.

Method

This study was carried out by using a cross-sectional research design. 200 university students were screened out from 283 university students who did not report social interaction anxiety. The screening question was “do you feel distressed when meeting and talking to other people? The sample was drawn online via Google docs by using a purposive sampling technique from a university student population. The sample of the study is comprised of both male and female (men = 53%, women= 46%) university students, with the age range of 17 to 24 years (*M* = 21.04, *SD* = 2.52), from different public and private universities of Lahore, Pakistan. The survey questionnaire included demographics like gender, age and FOC, SIA and PD scales respectively FOC is assessed by the FOC scale which has 7 items and a 5-point Likert response format developed by Ahorsu et al. (2020). All the responses are summed up to make a total score. The Cronbach alpha reliability on the current sample is 0.82. The symptoms of social anxiety were assessed by Mattick’s

and Clarke’s scale of SIA (1998). This is a 20 item scale having a Likert 5-point response format and has a Cronbach value of 0.88. The Impact of Event scale developed by Horowitz et al. (1979) was used in this study to measure PD. It has good reliability ($\alpha=0.86$). This scale has 15 items which have a 4-point Likert response format.

All collected data were imported into IBM SPSS version 25 software for descriptive and inferential statistical analysis. Pearson Product moment correlation was carried out to explore the association of FOC, SIA, and PD. Mediation analysis (Hayes, 2018) bootstrapping approach was used to investigate the mediating role of SIA in the association of FOC and PD.

The formal permissions to use these scales were taken from respective authors of the scales. The departmental research committee of Lahore Garrison University, Lahore, Pakistan approved the present research study. Informed consent was taken from participants and their information was strictly kept anonymous and confidential.

Results

Table 1

Frequencies and Percentage of Sociodemographic Characteristics of the Participants (N=200)

Variables	F	(%)
Gender		
Male	107	53.5
Female	93	46.5
Age		
17- 20 Years	83	41.5
21- 29 Years	117	58.5

Table 1 shows the percentages and frequencies of demographic characteristics of the study participants. This table depicts that the current study sample consisted of 200

participants. Male consisted of 53.5% and female consisted of 46.5%. Most of the participants have ages between 21 and 29 years (58.5%), however, 41.5% of

participants have ages between 17 and 20 years.

Table 2

Intercorrelations of Fear of COVID-19, Social Interaction Anxiety and Psychological Distress (N = 200)

Variables	1	2	3
1. FOC	-	.35***	.53***
2. SIA		-	.70***
3. PD			-
<i>M</i>	17.34	24.66	21.38
<i>SD</i>	5.94	10.83	14.52

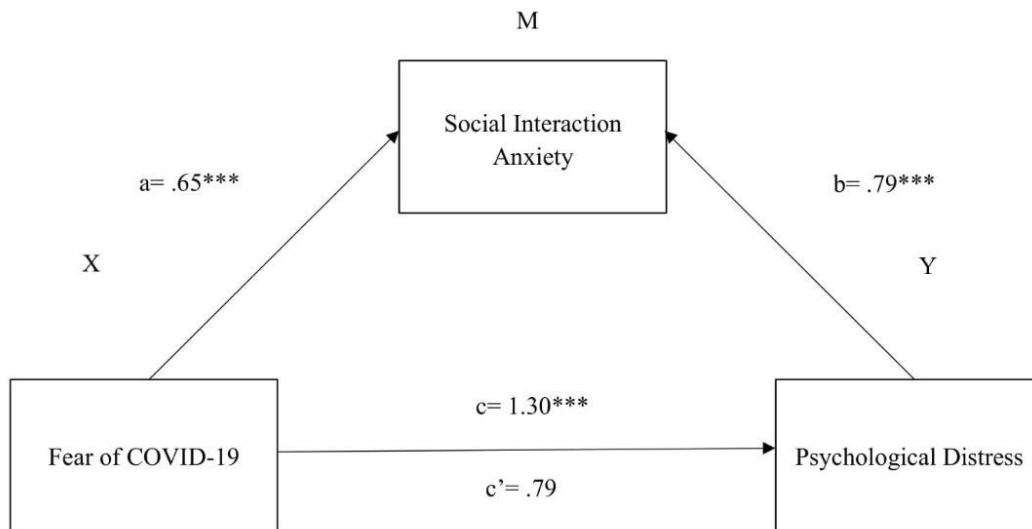
Note. FOC = Fear of COVID-19, SIA= social interaction anxiety, PD = Psychological distress. *** $p < .001$

Table 2 revealed the relationship of FOC, SIA, and PD. Results revealed that FOC is significantly positively related to SIA ($r(198) = .35, p < .001$). Furthermore, findings also suggested that there is a significant positive

relationship between FOC and PD ($r(198) = .53, p < .001$) and SIA and PD ($r(198) = .70, p < .001$). Thus, it is clear that students having more FOC and SIA will experience more PD.

Figure 1

The Mediation Model with SIA as Mediator



Note. The mediation assumptions proposed by Baron and Kenny (1986) and Hayes and Preacher (2013) were met in the current study. Therefore, Haye's (2018)

bootstrapping approach was implemented to examine the mediating role of SIA in the association between FOC and PD.

Table 3

Regression Coefficients, Standard Error, and Model Summary Information for the Fear of COVID-10, Social Interaction Anxiety, and Psychological Distress (N=200)

Antecedents	Consequents							
	SIA(M)			PD(Y)				
		<i>B</i>	<i>SE</i>	<i>P</i>		<i>B</i>	<i>SE</i>	<i>P</i>
FOC(X)	<i>A</i>	.65	.12	.001***	<i>c'</i>	.79	.11	.32
SIA(M)	---	---	---	---	<i>b</i>	.79	.06	.001***
Constant	<i>I</i>	13.38	2.21	.001***	<i>I</i>	-11.72	2.21	.001***
$R^2 = .12$				$R^2 = .59$				
$F(1, 198) = 28.96, p = .001***$				$F(2, 197) = 142.87, p = .001***$				

Note. FOC = Fear of COVID-19, SIA= social interaction anxiety, PD = Psychological distress. *** $p < .001$

The findings of the mediation analysis indicated significant total effect of FOC on PD ($\beta = 1.30, SE = .14, p < .001$). Furthermore, Table 3 depicted significant effects of FOC on SIA ($\beta = .65, SE = .12, p < .001$) and SIA on PD ($\beta = .79, SE = .06, p <$

$.001$). Findings showed full mediation of SIA between FOC and PD. As after controlling SIA as a mediator, the relationship between FOC and PD got weakened ($\beta = .79, SE = .11, p > 0.5$) and c' path was insignificant.

Table 4

The Indirect Effect on Psychological Distress of Fear of COVID-19 through Social Interaction Anxiety (N=200)

Indirect Path	Estimate	SE	Lower Level	Upper Level
SIA	.51	.12	.27	.75

Note. SIA= Social interaction anxiety

Table 4 revealed that the 5000 bootstrap samples taking estimates at a 95% confidence interval were used to see indirect effects. Findings depicted that there was a

statistically significant total indirect effect (the difference between the total and the direct effect/ $c-c'$) of FOC through SIA on PD.

Discussion

COVID-19 is a new phenomenon that has caused a pandemic throughout the globe (Khalid & Ali, 2020). Due to the pandemic situation, a new type of fear emerged and has been reported and known as FOC which a

major threat to the mental health of students has been (Rodriguez-Hidalgo et al., 2020). For this study, it was hypothesized that FOC has a significant positive association with PD in university students. This study finding is

congruent with the studies conducted in the past such as the studies conducted by (Bahar et al. 2021; Chen et al., 2021; Hasan & Bao, 2020; Kapasia et al., 2020; Nishimura et al., 2021; Saravanan et al., 2020; Tang et al., 2020) who found that there is a positive relationship between FOC and PD. The study also found that the relationship between FOC and PD is mediated by SIA among university students.

According to the researcher's knowledge, this is probably the first study that looked into the mediating effects of SIA between the association of FOC and PD. In the light of the above findings, it can be stated that FOC is very natural in the present situation of the pandemic and eventually leads to PD but it was found that SIA completely mediates in this association which means that young adults are fearful and psychologically distressed due to anxiety related to social interaction. For the past one and half year's universities, health and fitness centers, restaurants, parks, and other public places in Lahore, Pakistan are closed as a result of lockdown (COVID19-NAP, 2020). Students are staying home and becoming prone to developing SIA. Exercising social distance is hard for young adults as youth is the period of life that demands a high need for peer interaction (Orben et al, 2020). But for the safety of their lives, young adults are keeping social distance as this is one of the most important precautions to be taken and which is also highlighted in print and social media. But surprisingly, social distancing develops SIA and consolidates the association in FOC and PD. This can be the point of concern for the mental health of students as after the pandemic, students will suffer from SIA that is developed during this time. The ability to adjust to the pandemic time can be a double-edged sword as getting back to normal could be difficult for young people.

Limitations and Recommendations

There are several limitations of the study, the first is that the data was entirely based on self-report measures, which might have been subject to self-report errors. Secondly, it was not asked in the demographic form that what sources of information about COVID-19 students were using as unauthentic, misleading and rumors can lead to the more irrational FOC (Barua et al., 2020). In the context of the findings of the present study, psychologists, counselors, and teachers must be taken into account and investigate the issue of SIA in-depth once students resume normal university life and plan comprehensive support programs in universities so, students can get hands-on information, guidance, and therapy when in need.

Conclusion

The findings of the current study empirically found that young people are distressed by the COVID-19 pandemic, the fear of COVID-19 has been developed which is associated with different negative aspects related to mental health. Fear of COVID-19 is turning into one of the main reasons for SIA and PD in students. In the association of FOC and PD, SIA completely mediates. The mental and physical health of the students is being seriously affected and challenged by FOC, SIA, and PD (Mattioli & Puviani, 2020). Therefore, psychologists and counselors must consider the findings of the present study to plan and develop future psychological support programs for the students.

Conflict of Interest

There is no conflict of interest declared by authors.

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