

COVID-19 Fear and Suicidal Ideation among Young Adults during Pandemic: Mediating Role of COVID-19 related Media

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Abstract

The current study was conducted to find out the impact of COVID-19 fear and COVID-19 related social media on suicidal ideation and to find out the mediating role of COVID-19 related social media in the association of COVID-19 fear and suicidal ideation. For this purpose cross-sectional research design was used and data of 200 participants were collected through purposive sampling. Participants were selected from Multan, Sargodha, Lahore and Faisalabad. Social Media Use Scale, The fear of COVID-19, Scale and Suicidal Ideation Attributes Scale were administered to the participants through google form. Data were analyzed using SPSS 21.0. The results revealed that COVID-19 fear positively and significantly predicted suicidal ideation while COVID-19 related social media negatively and significantly predicted suicidal ideation. Mediation analysis revealed that COVID-19 related social media played the role of suppressor between COVID-19 fear and suicidal ideation. Moreover, the results of standardized indirect effect was found to be significant. Implications of the study along with its limitations were discussed and recommendations for future research have been suggested. This study will help to create awareness among young adults about the positive and negative role of social media, and can also be helpful for their counselling to cope with fear and suicidal thoughts.

Keywords: *COVID-19 fear, COVID-19 related social media, suicidal ideation, young adults*

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Introduction and Literature Review

Suicide is one of the major reasons of death worldwide. According to World Health Organization (WHO), there will be 20 attempts of suicide behind every death because of the suicide (Klomek, 2020). The spread of COVID-19 has increased the risk of suicides, suicidal thoughts, and ideation (Ammerman et al., 2021; Pramukti et al., 2020). On 11 March, 2020, WHO declared the Corona virus spread as global pandemic (Sohrabi et al., 2020). Coronavirus disease produced the negative psychological effects globally (Alijanzadeh & Harati, 2021). Due to the fear of getting COVID-19 symptoms and their suffering, there was a chance that individuals might can face several severe mental health problems including the suicidal

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ideation (Ashraf et al., 2021). Previous study conducted by Olashore et al. (2021) the prevalence of suicidal ideation was 5% from 1 to 10 April 2020, 6% from 8 to 25 April 2020, 12.8% from April to May 2020, and 19.0% from July 2020 in Bangladesh during the pandemic. A systematic review revealed that there was a drastic increase in suicidal tendencies and behaviors during the pandemic as compared to the pre-pandemic time. Moreover, evidence has also revealed that the major reason behind some suicide attempts were related to the fear of getting disease (Patil et al., 2021). The first case of suicide due to the fear of getting COVID was reported in Bangladesh, a man killed himself because he started to experience the symptoms of COVID-19 but autopsy revealed that he didn't contracted the disease (Rajabimajd et al., 2021). The results of another study conducted on 1013 English-speaking Americans showed that the COVID-19 fear had positive and significant relationship with suicidal ideation (Sharma et al., 2021).

The fear of COVID-19, along with psychological distress, showed that there was 27% of the risk regarding suicidal ideation among 595 Spanish adults (Pramukti et al., 2020). In SARS which is another type of COVID-19, it was found that fear has positive association with suicidal ideation (Mamun, 2021). The fear of getting COVID-19 may cause an individual's absurd thoughts which resulted in suicide in extreme cases. In India (Killgore et al., 2021) and Pakistan (Soto-Sanz et al., 2021) it has been observed that the fear of the COVID-19 is essentially leading to suicide. It is expected that the mental health issues in Pakistan will become a major problem that will continue even after the COVID-19. As a result, it is necessary to adopt effective efforts to communicate mental health problems.

During the epidemic COVID-19, social media played a significant role in crafting perceptions about the epidemic and providing necessary information and sometime misinformation about the disease. The widely used social media platforms around the world are WhatsApp, Twitter, YouTube, Facebook and Instagram. Studies have reported that higher levels of anxiety are linked with excessive use of social media sites (Leaune et al., 2020). Most of the time social media websites are used to escape the negative emotions (Mamun, 2021). Social media users can decide on their own about which social media website is suitable to visit, and whom they can interact with, for communication purposes. (Mamun & Griffiths, 2020). Thus, positive emotional experiences from social media platform create a strong bonding to social media use and creates an urge to stay online most time of the day (Goyal, 2020; Killgore et al., 2020). This addictive behavior indicates a relationship with symptoms of stress among young university students. Pandemics always bring a stress, fear, anxiety and various mental health problems among the world. COVID-19 is one of those pandemics which originated and then revealed another side of living which was a not normal for everybody. Educational systems closed, offices started work from home, entertainment places were shut down and people they had an invisible restraint which was just keeping them inside and isolated. This restraint was the fear of going in the gatherings, meeting someone and then getting COVID-19.

Pakistan experienced its first case in February 2020, afterwards a rise in number of cases and unbelievable deaths inculcated extensive fear in individuals. In the mean while media played its role in conveying the information or misinformation about the COVID, its precautions, influences etc. Another mental health issue which was needed to explore was the suicidal ideations. This study was designed to determine that whether there is a relationship between fear of COVID and Suicidal ideation and to explore the mediating role of COVID related media. This will help us knowing the role of media and what kind of news influence others and eventually leads them to suicide.

Rationale of the Study

Though people have accepted the new normal and have started living with this acceptance but still when it was first experienced it created a havoc, fear provoking and

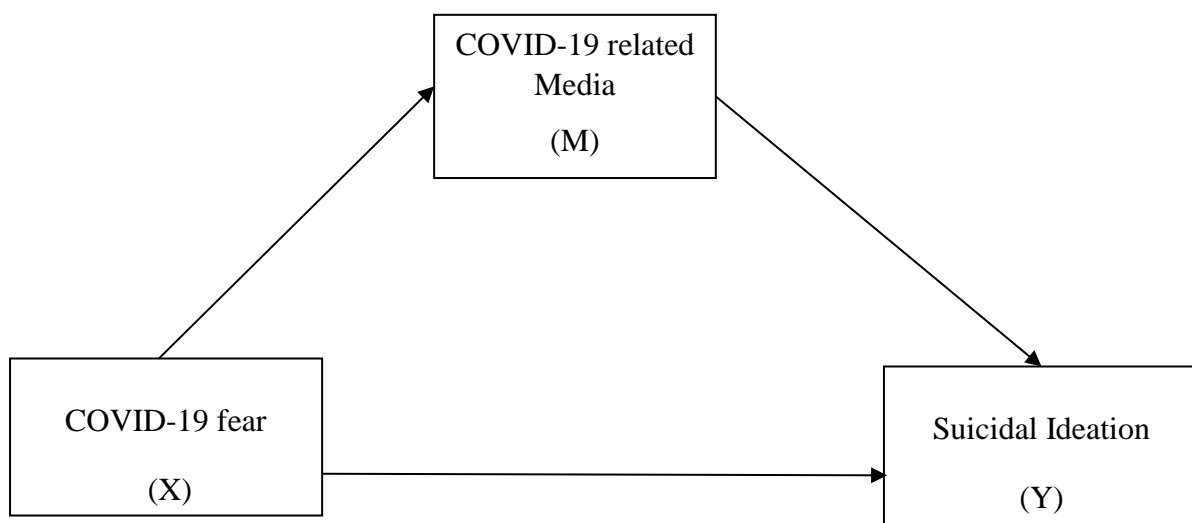
panicked environment among the population. This study will also help in developing the interventions which can be generalized when any other pandemic will be experienced. As COVID-19 gave no red signal before arriving similarly we don't know when we encounter another pandemic which could cause comparable or intense mental health issues.

Considering the research gap, the following two hypotheses were generated:

1. COVID-19 fear and COVID-19 related media are likely to predict suicidal ideation in young adults.
2. COVID-19 related media is likely to mediate the relationship between COVID-19 fear and suicidal ideation.

Conceptual Framework of Study

Figure 1: Mediation representing COVID-19 related social media as mediator (M) on the association between COVID-19 fear (X) and Suicidal ideation (Y).



Method

Research Design and Sampling Strategy

In this quantitative study cross-sectional research design was used. Purposive sampling technique was used for the data collection as the sample was of only young adults (both Men and Women).

Participant Characteristics

Sample was selected by using a-priori online sample size calculator (Soper, 2021). The total sample size needed for minimum effect size was 67 with 0.8 power level and 0.05 probability level. In this study, a sample of 200 young adults (100 men and 100 women) ranging ages from 18 years old to 30 years old was included. Data was collected from 4 cities (Lahore, Faisalabad, Sargodha, Multan) of Punjab, Pakistan. Participants with any physical and psychological issues were not included in this study.

Instruments

Demographic information. Brief demographic information was asked from the participants including their gender, age, university name and program and residence.

Social Media Use Scale. This is 22- item scale which was used to measure the effects of COVID related social media. It has a 5 point Likert scale response options. The scale had strong internal reliability as Cronbach α is 0.75 (Kaya, 2020).

The Fear of COVID-19 Scale. This scale was used to measure the fear of COVID-19. It consisted of 7 statement with 7 item Likert scale. The scale had strong internal reliability Cronbach α is 0.82 (Ahorsu et al., 2020).

Suicidal Ideation Attributes Scale. This scale was used to measure the severity of suicidal ideas. It consisted of five items with a Likert scale ranging from 0 till 10. Each statement measures the different dimensions of suicidal thoughts which are frequency, controllability, closeness to attempt, level of distress associated with the beliefs and thoughts and effect on daily functioning. The scale had strong internal reliability Cronbach α is 0.91 (Spijker et al., 2014).

Procedure

Firstly ethical approval was provided by the Institutional review board of the department. Formal permission from the authors of the tools were sought. This research timeline was from February 2021 to July 2021. The data was collected through online google forms due to the pandemic situation. Participants were asked about the previous 6-7 months experiences of them in the time of pandemic through questionnaires. Participants were given written instructions about the scale and informed consent was given to the research participants via email. Participant were assured the anonymity and confidentiality. Data was collected from 200 participants.

Statistical Analysis

Statistical Package for Social Sciences (SPSS) version 21 was used to analyze the data. Linear regression analysis was used to find out the predicting role of COVID-19 fear and COVID-19 related social media on suicidal ideation. Mediation Analysis was carried out on PROCESS using Hayes Model (Hayes, 2018).

Ethical Consideration

Informed consent was obtained from the participants in order to ensure their willingness to participate in the study. They were assured that their privacy will not be violated. Respondents were given a right to withdraw from the research at any stage.

Results

Regression Analysis

Table 1

Multiple Linear Regression Analysis of Study Variable for Suicidal Ideation (N=200)

Variable	B	SE (B)	β	95% CI	
				LL	UL
Constant	9.78	3.8		2.16	17.41
FOC	.85	.17	.38***	.51	1.19
CSM	-.12	.06	-.15*	-.24	-.00

Note. SE = Standard Error, CI = Confidence Interval, LL = Lower Limit, UL = Upper Limit. FOC= Fear of COVID-19, CSM=Covid-19 related social media, R square = .113, * = $p < 0.05$, *** = $p < 0.001$.

A multiple linear regression was carried out in order to predict suicidal ideation based on COVID-19 fear and Covid-19 related social media. The results showed that COVID-19 fear positively and significantly predicted suicidal ideation while COVID-19 related social media negatively and significantly predicted suicidal ideation. R square value showed that the predictors explained 11% variance in the outcome variable; suicidal ideation with $F(2,197) = 12.59$, $p < .001$.

Mediation Analysis

Mediation analysis was conducted to see the mediating role of COVID-19 related social media between COVID-19 fear and suicidal ideation by using Hayes model bootstrapping approach.

Table 2

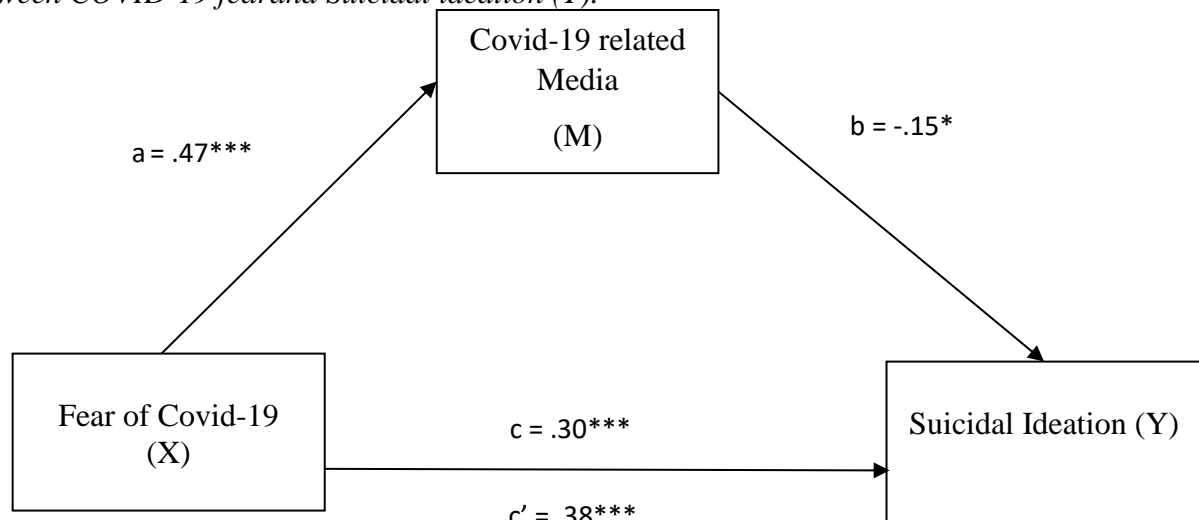
Regression Coefficients, Standard Error, and Model Summary Information for Fear of COVID-19, COVID-19 related Social Media and Suicidal Ideation (N=200)

Antecedent	Consequent								
	M(CSM)			Y(SI)					
	β	SE	p	β	SE	p			
FOC(X)	<i>a</i>	.47	.17	.001***	<i>c'</i>	.38	.17	.001***	
CSM(M)	---	---	---	---	<i>b</i>	-.15	.06	.04*	
Constant	<i>i</i>	41.36	3.42	.001***	<i>i</i>	9.79	3.87	.01*	
			$R^2 = .22$				$R^2 = .11$		
			$F(1,198) = 54.94, p = .001***$				$F(2, 197) = 12.59, p = .001***$		

Note. FOC = Fear of COVID-19; CSM = COVID-19 related social media; SI = Suicidal Ideation; * $p < .05$, ** $p < .01$, *** $p < .001$.

Figure 2 shows the findings of mediation analysis showing the significant total effect of COVID-19 fear on suicidal ideation ($\beta = .30, SE = .15, p < .001$). Additionally, results also portray significant direct effects of COVID-19 fear on COVID-19 related social media ($\beta = .47, SE = .17, p < .001$) and COVID-19 related social media on suicidal ideation ($\beta = -.15, SE = .06, p < .05$). Results suggests that COVID-19 related social media significantly showed the suppression effect in the relationship of COVID-19 fear and suicidal ideation, ($\beta = .38, SE = .17, p < .001$). When we include a suppressor variable in the regression equation, it is likely to increase the predictive validity of another variable or set of variables. (Conger, 1974). The results of standardized indirect effect was found to be significant ($effect = -.072, SE = .073, 95\% CI [LL = -.151, UL = -.008]$).

Figure 2: Emerged Mediation model COVID-19 related social media (M) on the association between COVID-19 fear and Suicidal ideation (Y).



Discussion

The COVID-19 pandemic does not only bring illness and mortality but also created the psychological suffering and severe mental health issues. The individuals were observing lockdown and quarantine, there were certain SOP's to follow, socialization was at its nil and with that financial problems were also on a rise (Brooks et al., 2020). Previous researches revealed that the pandemic of Coronavirus is allied with several mental health problems and these mental health problems may stay after post-pandemic too. Hence, it is essential to not only identify those individuals who are in dire need of help but also the factors which needs to be assessed and controlled. A research conducted in Karachi, Pakistan showed that individuals reported psychological difficulties for example intensification in stress level, fear and modifications in the behavior to certify wellbeing (Balkhi et al., 2020). We in our research intended to measure those factors which could contribute in suicidal ideations during COVID-19.

While people were observing lockdown one of the biggest entertainment or you can say a source of providing information was social media. No one can deny the power of social media and its influence on individuals but one thing which is not on surface level is the toxicity and fear which it carried among the individuals. Getting the news of increased prevalence and everyday deaths could contribute in an emotional turmoil and hence leads to suicidal ideation. Study findings have shown a potential risk between social media use and emotional trauma (Abbas, et al. 2021). Hence, extended use of social media by the isolated could be a double-edged sword that can unpleasantly disturb mental health due to continual exposure to excessive information and misinformation (Daniels et al., 2021).

It was hypothesized that both COVID-19 fear and Social media will predict the Suicidal ideation. Results showed that fear of COVID- 19 positively predicted while social media negatively predicted suicidal ideation. Previous researches show that due to increase prevalence of social media there was a disastrous shift in the lifestyle of people. There physical, financial, social and educational aspects of life were compromised which were increasing the risk of different mental health problems leading to suicidal ideation (Brooks et al., 2020). Due to all the factors and protocols of COVID-19 fear of getting COVID was rising day by day. Individuals were ruminating about the thoughts? What if they get COVID positive and then what will happen afterwards? They will die or live? What will be the health conditions? What will happen if someone in the family catches it? (Gunnel et al., 2021) All of these things were increasing the fear and thus contributing in suicidal ideations.

Similarly, the COVID related media was negatively predicting the suicidal ideation. This could be due to the fact that Media was not only playing its role in spreading the increasing statistics of COVID-19 but also at the same time was raising awareness regarding the precautions, sustainability and increasing vulnerability (Rehman, 2021) which may have a positive effect on the stressed minds of individuals thus helping them to calm out and increase positivity.

Mediation Analysis revealed that c' is greater than c this indicates a suppression effect by the mediator i.e. COVID-19 related social media. Suppression can be stated that a (third) variable is suppressive when, after its inclusion in the model, there is an increase in the proportion of variance directly explained by the independent variable in the criterion variable (MacKinnon et al., 2000). Mediation Analysis is revealing that due to the presence of COVID-19 related news, information and statistics, the direct effect of fear is increasing upon suicidal ideation. Researches shows COVID-19 has increased the suicidal ideations and abnormal behavior as compared to before COVID. Evidence also revealed increase in suicide attempts due to COVID-19 (Mamun, 2020). It was reported that a man in Bangladesh killed himself due to experiencing COVID like symptoms however he was not having COVID (Mamun & Griffiths,

2020). Findings of another study conducted upon 1013 Americans showed that COVID-19 fear was significantly associated with suicidal ideation (Killgore et al., 2020).

Conclusion

The study results revealed that COVID-19 fear positively and significantly predicted suicidal ideation while COVID-19 related social media negatively and significantly predicted suicidal ideation. Mediation analysis revealed that COVID-19 related social media played the role of suppressor between COVID-19 fear and suicidal ideation.

Limitation and Suggestions of the Study

The study was conducted in short time span due to pandemic; Covid-19 and it was difficult to gather the data via google forms. The sample included young adults only so the results cannot be generalized to other age groups. In future these types of studies can be conducted with different age groups and in different areas to increase the generalizability of results. Further predictors of the suicidal ideation can be explored in future researches.

Implications of the Study

The present study might help us in implementing the preventive ways to solve the fear of getting any disease and securing our physical and psychological well-being among young adults or can be implemented to different age groups. We can arrange community based programs to create awareness among different age groups about the media usage and to cope with the worrisome symptoms of diseases.

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