

## FEAR OF COVID-19 AND ITS RELATIONSHIP WITH PSYCHOLOGICAL DISTRESS AMONG ADULT POPULATION OF SIALKOT, PAKISTAN: A SOCIOECONOMIC PERSPECTIVE

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### Abstract

*Aim of current study was to find out the relationship between fear of COVID-19 and psychological distress among adult population of Sialkot - Pakistan. Participants of the study comprised all the adults both males and females, within the age range 20-50 years. Sample of (N=240) was taken by using snowball sampling technique. Two standardized scales (i) Fear of COVID-19 Scale by Ahorsu et al. (2020) and (ii) Psychological distress Scale by Kessler et al(1992) were utilized for measuring the variables. Psychometric properties of both scales showed good reliability as ( $\alpha = .88$ ) for Fear of COVID-19 scale and ( $\alpha = .92$ ) for Psychological Distress scale. Mean and standard deviation were calculated using descriptive statistics. Pearson's Correlational Coefficient was employed to find the relationship between both variables which suggested a good correlation of ( $r = 0.51, P < .05$ ). To test the hypothesis for gender differences Independent Sample t-test was employed. Results showed a difference in mean values of scores among both groups as ( $M= 21.1$  and  $M= 19.6$ ) simultaneously on the levels of Fear of COVID-19 and ( $M=25.1$  and  $M=27.5$ ) on levels of Psychological Distress. One way ANOVA test analyzed the difference on levels of Psychological distress due to demographics, socioeconomic status and monthly income. Results revealed higher level of psychological distress among people belonging to lower socioeconomic status and with low monthly income.*

**Keywords:** Fear of COVID-19, Psychological distress, Socioeconomic perspective.

### INTRODUCTION

Scientific development has offered incredible advantages for almost every aspect of humans life. Medical science has developed a lot in past few years but on the other hand diseases have also become worse and fatal. Flue, allergies, bacterial infections have evolved with the mankind. Now they have become much stronger than before causing hundred and thousands of deaths. Virus is a micro-organism that is shorter than a type of bacteria and cannot expand or replicate away from a living cell. A virus can infect almost any type of body tissue, from brain to skin, depending on the virus and the state of health of a person. Viruses are blamed for many particular human illnesses, common as well as rare such as simple cold HIV and Corona.COVID-19 is a new strain of viruses that has affected the world and caused massive destruction. Virus was first diagnosed in Wuhan, China but has been detected in almost 200 countries including all states of USA. Infection has Sickened more than 14 million people across globe about one fourth in United States with nearly 600,000 fatalities.

The COVID-19 virus is a new virus associated with the same family of Viruses causing Severe Acute Respiratory Virus Syndrome (SARS) and other common colds. After an incubation period of about 3 days, virus causes the symptoms of common cold while respiratory coronavirus can

cause disease of the lower airways. This virus can be isolated in different animal species. For reasons yet to be explained, these viruses can cross Species' barriers and cause severe infections ranging from common cold to more severe MERS and SARS. According to World Health Organization, 2020 COVID-19 have some common, prominent signs and symptoms. Patients effected can experience mild to severe infection and may heal without hospitalization. Aged individuals and those with ongoing health problems are most likely to experience extreme illness.

First two cases were reported in Karachi and Gilgit-Baltistan simultaneously on February 26th, 2020. Till date the number of total affected individuals is 2, 78, 400 with 5951 mortalities. Lock down effected the lower, working 8 Class Pakistan. The complete closing of businesses, factories, restaurants, malls had brought a rapid influx in the unemployment rate in Pakistan ultimately raising the graph of Poverty. Tackling the novel coronavirus 2019 (COVID-19) is one of the growing world challenges also including Pakistan. The corona virus pandemic has caused significant fear among many people specially those already with any prolonged illness either physical or psychological. Lock down has made people realize the severity of the infection and made people much anxious and worried specially those belonging to low socioeconomic background. Social isolation, Self Quarantine had badly been the risk factor for the development of Psychological distress in Sialkot.

Study focused on relationship between fear of COVID-19 and psychological distress. During this century human beings have witnessed three pandemics involving coronavirus: SARS during 2003, MERS in 2012 and COVID-19 in 2019. Zhu et al. (2020) suggested rise in mental health problems and mental distress in non-infected healthy individuals due to high risk of infection with COVID-19. Feeling of being useless, ineffective, weak and unlikeable is the major reason behind psychological distress. Learned helplessness is tendency found in humans as well as in other creatures when they are conditioned to anticipate pain, misery or distress without even a way to avoid it. Seligman (1975) suggested that psychological distress and related mental disorder can result from a real or imagined loss of meaningfulness of a scenario. Karl Marx inherited the ideas of class and class struggle from the theories of Henri de Saint-Simon. He made class struggle the central fact of social evolution. Upper class represents a group of people with greatest place and position in society. Middle class is the set of people who typically pay more than those living below them. Lower classes are those living in low-paid wage jobs (Pratschke & Jonathan, 2018).

## LITERATURE REVIEW

Mertens, G., et al. (2020) conducted research on "Fear of the coronavirus (COVID-19): Predictors in an online study" and suggested that fear in the face of threat, is an evolutionary adaptation. However, as in the existing outbreak of coronavirus disease (COVID-19), when the danger is uncertain and consistent, fear can become prolonged and burdensome. Study also evaluated fear of coronavirus with eight questions related to different aspects of fear and explored the predictors including psychological vulnerability factors such as ambiguity aversion, fear, and health anxiety, media exposure and factors associated with personal importance such as mental safety, loved one at risk and risk perception. Study also revealed that wide range of coronavirus-related concerns such as, their job opportunities, virus expansion, social and economic consequences are associated with the negative psychological outcomes. Result are consisted

with our study that fear of COVID-19 is associated with Psychological distress. Moreover, uncertainty, intolerance, health anxiety, increased press coverage and risks to loved ones are associated with the development of fear among individuals.

Balkhi, F., et al. (2020) also conducted a study on Psychological and behavioral responses to COVID-19, purpose of the study were to find out the psychological and behavioral responses of individuals towards the pandemic in Karachi-Pakistan. Population was assessed and contrasted on different demographic characteristics such as class, age, level of education. Results revealed that majority of the respondents felt anxiousness on daily basis. Significant, elevated levels of fear were reported by respondents whereas, educated people showed more concern about their health safety. Furthermore, results showed three-fourth of population had incorporated some kind of changes within their selves in order to avoid the risk of being effected such as, reduced physical contact, cancellation of plans or leisure activities, avoiding get-togethers and washing hands more often. So, the findings also supported the hypothesis that fear of COVID-19 is associated with increased anxiety level and distress.

Shehryar et al. (2020) discussed the gender based comparison of Psychological Distress among COVID-19 Patients at Rawalpindi Institute of Urology & Transplantation; purpose behind was to determine gender-based disparity in psychological distress among COVID-19 patients. Results revealed a significant difference in the factors affecting the mental well-being of both genders. Females showed more distress due to illness related concerns but among males level was much high due to the economic instability caused during lock down. One possible reason behind the results could be the un-even economic conditions, which affected almost whole world and males being the source of finance bearers were more prone to feel distress as compared to females so, the findings were supportive to our hypothesis.

Urooj et al. (2020) in a study on Expectations, Fears and Perceptions of doctors during Covid-19 Pandemic discussed and explored about the perceptions and uncertainties doctors encountered during the Covid-19 pandemic. Exploratory survey contacting eight questions related to pandemic and related perceptions among medical staff found worries and prejudices among doctors about poor health related safety measures. As, majority of the staff included young blood, so the fear of epidemic was prevalent among them. The findings are consistent with the hypothesis that adult population had more concerns and fears related to COVID-19. Extreme pressure on hospitals with due to prevailing infection and insufficient resources made government realize to take strict precautionary measures such as restricting people to their homes and closing boundaries for other countries so that, the rapid influx in cases could be avoided.

## METHODOLOGY

### HYPOTHESES

**H1.** There will be a significant relationship between fear of COVID-19 and Psychological distress among adults Population of Sialkot-Pakistan.

**H2.** There will be a significant gender difference on the levels of fear of COVID-19 and Psychological distress among adult population of Sialkot-Pakistan

**H3.** Participants (Adults) with Low monthly income and Socio-economic class will show more psychological distress due to Fear of COVID-19 as compared to adults with stable monthly

income and socioeconomic class.

### CHARACTERISTICS OF PARTICIPANTS

Study used quantitative research approach and employed survey research method to explore the Fear of COVID-19 and Psychological distress among adults of Sialkot-Pakistan, belonging to different socioeconomic background. Populations comprised all the adults (males and females) of Sialkot-Pakistan, within the age range of 20-50 years. Sample size was (n=240) adults including 120 males and 120 females, belonging to different Socioeconomic background. Following the snowball sampling technique participants completed an online survey containing (Fear of COVID-19) 07 items scale and (Kessler Psychological distress) 10 items Scale. All the people below or above the age range, physically disable (deaf or dumb) or uneducated were excluded from the research.

### TOOLS OF MEASUREMENT

#### Fear of COVID-19 Scale ( Ahorsu et al. 2020)

Fear of Covid-19 questionnaire is 07 items scale by Ahorsu, et al. (2020). It is selfreport questionnaire designed to evaluate the Fear of COVID-19 among adults. The scale contains questions about seven elements related to pandemic and emotional terror. The questionnaire uses a Likert type Scale for responses ranging from 1 (strongly disagreeable) to 5 (strongly agreed). The average score varies from 7 to 35, with a higher total score showing a greater fear of COVID-19. The Cronbach's alpha for the reliability of Scale is 0.82.

#### Kessler Psychological Distress (Kessler et al. 1992)

The Kessler psychological distress scale is a scale developed for the screening of mental health Specially psychological distress. Scale is comprised of 10 questions about the level of anxiety and depressive symptoms a person may have experienced in the past 4 weeks. The scores are measured on a 5 point Likert type Scale ranging from (1) None of the time to (5) All of the time. Scores of the 10 items are then summed, yielding a minimum score of 10 and a maximum score of 50. Low scores indicate low levels of psychological distress and high scores indicate high levels of psychological distress. The Chronbah"s alpha value for the scale is (0.88) showing it as a reliable scale.

### RESULT

Descriptive statistics were used to obtain the demographic characteristics for frequencies, percentages, mean and standard deviation. The respondents ' demographic characteristics were taken from a sample specifically designed for the purpose. Sample data were collected and computed using the Social Sciences Statistical Package (SPSS). The data were analyzed using Pearson Product Moment Correlation, t-test, and One way ANOVA.

**Table: Correlation Matrix of Fear of COVID-19 and Psychological distress (N=240)**

Scale	1	2	M	SD
Fear of COVID-19	-	-	20.38	6.30
Psychological distress	.517**		26.34	9.79

**Note:**\*\*P < .05 Fear of COVID-19, Psychological Distress, M= Mean , S.D = Standard Deviation.

First Hypothesis of the study stated that there would be a significant relationship between Fear of COVID-19 and psychological distress among adult population of Sialkot-Pakistan. To test the

hypothesis Pearson’s Correlation Coefficient test was employed. This table shows the results of the analysis suggesting that there is a good relationship between both variables as ( $r=0.51, P < 0.05$  with  $Mean = 20.3$  and  $S.D = 6.30$ ). So, the hypothesis was accepted that Fear of COVID-19 and Psychological distress are associated .

**Table : T-Test for Gender Difference in Fear of COVID-19 and Psychological distress among Adult Population of Sialkot-Pakistan (N=240).**

Scales	Males		Females		F	Sig	T	C.I.		Cohen’s D
	M	SD	M	SD				L.L.	U.L.	
F.C-19	21.1	6.93	19.6	5.54	9.33	0.78	1.76	-.16	-3.03	0.23
Psy.D	27.5	9.90	25.1	9.57	.183	.061	1.88	-.11	-4.84	0.24

*Note: F.C-19 = Fear of COVID-19 , Psy.D = Psychological distress , M= Mean , S.D = Standard Deviation , C.I = Confidence Interval.*

Second Hypothesis of the study stated that there would be a significant gender difference among individuals on Fear of COVID-19 and Psychological distress. For testing the hypothesis independent Sample t-test was run on data with a 95% confidence Interval (CI) for the mean difference. It was found that the two groups (males and Females) are different on both variables but the difference is not significant. On variable Fear of COVID-19 the values were (M= 21.1, SD = 6.93) for males while (M = 19.6, SD = 5.54) for females, whereas, on Psychological distress the group males showed (M=27.5 and S.D =9.9) whereas among females the value was (M= 25.1 & S.D = 9.57). So, the Mean value was higher among males on both scales, suggesting that males experienced more Fear of COVID-19 as compared to females but the difference was not significant.

**Table: One Way ANOVA for the differences on Socioeconomic Status, Income Levels and Psychological distress among adults of Sialkot-Pakistan (n=240)**

Variables	N	Mean	SD	F	Sig
<b>Socio-economic Status</b>					
Upper Class	14	21.4	8.77	3.05	.04*
Middle Class	124	25.7	9.06		
Lower Class	102	27.7	10.5		
<b>Total</b>	<b>240</b>				
<b>Monthly Income</b>					
10,000-20,000	42	29.8	9.5	4.92	.002*
21,000-40,000	111	27.2	10.0		
41,000-60,000	39	23.0	8.19		
61,000 or above	48	23.7	9.50		
<b>Total</b>	<b>240</b>				

**Post Hoc Tests: Multiple Comparisons, Dependent Variable: Total Psy Distress**

Tukey HSD		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
(I) S.E.S	(J) S.E.S				Lower Bound	Upper Bound
<b>Upper class</b>	Middle class	-4.32949	2.73800	.256	-10.7872	2.1282
	Lower class	-6.29692	2.76780	.061	-12.8249	.2310
<b>Middle class</b>	Upper class	4.32949	2.73800	.256	-2.1282	10.7872
	Lower class	-1.96743	1.29811	.285	-5.0291	1.0942
<b>Lower class</b>	Upper class	6.29692	2.76780	.061	-.2310	12.8249
	Middle class	1.96743	1.29811	.285	-1.0942	5.0291

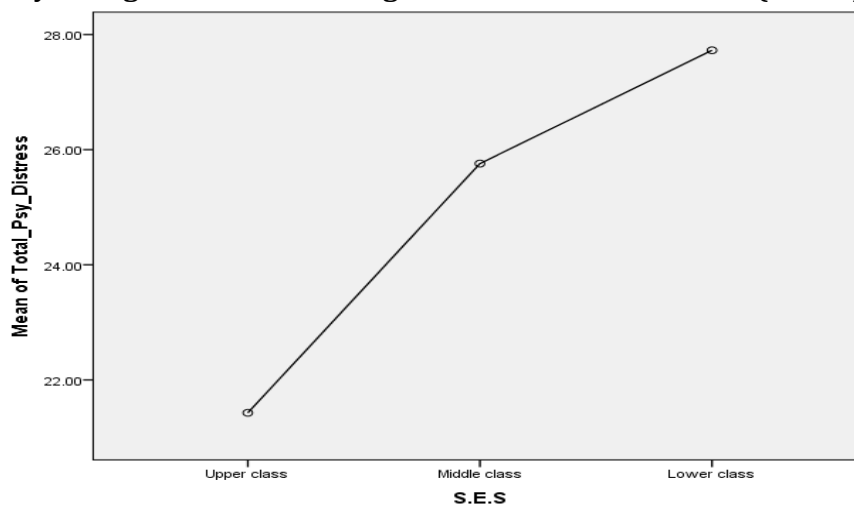
**MULTIPLE COMPARISONS**  
Dependent Variable: Total\_Psy\_Distress  
Tukey HSD

(I) M.I	(J) M.I	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
10-20 thousand	21-40 thousand	2.54505	1.73212	.458	-1.9367	7.0268
	41-60 thousand	6.78205*	2.12620	.009	1.2807	12.2835
	61 thousand or above	6.06250*	2.02020	.016	.8354	11.2896
21-40 thousand	10-20 thousand	-2.54505	1.73212	.458	-7.0268	1.9367
	41-60 thousand	4.23701	1.77980	.084	-.3681	8.8421
	61 thousand or above	3.51745	1.65172	.147	-.7562	7.7912
41-60 thousand	10-20 thousand	-6.78205*	2.12620	.009	-12.2835	-1.2807
	21-40 thousand	-4.23701	1.77980	.084	-8.8421	.3681
	61 thousand or above	-.71955	2.06123	.985	-6.0528	4.6137
61 thousand or above	10-20 thousand	-6.06250*	2.02020	.016	-11.2896	-.8354
	21-40 thousand	-3.51745	1.65172	.147	-7.7912	.7562
	41-60 thousand	.71955	2.06123	.985	-4.6137	6.0528

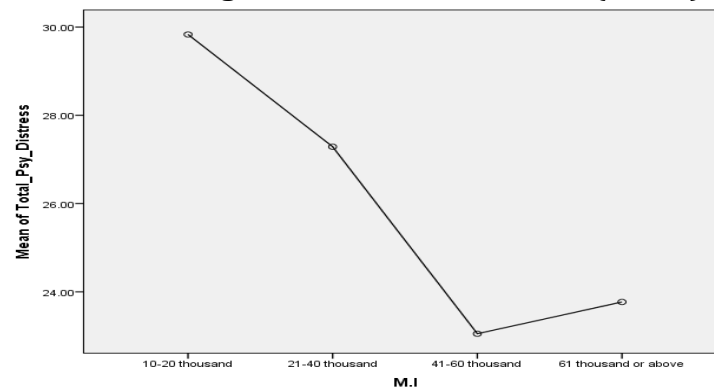
\*. The mean difference is significant at the 0.05 level.

Table 6 shows the results of ANOVA Test for testing the differences of psychological distress among groups belonging to different socioeconomic classes. A Statistically Significant difference was found between groups on Socioeconomic status (Lower Class and middle, Upper Class) as ( $F(2, 237) = 3.05, p = .04$ ). Turkey post hoc test suggested that people belonging to lower Socioeconomic class showed more psychological distress due to fear of COVID-19 as compared to adults with middle or upper Socioeconomic class. Moreover, a significant difference was also found between the adults with low monthly income (like between 10,000- 40,000) as compared to group with high monthly income (like between 41,000 – 60,000 or above) as ( $F(3, 236) = 4.92, p = 0.02$ ). So, the hypothesis was accepted that that adults belonging to lower social class would show more psychological distress as compared to adults with middle or upper social class of Sialkot-Pakistan.

**Figure 1: One Way ANOVA for the differences on Socioeconomic Status and Psychological distress among adults of Sialkot-Pakistan (n=240)**



**Figure 2: One Way ANOVA for the differences on Monthly Income and Levels Psychological distress among adults of Sialkot-Pakistan (n=240)**



## DISCUSSION

The focus of the present study was on fear of Covid-19 and its relationship with psychological distress among adult population of Sialkot, Pakistan. Findings suggest similarity with a study of Ahorsu et al. (2020) who indicated that the COVID-19 fear has significant relation with stress and anxiety. The coronavirus outbreak is undoubtedly the most serious issue worldwide. In addition to its physical effects, psychological outcomes have been prevalent among the effected population.

Second Hypothesis of the study stated that there would be a significant gender difference among individuals on Fear of COVID-19 and Psychological distress. The results showed difference, not significant, among both groups (males and Females) on variables fear of COVID-19 and psychological distress. Females are normally considered to be much depressed and worried due to their sensitive nature and weak emotional management. Besides, burden of responsibilities mount pressure on the psyche of working males. Global pandemic causing lock downs, decline in economies, increased unemployment rate and lack of medical resources. The search for one's own identity and the hunt for finding alternate ways to sustain quality of life makes individuals specially males more prone to developed psychologically illness. Moreover, studies also supported these findings that during the COVID-19 epidemic stress, anxiety, and depression have been commonly reported by many of the male members of the society (Song, et al., 2020). Moreover Fors, Goosse and Hjerme, (2020) also indicated the prevalence of psychological distress among males more than females, due to assumed or real financial pressure caused by the pandemics.

Third hypothesis of this study stated that Adults belonging to lower Socioeconomic class will show more Psychological distress due to Fear of COVID-19. This hypothesis was tested by running one way ANOVA test and results were significant for lower class. Therefore, by rejecting the findings of the null hypothesis, a substantial difference in psychological distress was indicated due to disparities in socioeconomic context and monthly income. Similarly results

were demonstrated by Bengtsson. C, (2005) focusing the association of economic background of the individual with his / her psychological wellness. Lack of enough financial resources, scarcity of health related facilities, loss of job or continuous lock downs due to global pandemic, an even economic system, collaboratively these factors influence the psychology of individuals.

Accordingly, previous study also established support for the findings that patients with low SES (Socioeconomic Status) have a worse outcome in terms of disease behaviour, cognitive dysfunction, pain, and psychological well-being than patients with high SES (Jacobi, 2003; Marra, 2004; & Harrison, 2005). It was difficult for the lower class to handle the financial budget for survival during that awful time, disrupting social as well as economic life has led a great deal to the formation of psychological distress.

## CONCLUSION

The study concludes that Fear of COVID-19 is correlated with psychological well-being among the adults of Sialkot – Pakistan. The pandemic has negatively influenced the mental health of the individuals specially males. Lock downs, fall of economy, decline in job opportunities specially loss of work for daily wagers has created psychological as well as financial burden.

## LIMITATIONS OF THE STUDY

The study focused on the adults population, separate study could be conducted on the young population. The study focused only on cognitive factor of psychological distress; whereas, medical, biological or behavioral factors were not included in the study. Older population was excluded, who made a major proportion of the effects due to COVID-19. The findings are only applicable to the Sialkot region, so the generalization value for the Punjab region analysis is limited.

## IMPLICATIONS OF THE STUDY

The study focused only on cognitive factor of psychological distress. Medical, biological or behavioral factors were not included in the study. Results are only applicable to region of Sialkot, so the value for the generalizability is low for the study in region Punjab. The study would be helpful for the policy makers, to understand the effect of the global pandemics on the people belonging to different socioeconomic backgrounds.

## RECOMMENDATIONS FOR FUTURE STUDIES

Future studies may be conducted on population other than adults such as children or older people. Studies can also be conducted to find out the coping strategies useful for minimize and effectively dealing with the impact physical illness leave on psychological well-being of individuals specially the economically deprived population of a particular region. Studies may be carried in future to investigate the medical, physiological or behavioral perspectives associated with psychological distress in response to exposure with a viral infection such as Corona. Future studies could also be conducted to identifying the factors other than socioeconomic status or financial burden that may affect the well-being of males members of the society. Additional, future studies may be carried out to investigate the medical, physiological or behavioral perspectives associated with psychological distress in response to exposure with a viral infection such as Corona. Furthermore, studies on the three classes (Upper Class, Middle Class, Lower Class) could also be performed separately to classify the individual variables that are more prevalent in causing depression or anxiety among the general population, whereas the magnitude of each variable may also be calculated.

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