PSYCHOSOCIAL EFFECTS OF COVID-19 AMONG GENERAL POPULATION OF KHYBER PAKHTUNKHWA

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Abstract

The human population has been drastically affected by the COVID-19 pandemic, contributed to different psychological and social issues including health anxiety, depression, stress, and limited social interaction among the general population. The main theme of the present study was to evaluate/examine psychological problems caused by COVID-19, primarily focusing on anxiety, depression, stress levels and social impact in both COVID-19-affected and healthy populations. Utilizing the Depression Anxiety Stress Scale (DASS-21) for data collection, this study compared individuals infected with COVID-19 to those who were not. Primary data was collected from 200 participants selected through non-probability consecutive sampling from the general population of KPK, comprising both males and females aged 15 years and above. Findings of the study confirmed elevated levels of anxiety, depression, and stress among COVID-

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19-infected individuals. The study demonstrated significant disparities in anxiety, depression, and stress levels between COVID-19-infected and healthy respondents. Those with COVID-19 show increased clinical depression, anxiety, and stress, aligning with previous studies indicating higher anxiety, stress, and depression in hospitalized patients. Moreover, the findings regarding gender differences in psychological health, with females revealing higher levels of depression, anxiety, and stress compared to males. The conclusion from the study revealed that females are more vulnerable to psychological problems. Based on the study findings of this empirical work it is recommended to conduct further empirical work involving a larger and more diverse population to deepen our understanding of these psychological challenges and develop effective strategies for psychological health support.

Key Words*: Psychological, Social, Effects, Covid-19.*

Background of the Study

The outbreak of pneumonia cases triggered by the novel coronavirus (COVID-19) was initially reported in the city of Wuhan, China in December 2019 (Bai et al., 2020), and the virus spread rapidly worldwide (Ullah & Siraj, 2022).In the past two decades, we have seen many health problems, that were caused by viruses including "Severe Acute Respiratory Syndrome (SARS) in 2003", "Influenza Infection in 2009", and "Middle East Respiratory Syndrome (MERS")" in 2012, as well as an outbreak of Ebola virus in 2014 (Feldmann, Jones, Klenk, & Schnittler, 2003; Hossain et al., 2020). Even though COVID-19 is a recently discovered strain of the coronavirus, it can lead to a range of

illnesses, from mild symptoms resembling the common cold but leads to more serious communicable diseases like "SARS and MERS" (Team, 2009). Moreover, signs of a coronavirus infection consist of high temperature, chills, cough, aching throat, muscle pains, nausea or vomiting, and diarrhea. Besides, the chances of infection were highest for males as they are more prone to social interaction and would experience worse outcomes (Chen et al., 2020). The government of Pakistan implemented a countrywide lockdown in March 2020 to stop the further diffusion of this unknown virus. Measures such as self-quarantine, limited social interaction and social distancing were recommended to stop from further transmission of the virus (Harper, Satchell, Fido, & Latzman, 2021). Likewise, lockdowns have been a common strategy adopted by governments worldwide. However, these restrictions, along with quarantine and self-isolation, have resulted in psychological challenges for many individuals (Ullah & Siraj, 2022).

Social Impact of COVID-19

The negative impact of COVID-19 on social life has been broadly documented and verified through empirical studies (Lima et al., 2020; Ullah & Siraj, 2022). For instance, empirical work of Ullah and Siraj (2022) explored the negative consequences of covid-19 such as widespread panic, feelings of insecurity, and fear within societies. In Pakistan, the arrival of COVID-19 prompted mass quarantining along with self-isolation, putting individuals under immense social, physical and psychological pressure. The situation worsened as many people lost their jobs, plunging them into extreme stress. The concern surrounding COVID-19 has, unfortunately,

contributed to a sense of self-destruction not only observed in Pakistan but also Bangladesh and India as well(Goyal, Chauhan, Chhikara, Gupta, & Singh, 2020). In addition, quarantine for two weeks and strict restrictions on social contact/gathering, and other public health measures during the COVID-19 pandemic also lead human population to experience symptoms such as boredom, heightened levels of anger, loneliness, and depression. Moreover, it might increase feelings of guilt and anxiety concerning the impact of the disease, societal attitudes, and stigmas on their family and friends (Purssell, Gould, & Chudleigh, 2020). Epidemics are understood to increase the burden on women, with prior stress at work as well as home increasing as schools close as well as members of the family are infected (Bandiera O, Buehren N, 2019).

Psychological Impact of COVID-19

More than 23 COVID-19-related self-destruction situations have been reported in Pakistan, with 7 verified and 4 others suspected of COVID-19(Mamun & Griffiths, 2020). Moreover, various empirical studies link between COVID-19 pandemic and several mental problems, such as depression, stress, anxiety, PTSD (Post-Traumatic Stress Disorder), and Insomnia affecting both healthcare professionals and the general public (Hu, Su, Qiao, Zhu, & Zhou, 2020; D. Liu et al., 2020; Xiang et al., 2020). Likewise, findings of (Ullah & Siraj, 2022; Xiang et al., 2020) suggested that people with confirmed COVID-19 experience psychosis with high frequency. They further stated that almost all patients reported some degree of anxiety, depression and stress. 97.27% of individuals reported extreme level of anxiety, while 54.29% reported signs of severe depression.

Likewise, results derived from the empirical work of (Kim et al., 2014) also disclosed that females are statistically more prone to psychological issues such as anxiety and depression problems compared to men. Women additionally showed a 3.01 times greater threat of anxiety than men, in a study carried out to analyze the psychological health at the time of the COVID-19 pandemic in China (Y. Wang, Di, Ye, & Wei, 2021). A similar study conducted in Turkey indicated that COVID-19 had a more substantial psychological impact on women compared to men. This study involving 343 respondents, females exhibited significantly higher depression and anxiety scores (Özdin & Bayrak Özdin, 2020). These findings also align with the work of Qiu et al. (2020), in which they reported that levels of depression and anxiety are quite higher in the young adult group.

These findings were also been confirmed by another study by (Cheng, Jun, & Baoyong, 2014) where higher levels of anxiety and depression were seen in women aged 18 to 30 years. Findings of the previous study carried out by Lee et al. (2007) explored that Individuals at increased risk of SARS infection were found with chronic stress, depression, and high level of anxiety. Likewise, the work of Fava et al. (2004) shows comorbidity in signs, as 53% of clients with significant depression had significant anxiety as well as considered to have anxiety depression.

Depression

Depression is a common mental disorder shown by a clinically depressed state of mind, loss of interest or pleasure, lowered energy, feelings of guilt or reduced self-esteem, difficulty sleeping, change in

appetite, and a lack of concentration. In addition, depression is commonly gone along with signs and symptoms of anxiety. In the worst instances, depression can lead to suicide. We lost millions of lives because of suicide and still, we are losing it. Which is about 3000 suicide deaths per day (Gu et al., 2019).

Depression affects approximately 6.7% of adults in any given year, with about 16.6% of people experiencing it at some point in their lives. It can occur at any age but usually emerges between late teens and mid-20s. Women are more susceptible to depression than men, with studies indicating that one in three females may have a significant depressive episode in their lifetime. Furthermore, there is a substantial hereditary component, with a heritability rate of around 40% observed when first-degree relatives (such as parents, children, and siblings) have a history of depression (Association, 2013). Moreover, Moghanibashi-Mansourieh (2020) stated that individuals with awareness about COVID-19 significantly surged the level of depression, anxiety, and stress.

Anxiety

Association (2013) defines anxiety as "an emotion identified by feelings of tension, anxious thoughts, and also physical changes such as high blood pressure." (Ellis Omrod, 2011). Occasional anxiety is a normal part of life. People with anxiety problems frequently have extreme, too much, and relentless worry as well as anxiety about day-to-day situations. Anxiety problems often include repeated episodes of abrupt feelings of anxiety or worry that reaches within minutes to panic attacks (Passer & Smith, 2004). Anxiety disorders are the most common type of mental

illness, affecting individuals of all ages. The American Psychiatric Association reports that women are more likely than men to be diagnosed with an anxiety disorder (Association, 2013). The global pandemic has become a major concern for people worldwide, leading them to spend a significant amount of time reading news and information about it. Generally, people are experiencing feelings of fear, anger, worry, and distress(Ullah & Siraj, 2022).

Stress

Stress brings regarding changes that affect almost every system in the body and affect the ways people feel and act. It can cause sweating, shortness of breath, palpitation, negative emotions, and fatigue due to stress. By causing these modifications in the mind as well as body, stress straightly contributes to mental and physical disorders and diseases as well as influences mental and also physical health, lowering quality of life (Association, 2013). Furthermore, Selye (1936) defined stress as "nonspecific responses arising from different types of stimuli". Lazarus and Folkman (1984) suggested that stress occurs when individuals view that the needs of external environment are beyond their capacity to deal with them. The COVID-19 pandemic caused intense social and financial problems leading to more traumatic stress response. Stress can additionally be a reaction to fear of developing problems for themselves or for their family members as well as close friends (Koçak, Koçak, & Younis, 2021). However, old age increases the risk of infection and mortality from COVID-19. However, current research studies indicate that during the pandemic, levels of anxiety, depression, and stress are significantly higher in the age group

of 21 to 40 (Yang et al., 2020). Young individuals are significantly more emotionally impacted by the epidemic, experiencing heightened feelings of worry, anxiety, intolerance, and depression. This was observed in their study examining the emotional effects of the COVID-19 epidemic in China. Moreover, research on the mental impacts of COVID-19 in youth has indicated the presence of various mental health issues such as depression, anxiety, stress, irritability, sadness, and fear. Studies have demonstrated that consistent media coverage can contribute to feelings of unrest (Arpaci et al., 2020; Neria & Sullivan, 2011; C. Wang et al., 2020; Y. Wang et al., 2021; Yang et al., 2020).

Rationale of the study

The present study aims to find out the psychological effects of covid-19, in Khyber Pakhtunkhwa. General population play a vital role in the progress of any society and psychological or physical illness can affect their productivity to a greater extent. Among psychological issues, the most commonly prevalent issues are depression, anxiety, and stress. Since the pandemic has drastically affected the economic, social, and psychological health of people around the world. So keeping in view the present scenario of the drastic effects of the covid-19 this study is aimed to determine to which extent it has negatively affected the mental health of general population of Peshawar KPK. This study will open new horizons for the researchers to search for other factors including both psychological and physical, among people of different age groups and different ethnic backgrounds. This study was further processed with the below-mentioned objectives and Hypothesis:

Objectives of the study

- To determine the prevalence of anxiety, depression, and stress among individuals who were diagnosed with COVID-19.

- To assess the levels of depression, stress, and anxiety among males and females in Peshawar, Khyber Pakhtunkhwa.

- To evaluate the correlation between depression, stress, and anxiety

Hypotheses of the study

- Individuals who have contracted COVID-19 may exhibit higher levels of depression, anxiety, and stress compared to those who have not been affected by the virus.

- Females may experience higher levels of depression, anxiety, and stress compared to males.

- A positive relationship is anticipated between depression, anxiety, and stress.

METHODOLOGY

Operational Definitions

Depression

The American Psychological Association defines depression as a negative emotional state, ranging from feelings of worry and unhappiness to a profound sense of sadness and despondency, as well as pessimism that hinders daily life. Numerous physical, cognitive, and social changes also often tend to co-occur, consisting of change in appetite, transformed sleeping routines, lower energy level, problems in focusing or making decisions, and also withdrawal from social activities (Association, 2013). Furthermore, Lovibond (1995) has defines depression as a condition

characterized by feelings of devaluation of life, self-deprecation, dysphoria, lack of interest or engagement, pessimism, and anhedonia.

Anxiety

American Psychological Association (2013) has defined an emotion identified by worry and somatic signs and symptoms of stress in which an individual anticipates impending danger or misfortune. According to Passer and Smith (2004), anxiety is defined as a natural response to perceived threats, characterized by a state of tension and concern. This implies that feeling anxious is a normal part of life as individuals naturally respond to perceived threats. **Stress**; As per the American Psychological Association, the term stress refers to psychological or physiological response to internal or external stressors. Stress impacts every system of the body, shaping people's behavior and emotions. Likewise, Selye (1936) described stress as "non-specific responses that can result from various kinds of stimuli".

Sample

The study included 200 participants selected through non-probability consecutive sampling from the general population of KPK, comprising both males and females aged 15 years and above. The participants were divided into two main groups. The first group comprised 102 individuals (N1=102) previously diagnosed with COVID-19. This group was further divided into two subgroups: one consisting of forty-eight male subjects (n1=48) and another subgroup consisting of fifty-four female subjects (n2=54). The second group comprised 98 individuals (N=98) who had not been diagnosed with COVID-19. This group was also subdivided

into two subgroups: one consisting of sixty-three male subjects (n3=63) and another subgroup consisting of thirty-five female subjects (n4=35).

Inclusion criteria

The study included adult participants of age 15 years and above, who were clinically diagnosed with COVID-19; clinically stable condition and willing to participate in this study.

Exclusion Criteria

Individual having chronic mental illnesses and having severe medical problems like heart diseases were excluded.

Instruments

Following instruments are used in this study:

1: Demographic information sheet: The demographic information sheet utilized in this study included fields for name, gender, age, marital status, education, occupation, socioeconomic status, and a question regarding whether the individual had been infected with COVID-19 or not.

2: Depression anxiety stress scale: The "Depression Anxiety Stress Scale (DASS)" is a self-reported inventory comprising 42 items, constructed by (Lovibond, 1995). It is important to mention that in present study, we employed the shortened version, DASS-21, due to time constraints. This abbreviated version provides equivalent scores to the original DASS-42 when multiplied by 2. The scale includes three subscales: Depression Scale,

Anxiety Scale, and Stress Scale, each consisting of 7 items. Responses are recorded on a four-point Likert scale, ranging from 0 to 3 "('0' indicating 'did not apply to me at all,' '1' indicating 'applies to me to some degree,' '2' indicating 'applies to me to a considerable degree,' and '3' indicating 'applies to me most of the time')".

Specific items for each subscale are as follows:

Depression Scale: Items 3, 5, 10, 13, 16, 17, 21

Anxiety Scale: Items 2, 4, 7, 9, 15, 19, 20

Stress Scale: Items 1, 6, 8, 11, 12, 14, 18

The reliability coefficients for DASS were found to be $\alpha = .97$, for the Stress Scale $\alpha = .93$, for the Anxiety Scale $\alpha = .91$, and for the Depression Scale $\alpha = .94$.

Procedure

A comparative study was carried out with a total of 200 subjects (N=200) selected through the non-probability snowball sampling technique from the general population of KPK. Both males and females aged 15 and above were included in the study. It was further divided into two major groups. One hundred and two (n_1=102) of them were consisted of COVID-19 infected subjects having forty-eight males (n=48) and fifty-four female (n=54) subjects. And the second group of ninety-eight (n_2=98) consisted of COVID-19 non-infected subjects, having sixty-three males (n=63) and

thirty-five females (n=35) subjects. The sample was approached both physically and online. After getting their consent subjects were selected for data collection. Participants were requested to complete demographic information sheet and Depression Anxiety stress Scale (DASS-21), developed by ([Lovibond, 1995](#)), to measure depression, anxiety and stress.

RESULTS

Table 1

Socio-demographic Characteristics of Participants (N=200)

Variables	N	%
Age		
15-25	150	75.0
26-35	36	18.0
36-45	14	7.0
Gender		
Female	111	55.5
Male	89	44.5
Marital Status		
Unmarried	154	77.0
Married	46	23.0

Note. N=200(*n*-89 for Females and *n*-111 for Males)

Table 2

Socio-demographic characteristics of participants (N=200)

Variables	N	%
Socioeconomic Status		
Higher Class	17	8.5
Middle Class	178	89.5
Lower Class	5	2.5
Education		
Basic School	3	1.5
Matric	23	11.5`
Intermediate	60	30.0
Graduation	94	47.0
Post-Graduation	20	10.0
Occupation		
Student	120	60.0
Teacher	18	9.0
Doctor	23	11.5
Others	39	19.5
COVID infected		
Yes	102	51.0
No	98	49.0

Table 3

Frequencies and Chi-Square Results of COVID-19 infected and non-infected subjects regarding their gender and age (N=200)

Variables	COVID-19 infected		COVID-19 non-infected		$X^2(2)$
	N	%	N	%	
Gender					
Male	48	43.2	63	56.8	
					6.006[a]
Female	54	60.7	35	39.3	
Age					
15-25	69	46.0	81	54.0	
26-35	27	66.7	12	33.3	6.025[a]
36-45	9	64.3	5	35.7	

Table 4

Frequencies and Chi-Square Results of COVID-19 infected and non-infected subjects regarding their socioeconomic status, education and occupation (N=200)

Variables	COVID-19 infected		COVID-19 non-infected		$X^2(2)$
	N	%	N	%	
SES					
Higher Class	9	52.9	8	47.1	
Middle Class	84	50.0	89	50.0	1.780[a]
Lower Class	4	80.0	1	20.0	
Education					
Basic School	3	100.0	0	0.00	
Matric	20	87.0	3	13.0	
Intermediate	30	50.0	30	50.0	17.77[a]
Graduate	40	42.6	54	57.4	
Post Graduate	9	45.0	11	55.0	
Occupation					
Student	61	50.8	59	49.2	
Teacher	9	50.0	9	50.0	4.733[a]
Doctor	16	69.6	17	30.4	
Others	16	41.0	23	59.0	

Table 5

Mean difference, standard deviation & t-value of COVID-19 infected and COVID-19 non-infected on Depression Anxiety Stress Scale (DASS) (N=200).

Variables	Covid-19 Infected (n=102)		Covid-19 Non-infected (n=98)				95%CL		
	M	SD	M	SD	t(198)	P	LL	UL	Cohens'd
DASS	26.8	10.6	14.6	12.0	7.6	.000	9.06	15.3	1.0775

Note: p>.05, M=Mean; SD=Standard Deviation; CI=Confidence Interval; LL=Lower limit; UL=Upper Limit.

Table 5 shows the mean, SD and t-value of COVID-19 infected and COVID-19 non-infected participants on Depression Anxiety Stress Scale (DASS). On average COVID-19 infected participants (M=26.8, SD=10.8) scored higher than COVID-19 non-infected (M=14.6, SD=12.0). This difference=12.2, 95%CI (15.3, 9.06) was statistically highly significant, t(198)=7.6, p<.000.

Table 6

Mean difference, standard deviation & t-value of COVID-19 infected and COVID-19 non-infected on Depression (N=200).

Variables	Covid-19 Infected (n=102)		Covid-19 Non-infected (n=98)				95%CL		
	M	SD	M	SD	t(198)	P	LL	UL	Cohens'd
Depression	8.68	4.01	4.80	4.61	6.35	.000	2.67	5.08	.8980
Anxiety	8.77	4.41	4.28	3.75	7.72	.000	3.34	5.63	1.096
Stress	9.43	3.86	5.57	4.64	6.39	.000	2.67	5.04	.9044

Note: p>.05, M=Mean; SD=Standard Deviation; CI=Confidence Interval; LL=Lower limit; UL=Upper Limit.

Table 6 shows the mean, SD and t-value of COVID-19 infected and non-infected participants on Depression, Anxiety and Stress. On average COVID-19 infected participants scored higher on depression (M=8.68, SD=4.01), Anxiety (M=8.77, SD=4.41), and Stress (M=9.43,SD=3.68) as compared to COVID-19 non-infected participants on depression(M=4.80,SD=4.61), Anxiety(M=4.28,SD=3.75), and stress(M=5.57,SD=4.64).This difference=3.88, 3.94, 3.86 respectively.

95%CI (5.08, 2.67), (5.63, 3.34) and (5.04, 2.67) was highly significant, t (198) =6.35, 7.72 and 6.39 respectively, p<.000.

Table 7

Mean difference, standard deviation & t-value of males and females on Depression Anxiety Stress Scale (DASS) (N=200).

Variables	Males (n=111)		Females (n=89)				95%CL		
	M	SD	M	SD	t(198)	P	LL	UL	Cohens'd
DASS	18.2	12.0	24.2	13.1	3.37	.001	9.52	2.49	.4776

Note: p>.05, M=Mean; SD=Standard Deviation; CI=Confidence Interval; LL=Lower limit; UL=Upper Limit.

Table7 shows the mean, SD and t-value of males and females on Depression Anxiety Stress Scale (DASS) On average female (M=24.2, SD=13.1) scored higher than males (M=18.2, SD=12.0). This difference=6.00, 95%CI (-2.49, -9.52) was statistically significant, t(198)= -3.37, p<.001

Table 8

Mean difference, standard deviation & t-value of males and females on Depression (N=200).

Variables	Males (n=111)		Females (n=89)				95%CL		
	M	SD	M	SD	t(198)	P	LL	UL	Cohens'd
Depression	5.97	4.41	7.79	4.92	2.75	.006	-3.12	-.51	.3895
Anxiety	5.49	4.31	7.92	4.77	3.76	.000	-3.69	-1.15	.5434
Stress	6.74	4.62	8.51	4.75	2.68	.008	-3.05	-.46	.3830

Note: p>.05, M=Mean; SD=Standard Deviation; CI=Confidence Interval; LL=Lower limit; UL=Upper Limit.

Table 8 shows the mean, SD and t-value of males and female participants on Depression, Anxiety and Stress. On average Female participants scored higher on depression (M=7.79, SD=4.92), Anxiety (M=7.92, SD=4.77), Stress (M=8.51, SD=4.75) as compared to Male participants on depression (M=5.97, SD=4.41), Anxiety (M=5.49, SD=4.77), stress (M=6.74, SD=4.62). This difference=31.82, 2.43, 1.77 respectively. 95%CI (-.51, -3.12), (-1.15, -3.69) and (-.46, -3.05) was highly significant, t(198) =2.75, 3.76 and 2.68 respectively, p<.000.

Table 9

Correlation among subscales depression, anxiety and stress

Variables	1	2	3
1. Depression	1.00		
2. Anxiety	.707**	1.00	
3.Stress	.829**	.719**	1.00

Note. **Correlation is significant at the 0.01 level

Table 9 shows the moderate positive correlation between depression, anxiety and stress. The result is significant at .01 levels.

DISCUSSION

The COVID-19 pandemic represents a significant health crisis that has profoundly impacted the lives of millions of people across the globe. The sudden rise of COVID-19, with its fast diffusion, has intensified anxiety, depression as well as stress among people around the world, resulting in mental disorders in individuals. Main theme of the current study was to ascertain the level of mental health distress, including (anxiety, depression, and stress) among COVID-19 infected and COVID-19 non-infected population along with examine sex differences in Anxiety, depression as well as stress. The study was performed on two groups, that included COVID-19 infected and the other group consisted of COVID-19 non-infected population. Differences in between COVID-19 infected and

also non-infected were found on three subscales: Anxiety, depression and also stress. It has been discovered that level of Stress, Anxiety and Depression is greater in those people who experienced COVID-19 than others. Findings of the study revealed that level mental health problems such as anxiety, depression as well as stress caused by Covid-19 among study respondent were 8.68, 8.77 and 9.43 respectively. Findings of the study further explored that research's first hypothesis indicated that there is a considerable mean difference among COVID-19 infected and non-infected subjects on depression (t= 6.35, =.000), on anxiety (t= 7.72, p=.000) and also on stress (t= 6.39, p=.000), which symbolize that COVID-19 infected individuals have high level of clinical depression, stress and anxiety as compared to non-infected individuals (see table 6, 7 and 8). These findings are closely align with the work of Zandifar et al. (2020) Who find out that COVID-19 have high degrees of anxiety, stress as well as clinical depression, in addition to high levels of perceived stress. In addition, various prior studies revealed that quarantine problems have negative mental results for different reasons. These factors include extended quarantine, inadequate information, frustration and also stigma. Some specialists also discuss the negative long-lasting effects. They recommended to maintain the quarantine period as brief as feasible as well as to supply clients with the right information (Zandifar et al., 2020). Likewise, Lima et al. (2020) identified the initial instances of tertiary transmission of COVID-19 in South Korea. They reported the case of a 54-year-old male without any prior medical or psychological history. Throughout his hospitalization and quarantine, he exhibited symptoms of sadness (depression), insomnia, and suicidal thoughts. Additionally, the

patient experienced anxiety related to societal reactions towards individuals with COVID-19, a sentiment amplified by media messages. Previous study carried out by Lee et al. (2007) at the time of SARS epidemic with the sole aim of evaluating stress and psychological stress levels. Findings of their study revealed that even after pandemic these people experience elevated levels of "depression, stress, post-traumatic stress disorder, and anxiety." Based om previous studies and currant findings, this is among the initial psychological health studies in COVID19 patients, and the initial to concentrate on family members of verified patients (Vindegaard N, Benros ME.2020). We have also discovered that clients and also their loved ones are experiencing considerable anxiety signs and symptoms as well as concerns connected to the pandemic.

Moreover, the outcomes of the research's 2nd hypothesis indicated a considerable mean variance among males and females on depression (t= 2.75, p =.006) on anxiety, (t= 3.76, p=.000) and on stress (t= 2.68, p=.008) which represented that females have high level of depression, anxiety as well as stress as contrasted to males. Epidemiological studies indicate that females are more susceptible to clinical depression. Likewise, another study revealed that compared to male, female gender is prone to anxiety and post-traumatic stress disorder. Recent research studies have shown higher rates of anxiety and depression during the COVID-19 pandemic among females than males(Lima et al., 2020; N. Liu et al., 2020).

Studies conducted in China, the epicenter of the COVID-19 outbreak, have reported a significant association between female gender and higher self-reported levels of stress, anxiety, depression, post-traumatic stress disorder, and a more severe overall psychological impact (C. Wang et

al., 2020). Females also have a higher prevalence of risk factors that tend to increase during a pandemic, including chronic environmental stressors preexisting depression and anxiety conditions and domestic violence (Campbell, 2020; Hu et al., 2020).

The outcomes of the research study's third hypothesis suggested that there is a moderate positive relationship between anxiety and depression (.707 **), anxiety and stress (.719 **) and likewise in between depression as well as stress (.829 **). In a research study involving registered nurses, a significant positive correlation was identified between Beck Anxiety Inventory and Beck Depression Inventory scores (Gomes & Oliveira, 2013). The nurses assessed in this study exhibited a moderately low level of perceived stress, and approximately 10% of the volunteers experienced depression. Perceived depression, stress, and anxiety were found to be correlated with each other(Piccin, Pozzebon, Scapini, & Corrêa, 2016). Correlations were found in between regarded Stress, anxiety and depression, recommending that employees who scored higher on one scale also had greater score on all other scales.

Conclusion

This study demonstrates a significant impact of COVID-19 on the psychological health of the general population. The research was conducted to assess the psychological effects of COVID-19, specifically focusing on anxiety, depression, and stress levels among the general population. The results of this study revealed a significant and noticeable difference in anxiety, depression, and stress levels between COVID-19 infected and non-infected individuals, a finding consistent with previous research. Infected individuals demonstrated higher scores in anxiety, depression, and stress.

Gender differences in anxiety, depression, and stress were also corroborated by previous studies. Additionally, the study highlighted a positive association between anxiety, depression, and stress. The hypothesis that individuals infected with COVID-19 would exhibit marked differences in the prevalence of anxiety, depression, and stress was confirmed. Furthermore, the study found that females had higher levels of depression, anxiety, and stress in comparison to males.

Limitations & Suggestions

Following are some of the Implications of the present study

•   This research put some light on the psychological problems caused by COVID-19. Through this study, situation is being cleared scientifically and objectively that pandemic can be the leading cause of psychological problems. And once we identified it, then we as a psychologist can work with the people who has been through this pandemic and also lose their loved ones.

•   On a broader scale Government should develop organizations in which a group of psychologists can play their role to get them out of this state of Depression, Stress and Anxiety.

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