

EFFECTS OF COVID-19 PANDEMIC FEAR ON SLEEP DISTURBANCE: AN ANALYSIS AMONG VACCINATED AND NON-VACCINATED INDIVIDUALS LIVING IN BAHAWALPUR CITY

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ABSTRACT

The current study was conducted to explore the effects of Covid-19 pandemic fear in relation to the quality of sleep among vaccinated and non-vaccinated individuals living in Bahawalpur City. For this purpose, a sample of (N=100) participants were selected out of which (n=50) were vaccinated and (n=50) were non-vaccinated. Data was collected by using two scales, one was used to check the prevalence of fear because of covid-19 and the second was sleep quality scale (SQS). Data was analyzed by using SPSS. The results from the collected data revealed a higher level of fear among female population. The results reported that the prevalence of fear because of covid-19 was a significant predictor of sleep disturbance among vaccinated individuals and this was positively correlated with the sleep disturbance among non-vaccinated individuals.

Keywords: Fear, Covid-19, Sleep Quality, Vaccinated, Non-Vaccinated.

INTRODUCTION

It is a fact that Covid-19 pandemic appears as a greatest public health challenge affecting all the globe (Chakraborty & Maity, 2020). This pandemic was declared as one of the horrible stigma for the individuals in all over the world including Pakistan (Rajkumar, 2020). Approximately, after a period of couple of months, many cases reported throughout the world including Pakistan. The situation become worse in hospitals. There were limited beds or ventilators available which were not fulfilling the needs of sufferers. Many people have lost their lives, felt stress, anxiety and many other psychosocial problems. The initial noticing psychological problem was fear of covid-19 pandemic which further leads to poor sleep quality and mental distress among the individuals in all over the world (WHO, 2021). To overcome this challenging health issue, the government introduced some measures such as using face masks, having some distance (for example 3 feet), imposed some rules on general public, limitations in government and private schools, reduce social contacts and unnecessary travelling and close downs of institutions and shops such as lock-down. (Zacher & Rudolph, 2020).

Fear of Covid-19 Pandemic

In fact the Coronavirus fear has affected all the individuals throughout the world. No age group was remained secured from this disease. As per an estimate the older adults mortality rate remained higher in all the countries. Therefore, due to the worsening circumstances day by day the government has imposed strict rules such as closing schools and complete lockdown (Attal et al., 2020). A higher level of fear or mortality rate was reported in all over the globe. The most affected countries were China, India, Italy. Due to the fear of covid-19 a higher level of social isolation reported which leads to anxiety and depression. (Beck et al., 2020).

Poor Quality of Sleep Due to Covid-19 Fear

There is an abundant literature on the changes in the pattern of sleep due to the Coronavirus fear among the population in all over the globe. The researchers reported a higher level of disturbed sleep behavior among the families of the individuals who got positive on Coronavirus test. All these families reported a

higher level of disturbed sleep quality with higher level of anxiety (Partinen et al., 2021). The fear of Cronavirus affected approximately 41% individuals and all these reported a higher level of disturbed sleep pattern (Jahrami, 2021). Similarly, a lower rate of sleep quality was reported among the individuals during the outbreak of Cronavirus. Many individuals reported that they used sleeping pills due to Cronavirus fear (Mandelkorn et al., 2021). A study conducted by Cellini et al. (2020) reported that the quality of sleep become worsen during lockdown periods. The pre-post measures reported that due to Cronavirus fear or lack of sleep the individuals reported poor mental health or muscles spasms. Hence, there is a need to describe the researches showing the prevalence of fear due to Cronavirus and its effects on sleep quality of the individuals.

REVIEW OF LITERATURE

This study was carried out to find out the effects of Cronavirus fear on the sleep disturbance among the individuals in Bahawalpur during the on going Cronavirus disease. As there is a scanty literature available on this topic the results of this research will contribute to fill the gap in the literature. The core focus of this study was to measure the fear and sleep quality during the period Cronavirus outbreaks. If we look back to the past, there is a sequel of number of pandemics causing fear, distress and other mental health related issues among the population Benham, 2020).

It was a March 11 of 2020 when the World Health Organization officially announced the Cronavirus disease. This creates an emergency in all over the world (WHO,2020). On the media a number of increases cases of deaths also increases the fear of death among the population. During this senario, the overall mortality rate was reported as 7.33 worldwide, and the number of confirmed cases were reported as 5693,631 and 453,335, accordingly. In all around the world approximately morethan 200 countries reported confirmed Cronavirus cases. This situation also enhances the emotioanl and behavioral problems and fear response to this fatal Cronavirus pandemic (WHO, 2020).

As per different reports acquired from the Cronavirus patients, it was revealed that the symptoms of high fever, tiredness, respiratory problems, uncontrolled dry coughing and decrease in smell sense were known as medical symptoms. But at the same time some psychological symptoms were also reported including fear, sleep problems, trembling, death anxiety and depression (Guan, 2020). Similarly, Hamilton et al. (2006) reported that Cronavirus pandemic not only created fear and crisis this pandemic also caused a lot of psychological anomilies or psychopathologies. The most common were trauma, anger, sleep terrors, insomnia etc. Many people reported that their symptoms become worsen when they watch death related news on media(Bastianon et al., 2020).

Furthermore, the increasing death rates or diagnosis of new Cronavirus cases and the resulting social isolation influence on the onset of mood related disorder among the population (Holahan et al., 2001). The most occuring psychopathologies as reported by Wang et al. (2021) were the moderate and sever symptoms of stress, depression and anxiety among Chinese population.

Rationale of the Study

During the past few years many researchers and studies have been done on Fear of COVID-19 and mental health issues but very few have done in underdeveloped countries, especially in Pakistan, therefore current study found a gap in research literature and carried out with the spirit to address the connections of Cronavirus fear with sleep quality. The core aim of this study was that quality of saleep or sleep is a key factor for satisfied mind. The disturbance in sleep further cause many other mental health issues. Therefore, this research was planned to address this issue in Bahawalpur City.

Objectives of the Study

The basic objectives of this research were:

1. To explore the relation between Fear of COVID-19 and Sleep disturbance among the individuals (vaccinated & non-vaccinated).
2. To study the Covid-19 fear as a predictor of sleep disturbance among all the individuals (vaccinated & non-vaccinated).
3. To explore the significance of difference between males and females on perceived fear of COVID-19 and sleep disturbance.
4. To compare the fear of covid-19 pandemic and sleep disturbance among vaccinated and non-vaccinated individuals.

Hypotheses of the Study

1. Fear of COVID-19 would be significantly correlated with sleep disturbance among all the individuals (vaccinated and non-vaccinated).

2. Coronavirus pandemic fear will be a significant predictor of sleep disturbance among overall population (vaccinated & non-vaccinated).
3. There will be a significant difference in the Fear of Cronavirus and sleep disturbances between male and female population.
4. The level of covid-19 pandemic fear and sleep disturbance would differ among vaccinated and non-vaccinated individuals.

METHODS OF THE STUDY

Problems Statement of the Study

This study was carried out to address the Covid-19 fear and its effects on the quality of sleep among the population living in Bahawalpur.

Research Design of the Study

One hundred (100) participants (50 male and 50 female) filled questionnaires with informed consent. The questionnaire took approximately 20 minutes to complete due to the severe condition of the participants. It was the cross-sectional research design in which people of different age that have common characteristic are studied. This is a descriptive type of research. In cross sectional design, people of different age that have some shared characteristics such as socio-economic status, background or behaviors are studied. This research was a descriptive in nature which means it's just described a phenomena or situation but did not explain the cause-and-effect relationships.

Sample Size

This research included (N=100) sample size which was estimated by using Daniel Supper. The sample was further divided into two categories that was male (n=50) and female (n=50) that was selected from different areas in Bahawalpur city.

Inclusion Criteria

In this study, only vaccinated and non-vaccinated individuals were included. The participants of age 20-50 years were considered beyond the fact of age, gender, family system and socioeconomic status. Only population of Bahawalpur City was enrolled in this study

Demographic Characteristics of the Sample

The research involved the demographic characteristic of age, gender, qualification, family system and socioeconomic status. Age of sample was limited to 20-50 without discrimination of male or female, educated or uneducated and low or middle. Dependent and Independent Variables In this research, fear of COVID-19 was used as independent variable and sleep disturbance was used as a dependent variable.

Assessment Measures

In this study two research scales were used. First of all to assess the fear due to Cronavirus the researcher collected data by administering Fear of Covid-19 Scale. This was a self-report measure of 7 items developed by Ahorsu et al., (2020). Secondly, the quality of sleep was measured by using Sleep Quality Scale (SQS). This scale was consisting of total 28 items which evaluate the 6 domains of sleep quality. Both of the scales were valid and reliable with acceptable psychometric properties.

RESULTS OF THE STUDY

Table No. 1 Demographic Information of the Study Population (N=100)

Respondent's Characteristics		F	%
Age	20-30 Years	30	30.0
	31-40 Years	45	45.0
	41-50 Years	25	25.0
Gender	Male	50	50.0
	Female	50	50.0
Family System	Combined	35	35.0
	Nuclear	65	65.0
Socioeconomic Status	Low	25	25.0
	Medium	65	65.0
	High	15	15.0

Note. The above table showed the frequency and percentage distribution of demographic variables. In demographic variables, age, gender, family system and socioeconomic status were considered for demographic variables.

Table No. 2 Correlation between Fear of COVID-19 and Sleep Disturbance among all the Participants of the Study (N=100)

	Fear of COVID-19 Scale	Sleep Disturbance
Fear of COVID-19 Scale	-	.50**
Sleep Disturbance	-	-

** $p < .01$

Note: The above table presented that fear of COVID-19 was significantly positively correlated with sleep disturbance.

Table No. 3 The effect of Fear of COVID-19 on Sleep Disturbance (N=100)

Predictors	Sleep Disturbance	
	Model 1 B	95% CI
Constant	92.76**	[78.21, 107.31]
Fear of COVID-19	.21**	[.09, .33]
R ²	.04	
F	11.75**	

** $p < .01$ B for Unstandardized regression coefficient, CI for Confidence interval

Note: The results showed that fear of COVID-19 scores were significant predictor ($R^2 = .04$, $p < .01$) in sleep disturbance, in other words fear of COVID-19 significantly effects sleep disturbance.

Table No. 4 Independent Sample t-test Used for Comparison between Male and Female Sample for the Effects of Fear of COVID-19 on Sleep Disturbance

Variable	Male (n = 50)		Female (n = 50)		t(98)	P
	M	SD	M	SD		
Fear of COVID-19	117.28	12.95	120.79	13.68	-2.11	.04
Sleep Disturbance	119.82	13.90	116.19	13.01	2.17	.03

Note: As depicted above the Coronavirus fear is high among female while sleep disturbance is high among male.

Table No. 5 Comparison of Vaccinated and Non-Vaccinated in Case of Fear of COVID-19 Fear and Sleep Disturbance

Variables	Vaccinated	Non-Vaccinated	T-Score	d.f	P-value
Fear of COVID-19	71.31	66.75	4.223	298	0.000
Sleep Disturbance	2.932	3.103	-2.857	298	0.005

Note. The fear of Coronavirus is high among vaccinated population and sleep problems are higher among non-vaccinated population.

DISCUSSION AND CONCLUSION

The basic purpose of this study was to address the resulting fear and disturbed sleep pattern due to Covid-19 pandemic among the individuals living in the Bahawalpur City. The overall results of the study revealed the overall score of fear was higher among vaccinated individuals, but the sleep disturbances were higher among non-vaccinated individuals. Similarly, the level of fear of covid-19 pandemic reported as higher among female population and sleep disturbance was slightly higher among male population. Similarly, the fear of covid-19 proved as a predictor of sleep disturbance and was correlated with the sleep disturbance among the individuals.

On the basis of the results depicted above, this concluded that covid-19 fear is a predictor of many psychological problems among the population and sleep disturbance is one of them. Hence, there is a need to address such mental and behavioral issues because of Coronavirus the population living in Bahawalpur City.

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