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Insomnia, Perceived Stress And Psychological Wellbeing Among Covid-19 Survivors

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ABSTRACT

The present study aimed to identify the relationships between insomnia, perceived stress and psychological wellbeing among covid-19 survivors. This quantitative study was correlational in nature and carried out through purposive sampling technique with the sample size of 150 covid-19 survivors including male (75), and females (75) between the age of 20 and 45. The existing literature taken into account provides significant insights to theoretical foundations of the study variables. The rationale of the study was to identify and explore the connection between insomnia, perceived stress and mental wellbeing as limited study has been done in this regard in Pakistan. The measurement tools being used in this study were Insomnia Severity Index, "Perceived Stress Scale," and "Ryff Psychological

Well-Being.". The results included the analysis of Demographics, Psychometric properties, Pearson product moment correlation, t-test and regression. The findings of the study showed that both insomnia and perceived stress had a significant negative relationship with psychological wellbeing. Additionally there was a significant positive relationship between insomnia and perceived stress. The study results also showed that a positive relationship had been found between the subscales of psychological wellbeing i.e. Anatomy, Environmental Mastery, Personal Growth, Positive Relations with others, Purpose in Life and Self-acceptance. The result also showed a significant gender difference in Insomnia, Perceived Stress and Psychological Wellbeing. Moreover, it was concluded that insomnia and perceived stress were the significant predictors of Psychological Wellbeing. Finally the gender comparison revealed that men experience more stress as compared to women among Covid-19 survivors. The insights from this research may bridge the existing educational and research gap in recognizing different psychological challenges tackled by covid-19 survivors.

Key words: Insomnia, Perceived Stress, Psychological Well-being, COVID-19 Survivors, Gender Differences, Correlational Study, Mental Health, Regression Analysis, Pakistan, Stress Predictors.

INTRODUCTION

The purpose of this study is to investigate the connection between COVID-19 survivors' psychological wellness, perceived stress, and insomnia. Three important corona viruses have emerged in the 21st century: MERS-CoV in Saudi Arabia in 2012, SARS-CoV in China, and the novel coronavirus (COVID-19), which initially surfaced in Wuhan, China, in late 2019. In addition to posing major risks to physical health, COVID-19 has detrimental impacts on emotional, social, and psychological well-being. Fear of disease, uncertainty, social alienation, and self-isolation are some of the variables that hinder mental health, which is described as the capacity to manage stress and reach one's full potential. According to a Chinese research, almost 35% of people suffered from psychological discomfort during the pandemic. After the first COVID-19 case was reported in Pakistan in February 2020, the government began enforcing preventive measures, which became more stringent as the number of cases increased.

Covid-19 Survivors

While COVID-19 is frightening, most people diagnosed with it recover as their immune system produces antibodies to fight the virus. However, the pandemic has caused significant stress due to isolation, limited social interaction, and balancing work-from-home responsibilities with household duties, leading to emotional and psychological strain for many families.

Insomnia

This disorder falls in the category of sleep-wake disorders. It's a disorder where people have trouble sleeping. In other words, it's a sleeplessness disorder. Individual fail to get enough sleep. Sleep disturbance is linked with

- Fail to initiate sleep
- Trouble to maintain sleep
- Waking up early (Regier et al., 2013).

The symptoms of this disorder caused by lot of factors like, genetic, mental factors, and societal factors. This disorder is dissimilar from sleep deficiency. Watching the news these days can be inducing additional anxiety.

Theories of Insomnia

There are several theories of insomnia existed in the literature. Some of them are explained below.

Cognitive Behavior Therapy

It's a combination of behavioral and conventional cognitive restructuring techniques, Pigeon said that CBT- is based on operant and classical conditioning, improvement of sleep interfering behaviors via sleep hygiene education, reduction and appreciation of hyper arousal cause of insomnia (Pigeon., 2010). The components of CBT contain psych education, behavioral plans, relaxation training and cognitive therapy.

Single-factor Theories of Insomnia

They suggest that sleep is controlled by a sole system, caused by a sole substance. Yet additionally gives off an impression of being much more confounded now than it's anything but a century prior.

Perceived Stress

People may experience comparable negative events but evaluate their severity differently, therefore stress is more about how unpredictable a person feels in life than it is about how often or what kind of stressful events they have experienced (Lazarus & Folkman, 2000). It is characterized by interactions between an individual and their surroundings that are interpreted as intimidating or overpowering their ability to cope. Depending on one's capacity to cope with the stressor, stress can cause both psychological and biological changes (Hawthorne & Cosley, 2014). Hans Selye (2011) extended Walter Cannon's "fight or flight" response in which the body produces hormones like norepinephrine and adrenaline in an emergency into the General Adaptation Syndrome, which includes the alarm, resistance, and exhaustion phases (Kemeny., 2003).

Stress levels have increased due to the COVID-19 pandemic's quick spread, intensity, and lack of resources, resulting in a global mental health catastrophe. Individuals' subjective sense of stress is what threatens their well-being, not the factual truth of events (Lazarus & Folkman, 2002). Consequently, the epidemic has caused widespread psychological problems like sadness, anxiety, insomnia, and increased stress perception.

Theories of Perceived Stress

There are numerous theories of perceived stress existed in the literature as well. Some of them are explained as follows.

Cognitive Activation Theory of Stress

There are four features of stress, stress exposure, stress stimuli, the non-

specific, stress response, and understanding of the stress response. These features measured individually. Stress reaction produces overall and unspecific physiological activation from one level to another. When something is omitted the stress response occurs. Officially, alarm happens when there is incongruity between what should be and what is should have of the same variable (Ursin & Erikson, 2004).

Theory of Selye's

This theory defines stress as a state demonstrated by a condition that contains nonspecific induced changes in genetic system. According to this theory stress consists of 3 stages. This phase displays autonomic impulsiveness. Counter shock phase considered by enlarged adreno-cortical movement. Second stage, signs of the alarm reaction disappear. When the aversive stimulation continues, confrontation gives way to overtiredness.

The Lazarus Theory

According to this theory two notions are significant to any mental stress model. First one is evaluation, person's appraisal of the importance of what is happening for their wellbeing. Second one is person's struggles in thought, action and copes particular needs. Mental stress viewed as a connection between environment and person evaluation as substantial for person's wellbeing.

Psychological Wellbeing

According to the World Health Organization (WHO), health is a comprehensive state of physical, social, and mental well-being rather than just the absence of illness (Edwards, 2005). This shifts the focus from a purely medical model to a psychological one (Conway & Macleod, 2002). Psychological well-being has become a major issue of conversation in Pakistan in recent years and has emerged as a fundamental component determining quality of life in the twenty-first century (King & Napa, 2001). According to scholars, psychological well-being is a component of long-term enjoyment and is cultivated by an individual's capacity to manage challenges or environmental demands (Mock et al., 2019).

With millions of illnesses and fatalities reported by the WHO, the COVID-19 pandemic has caused previously unheard-of global problems, underscoring the critical role that mental health plays in general wellbeing. Although people react differently, with some exhibiting resilience and others experiencing extreme stress, worry, and terror, the virus's fear and uncertainty have resulted in increased psychological anguish. As seen after traumatic events such as the 9/11 attacks, personal characteristics are crucial in determining how people cope with adversity (Bonanno et al., 2005).

Psychological Well-being Model of Carol Ryff

David and Ryff's (2014), suggest that the psychological Well-being model is different from past models because it engaged in different aspects of well-being. A Person's life experiences and his or her interpretations of these experiences affect their well-being. According to Ryff (2014), there are six components; autonomy (Weinberg & Gould, 2007), personal growth (Dweck, 2005), environmental mastery (Ryff, 2014), positive relations with others (American Psychiatric Association, 2000),

purpose in life (Potgieter et al., 2007) and self-acceptance (Weinberg & Gould, 2007).

Seligman's PERMA Model

This model was introduced by Seligman in 2011. This model defines psychological well-being in five dimensions that contribute to the overall wellbeing (Margaret et al., 2015). According to Seligman (2011), a feeling of happiness is one of the most obvious connections to happiness, it is the skill to be optimistic and sight the past, present, and future in a positive perspective. Positive relationships are the significant aspect of life that includes sensation publicly joint, be concerned about, and reinforced by others (Walker, 2009).

LITERATURE REVIEW

Using the body of existing research as a guide, the current study sought to investigate the connections between sleeplessness, perceived stress, and psychological health in COVID-19 survivors. In order to investigate the relationship between insomnia, perceived stress, and coping strategies, Palagini (2016) conducted a cross-sectional study on 371 hypertensive individuals. The results showed that those who had insomnia had higher levels of stress and worse coping than those who did not, with variables such as anxiety and depression possibly moderating these relationships. Similarly, Hamilton et al. (2007) showed that sleep duration was adversely connected with anxiety and depression and favorably correlated with psychological well-being in their study of 682 adults.

Significant relationships between perceived stress, psychological well-being, and emotional stability were found by Strizhitskaya et al. (2018) in their study of 323 members of the general population. In their study of 289 females, Heizomi et al. (2018) found that psychological well-being was negatively correlated with perceived stress and favorably correlated with life satisfaction, hopefulness, happiness, and self-efficacy. Furthermore, Zhai et al. (2018) studied Chinese undergraduates and found a negative correlation between psychological well-being and sleep quality. Together, these research demonstrate the complex relationship that exists between stress, sleep, and mental health.

150 nurses, 120 of whom were women and 30 of whom were males, participated in a cross-sectional study by Pachi et al. (2020) to investigate the association between sleeplessness, perceived stress, and family support during the pandemic. According to the results, 50.3% of individuals reported having significant levels of stress, and 49.7% reported having trouble sleeping. Similarly, using an online survey, Ceri and Cicek (2021) examined stress, depression, and mental health among 546 Turkish healthcare and non-healthcare professionals. Psychological well-being and stress among healthcare workers varied by gender, age, and work environment, and were substantially connected with depression and anxiety, even though there were no significant variations in stress, depression, or well-being between the two groups. Furthermore, Qorbani et al. (2020) used a cross-sectional design to evaluate the prevalence and severity of stress, anxiety, depression, and stress perception in 106 COVID-19 patients. According to the study, there were

significant correlations between perceived stress, depression, and anxiety. One-third of participants had pre-existing disorders, 97.2% had despair, all had severe anxiety, and 97% had high stress levels.

Insomnia and perceived stress are tightly related; insomnia frequently results from a person's subjective stress experience, which affects day-to-day functioning (Li et al., 2006). Although its impact varies depending on personal perceptions rather than the real stresses, stress has been found to be a substantial contributor to sleep disruptions (Redeker et al., 2020; Lazarus & Folkman, 2006). Chronic stress can cause endocrine imbalance, emotional arousal, and sleep problems by upsetting both mental and physical stability (Sterling & Eyer, 2014; Yan et al., 2010). Research continuously shows that perceived stress and sleep quality are negatively correlated, with higher perceived stress being associated with more anxiety, sadness, and sleep issues (Eskildsen & Liu, 2017; Gerber et al., 2010). For example, Aydin et al. (2021) discovered that emotional discomfort and insomnia were predicted by perceived stress in kidney transplant recipients. According to Khan (2020), Pakistan's psychological health deteriorated during COVID-19.

In a similar vein, Morin (2016) noted that those with hypertension experienced increased stress and had trouble coping. While Sandesh et al. (2020) found elevated levels of stress, anxiety, and depression among healthcare workers during the pandemic, Abdullah and Musa (2020) found a strong correlation between stress and insomnia in physicians impacted by COVID-19. Insomnia and perceived stress were found to be directly correlated by Cardoso et al. (2021), but they also observed some adverse connections in quality of life indicators. According to Tucker et al. (2020), university students' resilience mitigated the negative effects of stress and anxiety on their sleep. Suleman et al. (2018) found a significant correlation between school heads' reported stress and their lower mental health in Pakistan, supporting the psychological harm that stress causes to a wide range of people.

A study by Yusof et al. (2019) looked at how stress affected 368 students' psychological well-being and found that stress and sadness had a major impact on mental health in general. Similarly, Ofori et al. (2018) used a cross-sectional design and convenient sampling to examine academic stress, interpersonal relationships, and mental well-being in 200 final-year students. They discovered a significant correlation between psychological well-being and interpersonal relationships. German students reported higher levels of stress than their Dutch counterparts, while female students reported higher levels of stress than male students, according to Wilbert's (2012) study on stress and mental health among psychology students. In a different study, Anushri et al. (2014) investigated psychological well-being and stress in 800 dentistry students in Bangalore. They found that, as a result of gender and health-related behaviors, females had higher levels of stress and lower psychological well-being. In their 2020 study of 640 undergraduate students, Rodriguez et al. evaluated the impacts of stress, anxiety, and fear of COVID-19. They discovered high correlations between these factors, suggesting that they play a part in the development of depression.

Rationale of the Study

The COVID-19 pandemic brought about a seismic shift in the psychological, social, and physical well-being of individuals across the globe. While the medical consequences of the virus have been well-documented, its psychological aftereffects particularly insomnia, perceived stress, and reduced psychological well-being remain areas of growing but insufficient exploration, especially in low- and middle-income countries like Pakistan. COVID-19 survivors have not only endured the biological impact of the disease but also faced extended periods of isolation, fear of reinfection, financial strain, stigma, and uncertainty, which collectively amplify psychological distress and sleep-related issues. Insomnia, as a common post-COVID complaint, is intricately linked with heightened stress perception and declining mental well-being (Huang et al., 2020). These interrelated psychological outcomes demand careful investigation in populations recovering from the pandemic.

Despite the high number of COVID-19 cases in Pakistan and its socio-economic vulnerability, there is a noticeable scarcity of empirical research focusing on the psychological sequelae among Pakistani COVID-19 survivors. The unique cultural, social, and healthcare challenges faced by individuals in this region such as limited access to mental health care, high levels of misinformation, and collectivistic family dynamics may influence how stress, insomnia, and well-being manifest and interact post-infection. Studying this phenomenon in the Pakistani context is crucial not only for academic enrichment but also for informing local health policy, developing culturally responsive interventions, and reducing the long-term psychosocial burden on an already fragile healthcare system.

This study addressed a significant research gap by examining the relationship between insomnia, perceived stress, and psychological well-being among Pakistani COVID-19 survivors. It contributes uniquely by offering indigenous data, advancing our understanding of post-COVID mental health in a non-Western context, and providing groundwork for future interventions tailored to the needs of this vulnerable population. As the world transitions into a post-pandemic reality, such culturally situated research is imperative for holistic recovery and resilience building in developing nations like Pakistan.

Objectives of the Study

- I. To examines link of insomnia and perceived stress with psychological well-being in covid-19 survivors.
- II. To identifies the predictor of psychological well-being in covid-19 survivors.
- III. To finds out gender deference in insomnia, perceived stress and Psychological wellbeing in covid-19 survivors.

Hypotheses

- I. Insomnia and perceived stress will significantly associated with each other.
- II. Insomnia and Perceived stress will likely to predict psychological well-being in covid-19 survivors.
- III. There will likely to be a significant gender difference in insomnia, perceived stress and psychological well-being in covid-19 survivors.

- i. Men experience higher levels of stress as compared to women during covid-19.

Proposed Model

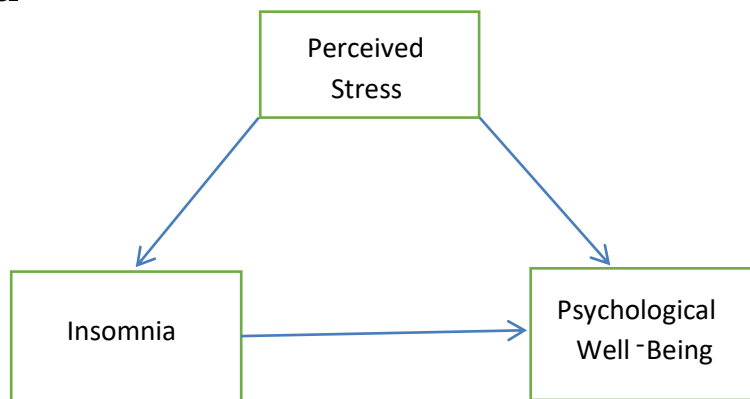


Figure 1: The proposed model for link between insomnia, perceived stress and psychological wellbeing.

METHODOLOGY

This research study aims to identify the relationships between insomnia, perceived stress and psychological wellbeing among covid-19 survivors. This chapter covers the research design, sampling strategy, operational definitions of the constructs, measures used and procedure of the study.

Research Design

Correlational research design was used in present research. A research design of non-experiment in which the investigator asses two variables and evaluate the link between variables with the objective of controlling external variables (Shaughnessy et al., 2014).

Participants

Purposive sampling technique used with the purpose in mind that which people suit for this study. Total number of candidates will be (N=150). The participants of both gender males (n=75) and females (n=75), age (20 to 45 years) were include in this study.

Inclusion Criteria

Only those people were approached who were recovered from corona were included in this study.

Exclusion Criteria

Those who have any other physical and health problems were not be included in this study.

Table 1:Demographic data of Sample (N=150)

Variables	M (SD)	F (%)
Age	32.16(5.99)	
Gender		

Male			75(50.0)
Female			75(50.0)
Education			
Primary			3(2.0)
Secondary			7(4.7)
Intermediate			41(27.3)
Higher			99(66.0)
Marital status			
Married			83(55.3)
Unmarried			67(44.7)
Profession			
Employed			96(64.0)
Unemployed			54(36.0)
Family System			
Nuclear			98(65.3)
Joint			52(34.7)
Socioeconomic Status			
Low			19(12.7)
Middle			126(84.0)
High			5(3.3)
Physical Illness			
No			150(100)
Psychological Illness	No	150(100)	

Note: M = Mean, SD = Standard Deviation, f = frequency, % = percentage

Measures

The following instruments were used in this study:

Demographic Sheet

Demographic sheet is a self-developed sheet. Participant's personal information was obtained through demographic sheet. It consists of age, gender, education, occupational status, marital status, socioeconomic status and religion etc.

Informed Consent

It is a written contract between the participants and researcher. The nature and aims of the research were educated to the participants. The privacy and confidentiality will remain confidential. Participants have right to withdraw if they may feel hesitation they may leave it.

Insomnia Scale

Charles M. Morin (2001) develops this scale. It is a brief self-report scale, measuring sleeping disturbances. It consists of 7 items. It's a five-point scale 0 to 4. It's ranging from 0 to 28. It's Cranach's alpha value for was 0.75

Perceived Stress Scale

It was developed by Sheldon Cohen. It's a 5 point scale 0-4. It has 0-40. High total showing higher perceived stress. There are no cut-off scores. Its Cronbach's alpha was 0.82.

Psychological Wellbeing Scale

Carl Ryff developed this scale in 1989. It contains of 18 items. It is 7 point scale. It has 1-7 range. The whole scale reliability is $\alpha=.81$. Items 1, 4, 5, 8, 15, 16, 17, 18 are reversely scored.

Procedure

The selection of the research topic and the creation of hypotheses marked the start of the investigation. The original authors of the scales used in the study granted permission, and the research advisor's approval was also sought. After that, permission to carry out the study was requested from the appropriate institutional authorities. Before being authorized for data collection, the questionnaire was examined by experts and changes were made in response to their comments. Three qualified translators translated the Insomnia Severity Index (ISI) into Urdu, and translated versions of the Psychological Wellbeing and Perceived Stress Scales were used. Only the most trustworthy elements were kept after the translated version was further improved in response to expert critiques. Three proficient translators who were not familiar with the original scale performed a back-translation to ensure accuracy, and the final version was compared to the original to ensure consistency.

Data collection began on February 25, 2021, once a final draft was completed. A Google Form with five sections informed consent, demographic information, the Insomnia Severity Index, the Perceived Stress Scale, and the Psychological Wellbeing Scale was given to COVID-19 survivors in order to gather data. The Research Ethics Committee of Kinnaird College for Women's Department of Applied Psychology in Lahore examined and approved the study protocol. Ethical guidelines

were rigorously adhered to during the whole research process; informed consent was acquired, participant privacy was protected, and the freedom to leave the study at any moment was respected.

Statistical Analysis

In this study the SPSS version 22 used to analyze the results. Correlation was used to recognize the link between insomnia, perceived stress psychological well-being in survivors of COVID-21. *T-test* was used identify sex alterations among variables.

RESULTS

The present study aimed to identify the relationships between insomnia, perceived stress and psychological wellbeing among covid-19 survivors. This chapter will explain the statistical analysis being done including the psychometric properties of the study variables, correlation, t-test and regression.

Table 2: *Psychometric Properties of Major Study Variable in the Sample (N=150)*

Scale	M	SD	Range	Cronbach's
ISI	22.53	2.89	7-35	.713
PSS	27.66	7.06	10-50	.954
AU	4.6	1.31	3-21	.696
EM	6.43	2.66	3-21	.915
PG	5.24	2.18	3-21	.879
PR	5.07	1.54	3-21	.714
PL	5.94	2.63	3-21	.957
SA	5.54	2.39	3-21	.895

Note: α = Cronbach's alpha, M= Mean, SD = Standard Deviation; ISI=Insomnia Severity Index;

PSS=Perceived Stress Scale; AU=Autonomy Subscale; EM=Environmental Mastery; PG=Personal Growth; PR=Positive Relations; PL=Purpose in life; SA=Self-acceptance
Cronbach's alpha values for all scales can also be seen in table 1 and all values provide evidence of good to excellent reliability of questionnaires used in the study.

Table 3: *Interco relation between Insomnia, Perceived Stress and Psychological Wellbeing among Covid-19 Survivors (N = 150)*

Variables	1	2	3	4	5	6	7	8	M	SD
ISI	1	.538***	-.215***	-.722***	-.502***	-.286***	-.515***	-.542***	22.53	2.89
PSS	1		-.249*	-.537***	-.779***	-.612***	-.790***	-.791***	27.50	7.32

Variables	1	2	3	4	5	6	7	8	M	SD
AU			1	.105	.172*	.106	.254**	.168*	1.53	.436
EM				1	.529***	.370***	.545***	.571***	2.14	.889
PG					1	.587***	.719***	.713***	1.74	.728
PR						1	.578***	.547***	1.96	.622
PL							1	.677***	1.98	.878
SA								1	1.84	.796

Note. *ISI = Insomnia Severity Index; PSS = Perceived Stress Scale; AU = Autonomy; EM = Environmental Mastery; PG = Personal Growth; PR = Positive Relations; PL = Purpose in Life; SA=Self-Acceptance.* * $p < .05$; ** $p < .01$; *** $p < .001$

It is used to explore the link between insomnia, perceived stress, and wellbeing in COVID-19 survivors. Results showed a significant positive strong association between insomnia and perceived stress. It means higher the perceived stress, higher the insomnia, and vice versa. There is a significant negative weak relationship between insomnia and autonomy. There is a significant negative weak relationship between insomnia and positive relations with others. There is a significant strong negative relationship between insomnia, environmental mastery, personal growth, purpose in life, and self-acceptance. There is a significant negative weak relationship between perceived stress and autonomy. Whereas there is a significant strong negative relationship between perceived stresses, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance.

There is a significant positive weak relationship between autonomy, personal growth, purpose in life, and self-acceptance. There is a significant positive moderate relationship between environmental mastery and positive relations with others. Whereas environmental mastery is a significant strong positive relationship with personal growth, self-acceptance, and purpose in life. There is a significant positive strong relationship between personal growth, positive relations with others, purpose in life, and self-acceptance. There is a significant positive connection between positive relations with others, purpose in life, and self-acceptance. There is a strong positive relationship between purpose in life and self-acceptance.

Table 4: Mean, Standard Deviation and t-value on Insomnia, Perceived Stress and Psychological Wellbeing among COVID-19 survivors (N=150)

Variables	Male = 75		Female = 75		T(148)	P	Cohen's <i>d</i>
	M	SD	M	SD			
ISI	22.94	2.71	22.12	3.03	.08	.08	.00
PSS	29.04	5.09	25.97	8.79	.01	.01	0.42
AU	1.50	.44	1.56	.42	.42	.42	0.13

EM	2.00	.85	2.2	.90	.06	.06	0.22
PG	1.60	.56	1.88	.84	.01	.01	0.39
PR	1.80	.58	2.1	.62	.00	.00	0.49
PL	1.80	.66	2.1	1.02	.01	.01	0.34
SA	1.70	.59	1.99	.94	.02	.02	0.36

Note: ISI=Insomnia Severity Index; PSS=Perceived Stress Scale; AU=Autonomy Subscale; PR=Positive Relations; PL: Purpose in life, SA: Self-acceptance

Results showed a substantial gender variance in perceived stress. Mean scores indicates that men (29.04) experience more stress than women (25.97). There is a significant gender difference in personal growth, positive relations with others, purpose in life and self-acceptance. Mean value showed that mean values of females are higher than the mean values of male. While no substantial gender variance in insomnia, autonomy and environmental mastery. Multiple hierarchical linear regression was used to find the predictor of six domains of mental wellbeing in covid-19 survivors. In model 1 linear regression demographics (Gender, education and occupation) were added in the independent column. In the model 2 fear of Covid-19 was added in the independent column. In the model 3 perceived stress was added in the independent column. Psychological wellbeing was added in the dependent column to find out its predictors. The assumption for the independence of error is tested by Durbin Watson value which is within the range of 1-3, thus this assumption is met as the value is within the normal range. Another assumption of regression is to have perfect multinonlinearity which is assessed by the value of tolerance >10; here all the values of tolerance are below 10, thus this assumption also met. In the first model for Autonomy, demographics were added as a predictor variable and regression model was found significant $F(2,146) = 2.43, p=.06$. This regression mode l explained 4% variance in the dependent variable. In model 2, Insomnia was added along with the effect of model 1, the regression model was still significant $F(4,145) = 3.13, p=.01$. This regression model explained 3% variance in the dependent variable. In the model 3, perceived stress was added along with the effect of model 2, the regression model was significant $F(5,144) = 3.14, p=.01$. This regression model explained 2% variance independent variable. In the first model for Environmental mastery, demographics were added as a predictor variable and regression model was found significant $F(3,146) = 4.00, p=001$. This regression model explained 7% variance in the dependent variable. In model 2, Insomnia was added along with the effect of model 1, the regression model was still significant $F(4,145) = 40.4, p=001$. This regression model explained 45% variance in the dependent variable. In the model 3, perceived stress was added along with the effect of model2, the regression model was significant $F(5,144) = 35.94, p=001$. This regression model explained 3% variance in dependent variable.

In the first model for Personal Growth, demographics were added as a predictor variable and regression model was found significant $F(3,146) = 3.17, p = .02$. This regression model explained 6% variance in the dependent variable. In model 2, insomnia was added along with the effect of model 1, the regression model was still significant $F(4,145) = 13.50, p > .001$. This regression model explained 21% variance in the dependent variable. In the model 3, perceived stress was added along with the effect of model 2, the regression model was significant $F(5,144) = 46.48, p > .001$. This regression model explained 34% variance in dependent variable.

In the first model for Positive relation with others, demographics were added as a predictor variable and regression model was found significant $F(3,146) = 3.84, p = .01$. This regression model explained 7% variance in the dependent variable. In model 2, insomnia was added along with the effect of model 1, the regression model was still significant $F(4,145) = 5.47, p > .001$. This regression model explained 6% variance in the dependent variable. In the model 3, perceived stress was added along with the effect of model 2, the regression model was significant $F(5,144) = 18.8, p > .001$. This regression model explained 26% variance independent variable.

In the first model for Purpose in life, demographics were added as a predictor variable and regression model was found significant $F(3,146) = 3.47, p = .01$. This regression model explained 6% variance in the dependent variable. In model 2, insomnia was added along with the effect of model 1, the regression model was still significant $F(4,145) = 15.29, p > .001$. This regression model explained 23% variance in the dependent variable. In the model 3, perceived stress was added along with the effect of model 2, the regression model was significant $F(5,144) = 52.38, p > .001$. This regression model explained 35% variance in dependent variable.

In the first model for Self-acceptance, demographics were added as a predictor variable and regression model was found significant $F(3,146) = 7.23, p = .09$. This regression model explained 13% variance in the dependent variable. In model insomnia was added along with the effect of model 1, the regression model was significant $F(4,145) = 18.81, p > .001$. This regression model explained 21% variance in the dependent variable. In the model 3, perceived stress was added along with the effect of model 2, the regression model was significant $F(5,144) = 57.77, p > .001$. This regression model explained 32% variance in dependent variable.

Among predictors gender emerged as a significant positive predictor of, environmental mastery, personal growth, positive relations with others, purpose in life and self-acceptance whereas occupation emerged as significant positive predictor of environmental mastery and self-acceptance.

Insomnia emerged as a significant negative predictor of autonomy, environmental mastery, personal growth, positive relation with others, purpose in life and self-acceptance. Perceived stress emerged as a significant negative predictor of environmental mastery, personal growth, positive relation with others, purpose in life and self-acceptance.

DISCUSSION

This study looked into the connection between COVID-19 survivors' psychological wellness, perceived stress, and sleeplessness. The results are examined in the context of prior studies as well as theoretical and cultural viewpoints. The current study's findings confirmed the hypothesis that sleeplessness would have a negative correlation with the aspects of psychological wellness in COVID-19 survivors. It was discovered that there was a substantial negative correlation between the wellbeing of survivors and the severity of their sleeplessness symptoms. These results are in line with previous studies, including one conducted in 2007 using data from the National Survey of Midlife Development in the United States, which also found a significant negative correlation between psychological wellbeing and insomnia, even after controlling for co-occurring psychological and physical disorders. All aspects of psychological wellbeing autonomy, environmental mastery, personal development, healthy relationships, life purpose, and self-acceptance were negatively connected with sleeplessness in the current study.

The results confirmed the present study's hypothesis that there was a negative correlation between COVID-19 survivors' psychological wellness and felt stress. The findings showed that survivors with higher perceived stress levels also expressed less wellbeing. This is consistent with earlier research, including a 2018 study conducted in Pakistan by Suleman et al. that looked at the connection between psychological wellness and perceived stress among Khyber Pakhtunkhwa secondary school heads.

Using Ryff's Psychological Wellbeing Scale (RPWB) and the Perceived Stress Scale (PSS), the study discovered a significant negative correlation between psychological wellbeing and perceived occupational stress. The results of the current study are further supported by a 2016 study conducted in India by Anand and Nagle, which discovered a negative correlation between perceived stress and all six aspects of psychological wellness among college students.

It was predicted that psychological wellness in COVID-19 survivors would be predicted by perceived stress and sleeplessness. The present study's findings indicated that psychological wellness was predicted by perceived stress and sleeplessness. According to the results, the current study's findings are supported by earlier research.

Barutcu et al. (2021) carried out a study. The study's goal was to determine how kidney transplant patients' perceptions of stress related to their sleep, depression, insomnia, and general well-being during the COVID-19 epidemic. In this cross-sectional study, 106 kidney transplant recipients were assessed. The study population was chosen from among kidney transplant recipients who were monitored at the transplant clinic at Marmara University Hospital. Among addition to being an independent predictor of psychological health and depression among kidney transplant recipients during the Covid-19 pandemic, a higher perceived stress scale score is positively correlated with insomnia. In order to preserve graft function with high treatment compliance, early detection and intervention of sleep problems

and psychiatric illnesses are crucial as the pandemic continues to spread rapidly throughout the world (Barutcu et al., 2021).

It was anticipated that among COVID-19 survivors, there may be a positive correlation between perceived stress and sleeplessness. The results of this study showed a strong positive correlation between perceived stress and sleeplessness. It demonstrated that survivors who suffer from sleeplessness also sense stress, and vice versa.

The results can be related to the previous literature supports the result of current study. Similarly

Barutcu Aydin et al. (2021) carried out a study. The purpose of this study was to examine the relationships among kidney transplant recipients' sleep quality, perceived stress, insomnia, anxiety, and depression. In this study, 106 participants were assessed. The research design was cross-sectional. Anxiety and depression are predicted by higher perceived stress levels, which are also associated to insomnia.

Abdullah and Musa (2020) carried out a study. Their study's focus was on the relationship between doctors' sleeplessness and stress during COVID-19. The study's objective was to quantify sleep disruption and its association with COVID-19 in physicians. This survey involved 268 physicians. In patients with COVID-19, the investigation verified a strong correlation between stress and sleeplessness.

CONCLUSION

The current study significantly advances our knowledge of sleeplessness, perceived stress, and its impact on psychological wellness among COVID-19 survivors despite these limitations. The findings showed that psychological wellness was negatively connected with both insomnia and perceived stress. It becomes clear that the components of psychological wellness that account for the greatest variation in Positive Relations with Others (PR), Environmental Mastery (EM), and Self-Acceptance (SA) are Sleeplessness and Perceived Stress. To my knowledge, relatively few research have examined the connection between psychological wellness, perceived stress, and insomnia in COVID-19 survivors, despite the fact that each of these factors has been thoroughly examined separately.

Limitation, Strengths and Implications

There were numerous restrictions on the current investigation. The sample was drawn from Lahore, one of Pakistan's cities. Only the urban population was included in the sample; in order to provide a more comprehensive and accurate view of the entire relationship, the rural population must also be included. There was a small sample size. It took a lot of time to complete the online questionnaires. Covid-19 prevented its implementation and generalization. Nevertheless, the current study makes a number of theoretical and practical contributions in spite of these drawbacks. By investigating the connection between sleeplessness, perceived stress, and psychological wellness, this study theoretically builds on earlier studies.

Researchers in the fields of psychology, psychiatry, and related fields should be very interested in the findings of this study. The negative portrayal of COVID-19

outbreaks is currently growing as the days go by, and it is thought that bringing attention to the pandemic's secondary effects as well as knowledge and understanding of the psychological wellbeing, insomnia, and perceived stress that are likely to develop in COVID-19 patients will help to broaden the perspective in this direction and inspire research strategies. The literature will benefit greatly from significant contributions regarding a deeper comprehension of sleeplessness, perceived stress, and psychological wellness when analogous studies are carried out in many cultures and nations.

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