



Original Article

Psychological Distress, Adaptation, And Well-Being in COVID-19 Recovered Patients: A Correlational Descriptive Study

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ABSTRACT

The novel SARS-CoV-2 virus was reported in the province of Wuhan china and spread to more than 220 countries in no time. The patient who diagnosed corona virus has symptoms of flu, fever, sore throat and respiratory tract infection. In Pakistan the cases of covid-19 were also higher (305,671) and deaths (6416) due to six biggest populations in the world. **Objective:** The aim of the study was to explore the psychological distress, adaptation and well-being of patients diagnosed with covid-19 in Pakistan. **Methods:** A descriptive correlational study was conducted from May 2021 to September 2021 having a sample size of 173 having a consecutive sampling technique in Khyber teaching hospital and Hayat Abad medical complex Peshawar. Data was collected through valid and reliable instruments that are: Kessler Psychological Distress Scale (k-10), psychological adaptation scale (PSA), and The Warwick-Edinburgh mental well-being scale (WEMWBS) were used for data collection. Microsoft Excel and SPSS were used for analysis of mean, standard deviation, independent t-test and Pearson correlation. **Results:** In this study the number of male participants was higher (56.6%) than female participants (43.4%). The k-10 means score were (34.42), PSA (80.86) and Well-being was (59). Independent t-test findings were (k-10) p-value=0.713, (PSA) p-value= 1.501 and well-being p-value (0,795). The Pearson correlation shows that psychological distress was strongly correlated with PSA (p-value=0.002), and well-being (p-value=0.001). **Conclusions:** The study concluded that patient were physically, psychological, and emotionally affected after covid-19, so hospitalized patients received only physical treatment regimens and the other aspects of holistic care, especially psychological care, were ignored by the healthcare professionals.

INTRODUCTION

The novel coronavirus SARS-CoV-2 virus was first identified in the Wuhan province of China, where unexplained cases of patients were admitted for having symptoms of flu in December 2019 [1]. Later, on June 12th, 2020, the WHO reported the cases globally were 7410510 with a total death toll of 418294, USA stood on top regarding cases as well as mortality [2]. Pakistan in the eastern Mediterranean region had a case of 305,671 with total deaths of 6416 and recovered 292,303 [3]. More than 220 countries reported 29.3 million laboratory confirmed cases

of COVID-19 on all continents except Antarctica [4]. Mental or psychological well-being encompasses a broad phenomenon in which psychological distress serves as an indicator or predictor and is defined as non-specific symptoms of stress, personality traits, functional disabilities, behavioral problems, anxiety, and depression [5]. Along with the other associated and correlated factors, psychological distress most often arises with exposure to stressful events or stressors, and the emotional turmoil leads to ineffective coping or adaptation [6]. Pandemics

such as COVID-19 are associated with an increased burden of deteriorated mental health and psychological distress along with the physical manifestations [7]. Psychological well-being has been defined as the "inter and intra-individual levels of positive functioning that can include one's relatedness with others and self-referent attitudes that include one's sense of mastery and personal growth [8]. Thus, psychological or mental well-being is mainly the emotional well-being and feelings of contemplation, joy, satisfaction, pro-social behavior, positive thinking and acting, and subjectively feeling and having good well-being [9]. Adaptation is an umbrella term encompassing a couple of types, including structural, physiological, and psychological. Psychological adaptation integrates and covers specifically the behavioral, cognitive, personality, attitude, and trait responses of the individual to cope as a result of stimulus. These include the evolved psychological mechanisms that modify the cognitive, psychomotor, and behavioral responses and the executive functions of the mind. In this regard, effective distress management necessitates successful adaptation, which includes coping strategies, improving self-esteem abilities, social integration, and spiritual well-being, among other things [10]. The purpose of this study was to explore the psychological distress, adaptation, and well-being among the survivors of COVID-19.

METHODS

The design of this study was correlational descriptive study and was conducted in the corona care units of Khyber Teaching Hospital (KTH) and Hayatabad medical complex (HMC) from May 2021 to September 2021. The study population was those patients who were diagnosed with COVID-19 and admitted to specialised corona units in both of the tertiary care hospitals in Peshawar. The sample size for the study was calculated through the Raosoft calculator having a 95% confidence level, with 5% error and 50% prevalence, which was finalised at 173. A consecutive sampling strategy was utilized by visiting the corona isolation centre units on specific days. The study was divided into two parts: part A collects demographic information about the patient, and part B collects data using three valid and reliable instruments. In this study, three instruments were used: The Kessler Psychological Distress Scale (K-10) (it contains 10 questions with a 5-point Likert scale from 5 means "all the time" to 1 means "none of the time". The instrument cronbach alpha was 0.88 [11]. Psychological adaptation scale (PSA) (25 items, each worth 5 points) On the Likert scale, 1 means not at all to 5, very much. (Cronbach's alpha = 0.94) [12]. The Warwick-Edinburgh mental well-being scale (WEMWBS) contains 14 items with 5 points. On the Likert scale, 1 means "none of

the time" and 5 means "all of the time". [13] Consistency ($r = 0.94$). The data collection process took approximately six to eight weeks to complete after approval from the KMU Advance Studies Review Board and Ethical Board. Data was collected by the primary investigator herself in the field. The investigator filled out questionnaires with the participants in the English language medium. Descriptive analyses (frequencies, percentages, and means) were obtained and depicted in tables and graphs. An independent t test was applied to categorical variables with the mean score on the K10, PSA, and WEMWBS scales (Gender, Education, Employment, and Marital status). For continuous variables (age, disease duration), the mean and SD were calculated, and correlation were applied for association among the study instruments.

RESULTS

The total number of participants in this study was 173. The number of male participants was higher (56.6%) than female participants (43.4%). Patients aged 46 to 55 years old are the maximum number of participants in this age group. Married patients were also higher (78%) compared to singles (20.2%) as seen in table 1.

Characteristics		Frequency (n-173) (%)
Gender	Male	98(56.6%)
	Female	75(43.4%)
Age	25 and below	32(18.5%)
	26 to 35	32(18.5%)
	36 to 45	37(21.4%)
	46 to 55	38(22.0%)
	56 to 65	24(13.8%)
	66 and above	10(5.8%)
Marital status	Single	35(20.2%)
	Married	135(78.0%)
	Widowed	03(1.8%)
Religion	Islam	172(99.4%)
	Other	01(0.6%)
Education	Uneducated	70(40.5%)
	Primary to High	82(47.4%)
	Graduate and above	21(12.1%)
Profession	No jobs	74(42.8%)
	Students	12(6.9%)
	Self-business	87(51.2%)

Table 1: Demographic data of the participants

Table 2 shows the mean and standard deviation scores of the participants. The participants' psychological distress (K-10) mean score was (34.42 ± 6.46), their psychological adaptation (PSA) mean score was (80.86 ± 6.82), and their well-being was (59 ± 4.43).

Variable	Mean \pm SD	Median	Min	Max
Psychological distress (K10)	34.42 \pm 6.46	35.00	18.00	48.00
Psychological adaptation (PSA)	80.86 \pm 6.82	81.00	67.00	97.00
Well-being (WEMWBS)	59.00 \pm 4.43	60.00	47.00	68.00

Table 2: Mean and standard deviation of the participants

In Table 3 An independent t-test was applied to compare the mean score of all three variables. The t-values of psychological distress were (0.713), adaptation (1.501), and well-being (0.795), while the p-value shows no significant association.

Independent t-test	Gender	N	Mean \pm SD	T	p-value
Total K10 Score	Male	98	34.73 \pm 6.60	.713	.477
	Female	75	34.02 \pm 6.29		
Total PSA Score	Male	98	81.54 \pm 6.26	1.501	.135
	Female	75	79.97 \pm 7.44		
Total WEMWBS Score	Male	98	59.23 \pm 4.22	.795	.428
	Female	75	58.69 \pm 4.71		

Table 3: Independent t-test of stress, adaptation and well-being

Table 4 shows that psychological distress (K-10) has strong correlation with psychological adaptation (PSA) p-value (0.002) and well-being (WEMWBS) p-value (0.001), while the age have no association with psychological distress, psychological adaptation and well-being.

Variable	K-Distress scale		PSA		WEMWBS	
	R	p-value	R	p-value	R	p-value
Distress scale (k-10)			-.232**	.002	-.248**	.001
Age	-.032	.672	.066	.388	.012	.879

Table 4: Correlation of K-10 with selected variables

DISCUSSION

The study participants were those who had previously had a COVID-19 PCR positive and when the repeated PCR becomes negative within and up to a maximum of 10 days' time, either hospitalized or quarantined, were selected for the study. The likelihood of psychological effects such as confusion, stress, anxiety, depression, anger, fear, distress, and post-traumatic disorders increased during self-isolation and quarantine [14-16]. The Italian study in which 20,115 participants recorded their responses prior to the 14 days of quarantine reported an overall psychological impact of 48.6%, including mild to moderate (43.4%) and severe psychological impact of (5.2%)[17]. Another study in Iran also reported a psychological distress of 59% in the study participants during the COVID-19 pandemic [18]. The results of these studies are far much less as compared to the psychological distress of the current study, in which mild distress was reported by (5.8%), followed by moderate distress (13.9%), and severe distress among the participants was reported at 78.6%). These differences are explained and caused by a variety of factors, one of which is that only 9.7% of respondents in the Italian study had had close contact with Covid-19 positive patients, while the rest of the population had no health problems in the

previous 14 quarantined days [17]. Similarly, health care professionals as compared to the general public show an increased level of prevalence, such as (70% in China, an Italian study, and 80% in Spain in studies) in terms of psychological distress because the health care professionals fear and emotional burnout from frequent contact with patients or viruses [19, 20, 21]. Similar psychological responses were observed in a Malaysian study in which during the early phases of the COVID-19 pandemic, 72.1% of moderate to severe anxiety responses were recorded [22]. A study conducted in Egypt on community psycho-behavioral responses during COVID-19 outbreaks found 82% mild to moderate anxiety among the participants [23]. Another reason for increased psychological distress, as reported by (85.5%) health care professionals, is the potential transmission of disease to their families and relatives [24], which may be the case and reason for increased psychological distress in the current study participants as well. A study found that the internet also plays a negative role in spreading fear regarding COVID-19 according to the study participants in Pakistan [25]. In the general population, the level or prevalence of psychological distress reported has been considerably lower as compared to front liners, migrants and expats, pre-existing mental health disorders, prisoners, etc., but a study reported 72% psychological distress or morbidity in the general population during the long down in Spain and attributed this high prevalence rate to the alarm is greater than previous pandemics and affected the people of the country in a different fashion [20]. Studies included a meta-analysis systematic review of 68 studies from 19 countries with a total of 288,830 participants reported the prevalence of anxiety and depression (33%), but interpreted that one out of three adults in the general public has the predominant risk of psychological distress during COVID-19 [26]. Contrary to the similarities in the prevalence of psychological distress with the studies, a study in Saudi Arabia on 739 participants scored 35% psychological distress on the Kessler 10 scale [27], which is notably less than the results of the current study. In psychological adaptation and mental well-being, both variables in the male gender category scored better. When these findings were compared to the majority of the studies that appeared to be in opposition, most of the studies showed that female gender usually tends to score higher on psychological distress due to additional work burden and psychophysiological differences [28-30]. The mean score of mental well-being was 48.45 + 10 on the WEMWBS scales, which was measured for students as an impact of COVID-19 on mental well-being [31]. This is far different than the mean score of 59 + 4.43 (SD) of mental well-being of the participants for the current study.

Consistent with the findings of other studies, successful adaptation, resilience, and protective coping mechanisms have appeared to be positively associated with psychological well-being [32]. Adaptive mechanisms and coping mechanisms among management students during COVID-19 played a protective and positive role by overcoming psychological distress [33]. Psychological distress is negatively associated with adaptation and mental well-being in this study. The results are concurrent with a study in which COVID-19 related perceived stress is negatively associated with mental well-being [34]. Moreover, psychological adaptation was strongly positively correlated with mental well-being in this study, which is compatible with the studies in which a group of collective coping strategies were significantly associated with the mental well-being of the participants during lock-down [35-37].

CONCLUSIONS

Along with the deleterious impact on physical health, psychological distress stigmatized and crippled individuals mentally, emotionally, socially, culturally, spiritually, and financially. This study also concluded that during hospitalization, the patients received only physical treatment regimens and the other aspects of holistic care, especially psychological care, were ignored by the healthcare professionals. Policymakers, health authorities, and health care professionals should be aware of mental health facts and consider vulnerable people and people at increased risk of negative psychological and social consequences, as well as successful adaptation strategies toward achieving mental and holistic well-being.

Conflicts of Interest

The authors declare no conflict of interest

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