



## THE ASSOCIATION OF PREMORBID PERSONALITY TRAITS AND PERCEIVED SOCIAL SUPPORT WITH DEPRESSION AMONG COVID-19 SURVIVORS

Haleema Khatoon<sup>1\*</sup>, Syed Arsalan Zaidi<sup>2</sup>

<sup>1\*</sup>Clinical Psychology, RBT/IBT

<sup>2</sup>Assistant Professor of Medicine at University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania, USA

### Article Info

\*Corresponding Author

Email Id: [haleema.khatoon786@gmail.com](mailto:haleema.khatoon786@gmail.com)

### Abstract

This study explores the relationship between premorbid personality traits, perceived social support, and depression among COVID-19 survivors. A total of 137 patients, 54.7% ( $n=75$ ) of whom were male and 45.8% ( $n=62$ ) of whom were female, aged 20–50 years ( $M=28.49$ ,  $SD=8.05$ ), who were visiting the tertiary care hospital, were selected who tested positive for COVID-19 (mild to moderate symptoms) and recovered and are currently on follow-up. Convenient sampling technique was used. Data was collected using the Urdu version of the Hamilton Rating Scale for Depression (HAM-D), Social Provisions Scale (SPS) and Personality Assessment Schedule (PAS). Hierarchical multiple regression analysis on premorbid personality traits, perceived social support, and depression indicates predictive role for passive dependent and histrionic personality traits. ANOVA test indicated that these personality traits have a predictive role in depression. Another significant predictor was perceived social support ( $p=0.03$ ). Correlates of socio-demographic variables on depression showed significant relationships with marital status. The COVID-19 pandemic has caused social upheavals and mental health deterioration, so it is critical to investigate protective factors that can aid in distress reduction and to develop intervention program to strengthen those factors for dealing with future challenges.

### Keywords

Depression, premorbid personality traits, perceived social support, COVID-19 survivors, Pakistan



## 1. Introduction

Depression is the most common mental health illness in the general population (Sinyor *et al.*, 2016). Depression frequently has a chronic course (Stewart *et al.*, 2003) and significantly impairs an individual's occupational potential and quality of life (Mayor, 2015). The World Health Organization (WHO), predicted in 2001 that depression will rank second in global disease burdens by 2020, and it is one of the priority conditions covered by the WHO's Mental Health Gap Action Programmed (MHGap) (WHO, 2001). Likewise, personality, as a psychological factor, has been the chosen research area for many psychologists. Temperament and character are two ways that personality has traditionally been conceptualized and now frequently employed as synonyms (Klein *et al.*, 2011; Caspi & Shiner, 2006; Clark & Watson, 1999). Temperament refers to biologically based, early emerging, stable individual differences in emotion and their regulation, while character refers to differences in individuals brought on by socialization (Klein *et al.*, 2011). However, there is growing evidence that suggests personality traits share all the aspects of temperament, including strong genetic and biological origins and significant stability throughout the lifespan, making the distinctions between these categories dubious (Krueger & Johnson, 2008; Watson & Humrichouse, 2006). Personality traits change frequently and are mainly influenced by environmental triggers (Yang *et al.*, 2012). Tyrer *et al.* (1979) developed the Personality Assessment Schedule (PAS) to evaluate premorbid personality traits before psychological disorder onset. PAS includes caregiver perspectives and aligns with the ICD-11 classification. Moreover, there are many models of the relationship between personality and

mood disorders (Akiskal *et al.*, 1983; Klein *et al.*, 1993; Krueger & Tackett, 2003; Klein, Kotov *et al.*, 2011). To acknowledge the adaptability of attributes, linkages between personality and psychopathology models can be broadened (Ormel *et al.*, 2001). One might propose a Dynamic Precursor Model, in which early temperament determines the starting point of risk but later events alter a person's tendency for depression. With the help of the initial level of risk and the steepness of the trait trajectory across time, this model explains the variation in disorder onset (Ormel *et al.*, 2001). According to the evidence on patterns of personality continuity and change (Roberts & DelVecchio, 2000), trait vulnerability is more flexible early in life, but significant life experiences can alter its trajectory even in adult age. Personality liability is assumed to pass the threshold and develop into a depressive disorder. Therefore, those who have a rapidly developing trait trajectory or elevated personality liability would experience the condition in childhood, but those who have a more slowly increasing trait trajectory would not pass the threshold until much later, if ever (Ormel *et al.*, 2001). This Dynamic Precursor Model (Ormel & de Jong, 1999; Ormel *et al.*, 2001) merges the environmental moderation and mediation processes of the traditional predisposition model with the transactions between personality and the environment. In the environmental moderation variant of this theory, adverse life events affect trait vulnerability levels in addition to the development of depression (Middledorp *et al.*, 2008). Additional life stress may result from this rise in personality liability. If this vicious cycle is allowed to continue unchecked, personality liability would keep rising, and eventually, a traumatic experience could overwhelm coping mechanisms and cause a depressive

episode (Klein *et al.*, 2011). Importantly, and in contrast to the dynamic precursor model, this explanation holds that depression cannot be caused by maladaptive features itself but rather requires an environmental trigger (Klein *et al.*, 2011). The vicious cycle of increasing trait vulnerability and stress exposure does not necessarily indicate that personality influences depression onset. Indeed, certain traits may increase stress exposure but have no effect on depression otherwise (e.g., it is possible that low conscientiousness does not cause depression directly but leads to depressogenic experiences, such as academic difficulties, job loss, and relationship problems, consistent with the environmental-mediation pathway (Roberts *et al.*, 2007). Furthermore, it is crucial to understand that several features have been associated with depressive illnesses and it is likely that various personality traits contribute through various pathways. Mulder and Tyrer (2019) explain the thirteen basic human personality traits that are mainly associated with many psycho-social problems. Personality traits are the behavioral patterns that people with specific personality traits exhibit over time (Ezeakabekwe & Nwankwo, 2020). The socio-genomic paradigm defines personality traits as generally persistent, automatic patterns of thoughts, feelings, and behaviors that set people apart from one another (Roberts *et al.*, 2017). Giving people care, knowledge, resources, and/or assistance in a way that helps them adapt to life's stressors is what is meant by social support (Cutrona, 1996). A key element in minimizing the detrimental consequences of stress is social support. Prior studies have demonstrated that social support can strengthen one's capacity to adapt to chronic illnesses, enhance physical and mental health, and lower mortality rates (Umberson *et al.*, 2010).

High levels of social support also facilitate the development of greater self-esteem, improve perception of one's capacity to handle stress, and perception of one's capacity to solve issues and lessen the severity of stressors (Wang *et al.*, 2014). Disappointment with social support may also increase as a result of a perceived deficiency, an inability of attempts to meet the needs of the recipient, or unintended interactions with support providers, such as including criticism or avoidance (Revenson & Majerovitz, 1990). Therefore, people may be more inclined to use unhealthy or unproductive coping mechanisms, which can have severe negative effects on their own well-being, if they believe that support from close friends or family members is missing, or if they are unsatisfied with the help they have received (DeLongis & Holtzman, 2005). The world has witnessed Covid-19 as the worst thing ever and the life has substantially changed as a result of the coronavirus illness outbreak in 2019 (Covid-19; severe acute respiratory syndrome coronavirus 2, SARS-CoV-2). It was classified as a pandemic in March of 2020 (World Health Organization, 2020). More than 33.71 million confirmed infections and more than 1,008,000 fatalities will have occurred globally by September 30, 2020. Many governments implemented extreme measures that decreased physical contact among the populace (i.e., social distancing) in order to slow the pandemic's spread (World Health Organization, 2020). A "stay-at-home" was requested or mandated by many governments and authorities (Sohrabi *et al.*, 2020). The measures varied between and within countries but mainly included bans on non-family gatherings and travel; cancellation of mass events; temporary closure of public institutions, non-essential businesses, and entertainment venues. Many nations have made it

essential to adopt certain behaviors, such as donning face masks and keeping a safe distance from other individuals when in public (Tso & Cowling, 2020). This extraordinary situation caused by Covid-19, as well as the implementation of governmental measures, elicited a wide range of reactions from the populace. Some people were burdened psychologically as they were overwhelmed by their current situation, which generally results in a negative emotional response characterized by depression, anxiety, and confusion (Taylor *et al.*, 2020). As a result, they were having significant difficulties managing their daily lives and fulfilling their obligations under the new circumstances (Taylor *et al.*, 2020). Others perceived the situation as less burdensome and responded in an adaptive manner. They make every effort to maintain a daily routine (Brailovskaia & Margraf, 2020). Mental and physical health is greatly impacted by how individuals view and respond to the Covid-19 scenario (Taylor *et al.*, 2020). In light of this, it is crucial to look at variables that can forecast the degree of psychological stress brought on by the Covid-19. This information can be utilized to identify people who are at risk for high burden experiences, lessen such experiences, safeguard long-term mental and physical health, and improve adherence to anti-Covid-19 strategies. Previous research found an increase in depression symptoms over the last decade (Spasojevi & Alloy, 2001), particularly among young people (Buysse *et al.*, 2008; Lei *et al.*, 2016). Recent research predicted that the symptoms would worsen during the Covid-19 pandemic (Bueno-Notivol *et al.*, 2020; Galea *et al.*, 2020). They ruminate and become overwhelmed by the need to adapt to new and uncertain situations (Bueno-Notivol *et al.*, 2020; Galea *et al.*, 2020). Based on this information, it is

reasonable to believe that depression symptoms are among the factors that contribute to the experience of psychological burden caused by the Covid-19 situation (Bueno-Notivol *et al.*, 2020). This could be true for patients with diagnosed mood disorders as well as people in the general population who have increased depression symptoms. So, keeping in view of this evidence we proposed this study where we want to explore the relationship between premorbid personality traits and perceived social support as a predictor for depression among COVID-19 survivors. As Dynamic Model proposes, early temperament and personality traits determine the starting point of risk for psychological illnesses, but later events alter a person's tendency for adaptation. For this study we are trying to merge dynamic predisposition model (Ormel & de Jong, 1999; Ormel *et al.*, 2001). In the environmental moderation variant of this theory, adverse life events affect trait vulnerability levels in addition to the development of depression (Middledorp *et al.*, 2008). There are sufficient models that describe personality dynamics, its biological and pathoplastic characteristics, and its potential connection to psychopathology. However, in this study, we tried to combine two different characteristics (environmental relationship and temperament) as a predictor of depression.

### *1.1 Research Questions*

1. What is the relationship between premorbid personality traits, perceived social support and depression among depressive patients who are the COVID survivors?
2. Does patients socio-demographic variables are related to depression in anyway?
3. How do males and females differ in their perceived social support and depression?

4. Does Covid-19 affect social support and triggers depression in any way?

## 1.2 Research Hypotheses

1. Premorbid personality traits and perceived social support are the predictors of depression.
2. Sociodemographic variables have a predictive role in depression.
3. Gender differences exist in depression and perceived social support.
4. There is a difference in scores for depression and perceived social support among COVID patients based on their symptoms.

## 2. Method

### 2.1 Participants

Participants were selected using a non-random convenient sampling technique and recruited through clinical visits to the tertiary care facilities of three public sector hospitals in Rawalpindi, Pakistan. After obtaining ethical approval from the hospital research and ethical committee, participants were asked to complete an informed consent sheet that indicated their participation was voluntary and responses were anonymous. The data was collected during March to June 2022, when the COVID cases were in control in Pakistan. The researchers followed the COVID-19 rules and instructions as outlined by the National Command and Operation Center (NCOC)-Pakistan (2021). The study sample consisted of 137 participants, 54.7% of whom were male (n=75) and 45.8% of whom were female (n=62), aged 20-50 years (M=28.49, SD=8.05). Study participants have been clinically depressed for years and have recently survived the third wave of SARS-CoV-2.

### 2.2 Instruments

2.2.1 Hamilton Rating Scale for Depression (HAM D) Urdu version HAM-D (Khatoon & Zaidi,

2015), 17-items questionnaire was used to score patient's level of depression. HAM-D assesses the severity of core symptoms of depression (depressed mood, feeling of guilt, suicide, insomnia, work and interest, retardation, agitation, anxiety, somatic and genital symptoms, weight loss, insight, and diurnal variation). Although HAM-D contains 21-items, the scoring is based on the first 17-items. Eight items are scored on a 5-point scale, ranging from 0 (not present) to 4 (severe). Nine are scored from 0 (not present) to 2 (moderate). These standardized scoring was confirmed by the developer of this scale (Hamilton, 1960) and are still in practice (Carrozzino *et al.*, 2020). The reliability of HAM-D in this study ( $\alpha=0.89$ ).

### 2.2.2 Social Provisions Scale (SPS)

SPS Urdu version, translated and validated by Rizwan & Syed (2010), is a 24- items scale based on 4-point responses, was used to examine the degree of social relationships which explain the availability of various dimensions of social support for a person. It is a 24-items scale based on 4-point responses, was used to examine the degree of social relationships which explain the availability of various dimensions of social support to the patients of depressive illness. Validation studies showed its reliability (0.87), Guttman Split-Half Coefficient (0.84), test re-test correlation coefficient (0.656) with good convergent validity (Rizwan & Syed, 2010).

### 2.2.3 Personality Assessment Schedule (PAS)

PAS developed by Tyrer *et al.* (1988), is a structured interview-based questionnaire that is used to formalize the assessment of premorbid personality traits of an individual. This schedule also includes the interview of the key informant (primary caregiver) about the personality of the patient. Khatoon and Zaidi (2015) translated and validated this questionnaire in Urdu

Language and established its psychometric properties. The reliability of the scale found 0.97 and its subscales reliability ranged from 0.875 to 0.90 (Khatoon & Zaidi, 2015).

### 2.3 Procedure

The trained clinical staff administered the scales to the patients who were visiting psychiatric facilities in the public hospitals. The COVID-19 guidelines for attending patients were observed. Study inclusion and exclusion criteria were followed, and formal consent was taken from the participants with the assurance that all their personal information would be kept masked and confidential. The administrators explained the scales to the participants and thanked them for their participation. There was no incentive, or any financial aid provided to the participants.

### 3. Results

Using “calculator.net”, the sample size has been calculated. The calculator input the margin of error (MOE) is 8%, confidence level is 95% while the population for this target group is unknown and the sample proportion is 50%. According to the website, the sample size does not change much for populations

larger than 100.000. In total 151 respondents were selected but only 137 has been possibly conducted. The study's alpha level for all analyses was  $p=0.05$ . The statistical power for detecting a moderate to large effect in this study was greater than 0.99, according to the power analysis (Cohen, 1977).

#### 3.1 Research Question 1

The first analysis tested whether premorbid personality traits and perceived social support are related to depression. Hierarchical multiple regression on premorbid personality traits, perceived social support and depression scores indicate significant values on passive dependent personality trait i.e.,  $p=0.005$  with  $\beta=-1.025$  and  $t=0-2.833$  (negative sign is negligible) and histrionic personality traits  $p=0.002$  with  $\beta=0.889$  and  $t=3.238$ . ANOVA test resulted that these personality traits have a predictive role with significant  $F$ -value (4.473) on Depression. The total  $R$  and  $R$ -square values are  $R=0.588$ ,  $R^2=0.345$ . Next predictive variable with significant value in the model is perceived social support with  $p=0.033$ ,  $\beta=.183$  and  $t=2.158$  (see Table 1).

**Table 1:** Regression Analysis for Depression

Model	B	SE	$\beta$	t	p
Sociopathic	1.940	2.173	.386	.893	.374
Passive-dependent	-5.467	1.930	-1.025	-2.833	<b>.005</b>
Anakastic	.655	1.147	.123	.571	.569
Schizoid	-.430	1.128	-.079	-.381	.704
Explosive	-1.351	2.244	-.291	-.602	.548
Sensitive-aggressive	.360	1.748	.075	.206	.837
Histrionic	4.878	1.506	.889	3.238	<b>.002</b>
Asthenic	2.220	1.608	.433	1.381	.170
Anxious	-.157	1.280	-.031	-.123	.903
Paranoid	-.756	1.793	-.150	-.422	.674
Hypochondriacal	1.784	1.433	.318	1.246	.215
Dysthymic	1.199	1.139	.220	1.052	.295
Avoidant	-1.399	1.318	-.270	-1.062	.291
<sup>1</sup> Perceived Social Support	.169	.078	.183	2.158	<b>.033</b>

$R= .588, R^2 = .345, F=*** 4.473, *p < .05, **p < .01, ***p \leq .00$

<sup>1</sup> $R= .183, R^2 = .33, F=*** 4.656$

**3.2 Research Question 2**

Correlations of socio-demographic variables on depression scores indicated significant relationship with marital status ( $p=.004$ ,  $\beta=.314$ ,  $t= 2.957$ ,  $B=3.347$ ,  $SEB=1.132$ ). Standardized beta values indicate the number of standard deviations that scores in the dependent variable would change if there was a one standard deviation unit change in the predictor. In

current analysis if we will change one unit in marital status it would predict 314 ratios change in depression score. In this case, marital status showed significant values ( $F=**3.075$ ) with total  $R$  score 0.324 and adjusted  $R$  square value as 0.105. It is noteworthy here that qualification also resulted a significant result ( $p=0.007$ ), which indicates that being educated helps you reduce the symptoms of depression.

**Table 2:** Socioeconomic demographics as a predictor of depression

Model	B	SE	Beta	t	p
Age	-1.531	1.018	-.158	-1.504	.135
Gender	.336	1.186	.025	.284	.777
Qualification	1.013	.368	.255	2.756	.007
Marital status	3.347	1.132	.314	2.957	.004
Socioeconomic status	-1.284	1.021	-.116	-1.259	.210

$R= .324$ ,  $R^2 = .105$ ,  $F= .075$ ,  $*p<.05$ ,  $**p < .01$ ,  $***p \leq .00$

**3.3 Research Question 3**

An independent group t-test with gender as the grouping variable indicated that females reported significantly higher perceived social support ( $M=60.52$ ,  $SD=8.636$ ) than males ( $M=59.44$ ,  $SD=5.944$ ;  $t= 0.861$ ,  $p=0.017$ ). Further, females reported higher depression ( $M=23.53$ ,  $SD=6.714$ ) than

males ( $M=22.32$ ,  $SD= 6.733$ ;  $t=1.05$ ),  $p=0.544$ ) the result is insignificant. There were slight gender differences with the subscales of perceived social support except “guidance” where males have slightly high scores ( $M=11.08$ ,  $SD=2.294$ ) then female ( $M=10.55$ ,  $SD=2.373$ ) (see Table 3).

**Table 3:** Gender Differences for Perceived Social Support and depression

	Male		Female	
	M	SD	M	SD
Perceived social support	59.44	5.944	60.52	8.636
Attachment	10.75	2.194	10.37	2.082
Social integration	10.52	2.029	10.18	2.131
Reassurance of worth	10.92	2.253	10.27	2.159
Reliable alliance	10.55	1.788	10.82	1.704
Guidance	11.08	2.294	10.55	2.373
Opportunity for nurturance	10.61	2.053	10.13	2.371
Depression	22.32	6.733	23.53	6.714

**3.4 Research Question 4**

An independent t-test analysis showed that participants who were symptomatic for COVID-19 scored higher on the perceived social support ( $M=60.93$ ,  $SD=7.741$ ) than those who were a symptomatic ( $M=59.80$ ,

$SD=7.243$ ,  $t=0.566$ ,  $p=0.59$ ) but the result is insignificant. A symptomatic patients reported higher depression ( $M=22.99$ ,  $SD=6.724$ ) than those of symptomatic patients ( $M=21.87$ ,  $SD= 6.896$ ,  $t= 0.610$ ,  $p=0.86$ ) and the result is insignificant (see Table 4).

**Table 4:** Presence of COVID-19 symptoms, Perceived Social Support, and depression

	Symptomatic		Asymptomatic	
	M	SD	M	SD
Perceived social support	60.93	7.741	59.80	7.243
<i>Attachment</i>	10.27	1.668	10.61	2.199
<i>Social integration</i>	10.39	2.157	10.39	2.157
<i>Reassurance of worth</i>	10.07	1.870	10.70	2.263
<i>Reliable alliance</i>	9.93	2.017	10.76	1.701
<i>Guidance</i>	10.47	2.446	10.89	2.329
<i>Opportunity for nurturance</i>	10.07	2.120	10.43	2.223
Depression	21.87	6.896	22.99	6.724

#### 4. Discussion

The objectives of this study were to gather a better understanding of premorbid personality traits and perceived social support for depression among the clinical population in Rawalpindi, Pakistan, during the COVID-19 pandemic. Using reliable psychometrics and analysis framework, the first research hypothesis has confirmed that premorbid personality traits and perceived social support significantly predict depression. Significant values for passive-dependent and histrionic personality traits are indicated by perceived social support and depression scores. These findings are back up by Hwang *et al.*, (2011), they concluded in their study that premorbid personality predicts depression, and that psychological and emotional support can be tailored to individuals in addition to medical treatment. Findings also confirmed that a passive dependent personality is a strong predictor of depression. This personality trait is distinguished by an excessive and pervasive need to be cared for, as well as submissive, clinging, and needy behavior caused by a fear of abandonment (American Psychiatric Association, 2013). According to a 2011 study, married women with dependent personality disorders are at risk for spousal abuse due to their abusive husbands' economic and emotional dependence (Loas *et al.*, 2011). The facts, as confirmed by the current study, necessitate careful consideration of this personality trait, as well as the development of

intervention and support group programs for these individuals, in order to reduce the risk of a relapse to severe depression. The histrionic personality trait, which is characterized by intense, unstable emotions and a distorted self-image, is the second significant predictor in our regression model. The term "histrionic" is defined as "dramatic or theatrical" (APA, 2013). People with histrionic personality traits have self-esteem that is based on the approval of others rather than a genuine sense of self-worth. They have an overwhelming desire to be noticed and will frequently engage in dramatic or inappropriate behavior to gain attention ("Cleveland Clinic," 2022). Previous research has shown that histrionic personality traits can have negative consequences such as marital dissatisfaction, cognitive difficulties such as decision-making, and comorbidity with other psychological disorders such as depression (Disney *et al.*, 2012; Kraus & Reynolds, 2001; Shapiro & Wilk, 1965). Furthermore, there is a significant gap in research on non-pathological histrionic traits, emphasizing the importance of studying them in relation to depression, the leading cause of disability worldwide (Renner *et al.*, 2008; World Health Organization, 2020). Furthermore, this study has attempted to identify potential explanatory processes underlying the hypothesized relationship between personality traits, social support, and depression. It proposed that both

maladaptive personality traits and low perceived social support are associated with depression. Many researchers have also tested and confirmed this link (Aldao *et al.*, 2016; Ryan & Deci, 2017; van der Kaap-Deeder *et al.*, 2020). Blazer and colleagues (1992) and Brugha and colleagues (1990) followed cohorts of depressed adults in the United States and the United Kingdom, respectively. Poorer subjective social support at baseline was found to be predictive of poorer follow-up outcomes, including lower life satisfaction, worse depressive symptoms (Blazer *et al.*, 1992), and more severe psychiatric status (Brugha *et al.*, 1990). Leskela and colleagues (2006) assessed adults with major depressive disorder in a high-quality study and discovered that lower perceived social support six months after initial assessment predicted more severe depression at 18 months among all participants, though this relationship was only significant in multivariable analysis for the group that had remitted following initial assessment. Holvast and colleagues (2015) conducted the study in which loneliness was used as a predictor of depression outcomes in Dutch older adults. They discovered that a 1-point increase in loneliness was associated with a 0.61-point increase in depressive symptom severity at follow-up (Holvast *et al.*, 2015). Our second research hypothesis was to investigate the relationship of socio-demographic variables with depression, and the scores revealed a significant relationship with marital status. This finding is consistent with the meta-analysis conducted by Yan and colleagues (2011), which compared the risk of depression in old married people versus those who were widowed, never married, or divorced. When these studies were combined, it was discovered that widowed and never-married subjects had a significantly higher risk of

depression than married subjects (Yan *et al.*, 2011). Marriage (as opposed to never marrying) is associated with a lower risk of the onset of mental disorders in both genders, but for depression it is limited to men (Scott *et al.*, 2009). Being previously married (as opposed to stably married) is linked to an increased risk of depression in both genders (Scott *et al.*, 2009). Marital status is a significant independent predictor of depression (Kamiya *et al.*, 2012). Some marital statuses and depressive symptoms are mediated by later life circumstances. When later life circumstances are considered, widowhood and divorce (for men) are directly associated with depression than singlehood (Kamiya *et al.*, 2012). The third research hypothesis was to investigate gender differences in social support and depression and an independent group t-test with gender was performed, the results revealed that females scored significantly higher social support than males, while females had a higher mean value than males when it came to depression, but the test result was not statistically significant. Gender differences in social support levels have varied across studies as Ross and Mirowsky (1989) discovered that women have higher levels of perceived social support than men, whereas several studies found little or no difference across gender (Turner & Lloyd, 1999). It can be suggested that females may have a stronger affiliative style than males (i.e., more attachments and a larger social network) because they require more social support to maintain their psychological health (Piccinelli & Wilkinson, 2000). As a result, they are more vulnerable to events that affect their close emotional ties, and they may be more likely to develop depression as a result of them (Piccinelli & Wilkinson, 2000). Some studies claim that social support is equally important for men and

women, while others claim that it has a greater beneficial or even a negative effect on depression in either gender (Parker & Brotchie, 2010; Piccinelli & Wilkinson, 2000). The fourth research hypothesis in this study was about the COVID-19 pandemic and its impact on socialization, as well as the impact that it had on clinically depressed patients. An independent t- test analysis revealed that COVID-19 symptomatic patients had higher perceived social support than asymptomatic patients, but the difference was not statistically significant. Those who asymptomatic reported more depression than those who were symptomatic, but the result was insignificant. Some recent studies examined the role of perceived social support during the COVID pandemic and concluded that higher ratings of perceived social support from family are associated with lower levels of depression (Liu *et al.*, 2020). Another study involving paramedics found that social support and resilience are important when dealing with psychological states such as depression and anxiety, and that special attention should be paid to those who are predisposed to psychological disorders (Hou *et al.*, 2021). Another study on nonclinical populations found that higher levels of perceived social support were associated with lower levels of anxiety and stress (Xiong *et al.*, 2020), and higher levels of perceived social support may mitigate the effects of social isolation and social distancing measures during COVID-19 (Zhang & Ma, 2020). Positive associations between social support and psychological well-being among adults and youth have been documented in non-pandemic situations (Peirce *et al.*, 2000). Furthermore, there is an inverse relationship between social support and depression (Wang *et al.*, 2018). Unfortunately, during the current pandemic, the role of perceived

social support in depression and its association with personality traits has been largely ignored. Individuals with a history of depressive episodes and who test positive for COVID-19 require a better understanding of the role of personality traits and perceived social support.

#### *4.1 Contribution of the Current Study*

The findings of this study support the role of personality traits prior to the onset of psychological illness, as well as perceived social support, in the provision of mental health improvement programs. The COVID-19 pandemic has caused social upheavals and mental health deterioration (Pfefferbaum & North, 2020). It is critical to investigate protective factors that can aid in distress reduction and to develop intervention programs to strengthen those factors (Wise & Mengüç, 2021). When explaining mental health outcomes, the roles of perceived social support and healthy marital relationships appeared to carry the most weight, pointing to specific mechanisms of wellbeing that can be addressed through interventional approaches (Hwang *et al.*, 2011). The study also found that marital status is important in dealing with certain psychological conditions and can be considered a protective factor against many social and environmental triggers. This research also aids in the exploration of demographic characteristics, specifically an in-depth examination of a person's education and level of interpersonal relationship. As previously demonstrated, being in a healthy relationship and having an adequate level of education serve as protective factors against a variety of psychological conditions (Yan *et al.*, 2011). The current study established a foundation for further investigation into maladaptive personality traits, but more research with a larger sample size is required to learn more about prone personality

traits, particularly passive-dependent personality. Individuals with dependent personality disorder may be viewed with pity, disgust, anger, frustration, or contempt by others, including their clinicians (“Out of The Fog,” 2015). Abuse of people suffering from dependent personality disorder may be reciprocal. They are prone to exploitation by predatory individuals because they are naive, have poor boundaries, and enter into new relationships without considering potential risks (“Cleveland Clinic,” 2022).

#### *4.2 Limitations, Recommendations & Implications*

It is important to note some limitations in our study. First, Personality is a long-lasting and persistent pattern that overlaps with other characteristics, we did not explain those aspects in our study. Second, because personality and depression were measured at the same time, more longitudinal studies are needed to understand the state/trait dependency of personality and the course of depression recovery. Future research may look into these variables to see how they influence the prediction of protective factors that aid in the reduction of depression caused by external stressors. Second, the sample's socio-spatial and socio-demographic diversity is a significant limitation that must be addressed in greater detail. Third, because this is a non-randomized study in a clinical sample with depressive symptoms, the results are not generalizable to the general population. Nonetheless, we anticipate several impacts on the treatment of depression during difficult and potentially stressful experiences, including the ongoing pandemic and its long-term consequences. While the global COVID-19 pandemic is unique, personality traits and positive support perception are not limited to large-scale challenges. However, the current study's findings

suggest that, of the thirteen basic human personality traits, passive dependent and histrionic personality traits are strong predictors of depression; however, we lack empirical evidence specifically on these two personality traits to support the statistical findings of this study because there are few empirical findings on this topic. Perceived social support was considered in this study as a coping mechanism for dealing with stressors during the pandemic, which served to promote higher levels of wellbeing. Based on this, we believe that developing interventional and educational programs based on the role of positive and healthy relationships as a protective shield against psychological decline is critical. A consideration and evaluation of the contextual nature of pandemic responses, as well as an appreciation of the importance of understanding locally focused experiences and approaches to minimize psychological burden of disease and promote wellbeing, suggests another implication for the promotion of wellbeing. Many Western countries have relatively widespread and accessible mental health services, whereas in Pakistan as an underdeveloped and low economy country, access may be limited to a subset of the population due to social and economic divisions. Another area where this study could be improved is the cross-cultural validity of the measures used, as well as the role of pharmacological intervention, as we did not account for the effects of medication on the results in this study. This study demonstrates that cultural strengths do matter and are what enabled participants to be 'well,' i.e., social support and reaching out to others. This is a distinct advantage that collective societies have over Western nations that suffer from loneliness, particularly among the young population (Heu *et al.*, 2019). The interaction between culture-level

values and gender suggests that young men benefit more than women in collectivistic societies and cultures (Barreto *et al.*, 2021) because they provide and seek more social support. Cultural values make important contributions to how individuals manage their responses to stressors (Fernández-Berrocal *et al.*, 2005), and it is critical to include this element in any analysis of coping and depression so that the unique strengths that inform lived experiences are not overlooked.

## References

- Akiskal, H. S., Hirschfeld, R. M., & Yerevanian, B. I. (1983). The relationship of personality to affective disorders: A critical review. *Archives of general psychiatry*, 40(7), 801-810.
- Aldao, A., Gee, D. G., De Los Reyes, A., & Seager, I. (2016). Emotion regulation as a transdiagnostic factor in the development of internalizing and externalizing psychopathology: Current and future directions. *Development and psychopathology*, 28(4pt1), 927-946.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). <https://doi-org.ezproxy.frederick.edu/10.1176/appi.books.9780890425596>
- Barreto, M., Victor, C., Hammond, C., Eccles, A., Richins, M. T., & Qualter, P. (2021). Loneliness around the world: Age, gender, and cultural differences in loneliness. *Personality and Individual Differences*, 169, 110066.
- Blazer, D., Hughes, D. C., George, L. K. (1992). Age and impaired subjective support. Predictors of depressive symptoms at one-year follow-up. *J Nerv Ment Dis*, 180(3), 172–8.
- Brailovskaia, J., & Margraf, J. (2020). Predicting adaptive and maladaptive responses to the Coronavirus (COVID-19) outbreak: A prospective longitudinal study. *International Journal of Clinical and Health Psychology*, 20(3), 183-191.
- Brugha, T. S., Bebbington, P. E., Maccarthy, B., Sturt, E., Wykes, T., Potter, J. (1990). Gender, social support and recovery from depressive disorders: a prospective clinical study. *Psychol Med*, 20(1), 147–56.
- Bueno-Notivol, J., Gracia-García, P., Olaya, B., Lasheras, I., López-Antón, R., & Santabárbara, J. (2021). Prevalence of depression during the COVID-19 outbreak: A meta-analysis of community-based studies. *International journal of clinical and health psychology*, 21(1), 100196.
- Buysse, D. J., Angst, J., Gamma, A., Ajdacic, V., Eich, D., & Rössler, W. (2008). Prevalence, course, and comorbidity of insomnia and depression in young adults. *Sleep*, 31(4), 473-480
- Carrozzino, D., Patierno, C., Fava, G. A., & Guidi, J. (2020). The Hamilton rating scales for depression: a critical review of clinimetric properties of different versions. *Psychotherapy and psychosomatics*, 89(3), 133-150.
- Caspi, A., & Shiner, R. L. (2006). Personality Development. In N. Eisenberg, W. Damon, & R. M. Lerner (Eds.), *Handbook of child psychology: Social, emotional, and personality development* (pp. 300–365). John Wiley & Sons, Inc.
- Clark, L. A., & Watson, D. (1999). Temperament: A new paradigm for trait psychology. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (pp. 399–423). Guilford Press.
- Cleveland clinic. (2022). Retrieved from URL: <https://my.clevelandclinic.org/>

- Cohen, L. J. (1977). *The Probable and The Provable*. Clarendon Library of Logic and Philosophy (Oxford, 1977; online edn, Oxford Academic, 3 Oct, 2011), <https://doi.org/10.1093/acprof:oso/9780198244127.001.0001>, accessed 4 Aug. 2022.
- Cutrona, C. E. (1996). *Social support in couples: Marriage as a resource in times of stress*. Sage Publications.
- DeLongis, A., & Holtzman, S. (2005). Coping in context: The role of stress, social support, and personality in coping. *Journal of personality*, 73(6), 1633-1656.
- Disney, K. L., Weinstein, Y., & Oltmanns, T. F. (2012). Personality disorder symptoms are differentially related to divorce frequency. *Journal of Family Psychology*, 26(6), 959.
- Ezeakabekwe, S. U., & Nwankwo, E. A. (2020). Correlate of personality traits, self-efficacy and work coping among police personnel: the need for psychotherapy services for police personnel in Awka Metropolis. *International Journal For Psychotherapy In Africa*, 4(1).
- Fernández-Berrocal, P., Salovey, P., Vera, A., Extremera, N., & Ramos, N. (2005). Cultural influences on the relation between perceived emotional intelligence and depression. *International Review of Social Psychology*, 18(1), 91-107.
- Galea, S., Merchant, R. M., & Lurie, N. (2020). The mental health consequences of COVID-19 and physical distancing: the need for prevention and early intervention. *JAMA internal medicine*, 180(6), 817-818.
- Hamilton, M. (1960). A rating scale for depression. *Journal of neurology, neurosurgery, and psychiatry*, 23(1), 56.
- Heu, L. C., van Zomeren, M., & Hansen, N. (2019). Lonely alone or lonely together? A culturalpsychological examination of individualism–collectivism and loneliness in five European countries. *Personality and Social Psychology Bulletin*, 45(5), 780–793.
- Ho, H. C., Yeung, D. Y., & Kwok, S. Y. (2014). Development and evaluation of the positive psychology intervention for older adults. *The Journal of Positive Psychology*, 9(3), 187-197.
- Holvast, F., Burger, H., de Waal, M. M., van Marwijk, H. W., Comijs, H. C., & Verhaak, P. F. (2015). Loneliness is associated with poor prognosis in late-life depression: Longitudinal analysis of the Netherlands study of depression in older persons. *Journal of affective disorders*, 185, 1-7.
- Hwang, S. I., Choi, K. I., Park, O. T., Park, S. W., Choi, E. S., & Yi, S. H. (2011). Correlations between pre-morbid personality and depression scales in stroke patients. *Annals of rehabilitation medicine*, 35(3), 328-336.
- Kamiya, Y., Doyle, M., Henretta, J. C., & Timonen, V. (2013). Depressive symptoms among older adults: The impact of early and later life circumstances and marital status. *Aging & Mental Health*, 17(3), 349-357.
- Khatoon, H., & Zaidi, A. (2015). *Translation and Adaptation of psychometrics in Urdu*. Unpublished manuscript.
- Klein, D. N., Kotov, R., & Bufferd, S. J. (2011). Personality and depression: explanatory models and review of the evidence. *Annual review of clinical psychology*, 7, 269–295. <https://doi.org/10.1146/annurev-clinpsy-032210-104540>
- Klein, M. H., Benjamin, L. S., Rosenfeld, R., Treece, C., Husted, J., & Greist, J. H. (1993). *The Wisconsin personality disorders inventory: Development, reliability, and*

- validity. *Journal of Personality Disorders*, 7(4), 285.
- Kraus, G., & Reynolds, D. J. (2001). The “abc's” of the cluster b's: Identifying, understanding, and treating cluster b personality disorders. *Clinical psychology review*, 21(3), 345-373.
- Krueger, R. F., & Johnson, W. (2008). Behavioral genetics and personality: A new look at the integration of nature and nurture. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (pp. 287–310). The Guilford Press.
- Krueger, R. F., & Tackett, J. L. (2003). Personality and psychopathology: Working toward the bigger picture. *Journal of personality disorders*, 17(2: Special issue), 109-128.
- Lei, X. Y., Xiao, L. M., Liu, Y. N., & Li, Y. M. (2016). Prevalence of depression among Chinese University students: a meta-analysis. *PloS one*, 11(4), e0153454.
- Leskelä, U., Ryttsälä, H., Komulainen, E., Melartin, T., Sokero, P., Lestelä-Mielonen, P., & Isometsä, E. (2006). The influence of adversity and perceived social support on the outcome of major depressive disorder in subjects with different levels of depressive symptoms. *Psychological medicine*, 36(6), 779-788.
- Liu, C. H., Zhang, E., Wong, G. T. F., Hyun, S., & Hahm, H. (2020). Factors associated with depression, anxiety, and PTSD symptomatology during the COVID-19 pandemic: Clinical implications for U.S. young adult mental health. *Psychiatry Research*, 290, 113172.
- Loas, G., Cormier, J., & Perez-Diaz, F. (2011). Dependent personality disorder and physical abuse. *Psychiatry research*, 185(1-2), 167-170.
- Mayor, S. (2015). Persistent depression doubles stroke risk despite treatment, study finds. *BMJ*, 350. Middeldorp, C. M., Cath, D. C., Beem, A. L., Willemsen, G., & Boomsma, D. I. (2008). Life events, anxious depression and personality: a prospective and genetic study. *Psychological medicine*, 38(11), 1557-1565.
- Mulder, R., & Tyrer, P. (2019). Diagnosis and classification of personality disorders: novel approaches. *Current Opinion in Psychiatry*, 32(1), 27-31.
- Ormel, J., & de Jong, A. (1999). On vulnerability to common mental disorders. An evidence-based plea for a developmental perspective. In: Tansella M, Thornicroft G, editors. *Common Mental Disorders in Primary Care: Essays in Honour of Professor Sir David Goldberg*. London: Routledge. pp. 34–51.
- Ormel, J., Oldehinkel, A. J., & Brilman, E., I. (2001). The interplay and ecological continuity of neuroticism, difficulties, and life events in the etiology of major and subsyndromal, first and recurrent depressive episodes in later life. *Am. J. Psychiatry*, 158, 885–891.
- Out of The Fog. (2014). Retrieved from: <https://outofthefog.website/personality-disorders-1/2015/12/6/dependent-personality-disorder-dpd>