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## Psychological stressors and life satisfaction among university students during the Second Wave of covid-19: Moderating role of resilience

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### Abstract

**Purpose** - The purpose of the research was to examine the relationship between psychological distress and life satisfaction among university students during the second wave of COVID-19, also to assess the moderating role of resilience.

**Method** - The population of this study is university students. The selection of samples in the current research using purposive sampling strategy and selected 200 students. The data were analyzed using correlation analysis, hierarchical regression analysis, and path analysis.

**Result** - The results show the psychological distress has a significant negative relationship with life satisfaction and resilience has a significant positive relationship with life satisfaction. Regression findings reveal that psychological distress and resilience were significant predictors of life satisfaction. Moderation findings show the resilience plays a significant moderating role between psychological distress and life satisfaction.

**Implications** – The current research suggests improving the skills performance in the life of students. The present study helps to understand the importance of life satisfaction, especially among university students.

**Originality** – This is the first study that used intervening variables psychological distress, resilience, and life satisfaction. It is not only particular for professionals or students to be aware of psychological distress toward life satisfaction in the Pakistani society but also to be educated about the culture itself and clinical area.

**Keywords:** Psychological distress, resilience, life satisfaction, university students, the Second Wave of covid-19.

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### Abstrak

**Tujuan** - Penelitian ini bertujuan untuk mengkaji hubungan antara tekanan psikologis dengan kepuasan hidup mahasiswa selama gelombang kedua COVID-19, serta menilai peran moderasi resiliensi.

**Metode** - Populasi dalam penelitian ini adalah mahasiswa. Pemilihan sampel dalam penelitian ini menggunakan strategi purposive sampling dan dipilih 200 siswa. Analisis data menggunakan analisis korelasi, analisis regresi berjenjang, dan analisis jalur.

**Hasil** - Hasil penelitian menunjukkan tekanan psikologis memiliki hubungan negatif yang signifikan dengan kepuasan hidup dan resiliensi memiliki hubungan positif yang signifikan dengan kepuasan hidup. Temuan regresi mengungkapkan bahwa tekanan psikologis dan ketahanan merupakan prediktor signifikan dari kepuasan hidup. Temuan moderasi menunjukkan ketahanan memainkan peran moderasi yang signifikan antara tekanan psikologis dan kepuasan hidup.

**Implikasi** - Penelitian saat ini menyarankan peningkatan kinerja keterampilan dalam kehidupan siswa. Studi ini membantu untuk memahami pentingnya kepuasan hidup, terutama di kalangan mahasiswa.

**Originalitas** - Ini merupakan penelitian pertama yang menggunakan variabel intervening tekanan psikologis, resiliensi, dan kepuasan hidup. Tidak hanya bagi para profesional atau pelajar untuk menyadari tekanan psikologis terhadap kepuasan hidup dalam masyarakat Pakistan tetapi juga untuk dididik tentang budaya itu sendiri dan area klinis.

**Kata kunci:** Tekanan psikologis, ketahanan, kepuasan hidup, mahasiswa, gelombang kedua covid-19.

### Introduction

The word quarantine was initially utilized in Venice, Italy in 1127 concerning leprosy and was extensively utilized in answer to the Black Death, while it was not till 300 years later that the UK accurately started to impose quarantine in response to disease, Tognotti (2013). Furthermore, quarantine has been utilized in the coronavirus illness 2019 (COVID-19) epidemic. This epidemic has seen whole cities in China successfully located under mass quarantine, whereas many thousands of external nationals recurring home from China have been enquired to self-isolate at home or in state-run services.

In January 2020, the World Health Organization acknowledged the epidemic of a new coronavirus illness, COVID-19, to be a Public Health Emergency of International Concern. WHO specified that there is a great risk of COVID-19

scattering to other nations everywhere in the world. In March 2020, WHO made the valuation that COVID-19 can be considered an epidemic. Before the wide age gap, there was a well-documented age gap in contact with psychological treatments for hopelessness and worry, Lake et al., (2020) and it was recognized that older grownups were less expected to put their psychological wellbeing before their physical well-being.

However, psychological wellbeing is one of the important aspects of overall happiness. It is not only absenteeism of psychological diseases, it is a condition of a person in which he is capable to cope with life stressors, understand his or her willpower and work ambitiously for his life and the community. Psychological wellbeing is the capacity of a person and groups to contact each other and the environment, in a manner which enhances subjective well-being, ideal growth, and the usage of reasoning, emotional and social skills. Psychological wellbeing is affected through numerous aspects like communal, genetic, and mental. Thus, individuals can develop signs and actions that negatively affect their psychological well-being, interpersonal relations, and their worth to cope with daily life stressors (Tamini & Far., 2000).

Psychological distress is a significant public wellbeing issue worldwide which seriously affects younger people. While psychological wellbeing issues affect the community as a whole, university students, however, were revealed to have a higher prevalence of mental diseases than the overall population. This is because university students experience many stressors such as educational requirements, jobs, and the pressure to succeed, parents and teachers' pressure, economical pressure, and anxiety regarding their future. These stressors might lead to developmental issues in students and negatively affect their educational performance. Most general psychological wellbeing issues revealed in university students are sadness, worry, and stress. All over the world, research showed a high rate of these emotional issues in students. The university years can be a difficult period of one's life and the achievement of higher qualification can demonstrate to be a stressful experience instead of its numerous positive rewards (Cvetkovski et al., 2012).

However, the latest research showed that almost 50% of university students presented depressive signs very soon after the start of their education. Moreover, many pieces of research revealed a higher prevalence of psychological diseases e.g., 53% in the USA, 30% in Canada, 53% in Australia, and 41.9% in Malaysia. Studies in North America and Europe all point to the fact that graduate and undergraduate students showed a higher level of psychological stress compared to the normal population (Sreeramareddy et al., 2007).

In addition, Connor and Davidson (2003) stated that coping shows many different characteristics that allow people to prosper when they experience distress. Coping can be considered as an assessment of stress coping skills and can be changed and made better, making it a significant target in the intervention of sadness, anxiety, and stress. People with higher levels of coping are usually more capable to use family, communal and external support systems to deal with stress in a better way, and lower stress levels predict the increasing adaptation overall, and throughout the changing to university studies (Friborg et al., 2003).

### ***Psychological Distress***

Mirowsky and Ross (1989) defined psychological distress is the hostile individual condition of sadness and nervousness (still anxious, agitated, worried, irritable, and fearful), which has both emotive and mental appearances. The family is viewed as a social framework by which the youngster is influenced since his/her introduction to the world and before that, the kid, likewise, will learn the language, ethnic, customs, values, and trends of the community he lives in, family is the most significant environment which is responsible for the raising of the child and his sponsorship where it fulfills the physiological, mental and social demands, and it feels him with safety, love, and trust, and he will become extra challengeable with himself and others (Qamish & Imam., 2006).

Psychological symptoms such as anxiety/stress, panic buying, fear and paranoia about attending community events, and reduced autonomy, and concerns about income, job, security, and so on have already been observed in a population. Being at home can place children at an increased risk of, or increased exposure to, child protection incidents or make them witness to interpersonal

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violence if their home was not a safe place, Zhou et al. (2020). Coronavirus pandemic fears prompt the government to activate emergency response and extend the travel ban (Zhou et al., 2020).

In addition to the community members, healthcare providers are also at risk of higher psychological distress due to longer working hours and a high risk of exposure to the virus. This may also lead to stress, anxiety, burnout, depressive symptoms, and the need for sick or stress leave, which would harm the capacity of the health system to provide services during the crisis. Even though the psychological impact of the coronavirus disease (COVID-19) pandemic must be recognized alongside the physical symptoms, the global response is a simple public health strategy such as hand washing, quarantine, and social distancing. If left untreated, these psychological symptoms may have long-term health effects on health workers and require treatment adding to the cost burden of managing the illness (Kong et al., 2020).

However, a time that makes harmful stress in the lives of students and has been revealed to raise their distress has frequently been passed the changing to college in which stressors are associated to life changes and distress revealed in result, to have the ability to abrade self-esteem (Besser and Hill., 2012). University students generally experience many stressors for instance educational requirements, workload, and pressure to accomplish, teacher and parent's burden, economical pressure, and anxiety regarding the future that can direct to develop an emotional issue in students and negatively affect their educational performance (Kumar., 2016).

Fram and Bonvillian's first-year as university students are required to manage the stressors that are associated with these new educational requirements like adjusting to new learning environments and the process of instruction, getting inferior personal support from teachers, competing for grades, trying to successfully handle additional requirements for their time, and involving in the self-control that is essential to develop their educational abilities, Besser and Hill (2012). The aspects related to university students' psychological distress are sociodemographic and environmental, education and performance-associated,

and personality and individual difference aspects as being significant (Sharp & Theiler., 2018).

Therefore, numerous aspects could predict the life satisfaction of the students, psychological wellbeing is one of the most significant among all of them. Several pieces of research determined that psychological well-being influences life satisfaction, that people who have better psychological well-being are very satisfied with their lives (Islam et al., 2018). Life satisfaction is negatively related to depression, anxiety, and loneliness and positively related to wellbeing, Samaranayake et al (2014). A significant relationship was found between stress and illness among university/college students (Abdulghani et al., 2011).

Moreover, the research revealed that university and college students described psychological wellbeing issues. High rates of depression, anxiety, and stress among students have developed high public concern in western communities, but in eastern communities, this problem remains unexplored. In the light of these results, the psychological well-being of the younger people of Pakistan deserves our special attention. In the present research, we examined the psychological distress of university students in terms of depression, anxiety, and stress as well as their life satisfaction levels (Islam et al., 2018).

### ***Resilience***

Defining resilience has been a provocation for education since this phrase has been utilized in a wide variety of situations, containing institutional, academics, society, sports, military, and clinical. Furthermore, this idea was initially utilized in the area of physics to explain the properties of elastic objects that were capable of recovering to their original form after being bent or stretched, Dyer and McGuinness (1996). In common terms, all resilience definitions are divided into two groups: resilience as a personality characteristic and resilience as a developmental factor (Mestre et al., 2017).

### ***Life Satisfaction***

Life satisfaction is a general valuation of moods and attitudes about someone's life at a specific opinion ranging from pessimistic to optimistic. It is one of three main pointers of happiness: life satisfaction, constructive influence, and bad impact, Diener (1984). Life satisfaction is understood as the method an individual observes his or her life and how their future life would be. It is also a measure of happiness that is related to our gratification and with other aims of life. Furthermore, life satisfaction is experienced which has affected a person's life in a positive term. Literature study shows that Life satisfaction is intensely associated with our feelings as emotional expressivity which is a significant feature of personal associations. Likewise, a manifestation of someone's feelings has more significance in somebody's life satisfaction (Armsden et al., 1987).

Life satisfaction is the intellectual, overall general consideration of life, and one of the best secure signs of pleasure, happiness, and optimism working amongst new individuals. An experimental study has confirmed that it to be associated with a comprehensive field of optimistic individual, emotional, behavioral, societal, relational, and intrapersonal consequences (Proctor et al., 2009).

Recent experimental indication recommends that adolescents with exceptionally great levels of life satisfaction assistance from better adaptive psychosocial working, intrapersonal, and societal relations, educational achievement, and reduced interactive difficulties, overall, those with normal levels of life satisfaction Proctor et al (2010). Better life satisfaction is also related to several school-associated variables, comprising institute satisfaction, educator care, and perceived educational success, capability, and self-efficacy.

Furthermore, investigation proposes that life satisfaction is not only a phenomenon, but the main factor of consequences that are helpful to persons, families, and societies, Martin et al (2008). For instance, experimental indication proposes that life satisfaction is a barrier in the contradiction of the bad influences of tension and the growth of psychological illness.



Moreover, life satisfaction is a reactive assessment procedure that allows people to measure his or her range of life satisfaction levels depending on a proposed standard set of criteria that meets the person's expectation, Lewis et al. (2011); Pavot and Diener (1993). Pavot and Diener (1993) described that people are inclined to own unique criteria that define what a good life is which may exceed the general standard of a good life for instance happiness and successful relations. People might assume diverse sets of standards to explain success in their life. Therefore, worldwide life satisfaction refers to a general assessment of the quality of a person's life that is over and above evaluations of particular areas e.g., family, friends (Huebner., 1991).

Despite that, life satisfaction is also considered such a reliable form to be assessed because of its capability to provide an integrative index of well-being which depends on features set by people themselves and not the investigators, Diener (2000). In other words, many variables might affect the life satisfaction of people based on their own set of criteria which might be relations, family, economical status, or educational accomplishment. This shows us a problem of whether educational accomplishment is a contributor to life satisfaction among university undergraduates.

Apart from that, few pieces of research were completed to study associations between life satisfaction and educational performance, other researches revealed a non-significant relationship between life satisfaction and educational performance, Bradley and Corwyn (2004); Huebner (1991). Bradley and Corwyn (2004) examined life satisfaction in students among five socio-cultural sets. Further, they described that the incapability to have a positive association between life satisfaction and educational achievement is surprising but may recommend the 'variation of interests and aims beyond education that children have during adolescence' Bradley and Corwyn (2004).

The findings of our research recommend that university students are at risk of depression, anxiety, and stress. The extent of their life satisfaction is the same as other individuals while their wellbeing and resilience levels are lower, therefore life satisfaction has a highly significant negative relationship with depression, anxiety, and stress. The results of this research might assist to recognize, by psychosocial

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evaluations, those who are at risk of psychological distress as well as the aspects related to life satisfaction.

## Research Method

It is correlational research conducted by university students during the second wave of COVID-19. A correlational research design was used. We recruited (n=200 students) through purposive sampling technique from many public and the private university of Pakistan. The inclusion criteria were: Age range: 18-35 years old, both males and females, only students from both public and private universities.

Eleven members were excluded for not meeting the eligibility criteria. The total sample was made of (n=200) university students. The mean age of participants was ( $M = 28.66$ ;  $SD = 4.63$ ). The mean number of siblings was ( $M=3.84$ ,  $SD=1.58$ ). Most participants (65%) studied in public universities. The majority of participants (75%) were female students.

## Measures

A set of queries were established to collect appropriate personal information regarding university students. University students' details including age, academic level, institute, gender, and family system were the demographic variables of the current research. Depression Anxiety Stress Scale (DASS) was originally developed Lovibond (2005). This scale has 21-item (short version) which were used to assess the recent state of an individual when he/she was anxious and depressed. This scale used a 4 point Likert scale ranging from (0=Does Not Apply; 3= Always/Almost). To show their level of stress, anxiety, and depression which they faced last week. DASS has revealed a validated scale and has shown good internal consistency of the DASS scales in both the 42- and 21-item (DASS-21) versions. The reliability outcomes showed that Cronbach alphas of Depression ( $\alpha = .91$ ); Anxiety ( $\alpha = .81$ ) and Stress ( $\alpha = .88$ ) were calculated in the current research.

The brief resilience scale was initially established by Smith et al (2008). The brief resilience scale has 6-questions, self-report rating inventory that have a 5 point Likert scale range from (1=Strongly Disagree; 5= Strongly Agree). The reliability outcomes show that Cronbach alphas ranged from .85 to .92.

A life satisfaction scale was created by Diener et al. (1985). This scale has 5 questions, 7-point Likert scale was used, where (1= did not apply to me at all; 5= applied to me very much or most of the time) The Cronbach alpha reliability of this scale was .85. In the current research, Cronbach's alpha coefficient was ( $\alpha=.82$ ) for the total scale.

### ***Procedure***

This study was conducted through the Institutional Review Board of the Mind Healing Psychological Services (SMC-PVT) Ltd. (CUI number: 0155425–20) and conducted between May and Aug 2021 during the second wave of the COVID-19 pandemic. Before data collection could start, consent to select students was required from universities and once the consent was taken, the students were taken. University students were systematically updated regarding the aim of the research and those whose permission was taken, were required to fill forms anonymously. Also, this research employed paper-and-pencil scales for data collection. Those who agreed to participate in the research were given a set of forms to fill. Instruments that were fulfilled were prepared for data analyses.

### ***Analysis***

Statistical analyses were conducted using the IBM SPSS Statistics: version 23 with significance set at  $p < 0.05$ . For the main study variables, means, standard deviations reliability values (i.e., Cronbach alphas) were calculated. It can be seen in [Table 1](#) that all the variables were within generally acceptable ranges of  $\pm 2$  (Field, 2013) To ensure easy analysis and understanding, Pearson product-moment correlation analysis, hierarchical regression analysis, and Moderation analysis were used.

## Results and Discussion

**Table 1. Psychometric Properties of Questionnaires**

Variables	k	M	SD	A
DASS-21	21	79.25	12.63	0.85
Depression	07	12.39	3.78	0.91
Anxiety	07	12.61	3.51	0.81
Stress	07	12.38	3.84	0.88
Brief Resilience Scale	06	37.38	8.85	0.85
Life Satisfaction Scale	05	43.69	7.40	0.82

**Table 2. Pearson Product Moment Correlation Analysis between Study Variables**

Variables	1	2	3
Psychological Distress	-	0.23**	-0.40**
Resilience	-	-	0.79**
Life Satisfaction	-	-	-

Table 2 revealed that the psychological distress has a significant negative relationship ( $r = -0.40$ ,  $p < 0.05$ ) with life satisfaction. However, resilience has significant positive association ( $r = 0.79$ ,  $p < 0.05$ ) with life satisfaction among university students.

**Table 3. Hierarchical Regression Analysis between Study Variables**

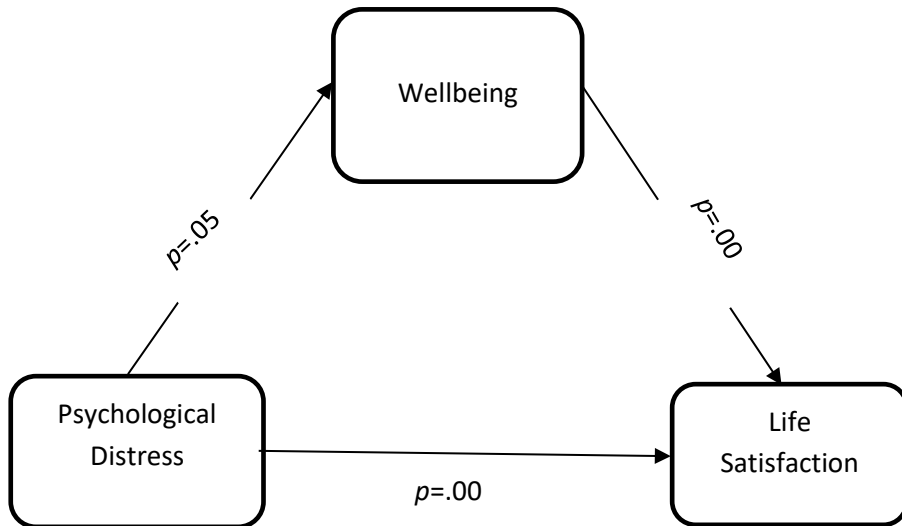
Predictors	Life Satisfaction	
	$\Delta R^2$	$\beta$
Step 1	0.01**	
Psychological Distress		-0.10**
Step 2	0.16***	
Resilience		0.40***
Total R <sup>2</sup>	0.17	

Table 3 indicates that the first model found significant prediction  $F(1, 198) = 2.08$ ,  $p < 0.05$ ,  $R^2 = 0.11$  and accounted for 11% of variance in life satisfaction. The second model found a highly significant prediction  $F(2, 197) = 20.17$ ,  $p > 0.05$ ,  $R^2 = 0.17$  and accounted for 17% of variance in life satisfaction.

**Table 4. Moderating Role of Resilience**

Predictor	SE	B	T
Psychological Distress	0.53	-1.42	-2.69
Life Satisfaction	0.29	-0.55	-1.90
Interaction	0.00	0.01	2.90
R <sup>2</sup>	0.20		
F	16.76		

Table 4 showed significant interaction effects of psychological distress and resilience (B= -1.42, p= 0.00). The Value of R<sup>2</sup> (0.20) explained a 20% variance in life satisfaction accounted for by psychological distress.



**Figure 1. Moderating Role of Resilience between Psychological Distress and Life Satisfaction**

Figure 1 showed that psychological distress has a significant negative relationship with life satisfaction, however, resilience has a significant positive relationship with life satisfaction. Regression findings revealed that psychological distress and resilience were significant predictors of life satisfaction. Moderation findings showed resilience plays a significant moderating role between psychological distress and life satisfaction.

Moreover, in the present research, life satisfaction has a significant negative relationship with depression, anxiety, and stress. These results are reliable with prior studies where psychological distress is revealed to be negatively related to life satisfaction in university students and negative life events raise the risk of depression, nervousness, and stress (Grant et al., 2009; Collin et al., 2009).

In addition, stress is a significant aspect of teaching. Students are at extreme risk of stress and it has negative outcomes such as limited attention, anxiety, depression, and even suicide. A directed in 32 countries and showed discontent with life is related to depression and suicide. Psychological distress is very common in young people, with further psychological disease happening between the age of 15 to 24 and the rate of suicide in young students was revealed higher (49%) than older adults. With the same line, youth Sight's research recommended a high frequency of anxiety, depression, and stress, furthermore, girls were more mentally distressed than boys. 30% to 57% of university students all over the world revealed to have psychological problems, having a positive family history of psychological disease, lack of social activities, lack of social support and poor personal relations were risk aspects related to psychological distress (Bray & Gunnell., 2006).

Moreover, a survey of psychological wellbeing issues of university students was conducted in Pakistan showing that 31% of students fall into the "severe" psychological wellbeing issues and 16% fall into the "very severe" group. Another research showed stress, anxiety, eating issues and depression were common in university students and it hurt their educational performance and life satisfaction. Also, a study with students in Ankara revealed a significant negative association of depression, anxiety, and stress with life satisfaction (Stallman., 2010; Gunney et al., 2010).

Further, research was conducted to explore factors affecting resilience and life satisfaction and the association between resilience and life satisfaction in students. Findings revealed that as resilience rises, life satisfaction arises too. Social support is effective in the betterment of resilience. Young individuals living in metropolises are lucky in terms of getting leadership characteristics and being full of life. Moreover, young individuals feeling happy with their research area can be more

ambitious and energetic and have extra goals and initiatives. The positive association between resilience and life satisfaction shows the importance of resilience (Yildirim., 2017).

The field of the mental wellbeing of students in Pakistan has got limited attention. Some researchers completed this topic and usually with university students, these researchers determined that there is a high prevalence of psychological wellbeing issues in Pakistani students. The current attempt is to complete the gap through measuring the psychological distress resilience and life satisfaction in the unit of students from changed aptitudes of the research.

### **Conclusion**

The findings of our research suggest that university students are at risk of depression, anxiety, and stress. The extent of their life satisfaction is the same as other individuals while their wellbeing and resilience levels are lower due to this life satisfaction has a highly significant negative relationship with depression, anxiety, and stress. The results of this research might assist to recognize, by psychosocial evaluations, those who are at risk of psychological distress as well as the aspects related to life satisfaction. The outcomes might also serve to provide teachers and psychologists with information that is beneficial in making management and intervention strategies that are effectively used with the issues of psychological distress among university students.

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