



There will be Predictive Association between Coronavirus Anxiety and Psychological Well-being among Emerging Adults during Pandemic

Aqsa Fayyaz¹, Komal Hayat² & Muhammad Bilal Arif³

¹Lecturer, FAST National University of Computer and Emerging Sciences, Karachi Campus, Karachi, Pakistan, Email: aqsafayyaz21@gmail.com

²Senior lecturer, Dr AQ Khan Center IBS, Dow University of Health Sciences, Karachi, Pakistan, Email: Komal.hayat@duhs.edu.pk

³PhD Fellow, Department of Psychology, University of Karachi, Email: mbilalarif8@gmail.com

ARTICLE INFO

Article History:

Received:	February	13, 2025
Revised:	March	17, 2025
Accepted:	March	21, 2025
Available Online:	March	24, 2025

Keywords:

Coronavirus Anxiety, Psychological Well-being, Emerging Adults, COVID-19, Mental Health

Corresponding Author:

Aqsa Fayyaz

Email:

aqsafayyaz21@gmail.com



ABSTRACT

The COVID-19 pandemic has severely affected mental health worldwide, particularly among emerging adults navigating the transitional phase between adolescence and adulthood. This population is especially vulnerable to psychological stressors due to heightened uncertainty, disrupted routines, and limited coping mechanisms. The present study aimed to determine the predictive association between Coronavirus Anxiety and Psychological Well-being among emerging adults in Karachi, Pakistan. Using a quantitative correlational research design, data were collected from 300 participants aged 18 to 25 through purposive non-probability sampling. Participants completed the Coronavirus Anxiety Scale (CAS) and Ryff's Psychological Well-being Scale (PWB) via an online Google Forms survey. Descriptive statistics and Pearson correlation analysis were conducted using SPSS version 21. Findings revealed a significant negative correlation between coronavirus anxiety and psychological well-being ($r = -.22, p < .01$), suggesting that increased anxiety levels are associated with diminished psychological well-being in emerging adults. The internal consistency of both scales was acceptable ($\alpha = .698$ for CAS, $\alpha = .674$ for PWB). The results support existing literature indicating that pandemic-induced anxiety is a risk factor for poor mental health outcomes. The study contributes to a growing body of research on the long-term psychological consequences of the pandemic and highlights the importance of developing targeted mental health interventions. These should focus on enhancing resilience, fostering emotional regulation, and increasing access to mental health services—especially in low- and middle-income countries where resources are often limited. Future research may explore the potential mediating role of variables such as gratitude, coping strategies, or social support in mitigating anxiety's impact on well-being.

Introduction

The COVID-19 pandemic has had intense psychological and social impacts globally, particularly among emerging adults, who face unique developmental challenges during this period of transition. Emerging adulthood is considered by identity exploration, instability, and self-focus, making this group particularly susceptible to the psychological consequences of the pandemic (Arnett, 2000). Among these consequences, Coronavirus Anxiety a specific form of anxiety related to the fear of contracting the virus, its health implications, and its societal disruptions has emerged as a significant mental health concern (Lee, 2020). Recent studies have highlighted the pervasive nature of this anxiety, with emerging adults reporting heightened levels of stress, uncertainty, and emotional distress during the pandemic (Huckins, 2020).

The pandemic has had a major impact on psychological well-being, a multifaceted concept that includes emotional, social, and psychological functioning. According to research, the epidemic has worsened anxiety, despair, and loneliness while also lowering life satisfaction and mental health in general. (Pieh, 2020). Emerging adults have reported declines in Psychological Well-being due to disruptions in education, employment, and social relationships (Huckins, 2020). Because of the interaction between internal emotional states and external stresses, there is increasing interest in learning how coronavirus anxiety specifically affects psychological well-being in this population.

In 2021, according to WHO a scientific brief was released stating that the global prevalence of anxiety and depression surged by 25% during the first year of the COVID-19 Pandemic. The main reason behind this was the immense stressful situation caused due to social isolation as it hindered people's ability to work, limiting their connection with their loved ones and the engagement in their communities.

Research found that Coronavirus Anxiety significantly predicted lower levels of Psychological Well-being, mediated by factors such as perceived stress and coping mechanisms (Satici, 2020). Similarly, a longitudinal study demonstrated that pandemic-related anxiety had a prolonged negative impact on mental health outcomes over time. These findings highlight the need for further investigation into the mechanisms underlying this relationship, particularly in the context of emerging adulthood, where developmental vulnerabilities may exacerbate the effects of anxiety (Liu, 2021).

The pandemic has also highlighted the significance of social support and coping strategies in mitigating the adverse effects of Coronavirus Anxiety on Psychological Well-being. Studies have shown that individuals with strong social support networks and effective coping mechanisms, such as problem-focused coping and emotional regulation, are better equipped to manage pandemic-related stress and maintain higher levels of Psychological Well-being (Cao, 2020). Conversely, those with limited social support or maladaptive coping strategies, such as avoidance or substance use, are at greater risk for poor mental health outcomes (Killgore, 2020). These findings suggest that interventions aimed at enhancing social support and promoting adaptive coping strategies may be particularly beneficial for emerging adults during the pandemic.

Furthermore, the pandemic has exacerbated existing mental health disparities, with certain subgroups of emerging adults experiencing disproportionately high levels of Coronavirus Anxiety and psychological distress. For example, individuals from low-income backgrounds, racial and ethnic minorities, and those with pre-existing mental health conditions have been found to be at greater risk for adverse mental health outcomes during the pandemic (Fitzpatrick, 2020). These

disparities highlight the importance of considering sociodemographic factors and systemic inequities when examining the relationship between Coronavirus Anxiety and Psychological Well-being.

Another study found that emerging adults who experienced high levels of pandemic-related stress were more likely to report symptoms of depression and anxiety even after the initial peak of the pandemic had passed. These findings underscore the need for longitudinal research to better understand the enduring effects of Coronavirus Anxiety on Psychological Well-being (Racine, 2021).

The COVID-19 pandemic has substantial adverse impact on the mental well-being of university students as well. As per latest researches, above 95% of health care professionals in Pakistan has reported moderate to severe level of anxiety due to the COVID-19 (Faridah, Salman, Rabeeya, Noureen, & Daniyal, 2020).

Hence, COVID-19 pandemic has had a profound impact on the mental health and wellbeing of emerging adults, with Coronavirus Anxiety emerging as a significant predictor of psychological distress. The relationship between Coronavirus Anxiety and Psychological Well-being is complex and influenced by a range of factors, including social support, coping strategies, sociodemographic characteristics, and access to digital resources. As the pandemic continues to evolve, it is critical to deepen our understanding of these dynamics and develop targeted interventions to support the mental health and wellbeing of emerging adults. By addressing the unique challenges faced by this population, we can promote resilience and foster positive mental health outcomes in the post-pandemic era.

The transition to post-pandemic life has also introduced new stressors, including economic instability, academic pressures, and the lingering effects of social isolation, which have further exacerbated mental health concerns in this group (Taylor, 2023). The predictive relationship between Coronavirus Anxiety and Psychological Well-being has been a focal point of recent research. Studies in 2022 and 2023 have demonstrated that Coronavirus Anxiety remains a significant predictor of lower Psychological Well-being, even as the immediate threat of the virus has diminished. In a longitudinal study conducted it is found that individuals who experienced high levels of Coronavirus Anxiety during the pandemic were more likely to report ongoing mental health challenges, such as depression and low life satisfaction, two years later. These findings suggest that the psychological impacts of the pandemic may have long-term implications for emerging adults, underscoring the need for targeted interventions and support (Garcia, 2023).

As the world moves into a post-pandemic era, the long-term mental health consequences of coronavirus anxiety remain a critical area of investigation. Emerging research suggests that the pandemic has fundamentally altered the developmental trajectories of emerging adults, with potential implications for their future mental health and well-being (Adams, 2023).

Research Objective

To explore the predictive relationship between Coronavirus Anxiety and Psychological Well-being amid emerging adults during the pandemic COVID-19

Hypothesis

There will be a predictive relationship among Coronavirus Anxiety and Psychological Well-being in emerging adults during Pandemic.

Methodology

Research Design

Nature of Current study is quantitative and correlational research design is research method. However, the independent variable is Coronavirus Anxiety, while the dependent variable is Psychological Well-being.

Participants

Purposive and non-probability sampling technique was used to recruit the participants of age 18 to 25 residents of Karachi. Due to pandemic, the data was collected using Google forms.

Inclusion criterion

- The age range of participants will be 18 to 25 years.
- Education at least intermediate and above

Exclusion criterion

- Participants with any medical or psychological illness
- Those who cannot read or write
- Those who have education below intermediate

Measures

Consent form

Participants' consent to participate in the study was taken through the informed consent form. The duration of the study, introduction to the researcher, supervisor and other relevant detail was highlighted in the form. Participant's rights to confidentiality and withdrawal from the study were also mentioned. They were asked to sign the form to express their willingness for participation.

Demographic form

Demographic form was used to acquire basic demographics of participants. Confidentiality of participants was also confirmed. Participants filled the forms about their gender, education, age, socioeconomic status, family structure, area of residence, marital status, any medical or psychological history and information related to Coronavirus.

Corona-virus Anxiety Scale (CAS; Sherman Lee, 2020)

Encompassed of five items that portrays the communal symptoms of anxiety experienced by an individual, Coronavirus Anxiety Scale, designed and developed by Lee et al. (2020) was formerly intended to study anxiety over COVID-19 in the United States among 775 adults. Its predictive validity is outstanding, also brilliant reliability, with an internal consistency of 0.93 and a Cronbach's

alpha of 0.87 (Lee S. A., 2020). Based on experiences over the past two weeks the score was done as 0 to 4 (not at all to nearly every day) also There's no reverse scoring. Problematic symptoms for the individual that might warrant further assessment or treatment may indicate High scores on an item or a high total scale score if above or equal to (≥ 9).

Psychological Well-being (PWB; Ryff, 1995)

Carol D. Ryff, developed a scale based on 18 item surveys to measure the psychological wellbeing of participants focusing on six aspects of wellbeing and happiness. The scale encompasses some of its Subscales (Autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance). Equally split between positive and negative items scored on a six-point scale ranging from others, purpose in life, and self-acceptance. Each subscale contains three items each, strongly disagree to strongly agree. It contains significant cultural validity. 0.853 The Cronbach Alpha value discloses inter item reliability with a standardized item Alpha value of 0.855. An item formula is used for reverse scoring: ((Number of scale points) + 1) - (Respondent's answer). Higher scores on this reflect that the person possesses higher levels of Psychological Well-being. 18-72 is low and above 72 is high having cutoff score for this measure is 72.

Procedure

After the approval of Director IPP, BUKC, to conduct the research, we sought permission from the authors of scales. Next, we developed an online Google form as it was the most convenient method to gather data at that time. The google form link was sent to participants on social media using purposive sampling technique. The data was collected from emerging adults' of age range 18 to 25. Consent forms were shared with them along with a demographic form and three scales: Coronavirus Anxiety Scale (CAS) and short scale of Psychological Well-being (PWB). After the data collection it was then transferred to SPSS version 21 for scoring and analysis of the data.

Results

Table 1

Frequency and percentage of Demographic Variables (N =300)

Variable	F	%
N	300	300
Gender		
Male	55	18.3
Female	245	81.7
Education		
Intermediate	32	10.7
Bachelors (16years)	184	61.3
Masters (18years)	69	22.9
Other	15	4.8
Family Structure		
Joint family system	83	27.7
Nuclear family system	217	72.3
Socioeconomic Status		
Lower class	7	2.3
Middle class	262	87.3

Upper class	31	10.3
Marital status		
Single	235	78.3
Engaged	33	11.0
Married	32	10.7
Psychological problem		
No	300	100
Yes	00	00
Residence		
Karachi	300	100
Corona diagnosis		
Yes	13	4.3
No	287	95.7
Family Corona diagnosis		
Yes	99	33.0
No	201	67.0
Deaths in circle		
Yes	70	33.0
No	230	67.0

Table 2

Relationship between Coronavirus Anxiety, and Psychological Well-being (N=300)

Variables	1	2
1. Caronavirus Anxiety	-	-.22**
2. Psychological Well-being		-

Note. ** $p < .01$

The results in table 1 presents the correlation between coronavirus anxiety and psychological well-being among emerging adults (N = 300). The results revealed a significant negative correlation between coronavirus anxiety and psychological well-being, $r = -.22, p < .01$, indicating that higher levels of coronavirus anxiety were associated with lower levels of psychological well-being. These findings provide initial support for the hypothesis that coronavirus anxiety is a significant predictor of psychological well-being.

Reliability Analysis

Table 3

Descriptive statistics and alpha reliability coefficient, univariate normality of Coronavirus Anxiety Scale, and Psychological Well-being Scale.

Scales	No. of items	A	M	SD	SK	K	Range		
							Actual	Potential	
Coronavirus Anxiety	5	.69	8	2.01	2.525	1.535	1.969	0-12	0-20
Psychological	18	.67	88.14	12.283	-.132	-.165		52-117	1-126

Well-being 4

Note: α = Coefficient of Alpha, M= Mean, SD= Standard Deviation, SK= Skewness, K= Kurtosis.

Table 3 shows the Mean, Standard deviation, Skewness, Kurtosis, Actual and Potential ranges, and Cronbach’s alpha reliability coefficient of Scales, showing that the data is normally distributed. Value of Cronbach alpha is .698 for Coronavirus Anxiety Scale indicating acceptable internal consistency. Moreover, the value of Cronbach alpha is .674 for Psychological Well-being Scale that also shows acceptable internal consistency.

Table 4
Descriptive statistics of Gender for Entire Sample

Variables	<i>F</i>	%
N	300	300
Age		
Females	245	81.7
Males	55	18.3

Table 4 shows gender wise data. Majority of the participants such as 81.7 percent were female with the frequency of 245 and 18.3% participants were male with the frequency of 55.

Table 5
Descriptive statistics of Age for Entire Sample

Variables	<i>F</i>	%
N	300	300
Age		
18-20	29	9.7
21-23	202	67.3
23 >	69	23

Table 5 shows the data age group wise. Majority of the participants such as the 67.3% lies in the age group of 21-23years with the frequency of 202. Then 23% participants lie in the age group of 23 years above with the frequency of 69 while 9.7% participants lies under the age group of 18-20 years with the frequency of 29.

Discussion

The current study aimed to explore the predictive association between Coronavirus Anxiety and Psychological Well-being among emerging adults during the COVID-19 pandemic. The results revealed a significant negative correlation ($r = -.22, p < .01$) between coronavirus anxiety and psychological well-being, supporting the hypothesis that increased anxiety related to the pandemic is associated with reduced psychological well-being. These findings are consistent with previous research which has identified the detrimental impact of pandemic-related stressors on mental health across various populations, particularly among emerging adults (Huckins et al., 2020; Satici et al., 2020).

Emerging adulthood, a developmental period marked by identity exploration, instability, and increased self-focus (Arnett, 2000), is particularly vulnerable to external stressors such as the global pandemic. The prolonged exposure to uncertainty, health threats, and social isolation has

compounded psychological distress, making this age group more susceptible to anxiety and reduced well-being (Pieh et al., 2020). The results of this study corroborate the findings of Liu et al. (2021), who emphasized that COVID-19-related anxiety is a significant contributor to depression, anxiety, and lower life satisfaction in young adults.

A notable aspect of the study is its context-specific contribution. Conducted in Karachi, Pakistan, the study highlights the psychological toll of the pandemic on emerging adults in a South Asian urban setting, where prolonged lockdowns, limited access to mental health resources, and sociocultural pressures may exacerbate anxiety. The high percentage of female participants (81.7%) also aligns with global trends indicating that women are more likely to report psychological distress during pandemics (Pierce et al., 2020).

The internal consistency of the scales used in the study, although acceptable, was slightly below the commonly accepted threshold of .70 for psychological measures ($\alpha = .698$ for Coronavirus Anxiety and $\alpha = .674$ for Psychological Well-being). This suggests a need for careful scale adaptation or expansion in future research to enhance measurement reliability, particularly when using tools developed in Western contexts within South Asian populations.

In line with the findings of the World Health Organization (2021), this research adds to the growing body of research demonstrating the widespread mental health consequences of COVID-19. The WHO reported a 25% global increase in anxiety and depression during the first year of the pandemic, attributing much of this to the stressors of social isolation and economic uncertainty. Similar concerns were echoed by Taylor (2023), who emphasized the post-pandemic stressors faced by emerging adults, including academic pressure and financial instability—factors which likely continue to influence psychological well-being even as the immediate threat of the virus diminishes.

Longitudinal studies such as Garcia (2023) have demonstrated the enduring impact of coronavirus anxiety, revealing that elevated anxiety levels during the pandemic were predictive of sustained psychological difficulties years later. These findings underscore the need for continued mental health support and monitoring of emerging adults, even in the post-pandemic recovery phase. The present study adds further evidence to this claim and calls for proactive policy measures to safeguard the psychological well-being of youth populations.

Conclusion

The present study sought to examine the predictive association between Coronavirus Anxiety and Psychological Well-being among emerging adults during the COVID-19 pandemic. The findings revealed a significant negative correlation, indicating that higher levels of coronavirus-related anxiety were associated with lower psychological well-being. This supports the hypothesis and aligns with existing literature emphasizing the psychological toll of the pandemic on young adults navigating a critical developmental stage.

The study highlights the importance of addressing the mental health needs of emerging adults, particularly during times of crisis. The data underscores the need for culturally sensitive mental health interventions, particularly in low- and middle-income countries like Pakistan, where access to psychological resources may be limited.

Although the study has limitations, including the use of self-report measures and a non-probability sampling method, it offers valuable insights into the mental health challenges faced by youth during

the pandemic. These findings call for sustained efforts from policymakers, mental health professionals, and educational institutions to promote resilience, reduce anxiety, and support psychological well-being in emerging adults, both during and beyond the pandemic era.

Ethical Considerations

Informed consent was taken from the participants to assured that the information will be kept confidential and only used for research purposes, and they will be free to withdraw at any time. Participants were assured that all information would be anonymous and kept Confidential. No form of deception was used to obtain information. All participants treated equally.

References

1. Adams, R. H. (2023). Long-term mental health impacts of the COVID-19 pandemic on emerging adults: A longitudinal study. *Journal of Adolescent Health, 72*(4), 567–575.
2. Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist, 55*(5), 469–480.
3. Banskota, S. H. (2020). 15 smartphone apps for older adults to use while in isolation during the COVID-19 pandemic. *Western Journal of Emergency Medicine, 21*(3), 514–525.
4. Cao, W. F. (2020). The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry Research, 287*, 112934.
5. Faridah, A., Salman, S., Rabeeya, S., Noureen, D., & Daniyal, J. (2020). COVID-19 Pandemic- Knowledge, Perception, Anxiety and Depression Among Frontline Doctors of Pakistan. *BMC Psychiatry, 459*.
6. Fitzpatrick, K. M. (2020). Fear of COVID-19 and the mental health consequences in America. *Psychological Trauma: Theory, Research, Practice, and Policy, 12*(S1), S17–S21.
7. Garcia, M. P. (2023). Longitudinal predictors of psychological wellbeing in emerging adults during and after the COVID-19 pandemic. *Psychological Medicine, 53*(8), 3456–3467.
8. Huckins, J. F. (2020). Mental health and behavior of college students during the early phases of the COVID-19 pandemic. *Longitudinal smartphone and ecological moment*.
9. Killgore, W. D. (2020). Loneliness: A signature mental health concern in the era of COVID-19. *Psychiatry Research, 290*, 113117.
10. Kim, J. N. (2023). Coping strategies and social support as moderators of coronavirus anxiety and psychological wellbeing in emerging adults. *Journal of Clinical Psychology, 79*(5), 1123–1137.
11. Lee, S. A. (2020). Coronavirus Anxiety Scale: A brief mental health screener for COVID-19 related anxiety. *Death Studies, 44*(7), 393–401.
12. Lee, S. A. (2020). Incremental validity of coronaphobia: Coronavirus anxiety explains depression, generalized anxiety, and death anxiety. *Journal of anxiety disorders, 74*, 102268.
13. Liu, C. H. (2021). Factors associated with depression, anxiety, and PTSD symptomatology during the COVID-19 pandemic: Clinical implications for U.S. young adult mental health. *Psychiatry Research, 295*.
14. Pieh, C. B. (2020). The effect of age, gender, income, work, and physical activity on mental health during coronavirus disease (COVID-19) lockdown in Austria. *Journal of Psychosomatic Research, 136*, 110186.

15. Pierce, M. H. (2020). Mental health before and during the COVID-19 pandemic: A longitudinal probability sample survey of the UK population. *The Lancet Psychiatry*, 7(10), 883–892.
16. Racine, N. M. (2021). Global prevalence of depressive and anxiety symptoms in children and adolescents during COVID-19: A meta-analysis. *JAMA Pediatrics*, 175(11), 1142–1150.
17. Satici, B. G.-T. (2020). Adaptation of the Fear of COVID-19 Scale: Its association with psychological distress and life satisfaction in Turkey. *International Journal of Mental Health and Addiction*, 19(6), 1980–1.
18. Taylor, R. A. (2023). Economic instability and mental health in emerging adults: A post-pandemic analysis. *Journal of Economic Psychology*, 88, 102589.
19. WHO. (2021, March). *COVID-19 pandemic triggers 25% increase in prevalence of anxiety and depression worldwide*. Retrieved from World Health Organization: <https://www.who.int/news/item/02-03-2022-covid-19-pandemic-triggers-25-increase-in-prevalence-of-anxiety-and-depression-worldwide>
20. Zhao, N. Z. (2020). The impact of social media use on depression during the COVID-19 pandemic: A cross-sectional study. *Journal of Affective Disorders* , 277, 41–47.
21. Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, 55(5), 469–480.
22. Maguire, R., McCann, L., Kotronoulas, G., Kearney, N., Ream, E., Armes, J., ... & Donnan, P. T. (2021). Real time remote symptom monitoring during chemotherapy for cancer: European multicentre randomised controlled trial (eSMART). *bmj*, 374.
23. Huckins, J. F. (2020). Mental health and behavior of college students during the early phases of the COVID-19 pandemic. *Longitudinal smartphone and ecological moment assessment study*.
24. Kim, J. N. (2023). Coping strategies and social support as moderators of coronavirus anxiety and psychological wellbeing in emerging adults. *Journal of Clinical Psychology*, 79(5), 1123–1137.
25. Liu, C. H. (2021). Factors associated with depression, anxiety, and PTSD symptomatology during the COVID-19 pandemic: Clinical implications for U.S. young adult mental health. *Psychiatry Research*, 295.
26. Pieh, C. B. (2020). The effect of age, gender, income, work, and physical activity on mental health during coronavirus disease (COVID-19) lockdown in Austria. *Journal of Psychosomatic Research*, 136, 110186.
27. Pierce, M. H. (2020). Mental health before and during the COVID-19 pandemic: A longitudinal probability sample survey of the UK population. *The Lancet Psychiatry*, 7(10), 883–892.
28. Taylor, R. A. (2023). Economic instability and mental health in emerging adults: A post-pandemic analysis. *Journal of Economic Psychology*, 88, 102589.
29. World Health Organization. (2021, March). *COVID-19 pandemic triggers 25% increase in prevalence of anxiety and depression worldwide*.