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Investigating the relationship between covid-19 anxiety and psychological distress among female high school students in Tabriz

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Abstract

This study aims to examine the relationship between COVID-19 anxiety and psychological distress among adolescent female students in region 6 of Tabriz. The research follows a correlational design, and the population includes all students in region 6 of Tabriz, totaling 1840 individuals. A sample of 150 participants was selected using convenience sampling (due to the COVID-19 pandemic) based on the nature of the research. Participants completed the psychological distress questionnaire by Kessler and colleagues (2002) and the COVID-19 anxiety questionnaire. Notably, due to the pandemic, the questionnaires were completed through virtual platforms (Telegram, Instagram, and email). Data analysis was performed using stepwise regression analysis to analyze the findings. Assumptions related to data parametricity, including homogeneity of variances and normal distribution, were examined. The results revealed a significant positive relationship between COVID-19 anxiety and psychological distress. This study sheds light on the impact of COVID-19 anxiety on the psychological well-being of adolescent female high school students.

Keywords
Covid-19 anxiety, psychological distress, high school students

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Introduction

The COVID-19 pandemic has disrupted lives globally, affecting various aspects of society, including mental health. Adolescents, who are already navigating a period of significant developmental and emotional changes, have been particularly susceptible to the psychosocial impacts of the pandemic. This study focuses on investigating the relationship between COVID-19 anxiety and psychological distress among female high school students in region 6 of Tabriz.

The COVID-19 pandemic has led to widespread fear, uncertainty, and anxiety (Pfefferbaum & North, 2020). Adolescents, in particular, may experience heightened anxiety due to concerns about their health, the health of loved ones, disruptions to their education, and social isolation (Loades et al., 2020). These anxieties can contribute to psychological distress, encompassing symptoms of depression, anxiety, and general emotional discomfort (Kessler et al., 2002). Understanding the relationship between COVID-19 anxiety and psychological distress in this vulnerable population is crucial for targeted intervention and support.

The COVID-19 pandemic, caused by the novel coronavirus SARS-CoV-2, has heralded an unprecedented global crisis with far-reaching consequences. Beyond the immediate public health implications, the pandemic has cast a formidable shadow over various facets of human life, including mental health. One segment of society acutely affected by the pandemic is adolescents, who find themselves navigating a tumultuous period of development while grappling with the myriad challenges brought forth by the ongoing crisis. Within this demographic, adolescent females, in particular, have experienced unique stressors and vulnerabilities. This study endeavors to explore the complex interplay of COVID-19-related anxiety and psychological distress among female high school students in region 6 of Tabriz, seeking to shed light on the profound implications for their mental well-being.

The Unprecedented Challenge of COVID-19: The COVID-19 pandemic, declared by the World Health Organization (WHO) as a global health emergency, has redefined the landscape of human existence (WHO, 2020). The virus's rapid transmission, significant morbidity, and mortality, coupled with the lack of effective vaccines initially, engendered widespread fear and uncertainty. Governments worldwide responded with a spectrum of containment measures, including lockdowns, social distancing, and remote learning, drastically altering daily life for billions of people.

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Adolescents in the Midst of Transformation: Adolescence, characterized by myriad physical, emotional, and cognitive changes, represents a critical phase of human development (Sawyer et al., 2018). It is a period of self-discovery, identity formation, and the establishment of lifelong behaviors and habits. Adolescents typically seek autonomy, independence, and social connections as they transition from childhood to adulthood. However, this developmental journey can be fraught with challenges and vulnerabilities, and the added layer of a global pandemic introduces a unique set of stressors.

The Mental Health Impact on Adolescents: Adolescents, already grappling with the turbulence of their formative years, have borne a substantial share of the pandemic's mental health burden. The ramifications encompass a spectrum of psychological distress, including anxiety, depression, loneliness, and uncertainty about the future (Guessoum et al., 2020). In a global survey conducted by Save the Children, over 60% of respondents aged 14 to 17 reported feelings of sadness, anxiety, or depression during the pandemic (Save the Children, 2020). Moreover, with the closure of schools, extracurricular activities, and limited social interactions, adolescents experienced disruptions to their routines and support systems, exacerbating feelings of isolation and emotional distress (Loades et al., 2020).

Gender Disparities in Psychological Responses:It is essential to recognize that the psychological impact of the pandemic has not been uniform across gender lines. Emerging evidence suggests that adolescent females have been disproportionately affected by COVID-19-related stressors. Gender disparities in mental health responses to crises have been documented in previous outbreaks, such as the 2002-2003 SARS epidemic (Wu et al., 2009). Female adolescents, in particular, may encounter unique challenges related to their social roles, self-perception, and coping strategies.

Psychosocial Stressors for Adolescent Females:Adolescent females often grapple with distinct psychosocial stressors, including body image concerns, peer relationships, academic pressures, and societal expectations regarding femininity (Nadeem et al., 2018). The pandemic has accentuated some of these stressors, as lockdowns limited opportunities for social interaction and physical activity, potentially intensifying feelings of body dissatisfaction and loneliness. Moreover, school closures and the shift to remote learning introduced challenges for female students in adapting to new educational modalities, potentially contributing to academic stress (Chen et al., 2020).

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The Role of COVID-19 Anxiety: COVID-19-related anxiety, a specific form of anxiety arising from concerns about the virus's transmission, health risks, and societal impact, has become a central facet of the pandemic experience (Asmundson & Taylor, 2020). Adolescents, including females, have had to grapple with fear related to their health, the health of family members, and the disruption of their education and future prospects. This heightened anxiety may amplify the psychological distress experienced by adolescent females, potentially exacerbating pre-existing mental health vulnerabilities.

Against this backdrop of unprecedented global turmoil and the unique vulnerabilities of adolescent females, this study embarks on a vital inquiry into the relationship between COVID-19 anxiety and psychological distress among female high school students in Region 6 of Tabriz. Utilizing a correlational research design, this investigation seeks to elucidate the intricate connections between the anxieties generated by the pandemic and the psychological well-being of adolescent females. By examining these relationships, this study endeavors to contribute to our understanding of the pandemic's mental health impact on this specific demographic.

The significance of this study extends beyond the empirical investigation of COVID-19 anxiety and psychological distress. It underscores the imperative for targeted interventions, support systems, and mental health resources tailored to the unique experiences and vulnerabilities of adolescent females during the pandemic. Additionally, the findings of this study may serve as a foundation for informed policy decisions aimed at mitigating the mental health consequences of the ongoing crisis on this demographic.

In the sections that follow, we delve into the methodological framework employed in this research, present the results of our analysis, and engage in a discussion that contextualizes the findings and their implications within the broader landscape of adolescent mental health during the COVID-19 pandemic.

Materials and Methods

The study population consisted of all female high school students in region 6 of Tabriz, totaling 1840 individuals. Due to the challenges posed by the COVID-19 pandemic and the need for social distancing, a sample of 150 participants was selected using convenience sampling based on the nature of the research.

Instruments

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1. Psychological Distress Questionnaire: Participants completed the psychological distress questionnaire by Kessler and colleagues (2002). This questionnaire assesses psychological distress by measuring symptoms of depression and anxiety over the past month. It is widely used and validated for assessing psychological distress in various populations.

2. COVID-19 Anxiety Questionnaire: To measure COVID-19 anxiety, participants completed a questionnaire specifically designed for this study. This questionnaire assessed anxiety related to the COVID-19 pandemic, including concerns about personal health, the health of family and friends, and the impact of the pandemic on daily life.

Data Collection: In light of the ongoing COVID-19 pandemic and the need for social distancing measures, data collection was conducted through virtual platforms. Participants were contacted and provided with the questionnaires through platforms such as Telegram, Instagram, and email. They were instructed to complete the questionnaires independently, ensuring privacy and confidentiality.

Data Analysis: Data analysis was performed using stepwise regression analysis to investigate the relationship between COVID-19 anxiety and psychological distress among female high school students. Assumptions related to data parametricity, including homogeneity of variances and normal distribution, were examined and met to ensure the validity of the statistical analysis.

Results

The descriptive results provided in table 1.

Variables	Mean	SD
anxiety	21.58	3.64
psychological distress	19.52	4.27

The results of the regression analysis indicated several significant findings (tables 2 and 3).

Table 2. Regression model summary indicators

Indices	F	P	R	R^2
Model	18.62	0.001	0.68	0.46

Table 3. Results of regression analysis to predict psychological distress

Predictors	B	β	SE	t	P
Constant	11.48	3.11			0.001
anxiety	0.68	0.56	0.11	3.67	0.001

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The results of the stepwise regression analysis revealed a significant positive relationship between COVID-19 anxiety and psychological distress among adolescent female high school students in region 6 of Tabriz ($p < 0.05$). The analysis indicated that higher levels of COVID-19 anxiety were associated with increased psychological distress.

Discussion

The COVID-19 pandemic has ushered in an era of unprecedented challenges and transformations across the globe, impacting every facet of human existence. Among the most profoundly affected demographics are adolescents, who find themselves navigating the tumultuous waters of adolescence amid the unique stressors and uncertainties imposed by the ongoing crisis. Within this cohort, adolescent females have emerged as a group with distinct vulnerabilities and experiences. This discussion critically examines the findings of our study, which explored the intricate relationship between COVID-19 anxiety and psychological distress among female high school students in region 6 of Tabriz. By contextualizing these findings within the broader landscape of adolescent mental health during the pandemic, we aim to unearth meaningful insights with far-reaching implications.

COVID-19 Anxiety and Psychological Distress: A Complex Nexus: The central finding of this study underscores a significant positive relationship between COVID-19 anxiety and psychological distress among adolescent female high school students in region 6 of Tabriz. This revelation illuminates the intricate interplay of these two constructs in the context of the pandemic, offering insights into the profound implications for the mental well-being of this specific demographic.

The Impact of COVID-19 Anxiety: COVID-19 anxiety, characterized by apprehensions related to the virus's transmission, health risks, and societal consequences, has emerged as a salient emotional response during the pandemic (Asmundson & Taylor, 2020). Our study's findings align with previous research highlighting the pandemic's power to evoke heightened anxiety levels among adolescents. As adolescents confront fears about their health, the health of family members, and the disruption of their education and future prospects, their COVID-19 anxiety becomes an influential psychological force. This anxiety may manifest as excessive worry, hypervigilance, and preoccupation with the pandemic's impact on their lives.

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COVID-19 Anxiety Amplifies Psychological Distress: The positive relationship observed in our study suggests that heightened COVID-19 anxiety can amplify psychological distress among adolescent females. This distress encompasses a spectrum of emotional and psychological symptoms, including anxiety, depression, and general emotional discomfort (Kessler et al., 2002). As the pandemic exacerbates existing stressors, such as academic pressures, body image concerns, and disrupted social connections (Chen et al., 2020; Nadeem et al., 2018), the confluence of these factors intensifies psychological distress. This exacerbation may lead to a cycle in which elevated COVID-19 anxiety fosters greater distress, reinforcing the need for targeted interventions to disrupt this cycle.

The Gendered Experience of the Pandemic: The impact of the COVID-19 pandemic on adolescent mental health is not experienced uniformly across gender lines. Adolescent females, due to a confluence of societal, developmental, and psychological factors, face unique challenges and stressors during the crisis.

Societal Expectations and Gender Roles: Adolescent females often grapple with societal expectations regarding femininity, body image, and social roles (Nadeem et al., 2018). These expectations can foster feelings of inadequacy and contribute to emotional distress, particularly when faced with the disruptions and uncertainties introduced by the pandemic. The closure of schools and limitations on social interactions may exacerbate these concerns, intensifying the strain on their mental well-being (Loades et al., 2020).

Academic Stress: The shift to remote learning and the uncertainty surrounding the educational landscape during the pandemic have introduced academic stressors unique to this demographic (Chen et al., 2020). Female students may experience additional pressure to excel academically, particularly in subjects where they perceive themselves as traditionally disadvantaged. The academic stressors, combined with the general anxieties related to the pandemic, contribute to psychological distress.

Implications for Intervention and Support:

The findings of this study carry significant implications for interventions and support mechanisms aimed at mitigating the mental health impact of the COVID-19 pandemic on adolescent females.

Tailored Mental Health Support: Recognizing the disproportionate impact on this demographic, educational institutions and mental health professionals should prioritize the provision of tailored

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mental health support. Accessible counseling services, psychoeducation, and peer support programs can help adolescent females navigate the complex emotional landscape of the pandemic.
Resilience-Building Programs: Resilience-building programs designed to enhance coping skills, emotional regulation, and adaptability (Bonanno et al., 2006) can be instrumental in equipping adolescent females with the tools to navigate uncertainty and anxiety. By fostering resilience, interventions can empower these individuals to manage the stressors associated with the pandemic more effectively.

Addressing Societal Pressures: Societal pressures related to body image and gender roles must be addressed comprehensively. Educational campaigns promoting body positivity, self-acceptance, and healthy coping strategies can mitigate the impact of these pressures on mental health. Additionally, efforts to challenge and reform societal norms and expectations can contribute to a more supportive environment for adolescent females.

Policy Considerations: Policymakers play a vital role in shaping the resources and support available to adolescent females during the pandemic. Advocacy for increased mental health funding, educational equity, and gender-sensitive policies can create an environment conducive to their well-being.

Limitations and Future Research: This study is not without limitations. Convenience sampling and self-report questionnaires may introduce bias and response variability. Future research should aim for larger, more diverse samples and employ longitudinal designs to examine the long-term effects of COVID-19 anxiety on psychological well-being. Additionally, exploring the efficacy of specific interventions targeted at mitigating the impact of COVID-19 anxiety on adolescent females' mental health warrants further investigation.

Conclusion

The COVID-19 pandemic has unearthed a complex interplay between COVID-19 anxiety and psychological distress among adolescent female high school students in region 6 of Tabriz. As these demographic grapples with the pandemic's unique stressors, tailored interventions, support systems, and policy considerations are imperative to safeguard their mental well-being. By addressing the gendered experiences of the pandemic and fostering resilience, society can support these adolescents in navigating the challenges of the crisis and emerging stronger on the other side.

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Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

The studies involving human participants were reviewed and approved by ethics committee of University of Hormozgan.

Author contributions

SH contributed to the study conception and design, material preparation, data collection and analysis. The author contributed to the article and approved the submitted version.

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Conflict of interest

The author declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

References

Asmundson, G. J. G., & Taylor, S. (2020). How health anxiety influences responses to viral outbreaks like COVID-19: What all decision-makers, health authorities, and health care professionals need to know. Journal of Anxiety Disorders, 71, 102211.

Bonanno, G. A., Galea, S., Bucciarelli, A., & Vlahov, D. (2006). Psychological resilience after disaster: New York City in the aftermath of the September 11th terrorist attack. Psychological Science, 17(3), 181-186.

Chen, F., Zheng, D., Liu, J., Gong, Y., & Guan, Z. (2020). The impact of the COVID-19 pandemic on population mental health in China during the early containment phase. PsyArXiv. https://doi.org/10.31234/osf.io/c9rfs

Guessoum, S. B., Lachal, J., Radjack, R., Carretier, E., Minassian, S., Benoit, L., & Moro, M. R. (2020). Adolescent psychiatric disorders during the COVID-19 pandemic and lockdown. Psychiatry Research, 113264.

Kessler, R. C., Andrews, G., Colpe, L. J., Hiripi, E., Mroczek, D. K., Normand, S. L. T., ... & Zaslavsky, A. M. (2002). Short screening scales to monitor population prevalences and trends in non-specific psychological distress. Psychological Medicine, 32(6), 959-976.

Loades, M. E., Chatburn, E., Higson-Sweeney, N., Reynolds, S., Shafran, R., Brigden, A., ... & Crawley, E. (2020). Rapid systematic review: The impact of social isolation and loneliness on

DOI: 10.52547/ijer.2.1.29

the mental health of children and adolescents in the context of COVID-19. Journal of the American Academy of Child & Adolescent Psychiatry, 59(11), 1218-1239.

Nadeem, M., Ali, A., Iqbal, A., Ahmed, M., & Yousafzai, A. W. (2018). The impact of role strain on mental health of Pakistani working and non-working married women. Pakistan Journal of Gender Studies, 16(1), 1-20.

Sawyer, S. M., Azzopardi, P. S., Wickremarathne, D., & Patton, G. C. (2018). The age of adolescence. The Lancet Child & Adolescent Health, 2(3), 223-228.

WHO. (2020). WHO Director-General's opening remarks at the media briefing on COVID-19. Retrieved from https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020

Wu, P., Fang, Y., Guan, Z., Fan, B., Kong, J., Yao, Z., ... & Hoven, C. W. (2009). The psychological impact of the SARS epidemic on hospital employees in China: Exposure, risk perception, and altruistic acceptance of risk. The Canadian Journal of Psychiatry, 54(5), 302-311.

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