



International Journal of Advance Research in Nursing

Volume 7; Issue 2; Jul-Dec 2024; Page No. 159-164

Received: 12-07-2024
Accepted: 20-08-2024

Indexed Journal
Peer Reviewed Journal

A study to assess the mental health and stressors related to COVID-19 during COVID-19 among adolescents at a selected college, Bangalore, India

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DOI: <https://doi.org/10.33545/nursing.2024.v7.i2.C.412>

Abstract

A study to assess the mental health and stressors related to COVID-19 during COVID-19 Pandemic among adolescents at a selected college, Bangalore. The objectives were to assess the mental health among adolescents during COVID-19 pandemic and to assess the level of stress and stressors related to COVID-19 among adolescents during COVID-19 pandemic.

Quantitative approach with descriptive co-relational research design was used to assess the mental health and to find out the relationship between the level of mental health and stressors among adolescents. The investigator collected the data with the help of standardized scales fear of COVID-19 scale, Patient Health Questionnaire PHQ-9 and Generalized Anxiety Disorder 7-item (GAD 7) scale to assess the level of mental health and also used COVID-19 Student Stress Questionnaire (CSSQ) to assess the stressors impact mental health during COVID-19 pandemic using Google forms as a platform to collect the data. Purposive sampling technique was used to select the samples and data was collected from 100 adolescents at a selected college, Bangalore. The data were collected and analyzed using descriptive and inferential statistics.

Findings of the study concluded that there is a relationship exists between the level of mental health with mean 27.12 ± 12.86 while comparing with the scores of stressors with mean 8.82 ± 6.42 . The correlation coefficient value between the level of mental health and scores of stressors was found to be $r=0.740$ which indicates that there is a positive relationship between the variables. Stressors will have an impact on mental health among adolescents during COVID-19 Pandemic.

Keywords: Impact on mental health, stressors, COVID-19, nursing, adolescents

Introduction

The COVID-19 pandemic has created a havoc across the world, which has resulted in over 2 million deaths, globally and forced billions into isolation due to stay at home orders [1]. As a result of social isolation, and the constant concern of infectivity, mental health consequences that are associated with the COVID-19 crisis are monumental [2, 3]. However, researchers are focusing more on the mental health impact of this rapidly evolving global crisis in the elderly population [4]. There has been very little attention to the psychological toll of COVID-19 on adolescent mental health [5].

The psychological toll of COVID-19 among adolescents should be a focal point in COVID-19 research due to the severe and enduring impact of mental health, which leads to poor mental health outcomes and to poor physical health outcomes, such as the development of cardiovascular diseases [6, 7]. The mental toll of this impact serves as a greater challenge for adolescents because this age range lack the psychological capabilities of resilience and coping and the physiological development of adults [8]. The mental health challenges of adolescents are even greater among adolescents with pre-existing mental health conditions during periods of crisis, which may be a result of isolation,

feelings of uncertainty, lack of daily routines, lack of access to health services provided through schools, and lack of advanced emotional development [9, 10].

Globally, 10-20% of adolescents suffer from mental health conditions [11]. This statistic is likely to be affected by the vulnerability of adolescents during the COVID-19 pandemic [12]. Due to the negative outcomes associated with poor mental health statuses among adolescents, such as suicide, behaviour problems, and emotional distress and the need for quality research to build resilience and to reduce anxiety among adolescents, it is imperative to review the impact of COVID-19 on adolescent health in the United States and abroad in order to understand the global state of adolescent mental health and to provide strategies that prevent poor mental health outcomes, such as anxiety and depression, presently and in the future [13].

Reports of COVID-19 related suicides have been increasingly common in the world news. India is also not immune to this phenomenon. Cases of COVID-19 related suicide have been reported from Maharashtra, Uttar Pradesh, Assam, Kerala (Cullen *et al.*, 2020; Corona virus in India: Suspected COVID-19 patient who committed suicide in UP hospital tests negative - India News, 2020; Anxiety over COVID-19 leads to Phagwara woman's suicide: The

Tribune India, 2020) [16].

An Indian newspaper article published in May 2020 revealed that, Suicide was the leading cause for over 300 'non-corona virus deaths' reported in India due to distress triggered by the nationwide lockdown ('Suicides due to lockdown: Suicide leading cause for over 300 lockdown deaths in India, says study,'2020). Reports of suicide of healthcare workers, migrant laborers and those in quarantine centers have been frequenting in the news and media ever since the pandemic started to change the lives of people. Some newspaper articles and web pages and researchers have reported deaths during the pandemic apart from the COVID-19 (Which includes deaths due to mental health disorders, suicide, starvation, accidents etc.) [17].

The major mental health issues that have been reported to have been associated with the COVID-19 pandemic are stress, anxiety, depressive symptoms, insomnia, denial, anger and fear globally. (Torales *et al.*, 2020) [18]. Stress, anxiety and depression go hand in hand with the COVID-19 pandemic, results from studies done globally has shown the increasing prevalence of mental health disorders among various population groups (Mohindra *et al.*, 2020) [19].

Adolescents are defined as age 15 to 24 years, and it includes middle and late adolescence. It is characterized by ongoing changes in physical, psychological, and social dimensions. For healthy growth and development, youth needs to have a sense of belonging, love, achievement, and independence and to have a purpose in life. During this developmental stage, many types of behavior are developed which can lead to either normalcy or mental health illness. Depression, anxiety, and stress (DAS) are the most common mental illnesses among youth.

A recent study done in China reported 16.5% moderate to severe depressive symptoms;

28.8% moderate to severe anxiety symptoms; 8.1% moderate to severe stress due to COVID19 (Wang *et al.*, 2020) [20]. Similar impacts of COVID-19 on mental health has also been seen in other countries like Japan, Singapore and Iran (Rajkumar, 2020) [21]. The grief and depression resulting from loss of a loved one, anxiety and panic due to uncertain future and financial turmoil may lead individuals to resort to these extreme measures. A number of studies have shown the impact that COVID-19 can have and its effects on people's well-being, due to its ability to produce a full-scale mental health crisis, especially in countries with a large number of people affected by the disease [22] and studies have already begun to look at psychological disorders such as depression in populations affected by COVID-19 [23].

Adolescents have been multiply impacted by the COVID-19 pandemic: Threats to their own and their family's health, the closure of schools, and pivoting to online learning in March 2020, a long summer of physical distancing, and then the challenge of returning to school in fall 2020. As damaging as the physical health effects of a global pandemic are, much has been speculated about the "second wave" of mental health crises, particularly for school-aged children and adolescents. Yet, few studies have asked students about their experiences during the pandemic [24].

NIMHANS suggests that a 'Psychological intervention

medical team' can be formed as a standalone team or be part of the general medical team attending to people affected by the pandemic. The staff should consist of psychiatrists, with clinical psychologists and psychiatric nurses participating and the teams should formulate interventions plans separately for different groups for example: (i) Confirmed cases who are hospitalized with severe symptoms (ii) Suspected cases and close contacts of confirmed cases (iii) People with mild symptoms who are in home quarantine (iv) Health care personnel working with people with COVID-19 (v) General public. As it is, mental health alone is a global challenge in itself and the COVID-19 pandemic greatly escalated the mental health burden as well [26].

With limited knowledge about COVID-19, the uncertainty of its trends, the worry over getting the disease itself, and drastic changes in lifestyles and livelihoods, the mental health of adolescents has become a serious concern. The primary purpose of the current study was to assess mental health problems and its characteristics among adolescents during the COVID-19 outbreak. Standardized mental health measures were used to assess acute stress, depressive and anxiety symptoms. Our second purpose was to understand stressors related COVID-19 pandemic that may be associated with an increased risk of mental health problems

Objectives

1. To assess the mental health among adolescents during COVID-19 pandemic.
2. To assess the level of stress and stressors related to COVID-19 among adolescents during COVID-19 pandemic.
3. To find out the relationship between mental health and stressors among adolescents during COVID-19 pandemic.

Research Methodology

Quantitative approach with descriptive co-relational research design was used to assess the mental health and to find out the relationship between the level of mental health and stressors among adolescents. The investigator collected the data with the help of standardized scales fear of COVID-19 scale, Patient Health Questionnaire PHQ-9 and Generalized Anxiety Disorder 7-item (GAD 7) scale to assess the level of mental health and also used COVID-19 Student Stress Questionnaire (CSSQ) to assess the stressors impact mental health during COVID-19 pandemic using Google forms as a platform to collect the data. 30 minutes was given for each participants for the data collection. Purposive sampling technique was used to select the samples and data was collected from 100 adolescents at a selected college, Bangalore. The data were collected and analyzed using descriptive and inferential statistics.

The Major Findings are

- Among adolescents 3% of them belong to 16-18 years of age and 97% of them belong to 19-22 years of age. 44% of them were male, 56% of them were female. 93% of them were studying undergraduate, 7% of them were studying post graduate course. 1% of them studying first year, 32% of them studying second year and 67% of them studying third year.
- 94% of them were getting source of income from their

parents and 5% of them were getting source of income by self and 1% of them were getting income form

others. 53% of them were residing at hostel and 47% of them were residing at home.

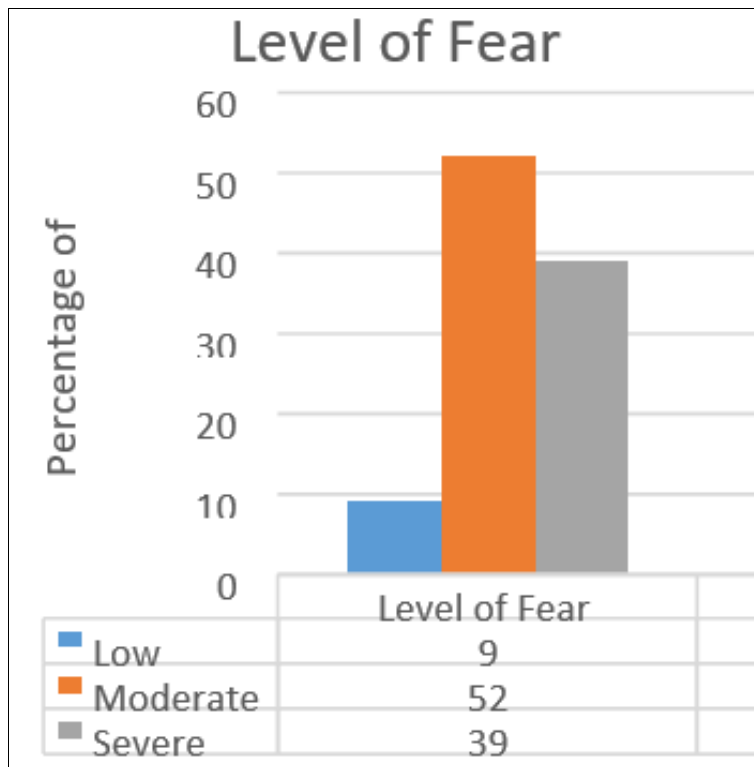


Fig 1: Percentage distribution of samples according to their level of Fear

Figure-shows that, 9% had low level of fear, 52% had moderate level of Fear and 39% had high level of Fear.

Anxiety among adolescents at a selected college

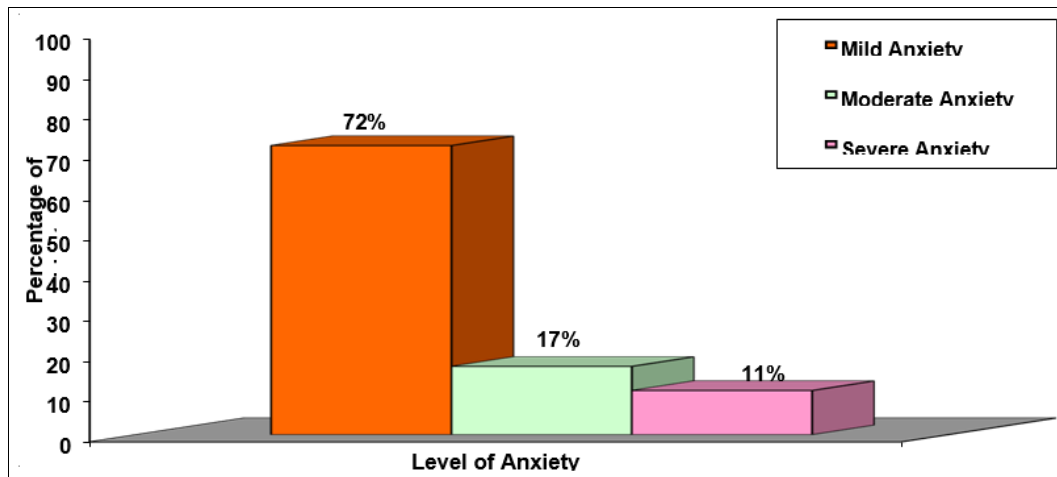


Fig 2: Percentage distribution of samples according to their level of anxiety

Figure-2 shows that, 72% were shown mild anxiety, 17% were shown moderate anxiety and 11% of them were shown severe anxiety.

Depression among adolescents at a selected college

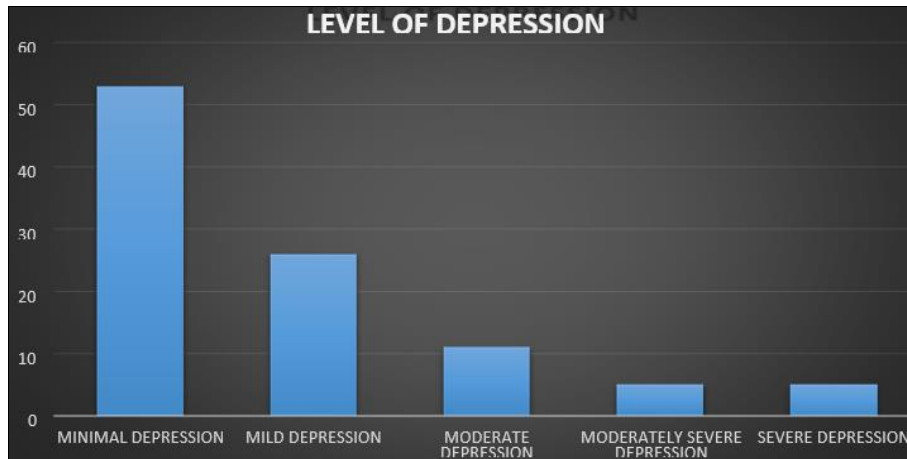


Fig 3: Percentage distribution of samples according to their level of Depression

Figure-3 shows that, 53% were shown minimal depression, 26% were shown mild depression, 11% were shown moderate depression, 5% were shown moderately severe

depression and 5% of them were shown severe depression.

Stress among adolescents at a selected college

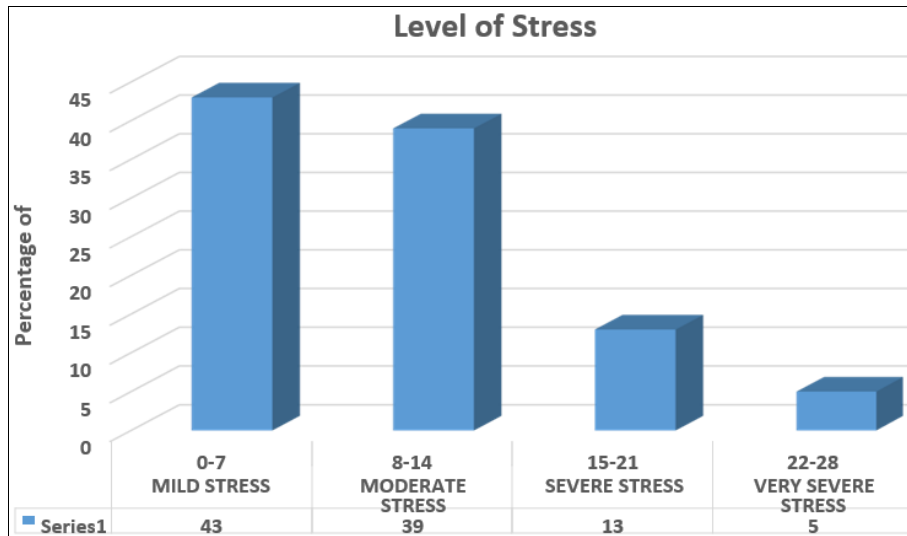


Fig 4: Percentage distribution of samples according to their level of Stress

Figure-4 shows that, 43% were shown mild stress, 39% were shown moderate stress 13% were shown severe stress and 5% of them were shown very severe stress.

Comparison of various stressors which impact mental health among adolescents

Table 1: Mean, SD, Mean Difference value of samples according to the stressors among adolescents n=100

S.No	Stressors	Maxi mum score	Mean	S.D	Mean %
1.	Relationship and Academic life	16	5.2	4.09	25.56%
2.	Isolation	8	2.51	2.12	31.37%
3.	Fear of Contagion	4	1.11	1.04	27.75%
	Total score	28	8.82	6.42	31.5%

The above table-1 shows the various stressors that impact mental health of adolescents. In relationship and academic life stressor, the maximum score was 16 with mean score of 5.2±4.09. Mean percentage of Relationship and Academic life stressor was 25.56%. In isolation stressor, the maximum score was 8 with mean score of 2.51±2.12. Mean percentage of Isolation Stressor was 31.37%. In fear of contagion stressor, the maximum score was 4 with mean score of

1.11±1.04. Mean percentage of Fear of Contagion Stressor was 27.75%.

In overall, stressors that impact mental health of adolescents during COVID-19 the maximum score was 28 with mean score of 8.82±6.42. Mean percentage of stressors was 31.5%. It was found that in all the three stressors are showing an average of 31.5% impact over the mental health in accordance with their level of stress.

Correlation between the level of mental health and stressors among adolescents

Table 2: Correlation coefficient test between the level of mental health and stressors among adolescents. n=100

Variables	Mean	Standard Deviation	'r' Value
Level of mental health	27.12	12.86	0.740
Score of Stressors	8.82	6.42	

The above table-2 interpret that there is a relationship exists between the level of mental health with mean 27.12 ± 12.86 while comparing with the level of stressors with mean 8.82 ± 6.42 . The correlation coefficient value between the level of mental health and stressors was found to be $r=0.740$ which indicates that there is a relationship between the variables. Hence H_0 is rejected. Stressors will have an impact on mental health among adolescents during COVID-19 Pandemic.

Conclusion

The study concluded that there is a relationship exists between the level of mental health with mean 27.12 ± 12.86 while comparing with the scores of stressors with mean 8.82 ± 6.42 . The correlation coefficient value between the level of mental health and scores of stressors was found to be $r=0.740$ which indicates that there is a positive relationship between the variables. Hence H_0 is rejected. Stressors will have an impact on mental health among adolescents during COVID-19 Pandemic.

Conflict of Interest: Not available.

Financial Support: Not available.

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How to Cite This Article

Nandakumar S. A study to assess the mental health and stressors related to COVID-19 during COVID-19 among adolescents at a selected college, Bangalore, India. *International Journal of Advance Research in Nursing.* 2024;7(2):159-164.

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