

Research Paper

Unveiling The Impact of Stress, Anxiety and Depression on the Academic Achievement of Adolescent Students in the Post-Covid Period

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ABSTRACT

The onset of the COVID-19 pandemic led to widespread closures of public institutions, particularly educational establishments, across the globe. This drastic disruption to the flow of knowledge had a detrimental effect on the overall well-being of adolescent students and severely hampered their ability to plan for the future which gradually pull them down to darkness and resulted in stress, anxiety and depression. In this backdrop, the present study is undertaken to explore whether COVID-19-related factors have any significant effect or not on the academic achievement of secondary school students. A sample of 200 secondary school students randomly selected from different government and private secondary schools. Out of the total number of respondents, half of the respondents were selected from the government, and the remaining half were selected from the private schools, consisting of male and female students in equal proportion. The Depression, Anxiety, and Stress Scales (DASS), developed by Lovibond and Lovibond in 1995, were administered to measure the level of depression, anxiety, and stress. From the analysis of the data, it is found that COVID-19-induced stress, anxiety, and depression severely and significantly affected the academic achievement of both male and female students.

Keywords: *Stress, Anxiety, Depression, Academic Achievement, Adolescent, Covid-19*

Since the onset of the COVID-19 pandemic in March 2020, schools around the world have experienced prolonged periods of closure that have disrupted the educational progressions of hundreds of millions of students. According to UNESCO, school closures peaked around June 2020, at which point 50% of all students worldwide were out of school (UNESCO,2021). Particularly in developing countries where schools are a crucial path out of poverty, the disruption in schooling over a prolonged period of time has meaningful implications for children's learning, health and emotional well-being (Engzell et al.,2021). Moreover, these closures coincided with a period in which most of the children and adolescents were potentially exposed to widespread household-level shocks linked to illness, disrupted livelihoods, and challenges in access to food (Egger et al.,2021). The impact of the new coronavirus pandemic (SARS-CoV-2) on the population's mental health is one of the greatest challenges faced by humanity in the twenty-first century. The

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Unveiling The Impact of Stress, Anxiety and Depression on the Academic Achievement of Adolescent Students in the Post-Covid Period

emergence of the unprecedented social context is creating the optimal conditions for the emergence of psychological factors, affecting people's quality of life and psychological well-being. All stakeholders, including learners, teachers, and the government, have been prompted to make several changes in service delivery to ensure that the provision of quality education might continue (Adnan & Anwar 2020). However, several achievement gaps existed before COVID-19, and it is believed that the gaps in student achievement will widen as we move through the pandemic. The changes in the learning process and environment have also impacted the students emotionally. The psychological and emotional impacts of the changes include depression and anxiety, negatively affecting the student's perception of social-emotional development (Baloran, 2020). Students are also forced to learn in an environment where they do not have teacher's attention necessary in facilitating their development process, making the issue a significant area to study. Several measures have been undertaken to curb the spread of this dread virus, such as, closing of campuses, lockdowns, and staying in the required period of quarantine. All of this has drastically altered academic lives as well as the learning process of postgraduate students.

Adolescence

Adolescence is a transitional stage of physical and mental human development generally occurring between puberty and legal adulthood. Historically, puberty has been deeply associated with teenagers and the onset of adolescent development. Puberty is a period of rapid physical growth and psychological changes. Adolescence is characterized by a number of cognitive, emotional, physical and attitudinal changes. During adolescence the individual begins to sense a feeling of his own or her own identity, a feeling that one is a unique human being yet prepared to fit into some meaningful role in society whether this role is adjustive or innovative. However, because of the transition from childhood to adulthood, the adolescent is likely to suffer from a confusion role, or *role confusion* (Erikson, 1968). During identity confusion, the adolescent may express a feeling of regression rather than progression. Though most adolescents sail through the transitional phase, some become stressed which can lead to psychological disorders. Adolescence, transitional phase of growth and development between childhood and adulthood. The World Health Organization (WHO) defines an adolescent as any person between ages 10 and 19. This age range falls within WHO's definition of young people, which refers to individuals between ages 10 and 24. Hall characterised adolescence as a "new" developmental phase resulting from social change. Hall's exhaustive study ushered in a new approach to understanding of adolescence. Adolescence is characterized by notable changes in mood known as mood swings. Hall denoted this period as one of "Strom and Stress". It is a unique developmental period involving challenges and changes in the physical, psychological, affective, social, academic, and cognitive development domains (Cunningham, Werner, & Firth, 2004; Gherasim, Butnaru, & Mairean, 2013; Hall-Lande, Eisenberg, Christenson, & Neumark-Sztainer, 2007;).

Stress

Stress is viewed as a negative emotional, cognitive, behavioural and physiological process that occurs as a person tries to adjust to or deal with stressors (Bernstein, *et al.*, 2008). Stress is a necessary and inescapable concomitant of daily living. Stress is deemed necessary because without it, we would be listless and apathetic creatures. Students experienced academic stress arising from both their own expectations to excel as well as expectations arising from their parents and teachers (Ang and Huan, 2006). Academic stress can be very taxing on the parents and the students themselves. Stress has been tightening its grip on the

Unveiling The Impact of Stress, Anxiety and Depression on the Academic Achievement of Adolescent Students in the Post-Covid Period

students, as they have to compete at every step of their academic career in this fast-moving world. Academic stress is the product of a combination of academic related demands that exceed the adaptive resources available to an individual (Wilks, 2008). A student can be stressed due to different stressors such as financial, family, friends, emotions, and procrastinations. Some of the reasons why students perceive stress are time pressure and the need to perform well in the exams (Erkutlu & Chafra, 2006). Mainly, the period before the exams is perceived as highly stressful by students (Nandamuri & Ch, 2011).

Anxiety

Anxiety is often an unpleasant and uncomfortable feeling of worry, fear and apprehension accompanied by one or more bodily sensations over an anticipated problem. Anxiety is an exceedingly complex concept with a variety of overtones and nuances of meaning from ordinary usage as well as from psychology, psychiatry and psychoanalysis. The word anxiety means to designate a strongly personal, phenomenally experienced feeling of distress and anguish. Anxiety is a psychological and physiological state characterized by somatic, emotional, cognitive, and behavioural components (Ohman, 2000). The root meaning of the word anxiety is "to vex or trouble", in either the absence or presence of psychological stress, anxiety can create feelings of fear, worry, uneasiness and dread. Anxiety is considered to be a normal reaction to a stressor. It may help a person deal with a difficult situation by prompting them to cope with it.

Depression

Depression is an emotional condition in which an individual experiences being discouraged, gloomy, hopeless, unmotivated or disinterested in his or her life. However, when this state persists for more than two weeks and when the thoughts interfere with daily activities, it likely transforms into a psychological disorder that absolutely requires medical intervention (APA, 2013). It is widely observed that the incidents of depression in adolescents in general and in adolescent students who are preparing for competitive examinations in particular have increased over the last two decades. Adolescent depression may affect the teen's socialization, family relations, and performance at school, often with potentially serious long-term consequences. Many depressed individuals may be struggling to perform well in academic life because they lack courage in what they are doing. They may feel that they are not reaching the standard of performance set for them. As a result, they continuously feel disappointed and despairing. They perceive things negatively and consider themselves failures. This problem can definitely contribute to many serious problems in their academic lives, such as poor grades (Sadock BJ, 2007; Modabber-Nia MJ, Shodjai-Tehrani H, Moosavi SR, Jahanbakhsh-Asli N, Fallahi M, 2007).

It is observed that preceding the onset of the COVID-19 pandemic, mental disorders were already manifesting as a prominent health concern among the global youth demographic (Polanczyk et al., 2015). According to studies conducted in the pre-pandemic period, the prevalence of depression and anxiety was around 5.4% and 9% in children and adolescents (Vicente et al., 2012). During the pandemic, some measurements placed prevalences at 36% for depression (Moya-Vergara et al., 2023); likewise, an increase in anxiety levels was observed between 2018 and 2021 (Caqueo-Urizar et al., 2023). Depression, like anxiety and stress, not only affects the quality of life of children and adolescents but can also have lasting effects on their cognitive, emotional, and social development (Martínez-Líbano et al., 2023b; Martínez-Líbano and Yeomans, 2023; Yeomans et al., 2021; Martínez-Líbano and Yeomans-Cabrera, 2023; Alkhathami, 2014; Yeomans-Cabrera and Martínez-Líbano, 2023).

Unveiling The Impact of Stress, Anxiety and Depression on the Academic Achievement of Adolescent Students in the Post-Covid Period

Hypotheses

The present study will be conducted to examine the following hypotheses:

- There will be significant difference between male and female adolescents on academic achievement in post-Covid period.
- There will be significant difference between urban and rural adolescents on academic achievement in post-Covid period.

METHODOLOGY

Sample

This study was conducted on a randomly selected sample of 200 adolescent students of Siwan district, Bihar. In which 100 were from government schools, and the remaining 100 were selected from private schools of Siwan district. The sample consists of subjects of both sexes-male and female.

Instruments:

The following measuring tools and instruments were applied to obtain data:

DASS-21: The Depression Anxiety Stress Scale (Lovibond and Lovibond, 1995)-is employed to evaluate the extent of depression, anxiety, and stress experienced by individuals. The DASS-21 scale comprises three self-report subscales that have been specifically developed to assess the severity and occurrence of Anxiety (7 items), Depression (7 items), and Stress (7 items). The grading system spans from 0 to 3. The depression scale assesses emotions such as melancholy, emptiness, self-criticism, loss of interest, and inability to get pleasure. The Anxiety scale evaluates the psychological and physical manifestations of fear, autonomic nervous system activation, anxiety in certain circumstances, and the individual's subjective perception of feeling anxious (Huerta-Ojeda et al., 2021). The scale score is determined by summing the scores.

Academic Achievement-to assess academic achievement of the participants marks obtained by their 10th class board annual examination was taken as a secondary data.

RESULTS AND DISCUSSION

COVID-19 has created a severe impact on every sphere of life. Even adolescents could not escape its devastating impact. The following tables would make it adequately clear:

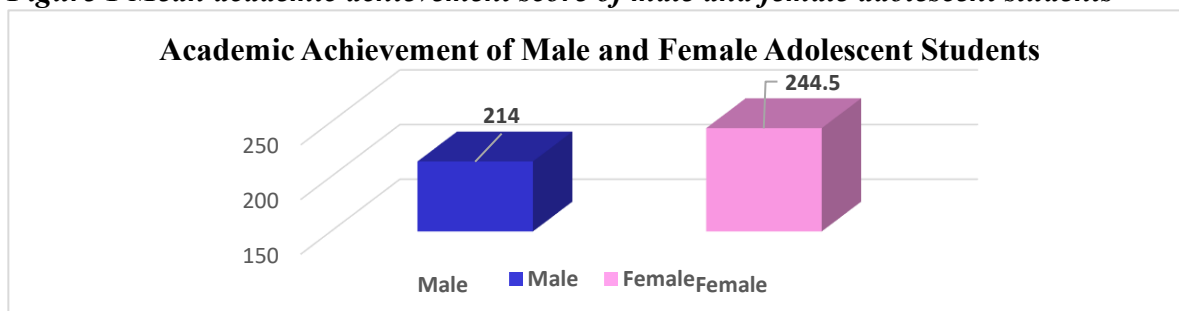
Table 1 Statistical Analysis of Academic Achievement of Male and Female Adolescent Students.

Variables	N	Mean	SD	t value	df	Significance	Interpretation
Male	100	244.50	12.25	20.40*	198	p< 0.01	Hypothesis accepted
Female	100	214.00	8.56				

*Significant 0.01**

Unveiling The Impact of Stress, Anxiety and Depression on the Academic Achievement of Adolescent Students in the Post-Covid Period

Figure 1 Mean academic achievement score of male and female adolescent students



(Source: Authors generated using Microsoft Excel).

Perusal of data mentioned in Table-1 and Figure-1 disclosed that the obtained t-value i.e., 20.40 is more than the table value with df-198 at 0.05 level i.e., 1.96 and at 0.01 level i.e., 2.59. It means there is significant mean difference between academic achievement of male and female adolescent students. Thus, the H_1 is accepted. The difference in academic achievement between male and female students may be attributed to gender stereotypes, socioeconomic conditions and access to resources e.g., digital technology.

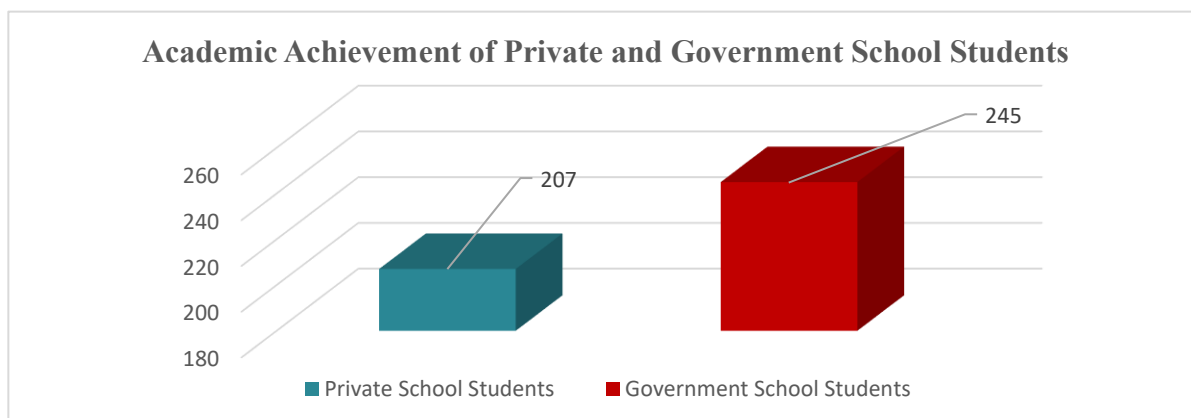
Table 2 Academic Achievement of Government and Private School Adolescent Students

Variables	N	Mean	SD	t value	df	Significance	Interpretation
Government School	100	207	6.42	36.90*	198	p < 0.01	Hypothesis accepted
Private School	100	245	8.05				

Significant 0.01*

Figure 2 Mean academic achievement score of Private and Government School Adolescent students

(Source: Authors generated using Microsoft Excel).



A minute analysis of the data mentioned in Table 2 and Figure 2 revealed that the obtained t-value, i.e., 36.90, is more than the table value with df-198 at the 0.05 level 1.96, and at the 0.01 level, i.e., 2.59. It means there is a significant mean difference between the academic achievement of government and private school adolescent students. Thus, the H_2 is accepted. It may be concluded that the difference in academic achievement of private and government schools' students may be attributed to the convenient availability of digital technology and digital libraries in most private schools. In addition, most of the private schools are located

Unveiling The Impact of Stress, Anxiety and Depression on the Academic Achievement of Adolescent Students in the Post-Covid Period

in urban localities where facilities for Wi-Fi connectivity are easily accessible. The study was conducted in the post-Covid period when the habit of social distancing, etc., was already developed and students were heavily relying on digital online classes. In a study conducted between April and May 2020, it was found that severe disparities exist in access to connectivity, devices, and the skills to use them lower socio-economic sections of society. The strategies adapted for educational continuity were rated favourably by teachers and administrators but failed to get students emotional supports. A variety of resources were used to support teacher professional development, mostly rely on online learning platforms, tools that enable teachers to communicate with other teachers, and virtual class room. (Reimers & Schleicher,2020). Findings of the study corroborated the result of the present study.

CONCLUSIONS

From the foregoing investigation it could be concluded that the Covid induced stress, anxiety and depression have put a significant impact on the academic achievement of adolescent students. It was found that there was a significant difference in the academic achievement of male and female adolescent students as well as a significant difference was also found in the academic achievement of government and private schools adolescent students.

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Unveiling The Impact of Stress, Anxiety and Depression on the Academic Achievement of Adolescent Students in the Post-Covid Period

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Conflict of Interest

The author(s) declared no conflict of interest.

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