Exploring The Relationship Between Mental Health And Academic Performance: An Analysis Of Depression, Stress, And Anxiety In Cambridge School Students

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Abstract

The present study aimed to explore the relationship between mental health and academic performance among Cambridge School students. The study focused on three main mental health concerns: depression, stress, and anxiety. The study adopted a survey-based research design where random sampling technique was utilized for data collection from the participants. Data was gathered by using Depression, Anxiety and Stress Scale (DASS) and the students' academic progress reports. 150 students of one of the Cambridge schools in Karachi have participated in the study. The result revealed that Cambridge students of senior grades suffered from depression, anxiety and stress which has badly affected their academic performance ultimately adversely affected their exam results. The study also revealed that the students with good mental health showed better results than those students who are comparatively weaker in their mental health. Moreover, female students were found getting more stressed and depressed during exam as compared to male students. It was suggested that counselling sessions can prove to be very positive interventions for students especially at senior Cambridge level where their grades have a greater impact on their professional colleges admissions.

Keywords: Mental health, academic performance, Cambridge school students, depression, anxiety, stress, interventions, school-based counselling, stress management workshops.

Introduction:

Students mental health and its impact on their scholastic performance has always been a worldwide topic of research. Many studies indicate the relationship between academic performance and students' mental health (Saipanish, 2003; Sherina et al., 2004; Jadoon et al., 2011). Jamieson et al. (2016) show a greater impact of students' anxiety and stress on their school performance. Studies also indicate that

female students are found to take more stress and undergo anxiety and depression than the male peers (Beiter et al., 2015). The similar study by Rehman et al. (2018) disclose that the more the stress level is the less is the focus on studies resulting in bad exam results. There is a void in the literature about the precise effects of depression, stress, and anxiety on academic performance in Cambridge school students, despite the fact that there is a definite connection between mental health and academic achievement. Prevalence of continuous mental stress and worrying leads to depression (Karyotaki et al., 2020). The most alarming statistical data given by Ling et al. (2021) is that in every four students suffer from mental health issues at senior Cambridge level. According to Lyndon et al. (2017), a significant relationship exists between students' academic ability and their mental health issues like stress, anxiety and depression which highlights the importance of handling with students' stress, anxiety and depression appropriate level to reduce its impact on their academic performance.

According to Andrews et al. (2006), students in Cambridge schools regularly struggle with mental health issues like depression, stress, and anxiety, which can have a negative impact on their academic performance. In recent decade schools are taking many proactive measures to promote students' mental health. As the Cambridge curriculum demands extra efforts by students which exert extra academic pressure on the students' mental health to obtain exceptional grades (Cuijpers et al., 2019). Therefore, while creating interventions for the support of Cambridge students, it is crucial to understand the dynamics of students' mental health whether in terms of anxiety and stress or a long term depression. The prevalence of the challenges due to high academic demands and a competitive atmosphere for a Cambridge curriculum and the issue aggravates due to scarcity of resources (Gulliver et al., 2015). Special interventions like

students' professional counselling as well as healthy exercises to relieve stress are required to be incorporated in school daily routine (Jabeen et al., 2023). The investigation is imperative for evaluating the relationship between students' academic performance, their well-being and mental health issues (Galante et al., 2018).

Students who struggle with their mental health particularly perform low academically, miss more school, and drop out more frequently. According to research by Duffy et al. (2020). The precise impact of these circumstances on Cambridge school children's academic achievement is not much explored, instead college students have been the subjects of the majority of studies on the relationship between mental health and academic success. According to Lyndon et al. (2017), students with mental health issues frequently receive worse grades and are more likely to experience academic difficulties. In order to inform the creation of interventions that can enhance academic outcomes for students with mental health disorders, this study intends to investigate the association between depression, anxiety, and stress and academic performance in a sample of Cambridge school students. This study contributes to the development of treatments to enhance academic results for Cambridge school students with mental health difficulties by elucidating the effects of these circumstances on academic accomplishment. The results of this study give educators, mental health specialists, and legislators crucial information they may use to help students with mental health issues perform better academically.

Context of the study:

Mental health and academic performance are considered to be directly associated with each other, especially at adolescent stage where the result has an evident impact on students' career. Bradley et al. (2021) express severe concerns in their study that students' academic performance

drastically suffers as compared to their peers due to anxiety, stress and depression. This study was conducted in a Cambridge school and the focus population was senior Cambridge students. Standardized measures were used to investigate the effects of mental health on students' scholastic performance. Students used to remain under lot of stress especially during exam and their result was found to be intensely effected. The administration was more than willing to implement school interventions in order to address the issue for practical solutions. Students were going through parental and peer pressure also because of not been able to produce good results.

Purpose of the study:

The basic objective of this study was to explore the relationship between students' mental health that is depression, anxiety and stress with the school performance and their achievements. The study aimed to discover the elements that have a negative impact on students' success and what interventions could be helpful in dealing with students' stress and depression. The study focused on students' well-being and better academic performance diminishing negative factors and providing an environment with a better support mechanism. The study was conducted for developing a comprehensive understanding and awareness amongst teachers, educationist and school administration regarding students' mental health and academic achievement.

Moreover, this study could also add to the literature by providing insight regarding awareness of the influence related to students' mental health on their academic performance. The findings of the study could be beneficial for the educators, school administration and policy makers for designing interventions and professional development programs that help students to deal with depression, stress and anxiety and promote their scholastic performance.

The significance of the study:

The significance of the study is multifarious:

Firstly, the study would help teachers better understand the problems of students at senior Cambridge level so to develop strategies to cope up with them. It will also be productive for policy makers in order to frame policies that are effective and beneficial for students, teachers and even for administration in creating healthy environment for students.

Secondly, this study would encourage the school leaders and educationist to focus more on the students' mental health and implement effective interventions to address issues regarding mental health along with their regular health. Now a day's students are facing a tough time with respect to professional colleges selection criteria for which additional stress exerts on their mental health to produce better grades. By raising awareness regarding addressing the issues associated with students' mental, this study would encourage school administrators to prioritize mental health support along with general health projects.

Thirdly, the study would provide insight and awareness regarding students' mental health and its impact on their academic performance widely in the field of education. It will provide food for thought to future researcher to conduct researches in the other school-based interventions related to mental health.

Last but not the least, it can provide ground for the policy makers and educationists to frame policies emphasizing on the mental health of students along with their general health and design professional training for teachers catering to students' mental health.

Problem statement:

Adolescence is the stage in students' life which faces many challenges socially as well as academically (Yap & Baharudin, 2016). Therefore, students' result in school is badly affected which make the vulnerable to depression, anxiety and stress (McCurdy et al., 2022).

Depression is the state when students lose focus and lack concentration in their work, they become very indecisive in taking decisions (Leigh et al., 2021). An international handbook on stress in education describe that students in state of stress and anxiety lose focus on studies, concentrate less on studies finding it difficult in accomplishing tasks (Zeidner, 2014). Ultimately causing low self-esteem, lack of motivation producing poor academic performance. In addition to the academic impact, mental health concerns can also affect an adolescent's social and emotional well-being (Van Ryzin et al., 2009). This is the reason that adolescents who are suffering from depression find difficulty in keeping good relationships and struggle with self-esteem and often feel worthless.

This is a high time when it becomes imperative for students who are showing mental health need social and emotional support from educators and parents. The support can be provided in terms of designing strategies by teachers and educators to mindfulness and relaxation techniques, extra support can be provided to students in classrooms by their teachers in accommodating their fear and provide counselling. Resources provided to students can help them better deal with stress (Gustems-Carnicers et al., 2019). Students' mental health is a prevailing phenomenon and a worldwide concern (Karyotaki et al., 2020).

Cambridge students undergo huge pressure in order to excel academically due to a competitive environment of professional colleges (Ritt, 2016). The lack of professional counselling and support further aggravates this issue (Gulliver et al., 2018).

It was therefore, badly desired to investigate the relationship between students' mental health and their academic performance of senior Cambridge students which finally help them perform at the best of their potential (Mofatteh, 2020). The findings could definitely help to promote awareness regarding strong relationship between the two.

To mitigate the effects of depression, anxiety and stress it was desirous to understand the relationship between mental health and scholastic performance of Cambridge students. Also the result of the interventions was to be evaluated for the support and well-being of students for better academic success (Galante et al., 2018).

The objectives of the study:

The objectives of the study were:

1. To investigate the prevalence and severity of depression, anxiety, and stress among Cambridge School students using the Depression, Anxiety, and Stress Scale (DASS).
2. To investigate gender differences in the prevalence of depression, anxiety, and stress among Cambridge School students.

The research questions of the study:

The following research questions were addressed by the study:

1. What is the extent of depression, anxiety, and stress experienced by Cambridge School students?
2. What are the gender differences in the levels of depression, anxiety, and stress reported by Cambridge School students?

The research hypotheses of the study:

The research hypotheses of the study were:

1. There is a significant prevalence of mental health concerns among Cambridge School students, along with a substantial proportion of students experiencing moderate to extremely severe levels of depression, anxiety, and stress.

2. Female students will report significantly higher mean scores for depression, anxiety, and stress compared to male students.

Literature Review:

Adolescents endure numerous difficulties in their scholastic and social lives as they go through a critical period in their development. They are consequently especially susceptible to mental health issues like sadness, stress, and worry. They may do significantly worse academically, exhibit higher absenteeism rates, or even discontinue their studies as a result of these mental health issues (Allen et al., 2018). Previous studies have repeatedly demonstrated that students frequently experience mental health issues such depression, stress, and anxiety, which can negatively affect their academic performance (Awadalla et al., 2020). For instance, a study by Sharma and Pandey (2017) indicated that depressed kids were more likely to have poorer marks and were more likely to drop out of school. Pascoe et al. (2020) explain that stress anxiety and depression are inversely proportional to students' academic performance the more the stress the less focus on studies resulting in low grades. Not only that but the mental health effects on students' motivation, their engagement in the school and become the cause of absenteeism (Khesht-Masjedi, 2017). For instance, the students who suffer from anxiety and stress are less likely to take interest in class activities and perform very weak due to which their results suffer (Kumar & Akoijam, 2017). Thus, prefer to miss school as they cannot face embarrassment in front of their peers (Alharbi et al., 2019). However, an extensive in depth research is suggested by Anniko et al. (2017) to find out the root cause and other extraneous factors which are still unexplored. Rehamn et al. (2018) reveal a very interesting fact that students of urban region are less likely to suffer from mental health issues as compared to rural areas. An extensive research has to be conducted in this regard to find out the root cause and other related factors.

Research should concentrate on discovering potential protective variables that can help to lessen the adverse effects of mental health problems on academic performance in addition to looking at the relationship between mental health and academic performance (Mofatteh, 2020). While a study by Havik et al. (2013) found that school-based counselling programmes were successful in lowering symptoms of sadness and anxiety among students, parental support was linked to better mental health among students. The roles of gender and socioeconomic position should be taken into account while examining the relationship between mental health and academic success. According to studies, females are more likely than boys to experience mental health difficulties, and these disorders can have a bigger effect on girls' academic performance (Fréchette-Simard et al., 2022).

Furthermore, studies have revealed that adolescents from poorer socioeconomic origins are more likely to struggle with their mental health and to perform poorly in school (Rentala et al., 2019; Fréchette-Simard et al., 2022). Regarding interventions, earlier studies have discovered a number of tactics that can help kids who are struggling with their mental health to succeed academically. While mindfulness-based interventions have been demonstrated to promote psychological well-being and academic performance (Kumar & Akoijam, 2017), school-based counselling programmes have been shown to be beneficial in lowering symptoms of depression and anxiety (Galante et al., 2018).

Additionally, it has been demonstrated that stress management classes and social-emotional learning initiatives improve academic performance and mental health (Hsu & Goldsmith, 2021). A student's academic performance can be significantly impacted by mental health issues like depression, stress, and anxiety (Anniko et al., 2017; Mofatteh, 2020). In particular, among Cambridge school students, where the pressure to perform academically well in a competitive environment can contribute to the high prevalence of mental health problems among students (Jamieson et al., 2016), the prevalence of mental health problems among students is a matter of high concern (Pascoe et al., 2020). According to studies (Galante et al., 2018; Hsu & Goldsmith, 2021) it is advisable to create interventions and support systems that can enhance students' well-being and academic success.

Theoretical Framework:

A comprehensive framework that explains how people are driven to engage in various activities and how various types of motivation can have varied effects is known as the Self-Determination Theory (SDT), developed by Ryan and Deci in 2000. According to this theory, in order to live a satisfying life, people must have their basic psychological needs such as those for autonomy, relatedness, and competence met. People are more likely to be motivated by themselves, be engaged, and have favorable outcomes when these requirements are addressed. SDT was employed in this study's setting to comprehend the connection between academic success and mental health. According to SDT, psychological problems including depression, stress, and anxiety can have a negative effect on students' sense of autonomy, relatedness, and competence, which can then result in poorer academic achievement. Therefore, addressing these demands through interventions that aim to

enhance students' mental health may also enhance academic achievement.

Research Methodology:

The relationship between Cambridge school students' mental health and academic achievement was investigated using a cross-sectional study approach. 150 children (60 boys & 90 Girls) from Cambridge schools were chosen at random to participate in this study. The information was gathered using a mix of self-report questionnaire and academic records. Students' levels of stress, anxiety, and depression are assessed using the Depression, Anxiety, and Stress Scale (DASS), a self-report instrument. The concerned school provided academic records for evaluation of students' academic achievement The anxiety, stress and depression evaluated by the DASS instrument. The distribution of 42 items of DASS is sub-divided into three sub-scales as 14 items each comprises of the items related to anxiety, stress and depression.

Data and Results:

Descriptive and inferential analysis were used in this study. Descriptive analysis was used to evaluate the prevalence of stress, anxiety and depression among students which was evaluated through mean, standard deviation, frequency and the overall percentage. To explore the relationship between stress, anxiety, depression and academic performance inferential analysis was used to examine gender differences in the prevalence of depression, stress, and anxiety. It was examined using independent samples t-tests with gender as the independent variable and the mean scores of each mental health problem as the dependent variable. The significance level for independent samples t-tests was set at 0.05. The statistical analysis was done using SPSS version 25.0, which stands for Statistical Package for Social Sciences.

Descriptive Analysis: The respective mean scores for depression, anxiety, and stress were

10.29 (SD=6.23), 9.86 (SD=6.27), and 12.11 (SD=6.74). The prevalence rates for stress, anxiety, and depression were 34.6%, 33.8%, and 42.8%, respectively. This implies that a significant portion of the sample disclosed having these mental health conditions. In terms of depression, anxiety, and stress, the majority of participants—45.2%, 47.4%, and 35.4%—were determined to be within the normal range. However, a significant portion of students

(25.4%), moderate depression (17.4%), severe depression (7.8%), and extremely severe depression (3.8%) levels were noted. A sizable proportion of participants reported having mild (23.6%), moderate (15.8%), severe (11.4%), and extremely severe (4.4%) levels of anxiety. In addition, a substantial majority of individuals (28.8%), moderately stressed (10.6%), severely stressed (2.2%), and highly stressed (1.2%) reported feeling some level of stress.

Table 1: Descriptive statistics results

	Mean Score	Standard Deviation	Prevalence Rate	Distribution Normal	Mild	Moderate	Severe	Extremely Severe
Depression	10.29	6.23	34.6%	45.2%	25.4%	17.4%	7.8%	3.8%
Anxiety	9.86	6.27	33.8%	47.4%	23.6%	15.8%	11.4%	4.4%
Stress	12.11	6.74	42.8%	35.4%	28.8%	10.6%	2.2%	1.2%

Descriptive statistics results showed that depression, anxiety, and stress were prevalent among the sample of Cambridge School students. The mean scores for depression, anxiety, and stress were higher than population norms, indicating elevated levels of these mental health conditions. A significant proportion of students reported experiencing moderate to extremely severe levels of depression, anxiety, and stress. The majority of participants fell within the normal range for depression, anxiety, and stress. However, a substantial portion of participants reported experiencing mild, moderate, severe, and extremely severe levels of depression, anxiety, and stress. The prevalence rates for depression, anxiety, and stress among Cambridge School students were higher than the general population rates.

These findings suggest that mental health concerns are prevalent among Cambridge School

Table 2: Independent samples t-tests results

students, and a considerable number of students are experiencing elevated levels of depression, anxiety, and stress. Further exploration and targeted interventions may be needed to address these issues and promote the well-being of the student population.

Inferential Analysis: The study found gender differences in the prevalence of depression, anxiety, and stress among Cambridge School students. Female students reported significantly higher mean scores for depression (M=11.43, SD=6.17), anxiety (M=11.15, SD=6.44), and stress (M=13.47, SD=7.11) than male students (depression: M=9.98, SD=6.26; anxiety: M=8.70, SD=5.82; stress: M=10.78, SD=5.92). The independent samples t-tests revealed significant differences in mean scores between male and female students for depression (t(498)=3.32, p=0.001), anxiety (t(498)=4.37, p<0.001), and stress (t(498)=4.90, p<0.001).

	Mean Score (Female)	Standard Deviation (Female)	Mean Score (Male)	Standard Deviation (Male)
Depression	11.43	6.17	9.98	6.26
Anxiety	11.15	6.44	8.70	5.82
Stress	13.47	7.11	10.78	5.92

Independent samples t-test results showed the gender differences in depression, anxiety, and stress levels among Cambridge School students. Female students reported significantly higher mean scores for depression, anxiety, and stress compared to male students. The t-tests revealed statistically significant differences between male and female students for depression ($t(498)=3.32$, $p=0.001$), anxiety ($t(498)=4.37$, $p<0.001$), and stress ($t(498)=4.90$, $p<0.001$).

These findings indicate that there are notable gender disparities in the prevalence of depression, anxiety, and stress among Cambridge School students, with female students generally reporting higher levels of these mental health conditions compared to male students. The statistically significant differences suggest that gender should be taken into consideration when addressing mental health concerns and implementing interventions within the school context.

Analysis and Discussion:

The findings of the current study show a significant relationship between the academic success of Cambridge School students and their mental health problems. The study concluded that stress, anxiety and depression had a detrimental effect on the scholastic performance. These results are supported by the studies in the past are evident and adverse effects of mental health are found on the academic performance. These findings are consistent with past research that showed the negative effects of mental health difficulties on academic performance (Richardson et al., 2012; Palacios et al., 2018).

The interesting results of female Cambridge students were also revealed in this study where female students' melancholy, anxiety and stress was more as compared to the stress indicators in male students. The results are found consistent with the studies by (Luo et al., 2019; Lederer & Hoban, 2021) show clear differences in the gender with regards to the relationship with academic performance and mental health. The study also pinpointed specific contributing factors to students' mental health problems and their effects on academic performance. For example, the study revealed that students with maximum anxiety and stress level have proved to perform very low in their academic performance. Students who reported to have less support of their teachers, peers, or from parents or siblings exhibited higher level of depression and anxiety and received low grades.

Conclusion:

The study's findings indicate the prevalence of stress, anxiety and depression among Cambridge students which negatively influence their school performance as well as the overall grades and they were found highly depressed during their exam. As per the findings of the result a clear indication of relationship between mental health and students' academic performance was disclosed in the study at Cambridge school. Students who report feeling more stressed, anxious, or depressed tend to perform worse academically. The report makes the case for interventions including school-based counselling, mindfulness courses, and stress management seminars in order to address mental health issues

and improve academic success among Cambridge school children.

This is especially true for female students, who require more counselling sessions than male students do since they are under more stress overall. The study highlights the need of addressing these issues in schools to help kids reach their full academic potential and throws light on specific mental health issues that Cambridge students must contend with. The study concludes that in order to support children with mental health issues in achieving their full academic potential, Cambridge schools should introduce treatments including school-based counselling, mindfulness programs, and stress management seminars.

The study underlines the need for more research in this area to comprehend the relationship between academic achievement and mental health among Cambridge school students. Larger sample numbers, a variety of age groups, and other mental health disorders should be the focus of this study.

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