Effect of stress on academic performance of students in different streams

M. Maajida Aafreen¹, V. Vishnu Priya²*, R. Gayathri²

ABSTRACT

Introduction: Stress arises when the combination of internal and external pressures exceeds the individual’s resource to cope with their situation. For many young adults, college and school are the best time of life. These critical years can also be undermined by depression, anxiety, and stress. Students who do not cope well with stress have a very drastic effect in their studies and behavior. Materials and Methods: A sample of 80 students were asked to answer a survey prepared in online. The results were presented graphically, inferentially, and descriptively. The objective of the current study was to assess the stress among students of various professional colleges and its association with various academic, social, and health-related factors. Result: Students studying in science stream had stress more compared to students studying in other streams. It affects them mentally, physically, and emotionally. Students face anxiety and go into depression which later leads to decreased performance in academics. Conclusion: Stress is the body’s reaction to a challenge. This research can help us in finding the reason and the causes of stress thus helping the students in finding a solution to their problems and help them enjoy their schooling stress-free and tension-free.

Key Words: Adolescents, Cortisol, Nor epinephrine, Psychological problems, Stressor

INTRODUCTION

Stress is primarily a physical response and is defined as a condition typically characterized by the symptoms of mental and physical tension or strain, as depression or hypertension, which can result from a reaction to a situation in which a person feels threatened or pressured or sometimes both.[1] Depression is a state of low mood and aversion to activity that can affect the thoughts of a person, behavior, feelings, and sense of well-being.[2] Depression is a significant contributor to the global burden of disease and affects people in all communication worldwide.

Stress is a central concept for understanding both life and evolution.[3] Learning and memory can be affected by stress. Although an optimal level of stress can enhance ability, too much stress can cause physical and mental health problems, reduce self-esteem and may affect the academic achievements is the students.[4]

When stressed, the body thinks it is under attack and switches to “fight or flight” mode, releasing a complex mix of hormones and chemicals such as adrenaline, cortisol and norepinephrine to prepare the body for physical action. This causes a number of reactions, from blood being diverted to muscles to shutting down unnecessary bodily functions such as digestion. Stress arises when the combination of internal and external pressures exceeds the individual’s resources to cope with their situation.

For many young adults, school is the best time of life. These critical years can also be undermined by depression, anxiety, and stress. Students are very likely to experience some or many stressors which may test their ability to cope: Adapting to a new environment, balancing a heavy workload, making new friends, becoming more independent, and dealing with myriad of other issues.[5] Adolescence is a stage of human development that occurs between childhood and adulthood. Due to fast physical and mental development at this stage, students may experience incompatibility of their

¹Department of Biochemistry Saveetha Dental College, Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai, Tamil Nadu, India, ²Department of Biochemistry, Saveetha Dental College, Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai, Tamil Nadu, India

*Corresponding author: V. Vishnu Priya, Department of Biochemistry, Saveetha Dental College, Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai, Tamil Nadu, India. E-mail: drvishnupriyav@gmail.com

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mental development with their physical changes or with the social environment and then suffer from problems arising from inadequate adaptations. These problems may further cause psychological troubles and even induce deviant behaviors. Adolescence is a dangerous period of time where young people experience self-organization and role confusion. For them, stress mainly comes from academic tests, interpersonal relations, relationship problems, life changes, and career exploration. Such stress may usually cause psychological, physical, and behavioral problems.[6]

Stress is the most undermined syndrome in our society that is neglected since the element of mental health associated with it. Excessive stress could lead to psychological problems such as depression and anxiety. When stress is perceived negatively or becomes excessive, students experience physical and psychological impairment.[7] Stress can come in different ways in an individual’s daily life. Stress is also viewed as the body’s reaction, both neurologically and physiologically, to adapt to a new condition (Franken, 1994). When there is a change in life, we adjust ourselves to fit in the new condition.[8] Stressors have a major influence on mood, our sense of well-being, behavior, and health. Acute stress responses in young, healthy individuals may be adaptive and typically do not impose a health burden. However, if the threat is unremitting, particularly in older or unhealthy individuals, the long-term effects of stressors can damage health.[9] Stress can also affect the emotional intelligence. It negatively impacts our ability to intuit other people’s feelings, convey our own feelings and communicate. Stress can also prevent us from being aware of and controlling our emotions, getting along with others, adapting to change, and maintaining a positive mood.

The major source of stress includes; change in sleeping habits, vacation and breaks, change in eating habits, increased work load, and new responsibilities. Elevated stress levels among students can result in a decreased performance in the academic accomplishments and can affect both the physical and mental health of students. Therefore, studies on coping with stress will have a significant impact in higher education.[10] The various methods to reduce stress often include time management, social support, positive reappraisal, and engagement in leisure. The main aim of the research includes to find the effect of stress and its effect on the academic performance of students studying in different streams.

MATERIALS AND METHODS

This survey was taken among school students studying in different streams in different institutions globally. The study population involved 80 students studying in different streams and in different specialties. A maximum of 15 questions were prepared and administered to the participants through the surveyPlanet link. The questions asked included the main reason for their stress and the what all factors played a role in stress, how does the stress affect academically and how do you deal with stress. The survey questions were prepared and answered online.

RESULTS

The data collected from the survey was statistically analysed and well tabulated for interpretation.

DISCUSSION

Homeostasis is a central concept to the idea of stress. Most biochemical processes strive to maintain equilibrium, a steady state that exists more as an ideal and less as an achievable condition.[11] Stress is known to be the fuel that the body uses to meet the daily challenges of our fast-paced modern life; for others, it is the aversive by-product of such a life. Stress is associated with the major life events, daily hassles, and changes in life. Stress is created by excessive environmental factors and internal demands that need constant effort

![Chart 1](chart1.png)

**Chart 1:** What is the major factor for stress in your academic level?

![Chart 2](chart2.png)

**Chart 2:** Do you think parental pressure is a factor for your stress?

![Chart 3](chart3.png)

**Chart 3:** Do you think peer pressure is also a factor for your stress?
Academic stress can be conceptual as a students interactions between environmental stressors, the students cognitive appraisal of and coping with the academic-related stressor and physiological or psychological response to the stressor. Learning and memory can also be affected by stress though an optimal level of stress can enhance learning ability, too much stress can cause physical and mental health problems, reduces self-esteem and may affect the academic achievements of students.

According the survey conducted, the majority of the students were science streamed students. Around 50% of the students were stressed due to study-related issues whereas 28.4% faced stress due to personal reasons and around 9.9% were stressed due to parental pressure. Excessive stress among students was found to reduce effectiveness of their study which contributes to bad habits and results in negative long-term consequences, including absenteeism, poor academic performance, and school dropout. Chart 1 shows the major factors for in academic level. Academically, the major for stress was grades include 70% of the students were stressed academically due to grades. Nearly 21.1% of the students were worried due to failure and around 13.6% of the students were faced with parental pressure and peer pressure. Academic stress involves mental distress regarding academic challenges or failure or even an awareness of the possibility of academic failure.

Chart 2 shows the number of students facing parental pressure. Parents play an essential part in a child’s life. There is the main backbone for the children. They put pressure on their child to succeed because of their concern for the welfare of their children and their awareness of the competition for getting admission in reputed institutions. The overall unemployment situation in India has also provoked parents to put pressure on their children for better performance. Some of the parents wish to fulfill their unfulfilled dreams through their children. All these have made a normal pursuit for adolescents leaving them to deal with the demands of the school as well as that of their tutors. Majority of the children did face parental pressure sometimes depending on the situation. 45.5% of the children said that they did not face any parental pressure, whereas 33.3% faced parental pressure sometimes. Only a very few of them faced parental pressure very often. Nearly 38.7% of the students thought that the main reason for parental pressure was due to social prestige whereas only 1.1% of the students perceived it to be due to parents workload or pressure.

Chart 3 question whether peer pressure also adds to their stress level and a majority of the students which is of 37.7% faced peer pressure whereas 44.4% of the students faced peer pressure only sometimes depending on the situation or mainly during an examination or test. A majority of the parents criticize their child’s performance by comparing the latter’s performance with that of the best performer in the class. As a result, instead of friendship, there is a sense of rivalry among classmates. Some parents even tend to demean the achievement of the top scorer of the class by stating that he/she might have been favored by the teacher.

Chart 4 shows that academically science stream students face stress and pressure mainly due to increased class workload and examinations. Whereas commerce stream students faced pressure due to examinations and missing of few classes. Nearly 47.5% of the students faced pressure due to increased class workload. They felt that due to increased workload and home assignments they had less time to study and put enough efforts in studies. On days when there are no academic tuitions, there are art or music lessons, the students hardly get time to watch TV, to play or to interact with neighbors freely or even to get proper amount of sleep. Naturally such students end up being nervous wrecks when the examination pressure mounts. Teaching overload and irregular teaching also caused stress among students. Nearly 43.1% agreed that teaching overload and irregular teaching overload did cause stress. The education system in India is highly competitive due to lack of an adequate number of good institutions to accommodate the ever-expanding population of children. Hence, children face competition at the entry level of pre-primary education, and thereafter, at the end of every year, in the form of examinations that determine their promotion to the next grade. Nearly
67.9% did not feel that they were put in an institute which is more that their capacity. Rather they felt that the competition among their fellow mates were quite high and had to live up to the expectations of the society and their partners. Academic stress is seen to be positively correlated with parental pressure and psychiatric problems. Examination-related anxiety is also observed to be related to psychiatric problems. It is important to remember that mental constitution or coping capacities vary from one child to another. Therefore, children with poor coping capacities become more prone to anxiety, depression, and fear of academic failure. Academic anxiety is found to be the least in case of adolescents from high socioeconomic classes – which may be partly attributed to their secured future at least in material aspects. The prevalence of anxiety disorders tends to decrease with higher socioeconomic status.[18]

Chart 5 explains the stress relieving factor and from whom they sought help or opened up to. Majority of the students opened up to their friends, and the results show that 43.2% of tithe students would listen to music for relieving the stress. Unexplained headaches, migraine, and hypertension are becoming very common among teenagers – often leading to their stressful lives. Even recreational activities such as sports, music, painting, or swimming have become as competitive as studies.[19] Emotionally, students felt tired and faced lack of sleep due to stress. 42.2% and 30.9% faced tiredness during the day an lack of sleep. Around 14.8% feel sick or ill. The impact of academic stress is also far reaching: High levels of academic stress have led to poor outcomes in the areas of exercise, nutrition, substance use, and self-care.[20] Furthermore, academic stress is a risk factor for psychopathology. For example, fourth, fifth, and sixth-grade girls who have higher levels of academic stress are more likely to experience feelings of depression.[21] Stress management techniques include self-management, conflict resolution, and positive attitude, self-talk, breathing, meditation, exercise, diet, and rest. Effective stress management also involves learning to set limits for the issues that create stress.[22] Nearly 66.7% of the students did not feel a need to visit a mentor to handle their stress.

**CONCLUSION**

Stress is the body’s reaction to a challenge. Although stress is often perceived as bad, it can actually be good in some respects. The right kind of stress can sharpen the mind and reflexes. Stress is the body’s natural response to challenges. When a student experiences high levels of stress or chronic stress, regardless of her age or grade, it can interfere with her ability to learn, memorize, and earn good grades -- as well as lead to poor physical, emotional, and mental health. By learning about common stressors, a parent can help to mitigate negative or chronic stress in a child’s life. Excessive stress could lead to psychological problems such as depression and anxiety. This this research could help us in finding the main reason and helping the students in finding a solution to their problems and help them enjoy their schooling stress-free and tension-free.

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