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RESEARCH ARTICLE

A COMPARATIVE STUDY ON STRESSORS AMONG SCHOOL STUDENTS – PHYSICAL AND PSYCHOLOGICAL ASPECTS

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Abstract

Stress is believed to be caused by the various problems that exist such as problems at school, financial problems, family problems and problems in their surroundings. Stress and anxiety affect the human body physically, it also can harm a person's emotional well-being as well. School-aged children are often under more stress. There are different demands and expectations to achieve academically, socially and in extra-curricular activities can sometimes be overwhelming. Stress-related problems affect student's performance in school, and many stressors are related to the school environment. Too much stress can seriously affect physical and mental well-being. Recurrent physical and psychological stress can diminish self-esteem, decrease interpersonal and academic effectiveness, and create a cycle of self-blame and self-doubt. The present study was conducted in Kovaipudur of Coimbatore district. The purpose of this study is to find the comparative analysis on stressors among school students of various standards. The physical and psychological stress was the two dimensions taken for the study. Data was collected using a structured questionnaire. A sample of 45 high school students (both male and female) was collected randomly for the pilot study in Kovaipudur area.

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Introduction

Stress is the body's response to environmental demands. In general, when environmental demands exceed the ability to cope, it creates stress. Stress generally refers to two different things: situations that trigger physical and emotional reactions (stressors) and the reactions themselves (stress response). Being in School can be extremely stressful, because there are constant demands on students to adjust and change. Students may experience other stressors including roommate problems, test anxiety, deadlines, midterms, finals, relationships and their parents. Excessive stress can have a dramatic effect on learning and social development. It can interfere with executive functions such as attention, memory, organization and integration. And, over time, it can damage brain cells and shrink main memory structures. Some children in class may be experiencing a range of physical, mental or emotional reactions to highly stressful situations in their lives, including conflict between their parents or problems keeping up with schoolwork. Stress affects everyone in different ways, and it is important to be aware of unique stress "signals". Stress signals fall into four categories: thoughts, feelings, behaviours, and physical symptoms. When people are under stress, they may experience any number of the following:

- **Feelings:** anxiety, irritability, fear, moodiness, embarrassment.
- **Thoughts:** self-criticism, difficulty concentrating or making decisions, forgetfulness, preoccupation with the future, repetitive thoughts, fear of failure.

- **Behaviours:** crying, increased or decreased appetite, acting impulsively, alcohol or other drug use (including smoking), teeth grinding or jaw clenching, stuttering or other speech difficulties.
- **Physical:** sleep disturbances, tight muscles, headaches, fatigue, cold or sweaty hands, back or neck problems, stomach distress, more colds and infections, rapid breathing, pounding heart, trembling, dry mouth.

Review of Literature

Stressors around the transition predicted both depressive and externalizing behaviours. Perceived self-worth predicted depressive symptoms, but not externalizing behaviours. Attribution style directly and in interaction with stressors predicted depressive symptoms and did not predict externalizing behaviour. A 3-way interaction between stress, attribution style, and self-worth suggested that level of perceived self-worth may moderate the effects of attribution style in times of stress (Robinson, Nancy S.; Garber, Judy; Hilsman, Ruth, 1995). Suicidal behaviours are not infrequent occurrences among adolescents and that they often coexist with other high-risk behaviours. Interventions designed to reduce suicidal behaviours should simultaneously address coexisting high-risk behaviours (C Z Garrison, R E McKeown, R F Valois, and M L Vincent, 1993). Fear of failure and school problems, but not achievement motivation, had significant positive correlations with headache complaints (J Passchier and JF Orlebeke, 1985). Unrealistic goals, high expectations from significant others, and the residential setting may have contributed to heightened depression (Yadusky-Holahan, Mary; Holahan, William, 1983). The performance grouping system, fear of theft, jobs, teacher accessibility, and racial tensions contributed to perceived stress (Armocost, Robert L, 1990). Stability of community, age, and sex were related to the development of the SOC in adolescence. The Sense of coherence was negatively related to state anxiety responses in a normal, potentially ego-threatening stress situation but showed no relationship to emotional responses to the acute communal stress situation, the evacuation (Antonovsky, Helen; Sagy, Shifra, 1986). Moeini, Babak; Shafii, Froug; Hidarnia, Alireza; Babaii, Gholam Reza; Birashk, Behrooz; Allahverdi-pour, Hamid (2008) investigated the relationships between perceived stress, general self-efficacy and mental health status among Iranian male adolescents recruited from midtown high schools in Tehran who studied in 12th grade. Statistical analysis revealed that greater stress was associated with lower general self-efficacy and lower mental health status. A significant inverse relationship between self-efficacy and general health was found among these students. Results are discussed in relation to their implications for effective mental health education (e.g., stress management training) for adolescents. Melodie Wenz-Gross, Gary N. Siperstein, Andrew S. Untch, Keith F. Idaman (1997) The effects of adolescent characteristics (gender, grade level, grade point average, and education placement status) also were assessed. Results showed that higher academic stress and less emotional support from the family were related to lower academic self-concept, and higher peer stress and less companionship support from peers were associated with lower social self-concept. Emotional support from the family moderated the influence of peer stress on feelings of depression. Problem-solving support from adults outside the family moderated the effects of teacher/rules stress on adolescents' liking of school. Guskowska (2005) found significant interactions between physical fitness and gender for both sexes. While among boys better well-being, mood (i.e. higher levels of positive and lower intensity of negative mood states), and health (higher levels of self-rated health and less numerous physical complaints) were found in those with better physical fitness, among girls the relationship was reversed, i.e. more positive well-being, mood and health were exhibited by the less fit. Moreover, significant main effects of stress intensity and gender were noted: students with more intense stress experiences had lower levels of positive well-being, mood (positive states, negative states and health and girls not only less favourably assessed their health, experienced more somatic complaints but also manifested more marked negative mood states.

Need and Relevance of the study

Stress is a part of every student's daily life. Leaving home or commuting daily; managing finances; living with roommates; and juggling work, classes, and relationships all contribute to the normal stress of being a student. In addition, it is not uncommon for students to feel stressed and anxious about wasting time, meeting high standards, or being lonely. Stress can also come from exciting or positive events. Preparing to study abroad, or buying a bike/car can be just as stressful as less-happy events. Stress is a normal part of everyday life for children and adults. It helps to motivate us and adds a positive challenge to life. However, too much stress can be counter-productive and overwhelming. Even the most nurturing home and school environment includes a range of stressors that can both challenge and motivate children. Stress among children is estimated to have increased 45% over the past 30 years. The good news is that building emotional health and resiliency can help children concentrate, learn, interact more successfully and deal with other stressors they may face in their lives. This study is carried out to find the different

stressors that affect the school students in various standards. Furthermore, this study will help the high school students to know about the stress situation they face and help them to cope with the stress related problems as well.

Methodology

The Data was collected from high school students (both male and female) using Structured Questionnaire and it was tested for reliability. The scale had reliability co-efficient with over all consistency of 0.685 (Cronbach's alpha) for 19 items. Only 45 samples were initially collected for pilot study. Both Primary and Secondary Data was collected for the study. Simple random sampling method was used for collecting the primary data. Five point Likert scale ranging from 1 = Strongly Agree; 2 = Agree; 3 = Neutral; 4 = Disagree; 5 = Strongly Disagree. Data was analyzed using Statistical Package for Social Sciences (SPSS 17.0).

Objectives

1. To Study the relationship between classes and Physical Stress
2. To Study the relationship between classes and Psychological stress.

Hypothesis

H₀: There is no significant difference between Physical and Psychological Stress levels among different Standards.

H₁: There is a significant difference between Physical and Psychological Stress levels among different Standards.

From the Table 1, Q35, It is inferred that, Majority of the 10th and 12th standard students hardly find no time for exercise. This may be due to their public examinations while the 11th standard students find some time for their exercise. There is no significant difference between the standards and time spent for exercise. From Q36, there is a significant difference between the weight gain/loss and their classes. Mostly all standard students agree to gain/loss weight. From Q37 Mostly all standard students have sleep disturbances. There is no significant difference between class standards and sleep disturbances. From Q38 it is inferred that 10th standard students have more sadness and depressive behaviour. This may be due to the fear due to first attempt for their public examination. The 11th and 12th standard students have less sadness and depressive attitudes. The reason can be their age and maturity than 10th standard students. There is a significant relationship between class standards and sadness/depressive behaviour. As per Q39, it is inferred that majority of the school students have good care and concern from their family members and school environment. There is no significant relationship between class standard and care given. From Q40, It is inferred that the majority of 10th standard students agree that they have too much pressure because of their studies and examinations. The 11th standard students have less pressure. But the 12th standard students also strongly agree that they have high pressure and there is a significant relationship between class standards and pressure experienced due to studies and examinations. From the Q42, it is inferred that 10th and 12th standard students experience unnecessary tension than that of the 11th standard students. There is no significant difference between standard and tension experienced by the students. From the Q46, Few 11th standard students agree that they are not good looking while the 10th and 12th standard students disagreed. There is no significant difference between class standards and good looking appearance. From Q47, majority of 10th, 11th and 12th standard students disagreed that they are too tall/short. From Q48, majority of 10th, 11th and 12th standard students gave neutral statement that they have less attractive facial features. From Q49 and Q50 mostly all standards agree that they were too thin /fat and they have much health related worries.

From the Table 2, Q34, Majority of the students from all standards agree that they feel insecure because of too much competition in good grades and there is a significant difference between class and more competition in getting good grades. From Q41, majority of all class students agree that they have conflict on study and play/ recreation. There is a significant difference between standards and conflict on study and play/recreation. From Q51 the 10th and 12th standard students spend more than 11th students and there is significance difference between class and spending nature. From Q52 mostly all standard students strongly agree that they are happy with their family members and there is no significance difference between class and happiness sharing among family members. From Q53 and Q54, most of the students from all standards agreed that they are self-confident and ambitious person and there is a significant difference between classes and self-confidence, ambitious nature. From Q55 majority of all standards agree that they have no stress. Major students gave neutral opinion also and few agree that they experience stress. There is no significant difference between class and stress experienced by the students.

Coping with Stress

One of the most important things is to recognize when the stress levels are building. The amount of stress that one can tolerate before becoming distressed varies with life situation and age. A critical first step in coping with stress is taking stock of the stressors in life. Too much stress: 1) Difficult for children to get along with others 2) Interferes with children's ability to focus and think. If they are afraid or anxious, children may spend so much energy worrying that they are unable to learn. 3) Profound effect on children's physical, emotional and mental health. By helping children learn positive coping strategies to deal with stress, you can help build their resiliency and prevent stress from escalating to distress, anxiety and meltdowns. Guskowska (2005) Physical fitness may be an important resource helping to cope with stress, and that its role in coping with stress may be different in boys than in girls.

Remedies for stress

One promising approach is yoga, which combines strength and flexibility exercise with relaxation and meditation/mindfulness techniques. Studies have shown benefits of yoga in a wide range of mental and physical health problems, including a growing body of evidence showing positive effects in children and teens. Lippincott Williams & Wilkins (2012) Teens taking yoga classes had better scores on several of the psychological tests. Specifically, while students in regular PE classes tended to have increased scores for mood problems and anxiety, those taking yoga classes stayed the same or showed improvement. Negative emotions also worsened in students taking regular Physical Education classes, while improving in those taking yoga.

Conclusions

The present study contributes to the literature related to the effects of stress on Physical and Psychological behaviours. The findings suggest that higher physical stress levels could contribute to anxiety, negative emotions, depression, sleeping disorders and loneliness. High-stakes learning and performance situations can put a counterproductive stress on students. There is a significant difference between the weight gain/loss and their classes. There is a significant relationship between class standards and sadness/depressive behaviour. Further research is needed to fully understand the mechanisms underlying these associations. However, interventions that incorporate stress management techniques such as deep abdominal breathing, focusing on a soothing word, visualizing tranquil scenes, repetitive prayer, yoga, and tai-chi can ease stress. Exercise deepens breathing and helps relieve muscle tension. Movement therapies combine fluid movement with deep breathing and mental focus, all of which induce calm. Friends provide a life-enhancing social net; their emotional support might help to prevent rising physical and psychological stress among high school students.

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Table: 1 Classes and Physical Stress

Question Number	Standard	Physical Stress					Pearson Chi-Square Asymp. Sig. (2-sided)
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	
Q35	10 th	2	9	6	3	1	0.471 NS
	11 th	1	4	1	4	0	
	12 th	4	5	1	3	1	
	Total	7	18	8	10	2	
Q36	10 th	1	16	2	2	0	0.069NS
	11 th	1	9	0	0	0	
	12 th	1	6	6	0	1	
	Total	3	31	8	2	1	
Q37	10 th	4	12	5	0	-	0.069NS
	11 th	0	5	3	2	-	
	12 th	3	5	1	5	-	
	Total	7	22	9	7	-	
Q38	10 th	2	11	0	4	4	0.008*
	11 th	0	3	0	2	5	
	12 th	0	0	3	6	5	
	Total	2	14	3	12	14	
Q39	10 th	1	2	2	5	11	0.942 NS
	11 th	0	2	1	1	6	
	12 th	0	2	1	2	9	
	Total	1	6	4	8	26	
Q40	10 th	5	9	4	0	3	0.005*
	11 th	0	4	1	4	1	
	12 th	7	5	2	0	0	
	Total	12	18	7	4	4	
Q42	10 th	1	6	10	4	0	0.055*
	11 th	1	2	1	5	1	
	12 th	1	6	0	5	2	
	Total	3	14	11	14	3	
Q46	10 th	1	2	9	6	3	0.118NS
	11 th	0	4	1	2	3	
	12 th	0	1	2	6	5	
	Total	1	7	12	14	11	
Q47	10 th	1	2	8	5	5	0.158NS
	11 th	0	3	0	2	5	
	12 th	0	2	1	5	6	
	Total	1	7	9	12	16	
Q48	10 th	1	1	13	2	4	0.164NS
	11 th	0	2	3	3	2	
	12 th	0	3	2	5	4	
	Total	1	6	18	10	10	

Q49	10 th	4	8	6	0	3	0.674NS
	11 th	1	4	3	0	2	
	12 th	0	7	3	1	3	
	Total	5	19	12	1	8	
Q50	10 th	2	11	3	2	3	0.202NS
	11 th	0	4	1	2	3	
	12 th	0	5	1	7	1	
	Total	2	20	5	11	7	

*-Significance 5%, NS- Not Significant

Table: 2 Classes and Psychological Stress

Question Number	Standard	Psychological Stress					Pearson Chi-Square Asymp. Sig.(2-sided)
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	
Q34	10 th	9	4	6	2	0	0.017*
	11 th	1	3	0	5	1	
	12 th	2	7	3	2	0	
	Total	12	14	9	9	1	
Q41	10 th	1	10	10	0	-	0.012*
	11 th	1	7	2	0	-	
	12 th	4	6	1	3	-	
	Total	6	23	13	3	-	
Q51	10 th	0	7	9	4	1	0.027*
	11 th	1	3	1	2	3	
	12 th	4	4	0	3	3	
	Total	5	14	10	9	7	
Q52	10 th	14	7	-	-	-	0.189NS
	11 th	7	3	-	-	-	
	12 th	13	1	-	-	-	
	Total	34	11	-	-	-	
Q53	10 th	2	19	0	0	-	0.003*
	11 th	4	4	1	1	-	
	12 th	9	5	0	0	-	
	Total	15	28	1	1	-	
Q54	10 th	5	8	8	-	-	0.003*
	11 th	8	2	0	-	-	
	12 th	6	8	0	-	-	
	Total	19	18	8	-	-	
Q55	10 th	1	3	5	6	6	0.165 NS
	11 th	1	4	2	2	1	
	12 th	0	8	4	0	2	
	Total	2	15	11	8	9	

*-Significance 5%, NS- Not Significant