Research Article

A Study on Influence of Health Status of the Students on Academic Achievement

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ABSTRACT

Education remains the most outstanding development priority areas in the world today. The core purpose of education, unquestionably, is formation of humane. Other things being equal, an educated person who is well or relevantly positioned in the socio-economic culture and political setting is expected to be a valuable asset to the society than another individual who is illiterate and perhaps ignorant. This simple fact explains why researchers and scholars all over the world, continue to do research into ways of improving human knowledge and development. Educational research is that activity which is directed towards development of a science of behaviour in educational situations.In the present day of industrialization, competition, stress and tension among young make them face lot of difficulties. These difficulties give rise to many psychosomatic problems such as anxiety, tensions and frustrations and emotional upsets in day-to-day life.This study has sought to investigate the influence of health status of the students on academic achievement in science among upper primary, secondary and higher secondary students. Since a very limited number of studies have addressed health status of students in India, and because of the seriousness of its adverse consequences, it was considered important to explore this issue further. There is a need to attempt to understand this immense problem from all angles of the planners, the educator and the students. The most important and least known is the child's angle of this context. It was felt that this study should be attempted to reveal the problems faced by this large important group of student.

Keywords: Health Status, Academic Achievement, Student Health, Educational Performance, Physical Wellbeing, School Students, Health and Education

INTRODUCTION

School-based Health Interventions and Academic Achievements provide important new evidence that link students' health and academic perfom1ance. It identifies proven health interventions and practical resources that can positively affect both student health and academic achievement. **Health and Education are linked**. Health risks and academic risks affect each student in middle, high &higher secondary school. Students who perform poorly in school may have more health risks, which adversely affect their achievement and in turn contribute to health risks. Data from the Healthy Youth Survey in Washington State provide a new way of looking at the relationship between health risk and academic achievement. The report examines physical, mental and social health risk factors and analyses the relationship between these specific health factors and the students' grades.

A great deal of research is available to describe the relationship between educational attainment and health among adults. We can safely say that more highly educated adults tend to be healthier. For this reason, public health advocates are giving increased attention to the social determinants of health for improving public health. The social determinants of health arc the conditions in which people are born, grow, live, work, and age. These include income, education, and access to resources. **Adults who are more educated tend to be healthier. For students, unhealthy behaviours and educational challenges may influence each other, or have common root causes.**

Physical Health

There is growing evidence that regular physical activity enhances learning and school achievement. Physical activity fuels the brain with oxygen, enhances connections between neurons and assists in memory. Children in daily physical activity have shown superior academic performance and better attitudes towards school. Schools that offer intense physical activity programmes have shown positive effects on academic achievement, including increased concentration; improved Science &Mathematics, reading and writing test scores; and reduced disruptive behaviour, even when time for physical activity reduces the time for academics. A study conducted on the effects of reducing class time for increased physical activity found that test scores increased for those students. Specifically, when class time for academics was reduced in two schools by 240 minutes per week to enable increased physical activity exposure, Science & Mathematics scores in the experimental group were consistently

higher than for others not in the programme. In another study conducted by the California Department of Education Healthy Kids Programme Office preliminary findings show that the lowest performing schools have lower physical activity levels among their students, with little difference across schools in the top three qualities. This suggests that the lowest performing schools may benefit from physical activity programmes.

Mental Health

The ability of children to learn can be significantly affected their mental health. Emerging evidence suggests exposure to violence has lifelong effects on learning and threatens students' academic performance. This is manifested in students' lack of interest and behaviour problems at school, poor concentration, low grades, low self-esteem, high dropout rate and general decline in academic performance. An investment in prevention and intervention services for school children can also help assist students in their development and well-being. The California Association for Counselling and Development research findings indicate that school counselling programs have a significant influence on reducing discipline problems by ensuring that all students have skills in conflict resolution. Further more, elementary guidance activities have a positive influence on students' academic achievement by ensuring that all students have learning skills. Finally, school counsellors can be effective in assisting students in the development of career goals and plans.

Social Health

Poor achievement as the major factor and further observed that **under nourishment, crowded 1.iving condition, low level nourishment, low level parental education** and **inadequate training by parents** were associated with low academic achievement. **Interventions Can Narrow Disparities.** Lack of equal chances for success (the result of poverty, discrimination, unequal access to services, and other factors) affect a person's health. These patterns of socio-economic disparities are often the same for disparities in academic achievement. It may be unrealistic to expect to close the achievement gap for disadvantaged youth without addressing wellness;· readiness to learn, and the conditions affecting the health of the community.

REVIEW OFRELATED LITERATURE

Youth are in the process of completing their education, and in some cases are also initiating unhealthy behaviours (such as experimenting with alcohol or tobacco). Do unhealthy behaviours decrease the ability of young people to succeed in school? Or do challenges in school influence young people to take up unhealthy behaviours? It may be that each influences the other and that the relationship can work in either direction. Also, there seem to be underlying factors that influence both academic achievement and health, such as insufficient family income or childhood trauma.

Researchers have suggested that the relationship between health and achievement works in different ways. For example, **Hawkins, Catalano, and :MIiler (1992)** found that **"low degree of commitment to school"** and **"academic failure/poor achievement"** are associated with substance abuse. **Townsend, Flisher, and King (2007)** specifically studied the direction of the relationship between health and achievement by looking at previously published studies, but that more research was needed to understand how the relationship worked. **Healthy Students Learn Better.**

California's state education system (2005) published an extensive rep01t linking academic achievement and health. A study by researchers at the University of Washington found that Washington State schools with a lower prevalence of substance abuse also had higher scores on the Washington Assessment of Student Leaming (WASL). The Centres for Disease Control and Prevention (CDC) recognizes the impact of health on academic achievement, stating: **recognizes that the academic success of America's youth is strongly linked with their health. In turn, academic success is an excellent indicator for the overall well-being of youth, and is a primary predictor and determinant of adult health outcomes.**

Research Topic

Topic selected for this research is **'A STUDY ON INFLUENCE OF HEALTH STATUS OF THE STUDENTS ON ACADEMIC ACHIEVEMENT'**

Statement of the Problem

'A STUDY ON INFLUENCE OF HEALTH STATUS OF THE STUDENTS ON ACADEMIC ACHIEVEMENT'

Objectives of the Study

- To study the relationship between school students' academic achievement and health status.
- To study the relationship between school students' illness and the academic achievement.
- To study the relationship between school students varying forn1s of illnesses.
- To analyse the relationship between various school levels.

Hypothesis of the study

- There is no significant relationship between students' academic achievement and health status.
- There is no significant relationship between students' illness and the academic achievement.
- There is no significant relationship between students varying forms of illnesses. There is no significant relationship between various school levels.

RESEARCH DESIGN

This research is based on the exploratory design. The exploratory study is particularly helpful in breaking broad and vague problem into smaller, more precise sub-problem statements., hopefully, in the form of specific hypotheses.

TOOLS DESCRIPTION:

The questionnaire prepared in this study was mainly aimed at personal interview and was contained open, multi-choice questions, dichotomous questions and also checklists.

SAMPLE DESCRIPTION

Chennai city is selected as the study area for this research. Chennai is a metropolitan city where it includes all type of schools such as Government, Aided, Private, with varied demographic factors.

For this research study 160 students in Chennai city selected as the sample.

RESEARCH TECHNIQUES

Chi-square and Rank Correlation

Table 1: Factors influencing students' academic achievement and health status

Academic Achievement	Health Status	Health Status	Health Status	Total
	Good	Average	Poor	
90-100% Marks	13	17	11	41
80-90% Marks	5	8	5	18
70-80% Marks	12	15	10	37
60-70% Marks	5	6	0	11
50-60% Marks	11	31	11	53
Total	46	77	37	160

Table 2: Estimation of Chi-square

Observed Value [o]	Expected value [e]	0-E	[O-E]2	_[O-E]2_/E
13	11.79	1.21	1.47	0.12
5	5.18	-0.18	0.03	0.01
12	10.64	1.36	1.86	0.17
5	3.16	1.84	3.38	1.07
11	15.24	-4.24	17.96	1.18
7	19.73	-2.73	7.46	0.38
8	9.66	-0.66	0.44	0.05
15	17.81	-2.8]	7.88	0.44
6	5.29	0.71	0.50	0.09
31	25.51	5.49	30.18	1.18
11	9.48	1.52	2.31	0.24
5	4.16	0.84	0.70	0.17
]	8.56	1.44	2.08	0.24
0	2.54	-2.54	6.47	2.54
11	12.26	-1.26	1.58	0.13

Calculated value 8.01

Since the calculated value is less than the tabulated value therefore Null Hypothesis is accepted. Therefore there is no significant relationship between respondent's academic achievement and health status.

Table 3: students' illness vs. academic achievement

Academic Achievement Level

Illness	Great Extent	Some Extent	Not At All	Total
Obesity	9	21	16	46
Insufficient exercise	11	23	17	51
Sleep Deprivation	6	32	25	63
Total	26	76	58	160

Table 4: Estimation of Chi-square

Observed value [o]	Expected value [e]	O.E	[O-E]2	-[O-E]2-/E
9	7.48	1.53	2.33	0.31
11	8.29	2.71	7.36	0.89
6	10.24	-4.24	17.96	1.75
21	21.85	-0.85	0.72	0.03
23	24.23	-1.23	1.50	0.06
32	29.93	2.08	4.31	0.14
16	16.68	-0.68	0.46	0.03
17	18.49	-1.49	2.21	0.12
25	22.84	2.16	4.68	0.20

Calculated value 3.544

Tabulated chi-square value at 5% significant level= 9.49.Since the calculated value is less than the tabulated value. "Therefore there is no significant relationship between respondents' illness and the academic performance of the students" hypothesis is accepted.

Table 5: The standard of the student' varying forms of illnesses Standard of the respondents

Illness	Upper Primary	Secondary	Higher Secondary	Total
Great extent	17	21	11	49
Considerable extent	6	8	5	19
Some extent	14	16	9	39
Not at all	14	26	13	53
Total	51	71	38	160

Table 6: Estimation of Chi-square

Observed value [o]	Expected value [e]	O.E	[O-E]2	-[O-E]2-/E
17	15.62	1.38	1.91	0.12
6	6.06	-0.06	0.00	0.00
14	12.43	1.57	2.46	0.20
14	16.89	-2.89	8.37	0.50
21	21.74	-0.74	0.55	0.03
8	8.43	-0.43	0.19	0.02
16	17.31	-1.31	1.71	0.10
26	23.52	2.48	6.16	0.26
11	11.64	-0.64	0.41	0.03
5	4.51	0.49	0.24	0.05
96	9.26	-0.26	0.07	0.01
13	12.59	0.41	0.17	0.01

Calculated value 1.333

Tabulated Chi-square value at 5% significant level= 12.59. Since the calculated table value is less than the tabulated value. "Therefore there is no significant relationship between students' illness and the standard of the students" is accepted.

Table 7: Difference between various levels of schools

Levels of Student!	Observed	Expected	0-E	$(O-E)^2$	$(O-E)^2/E$
UPPER PRIMARY	51	31	20	400	13.33
SECONDARY	71	**51**	20	400	7.84
HIGHER SECONDARY	38	24	14	196	8.16
	160	106	54	996	29.33

$X^2=\sum (O-E)^2/E$

=29.33

Degrees of freedom = (n-1)=(3-1) =2

Table Value=l 1.07

Hence the Calculated Value is greater than the Tabulated Value. So the above hypothesis "There is no significant relationship between various school levels" is rejected and there is significant relation between the various levels of schools.

FINDINGS&SUGGESTIONS

Findings

- There is no significant relationship between respondents' illness and the academic performance of the respondents.
- There is no significant relationship between respondents' illness and the standard of the respondents.
- There is significant relation between the various levels of schools.

Scope and Limitations

Teachers and parents know that a student who arrives at school fed, rested, calm, and unworried is ready to learn. Research also supports the idea that healthy students learn better. In a recent longitudinal study, after accounting for family characteristics, adolescents with poorer general health were found to be less likely than healthier students to graduate from high school on time and attend college or post-secondary education. Ultimately, fatigue or damage results, and the ability of the body to repair and defend itself can become se1iously compromised. As a result, the risk ofinqui1y or disease escalates.

Limitation of the Study

- Even though the survey was conducted among the primary, secondary & higher secondary students may not reflect the real opinion of the total population.
- Because of time constraints, the sample size in restricted to 160, which may not reflect the opinion of the entire population.
- Since the study was restricted to 160 students of primary, secondary & higher secondary, majority of findings are applicable only to this class and cannot be generalized.
- The samples may behave or give opinions differently at different times because of their psychological temperament. This will affect the survey.

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