

## THE INFLUENCE OF EDUCATIONAL STATUS OF PARENTS ON HEALTH RELATED PHYSICAL FITNESS OF THEIR DAUGHTERS

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**Dr. Usha Tiwari**, Associate Prof.,  
Department of Phy. Edu., Banasthali University, Rajasthan, India  
**Dr. Dharendra Tiwari**, Asst. Director.,  
University Sports Board, B.H.U. Varanasi, U.P., India



### Abstract

The purpose of this study was to determine the influence of parents' educational status, which shows their academic qualification, on the health related physical fitness of their daughters. The subjects were randomly selected 500 college students of Banasthali University and their parents. Socio-Economic Status Index was employed on the parents and AAPHERD Health Related Physical Fitness test was administered on their daughters. To collect the information about the educational status of the parents, a Socio- Economic Status Index was administered. The AAPHERD Health Related Physical Fitness test consisted of four test items i.e. Cardio Respiratory function (9 minutes run / walk), Body Composition (sum of triceps and sub scapular skin folds), Abdominal strength (Bent Knee Sit Ups for 60 seconds) and Low Back Hamstrings Musculo- Skeletal function (Modified Sit and Reach test). For the analysis of data, Chi-square test was administered to measure the influence and Pearson's Product Moment Correlation to find out the relationship. The results indicated that the educational status of the parents did not have any influence on all the health related physical fitness components of their daughters.

**Keywords:** Educational Status, Health Related Physical Fitness and Influence.

### Introduction

In order to face the task and continue the life cycle efficiently, one should be physically wholesome, mentally alert and socially sound. Fitness is a desired state for everyone who wants to lead a zestful and productive life. Fitness is not a thing to be achieved without any efforts. Modern man lives in a mental world in which the important skill for the success is based on his psychological abilities. The personality development for the human activity are expressed through the inter-relationship between physical (body) and psychological (mind) factor, physical and psychological interactions are reflected through physical activities, games and sports. Physical activity is a part of a society and an integral fact of the culture. It varies in each nation, community and group. It has been a part of life of all the people from early times to the present. The influence of international sports has made physical activity a part of life in all cultures and nations. In response to the demand of the society, a long standing profession has focused on human physical activity. It has built a scientific and philosophical collection of information about

people in motion and has made a description analysis of benefits of regular exercise, commonly known as physical education. The intimate relationship of sport and society influence each other. The trends and patterns of society are reflected in sport and sports performers. The social recognition is an important determinant for sports moral. The other important factor in building up social health of athletes is family influence. Parents are the second forceful factor after coaches to encourage sports participation. The rise of modern sport coincides with the rise of industrial capitalism. By the nineteenth century, sport was seen as a safety-valve and developed as a means of inculcating the right attitude for the ruling class. But women still had no role to play; rather even watching of sports was discouraged. By the end of the nineteenth century, college going girls were certainly healthier than their mothers. Physical education and gymnastics became essential components of girl's education programmes, and ideals of womanhood from the pale beauty of eighteenth century changed into beauty of "perfect health and high spirit". By the beginning of the twentieth century women's participation in sport was reckoned to be a mark of their "real emancipation". Ironically despite the giant step, Pierre de Coubertin, while reviving the Olympic Games, defined, "Women have but one task that of crowning the winners with garlands". In Indian society concentrated efforts have been made to make languages, art, science and technology and sports, all male oriented, indicating a negative attitude. The roles of women in sports have been undermined, under estimated and under scored in India. Girls who want to carve a niche for themselves in the field of sports are not allowed to do so by their parents and elders. They hold the view that the bearing, nursing and rearing children is the role that women have to play. A girl is mostly considered as a liability from every point of view. It would be wise to confess that since primitive ages to modern era, women have been looked upon as second class citizens. The pressures from the society tend to make them extremely submissive as compared to their male counterparts. Today everybody has accepted the usefulness of physical fitness. Physical fitness plays a very important role in the modern age of technology and adventurism, in general all girls who participate in sports, experience higher than average levels of self-esteem. Sports can build confidence and positive body image, which are linked to the lower level of depression.

**Material and Methods**

**Participants:** For the purpose of this study, One thousand subjects were selected randomly for this study. The subjects for the study were five hundred students and their parents. The students belong to Banasthali University, which is residential in nature. Though the campus atmosphere is same for all the students in the institute, the backgrounds of the students are very different; as they belong to different parts of the country and have different social and cultural backgrounds.

**Measures:** The AAPHERD Health Related Physical Fitness test was administered on the students and the Socio-Economic Status Index was filled by their parents. AAPHERD Health Related Physical Fitness test consists of three test items; Cardio- Respiratory Function i.e. 9 minutes run), Body Composition (leanness/fatness) sum of Triceps and Sub-Scapular skin folds & Abdominal and Low Back Hamstring Musculoskeletal Function i.e. Bent-Knee Sit -Ups (60 seconds) and Sit & Reach Test. To collect the information about the educational status of the parents, a Socio-Economic Status Index by Rajiv Lochan Bharadwaj and co. was administered.

**Statistical Techniques:** For the analysis of data, Chi-square test was administered to measure the influence and Pearson's Product Moment Correlation to find out the relationship. The level of significance was 0.05.

**Results**

For the purpose of this study, to assess the influence of educational status of the parents' on health related physical fitness of their daughters; the Chi-Square ( $\chi^2$ ) method was used. In order to assess the relationship of educational status of the parents' with the health related physical fitness of their daughters, the Pearson's Product Moment Correlation method was used. The results are presented in Table 1.1 to Table 5.3.

**TABLE NO. 1.1**  
FREQUENCY DISTRIBUTION OF EDUCATIONAL STATUS OF PARENTS V/S SIT AND REACH ABILITY OF THEIR DAUGHTERS

Educational Status of Parents'	Sit and Reach Ability of Daughters					Total
	0-20 (Poor)	20-40 (Average)	40-60 (Good)	60-80 (V. Good)	80-100 (Excellent)	
0-5 (Lower Edu.)	44	6	7	1	1	59
5-10 (Middle Edu.)	234	32	29	5	5	305
10-15 (Higher Edu.)	106	14	12	4	0	136
Total	384	52	48	10	6	500

**TABLE 1.2**  
CHI-SQUARE TEST

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.543 <sup>a</sup>	8	.896

**TABLE 1.3**  
CORRELATION

	'r'	Std. Error	Approx. t	Sig.
Pearson's R	-.032	.044	-.717	.474

The scores of the table 1.1 indicates that out of 305 students of several courses in the university, whose parents' were having education upto middle level, 266 student's (234+32) sit & reach ability falls under the category of below average. Only 34 students (29+5) were having sit & reach ability falling under the category of very good, which is 11.1%, which is not up to the remarkable level. The table 1.2 indicates that the  $\chi^2$  statistic value of the respondents' sit & reach ability is not affected by their parents' educational status i.e. respondents'  $\chi^2$  value is insignificant. The table 1.3 indicates s that the Pearson's correlation value (R) also favors the result of  $\chi^2$  test of independent.

**Table No. 2.1**  
FREQUENCY DISTRIBUTION OF EDUCATIONAL STATUS OF PARENTS V/S SIT - UPS ABILITY OF THEIR DAUGHTERS

Educational Status of Parents'	Sit - ups Ability of Daughters					Total
	0-20 (Poor)	20-40 (Ave.)	40-60 (Good)	60-80 (V. Good)	80-100 (Excellent)	
0-5 (Lower Edu.)	27	19	8	4	1	59
5-10 (Middle Edu.)	142	100	39	17	7	305
10-15 (Higher Edu.)	69	33	20	11	3	136
Total	238	152	67	32	11	500

**TABLE 2.2**  
CHI-SQUARE TEST

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.996 <sup>a</sup>	8	.857

**TABLE 2.3**  
CORRELATION

		Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Interval by Interval	Pearson's R	.005	.046	.101	.920 <sup>c</sup>

**Interpretation**

The scores of the table 2.1 indicates that out of 305 students of several courses in the university, whose parents' were having education up to middle level, 242 student's (142+100) sit-ups ability falls under the category of below average. Only 56 students (39+17) were sit-ups ability falling under the category of very good, which is 18.4%, which is not up to the remarkable level.

The table 2.2 indicates that the  $\chi^2$  statistic value of the respondents' sit-ups ability is not affected by their parents' educational status i.e. respondents'  $\chi^2$  value is insignificant.

The table 2.3 indicates s that the Pearson's correlation value (r) also favors the result of  $\chi^2$  test of independent.

**TABLE 3.1**  
FREQUENCY DISTRIBUTION OF EDUCATIONAL STATUS OF PARENTS  
V/S RUNNING ABILITY OF THEIR DAUGHTERS

Educational Status of Parents'	Running Ability of Daughters			Total
	0-20 (Poor)	20-40 (Average)	40-60 (Good)	
0-5 (Lower Edu.)	50	9	0	59
5-10 (Middle Edu.)	261	42	2	305
10-15 (Higher Edu.)	120	15	1	136
<b>Total</b>	<b>431</b>	<b>66</b>	<b>3</b>	<b>500</b>

**TABLE 3.2**  
CHI-SQUARE TEST

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.254 <sup>a</sup>	4	0.869

**Table 3.3**  
CORRELATION

		Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Interval by Interval	Pearson's 'r'	-.028	.043	-.619	.536 <sup>c</sup>

The scores of the table 3.1 indicates that out of 305 students of several courses in the university, whose parents' were having education up to middle level, 261 student's running ability falls under the category of poor. Only 42 students are having running ability falling under the category of average, which is 08.3%, which is not up to the remarkable level.

The table 3.2 indicates that the  $\chi^2$  statistic value of the respondents' running ability is not affected by their parents' educational status i.e. respondents'  $\chi^2$  value is insignificant.

The table 3.3 indicates s that the Pearson's correlation value (R) also favors the result of  $\chi^2$  test of independent.

**TABLE 4.1**  
FREQUENCY DISTRIBUTION OF EDUCATIONAL STATUS OF PARENTS  
V/S BODY COMPOSITION OF THEIR DAUGHTERS

Edu. Status of Parents'	Body Composition of Daughters					Total
	0-20 (Poor)	20-40 (Average)	40-60 (Good)	60-80 (V. Good)	80-100 (Excellent)	
0-5 (Lower Edu.)	42	4	10	3	0	59
5-10 (Middle Edu.)	216	40	27	14	8	305
10-15 (Higher Edu.)	96	21	11	8	0	136
<b>Total</b>	<b>354</b>	<b>65</b>	<b>48</b>	<b>25</b>	<b>8</b>	<b>500</b>

**TABLE 4.2**  
CHI-SQUARE TEST

	Value	df	Asymp. Sig. (2-Sided)
Pearson Chi-Square	11.635 <sup>a</sup>	8	.168

**TABLE 4.3**  
CORRELATION

		Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Interval by Interval	Pearson's R	-.025	.042	-.555	.579 <sup>c</sup>

The scores of the table 4.1 indicates that out of 305 students of several courses in the university, whose parents' were having education up to middle level, 256 student's (216+40) body composition falls under the category of below average. Only 41 students (27+14) were having body composition falling under the category of very good, which is 13.4%, which is not up to the remarkable level.

The table 4.2 indicates s that the  $\chi^2$  statistic value of the respondents' body composition is not affected by their parents' educational status i.e. respondents'  $\chi^2$  value is insignificant.

The table 4.3 indicates s that the Pearson's correlation value (R) also favors the result of  $\chi^2$  test of independent.

**TABLE 5.1**  
FREQUENCY DISTRIBUTION OF EDUCATIONAL STATUS OF PARENTS  
V/S TOTAL HEALTH RELATED PHYSICAL FITNESS OF THEIR  
DAUGHTERS

Educational Status of Parents'	Total Health Related Physical Fitness of Daughters						Total
	0-50 (V. Poor)	50-100 (Poor)	100-150 (Ave.)	150-200 (Above Ave.)	200-250 (Good)	300-350 (Excellent)	
0-5 (Lower Edu.)	21	23	12	3	0	0	59
5-10 (Middle Edu.)	110	127	53	13	1	1	305
10-15 (Higher Edu.)	53	56	20	6	1	0	136
<b>Total</b>	<b>184</b>	<b>206</b>	<b>85</b>	<b>22</b>	<b>2</b>	<b>1</b>	<b>500</b>

**TABLE 5.2**  
CHI-SQUARE TEST

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.534 <sup>a</sup>	10	.990

**TABLE 5.3**  
CORRELATION

		Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Interval by Interval	Pearson's R	-.031	.044	-.682	.496 <sup>c</sup>

The scores of the table 5.1 indicates that out of 305 students of several courses in the university, whose parents' were having education up to middle level, 237 student's (110+127) health related physical fitness level falls under the category of below poor. Only 66 students (53+13) were having health related physical fitness level falling under the category of above average, which is 21.6%, which is not up to the remarkable level.

The table 5.2 indicates that the  $\chi^2$  statistic value of the respondents' health related physical fitness level is not affected by their parents' educational status i.e. respondents'  $\chi^2$  value is insignificant.

The table 5.3 indicates that the Pearson's correlation value (R) also favors the result of  $\chi^2$  test of independent.

### Discussion

The analysis of the Chi-Square test indicates that the educational status of the parents, which shows their academic qualification did not have any influence on the low-back hamstring musculoskeletal flexibility (Sit and Reach) ability, abdominal strength (Sit-up's) ability, cardio-respiratory (9 minutes run) ability, body composition (sum of triceps and sub-scapular skin folds) and total health related physical fitness (sum of all the four health related physical fitness components) of their daughters. Thus hypothesis is accepted.

The finding also shows that there was no significant relationship between all the Health Related Physical Fitness Parameters i.e. the Sit & Reach Ability, Sit-up's Ability, Running Ability, Body Composition and Total Health Related Physical Fitness of the daughters with regard to educational status of their parents. The results of the study are similar to the results of the study conducted by Yang, Xiao Lin. Telama, Risto. Lauri, Laakso(6).

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