



ECHOCARDIOGRAPHIC STATUS OF ADOLESCENT STUDENTS OF SCHOOLS WITH OR WITHOUT SPORTS INTERVENTIONS - A WELL KNOWN BUT UNDER REPORTED CLINICAL ENTITY

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Abstract

This study demonstrates that adolescents who have sports interventions available in their school, have better echocardiographic status as compared to those adolescents where no sports interventions are available. Previous work concerning echocardiographic status has been generally conducted on patients of heart diseases and focus was not given to the basic roots and causes of this drastic aspect. Echocardiographic status was performed in the present study on male adolescents. There were two groups, A and B, Group A contains those schools who were studying in the schools those who have sports interventions where those who do not have sports interventions were taken in group B. Subjects were selected from different public schools and purposive random sampling techniques were used for the selection of subjects. All of them underwent clinical and laboratory echocardiography evaluation. Ultrasound scanning device was used to provide the information about the functioning of the heart. To find out the difference between the groups t-test was used as statistical techniques. The result indicated that subjects of Group A have better heart functioning as compared to Group B.

Keywords: Echocardiographic, Adolescent, Students and Sports Infrastructure.

Introduction

A healthy body supports a healthy mind and sports provide an excellent way for the youngsters to stay healthy. It also decreases the risk of certain disorders and concomitant with more general health benefits. Health is a multidimensional concept because it is shaped by biological, social, economic, and cultural factors. Health is not merely the absence of disease but is influenced and shaped by the access to basic needs like food security, safe water supply, and sanitation and health services. In the current scenario, the most emerging issue is the increased focus on the use of positive youth development interventions for preventing adolescent health risk behaviors. "The emerging issue is the increased focus on the use of positive youth development interventions for preventing adolescent health risk behaviors" (Centers for Disease Control and Prevention 2010 and Bernat 2006). Still, significant death diseases and illness are prevalent among adolescents. Therefore, while individual health is important, it is necessary to delineate its linkages with the physical wellbeing in which people live. Children's health is an important concern for all societies since it contributes to their overall development. Health, nutrition, and education are important for the overall development of the child, and these three inputs need to be addressed in a comprehensive manner. While the relationship between health and education



is seen more in terms of the role that the latter plays in creating health awareness and health status improvements which is not adequately represented in the debates is the reciprocal relationship between health and education especially when it comes to children.

Methodology

Two hundred (200) informed and agreeing adolescents volunteers were prospectively studied in the present investigation ,who were studying in different public schools of Punjab (India). Firstly the check list was prepared to substantiate the sports interventional facilities among schools. On the basis of this, all schools were divided into two groups (Group A&Group B) consist of 100 samples in each samples.. They were divided into two groups as follows . In group A those schools were involved who have sports infrastructure and where as in Group B those school were involved who do not have sports interventions. .Ultrasound scanning device was used to provide the information about the functioning of the heart. The investigator used purposive random sampling technique for the selection of sample and schools. Subjects also questionable confidently about the use of steroids and any who reported such use were excluded from the study. Ultrasound scanning device standardized by company named Firm All Pro was used. SPSS version 17.0 was used for data analysis. To measure the significant difference between Group A and Group B t- test was applied as a statistical tool. Each group consisting of 100 samples.

Results

TABLE 1
SIGNIFICANT DIFFERENCE IN MEAN SCORE OF GROUP A AND GROUP B ON THE VARIABLE ECHOCARDIOGRAPHIC

Group	Mean	SD	Df	t-value	P-value
Group A	57.87	2.53	198	3.77**	P <.05
Group B	56.07	2.41			

**Significant at 0.01 level

Table and figure 1 reveals that the mean score of group A and group B was found to be 57.87 and 56.07 respectively whereas standard deviation was 2.53 of A group and 2.41 of B group. The t- value 3.77 was found to be statistically significant at 0.05 level of confidence. The result was indicates that the subjects of Group A found better in comparison to Group B in their heart functioning.

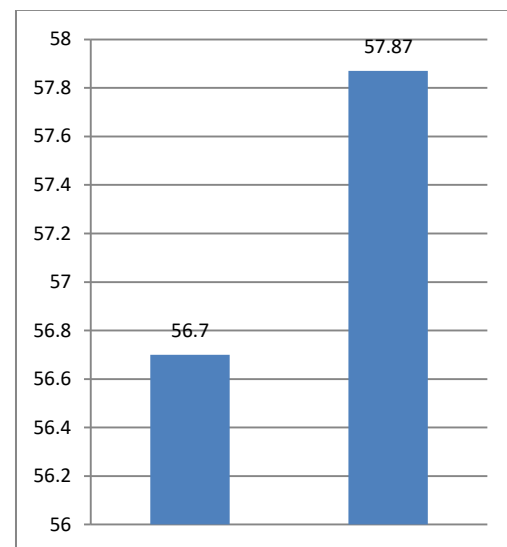


Figure 1
Show the Comparison of Echocardiography between with and Without Sports Infrastructure male Adolesences students.



Discussion of Findings

Significant difference was assessed between the Group A and Group B on the variable Echocardiographic status. Group A subjects were found better on this component. It can be interpreted from the results that sports helps to improve heart health, and can even reverse some risk factors of heart disease. Like all muscles, the heart becomes stronger as a result of activities, so it can pump more blood through the body with every beat and continue working at maximum level, if needed, with less strain. The resting heart rate of those who exercise is also slower, because less effort is needed to pump blood. Further, it can be said that a person who exercises often and vigorously has the lowest risk for heart disease, but any amount of exercise is beneficial. Studies consistently find that light-to-moderate exercise is even beneficial in people with existing heart disease. Note, however, that anyone with heart disease or cardiac risk factors should seek medical advice before beginning a workout program. Exercise has a number of effects that benefit the heart and circulation (blood flow throughout the body). These benefits include improving cholesterol and fat levels, reducing inflammation in the arteries, helping weight loss programs, and helping to keep blood vessels flexible and open. Studies continue to show that physical activity and avoiding high-fat foods are the two most successful means of reaching and maintaining heart-healthy levels of fitness and weight.

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