

An investigation of Abdominal strength and endurance from region point of view

Dr. Chiragkumar A. Patel^a and Mr. Kamlesh N. Patel^b

^aAssociate Dean, Sports and Physical Education, Ganpat University

^bPhysical Training Instructor , Ganpat University

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Abstract : The need of physical activities in today's life and unnatural environment is very dynamic. Therefore, the effect of Regular Physical activities on body is to be revised considering the current working conditions. It has been proved by various training method and related literature that physical workout is really helpful in maintaining overall fitness. The aim of this study is to do comparison between rural and urban students on the basis of Abdominal strength and endurance. There were 50 students of rural and 50 of urban, students were selected from *Secondary Education schools* selected students age between 13 -15 years. Samples selected were clearly instructed in detail about the test activities in advance, so that they can give their best in the test. Samples were told to do the warm-up exercise to avoid injuries. The researcher himself was the coordinator of the test and while conducting test, help was asked from the experts, friends and classmates. This study is an attempt to understand the Abdominal strength and endurance of rural and urban area students. Literature on physical training have not discussed the role played by *Sit ups* and its impact on performance in terms of Abdominal strength and endurance. Present study is an experimental approach to understand cause and effect relationship. The main Object of this study is to know the Abdominal strength and endurance of rural and urban area students.

Key Words: Abdominal strength, Abdominal strength, sit ups test, rural and urban

I. Introduction

In the primitive days, man used to work hard and lived a satisfactory life, but in the present life humans do not want to spare some time for physical fitness. Good health is the sign of best physics. Countries best citizen dies in the best physics of an individual. If the needs of every citizen are fulfilled, the real wealth of every citizen is protected. Russian philosopher has rightly quoted that "first sports and then science ". In nowadays life, health is very important to maintain. Physic is not sold in the market; to achieve a good physic is very important. Good physic is very much important in modern days. People are not taking care to protect the good physic. To create a good image, a man should have to maintain a good relation with others. He should create a good relation socially, mentally, emotionally, academically to get a good physic.

In 21st century, to maintain a good physic some discipline and physical fitness rules are there. To live healthy and have a fit body, one needs to follow all these rules. Now-a-days, life has become so stressful that people do not get time for their own health and due to this they can't live long. There is a famous saying "healthy soul lives in healthy body". This is a very effective saying. If you have a healthy body then you will definitely have a healthy soul and healthy body also leads to long life. Healthy soul and mental fitness is closely related, and we have to take care of both. Your body is a real wealth of which one should take care. To complete a work, one requires an attentive mind with a healthy body and healthy body is dependent on mental fitness, as both are inter-related. Body and mind are two such important parts that they cannot be separated from each other. If you will separate these two important parts then it will become impossible to survive. So mental fitness as well as healthy body, both is important. From our childhood, we should take care of our body. We should be physically and mentally fit. One can achieve mental and physical fitness by taking part in various games. By taking part in games, our body develops naturally and achieves fitness. One should take part in at least one game to gain an active mind and healthy body.

In our country, India, physical fitness awareness is very less. Everyone runs for money and success by keeping their health on the fire. People in metro cities like Mumbai, Delhi, etc. forget taking rest. They work for 18 – 19 hours for money. Due to this they lose mental activeness and physical fitness. They even do not take nutritious diet. Let's not go higher, even in schools and colleges, teachers and professors pay more attention on studies that to theoretical. They treat games as wastage of time and as you know "time is money". But they forget one thing that...." Health is wealth". In institutes, there should be various tournaments for games so that students take part in games. In institutes, a teacher ranks students according to the answer sheets he/she has filled, not according to physical and mental fitness. A physical fitness activity also has great values. By gaining physical fitness, one also understands his/her responsibilities towards society. He / she become a responsible citizen of the country. And if any person achieves physical fitness and mental alertness, then he / she will never fall ill during time of examination, which is generally seen in students.

Through physical education, one gains tolerance power, active mind and patience. Tolerance power and patience is very important in other aspects of life. There are many situations in life to come where one has to show patience and tolerance power, which can be gained through physical education. This is the era of technology, where new ideas are generated and required. Young generation is coming up and showing their talent. But to give or generate new ideas at right time one need to have an active mind and should have mental as well as physical fitness. Without mental alertness one cannot generate new ideas at right time. Until and unless you have active mind, you cannot give ideas which is really required. Physical fitness is a representative of physical education importance. If a person wants to be successful in this life, he should have proper planning, that can only be done through active mind which can only be situated in healthy body. Healthy body also gets a good resistant power which fight from illness. Scientifically, this has been proved that if a person has a good resistant power then he will have good physic. So good physic also maintains a good mind and to win any competition one requires an "active mind". Even after the scheme, people were not much aware of physical fitness and did not contribute much towards their work. Now-a-days, youth is contributing maximum towards the nation, but on the other hand youth is also losing their physical fitness and mental stability. If a nation wants to sound good enough then the nation should have physically and mentally fit youth, who can support the nation at the time of need. Pertaining good health means maintaining good balance between nervous and muscular system of our body. Physical education is very necessary and important.

II. Literature review

According to Diener et al., (1995), endurance and Abdominal muscle strength has been assed with the help of 1-minute full sit-up test. Though previous studies suggest that half sit-ups test as more appropriate test to measure the strength and endurance capabilities. With the use of 142 participants, Diener et al., (1995) concluded that half sit-up test and full sit up test as more reliable and valid test to measure the strength of muscle and to check the endurance. In addition to that, Sekendiz et al., (2007) explored the role of Pilates exercise on lower back strength and abdominal power. The study assessed body fat and body mass index as post and pre-test data for their study. The study explored the effect of Pilate exercise abdominal and lower back muscular strength, abdominal muscular endurance and posterior trunk flexibility in sedentary adult females regardless of the fact that the body weight and fat percentages did not differ significantly. Building upon the study of Diener et al., (1995), present study tries to postulate,

H₁: There is a difference in students' performance in endure sit ups test among rural and urban area

III. Research Methods

The aim of this research is to take the students of rural and urban *Secondary Education* schools, 100 students were taken into consideration and divided into two groups of 50-50 students each. All the students were given advised about the test. First the students has to rest on back with the support of bend knees, ankle should touch the ground and hips and ankle should not have the distance more than 12 inches, then fingers of both hands, crossing each other supporting the backside of the head. Elbow and head should touch the knees and strengthens the muscles of the stomach. After completing these all procedures, one sit ups are considered. When the elbows touch the ground, player can come into the real position. After getting the signal from the trainer, player can start sit ups, and at that time stop watch is started and counting unto 60 sec. is done and after 60 sec stop signals is given. After 60 sec players can record how much sits ups are done in 60 sec.

IV. Data Analysis

To test the students of rural and urban, “t” test is taken, and numerical limit is given 0.001. I. The main aim of the research is to select students of *Secondary Education* schools, age between 13-15 years and investigation of Abdominal strength and endurance from Selected students.

TABLE 1 Subject information.

GROUP	NO. OF SUBJECTS
Rural	50
Urban	50
Total	100

TABLE 2 Sit ups test of rural and urban youth to compare and measure the Abdominal strength and endurance

Group	No.	Mean	Std. deviation	“t”	probability
Rural	50	23.08	8.29	2.33	accepted
Urban	50	19.10	8.71		

According to table 2, $t = 2.33$. Which is greater than 0.01 so the null hypothesis is rejected. So there is a comparison between both the group and it is towards the rural area students. In comparison with urban youth, rural youth have more Abdominal strength and endurance.

V. Discussion

The study aims to understand the effect of organized test on player’s Abdominal strength and endurance. Physical fitness test (sit ups) was taken as independent variable and measured through sit ups training methods. Data was collected from 100 students of Secondary Education schools, 13-15 years of age and studying in various school of Gujarat. The main finding of the study was area of residence affects students' performance in endure sit ups. The rural students have higher endurance sit ups as compared to urban students. The plausible reason for such endurance high among rural students is the routine physical work needs as compared to urban students. Further, students in urban area has more comfortable life, having access to many resources. Therefore, urban students have lesser opportunities where they need to put more physical work, as compared to students in rural area.

Further, urban areas have access to well-developed transportation and infrastructure that facilitates less physical work. While rural area students have to undergo many activities in the lights of less developed infrastructure. Apart, rural families are still dependent on agriculture-based work and therefore students of such families need to help the parents in agriculture that stresses more physical work. Thus, it is inferring an opportunity for the selectors or sports teachers to select students for sports, athletics or other activities that requires more physical endurance. More camps or drives should be made in rural areas to identify talented students with right physical strength, that helps government to promote the two national and international level.

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