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## Comparative study of upper body strength among rural and urban students

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### Abstract

Obesity and unfitness are becoming a major concern among young people due to sedentary lifestyle now-a-days. WHO warns the world about this but due to overburden and hectic scheduled, youngsters do not find time for own self and life is passing without the necessary physical propensities, the need for physical activities is very high at this critical time. The aim of this research study is to perform comparison between rural and urban students on the basis of Upper body strength. The main Objective of this study is to know the Upper body strength of rural and urban area students. There were 50 students drawn from rural and 50 students from urban area selected from *Secondary Education schools* ranging between age group 13 -15 years.. Current Literature on physical training has not explored the role played by pull-ups and its impact on performance in terms of Upper body strength. Present study is an experimental approach to understand the cause and effect relationship. Therefore, the action of regular physical activities for the healthy body is essential for the sustenance due to current situation of pandemic. Through various training methods, related literature and research, it has been proved that physical exercise keeps the individual mentally and physically fit, whole family and consequently societies and nation as well. The main finding of the study was area of residence affects students' performance in endure pull up. The rural students have higher upper body strength pull ups as compared to urban students.

**Keywords:** Upper body strength, pull-ups test, rural and urban

### Introduction

Now the new generation is fast, mature and in order to survive with new generation, one has to be physically fit. One has to improve his/her thinking power to such a level that he/she may survive in this fast changing global world. One has to be well prepared and should have proper co-ordination with his/her colleagues. The whole world is full of challenges and there is high level of complexity in all facet of life including job. If a person is physically fit then he/she will be able to face the likely challenges of his world. A physically and mentally fit person cannot be defeated at any time or any place.

The American association of health, physical fitness, re-creation and dance has taken physical fitness seriously and came forward with new ideas, and thoughts. In physical testing the physical fitness is found essential. In 1959, DR. Pave Hansi Hare association published a report on national development. This American association of health, physical fitness, re-creation and dance has conducted a youth test and survey with well description, which was even published in the newspaper in 1969. As everyone know that we had to face a long time under British govt., but after independence a scheme was started to improve physical fitness of Indians in 1959. This was an effective scheme to improve physical fitness of Indian youth.

In physical training leadership, time, ideas, need for money but more to less is not allowed. In this field, rewards will be given. Now we can see a creative life in front of us. There should be regular Programme for improving the physical fitness of the body. For systematic planning this type of Programme is very necessary to improve physical fitness which leads to a good physic and well-built body is also necessary for effective performance in doing any job.

The reasons for the betterment of rural students in physical fitness with respect to urban students were high involvement of rural students in agriculture related activities, the way of life (More activity oriented routine) in rural areas, more open spaces and play fields compared to urban areas which is densely populated. (Singh K, 2016) <sup>[16]</sup>. Socioeconomic status,

ethnicity and area of residence (Urban or rural) to be significant influences on the level of physical fitness among students (Dollman, Loucaides CA, 2005) [4]

In today's turbulent times physical fitness is very critical aspect of the health (Singh *et al.*, 2011) and it is very important to maintain health which reduces the incident of future health related risk (Manmeet *et al.*, 2010) Physical fitness is defined as body's ability for efficient function, enjoying th time spent, confining diseases that related to health and copying with emergencies (Zainal fikiri *et al.*, 2012)

For doing any type of physical activities, one need to have speed, regularity, patience is very much important physical fitness also leads to a good personality, smart looking. Researchers A.A.H.P.D.R.D.YOUTH decided to conduct a physical test. For this test taluka Mehsana was selected and students, age group between 13 -15 years, should maintain best physic.

Doing regular exercises of muscles, joints, etc. Through brain is also developed. By exercises new spirit is created. For best physic one needs to do constant exercise and take appropriate diet. Physical abilities losses if not exercised same way if any machine is not lubricated at time it losses its shine. But good physic cannot reflect one's life image. Person with positive attitude can obtain everything life. We should always have positive attitude in life because with this attitude we can achieve what we cannot achieve with negative one.

Sociologist lives worth social welfare of citizen. The life of every citizen living in different regions of India is very busy. People having different castes, languages, and business are found in factories, industries, unemployment are all inter related.

The life of city people is full of stress and tensions. They do not have time for their own health. So at that place physical awareness is very much required. This study would be functional to teacher of physical education and guide as well to check the physical ability of player. The result of these tests would be helpful for sports teacher and guide during the training method program to improve the performance according to gaming activity. Through this study, player's speed, blasting energy and baring capacity has significant impact on the result for same. Studies related towards selection of students will be helpful. Students of village & cities level relative physical abilities should be fulfilled. From the above studies we can have a clear judgment of two different groups, can be compared.

**Literature Review**

In the paper, Resistance Training with Creatine Monohydrate Improves Upper-Body Strength in Patients with Parkinson Disease: A Randomized Trial in which resistance training of 12-week time span was conducted fortified with creatine supplementation increasing upper-body strength and chair stand ability than resistance training done alone. Author concluded the result of the study on Parkinson patients demonstrated that creatine supplementation can increase the advantage of resistance training in patients with PD.

In paper, the effects of heavy upper-body strength training on ice sledge hockey sprint abilities in world class players author concluded in the study that the effects of heavy upper body strength training on ice sledge hockey sprint abilities in hockey players indicated heavy upper body strength training is found to be effective tool for improving spirit abilities in sports where upper body acceleration and maximal speed is useful for performance. (Hansen, 2014) [15]

In the paper Validity and reliability of a one-minute half sit-up test of abdominal strength and endurance was reliable, valid and it was used as an alternative mode of assessing abdominal strength and endurance. (Diener, M. H., Golding, L. A., & Diener, D, 1995) [5]

In research article, author concluded that Modern Pilates mat exercises contributed to enhance quality of life span in sedentary adult females through improvements in strength both abdominal and lower back, posterior trunk flexibility and abdominal muscular endurance. (Betu` *et al.*, 2006)

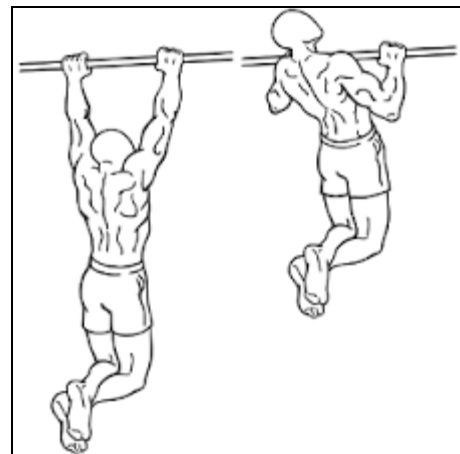
**H1:** There is a difference in students' performance in endure Pull up test among rural and urban area

**Research Methods**

The aim of this research is to take the students of mahesana taluka, rural and urban secondary education, 100 students were taken into consideration and divided into two groups of 50-50 students each. All the students were given advised about the training and test.

The motivation behind the selection at mahesana taluka to have a comparison between rural and urban area student's best upper body strength between 13-15 years age. This test is limited only for 13 – 15 years of age. The pull-up test measures the upper body strength

Testing Procedure: The single bar should be at a height when the candidate's feet cannot touch the ground while testing and the palms of the hands holding the bar should be on the opposite side of the body. Candidates should take part of his chest with a single bandage and then he should pull his body upwards. When the candidate returns, the candidate's elbow should be straight. Upon receiving instruction from the tester, the player may begin to pull-up, and a complete pull-up is counted as one point. The points are counted according to the number of pull-ups and the candidate is given only one chance



**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 mahesana taluka, rural and urban secondary education, age between 13-15 years and investigation of upper body strength from Selected students.

**Table 1:** Subject information

| Group | No. of Subjects |
|-------|-----------------|
| Rural | 50              |
| Urban | 50              |
| Total | 100             |

**Table 2:** Pull ups test of rural and urban youth to compare and measure the upper body strength

| Group | No. | Mean | Std. deviation | "t"  | probability |
|-------|-----|------|----------------|------|-------------|
| Rural | 50  | 4.70 | 3.19           | 2.75 | accepted    |
| Urban | 50  | 3.10 | 2.58           |      |             |

According to table 2,  $t = 2.75$ . 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 upper body strength.

### Discussion

The study aims to understand the effect of organized test on player's upper body strength. Pull up test was taken as independent variable and measured through pull ups training methods. Data was collected from 100 students of mahesana taluka, rural and urban secondary education, 13-15 years of age and studying in various school of Mahesana Taluka. The main finding of the study was area of residence affects students' performance in endure pull up. The rural students have higher upper body strength pull ups as compared to urban students. The plausible reason for such upper body strength 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.

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