



International Journal of Physical Education, Sports and Health

P-ISSN: 2394-1685
E-ISSN: 2394-1693
Impact Factor (ISRA): 4.69
IJPESH 2015; 2(1): 155-157
© 2015 IJPESH
www.kheljournal.com
Received: 21-07-2015
Accepted: 23-08-2015

Sunil Kumar

Assistant Professor, Dept. of
Physical Education, C.D.L.U,
Sirsa, Haryana, India.



A comparative study of physical fitness components between rural and physical education boys students

Sunil Kumar

Abstract

The main purpose of the current study is to find out the compression of Physical Fitness Components between Rural and Physical Education Boys Students. To conduct the study, 20 rural and 20 physical education boys' students from different physical education schools and different schools which is situated in villages in district Sirsa (Haryana) were chosen of age between 14-19 years as sample. AAHPHERD youth physical fitness test was administered to the subjects strictly following the instructions as given in the introduction to measurement in the physical education and exercises sciences manual detailed club for administering each test item are given below. Pull -ups for boys, sit-up test, shuttle run, standing broad jump, 50 meters dash, and 600 yards run-walk. Result shows that rural and physical education boys students have no significant difference in physical fitness components.

Keywords: Physical fitness, Exercise, motor skills, performance

Introduction

Physical fitness is a general state of health and well-being and, more specifically, the ability to perform aspects of sports, occupations and daily activities. Physical fitness is generally achieved through proper nutrition, moderate-vigorous physical exercise, physical activity, and sufficient rest.

Before the industrial revolution, fitness was defined as the capacity to carry out the day's activities without undue fatigue. However, with automation and changes in lifestyles physical fitness is now considered a measure of the body's ability to function efficiently and effectively in work and leisure activities, to be healthy, to resist hypokinetic diseases, and to meet emergency situations.

Fitness is defined as the quality or state of being fit. Around 1950, perhaps consistent with the Industrial Revolution and the treatise of World War II, the term "fitness" increased in western vernacular by a factor of ten. Modern definition of fitness describe either a person or machine's ability to perform a specific function or a holistic definition of human adaptability to cope with various situations. This has led to an interrelation of human fitness and attractiveness which has mobilized global fitness and fitness equipment industries. Regarding specific function, fitness is attributed to personnel who possess significant aerobic or anaerobic ability, i.e. strength or endurance. A holistic definition of fitness is described by Greg Glassman in the CrossFit journal as an increased work capacity across broad times and modal domains; mastery of several attributes of fitness including strength, endurance, power, speed, balance and coordination and being able to improve the amount of work done in a given time with any of these domains. A well rounded fitness program will improve a person in all aspects of fitness, rather than one, such as only cardio/respiratory endurance or only weight training.

A comprehensive fitness program tailored to an individual typically focuses on one or more specific skills, and on age or health-related needs such as bone health. Many sources also cite mental, social and emotional health as an important part of overall fitness. This is often presented in textbooks as a triangle made up of three points, which represent physical, emotional, and mental fitness. Physical fitness can also prevent or treat many chronic health conditions brought on by unhealthy lifestyle or aging. Working out can also help some people sleep better and possibly alleviate some mood disorders in certain individuals.

Developing research has demonstrated that many of the benefits of exercise are mediated through the role of skeletal muscle as an endocrine organ. That is, contracting muscles release

Correspondence

Sunil Kumar

Assistant Professor, Dept. of
Physical Education, C.D.L.U,
Sirsa, Haryana, India.

multiple substances known as myokines which promote the growth of new tissue, tissue repair, and various anti-inflammatory functions, which in turn reduce the risk of developing various inflammatory diseases.

The Physical Activity Guidelines for Americans was created by the Office of Disease Prevention and Health Promotion. This publication suggests that all adults should avoid inactivity to promote good health mentally and physically. For substantial health benefits, adults should participate in at least 150 minutes (two hours and 30 minutes) a week of moderate-intensity, or 75 minutes (1 hour and 15 minutes) a week of vigorous-intensity aerobic physical activity, or an equivalent combination of moderate- and vigorous-intensity aerobic activity. Aerobic activity should be performed in episodes of at least 10 minutes, and preferably, it should be spread throughout the week. For additional and more extensive health benefits, adults should increase their aerobic physical activity to 300 minutes (5 hours) a week of moderate-intensity, or 150 minutes a week of vigorous-intensity aerobic physical activity, or an equivalent combination of moderate- and vigorous-intensity activity. Additional health benefits are gained by engaging in physical activity beyond this amount. Adults should also do muscle-strengthening activities that are moderate or high intensity and involve all major muscle groups on 2 or more days a week, as these activities provide additional health benefits.

In order for physical fitness to benefit the health of an individual, an unknown response in the person called a stimulus will be triggered by the exertion. When exercise is performed with the correct amount of intensity, duration and frequency, a significant amount of improvement can occur. The person may overall feel better but the physical effects on the human body take weeks or months to notice and possibly years for full development. For training purposes, exercise must provide a stress or demand on either a function or tissue. To continue improvements, this demand must eventually increase little over an extended period of time. This sort of exercise training has three basic principles: overload, specificity, and progression. These principles are related to health but also enhancement of physical working capacity.

Physical activity affects one's blood pressure, cholesterol levels, blood lipid levels, blood clotting factors and the strength of blood vessels. All factors that directly correlate to cardiovascular disease. It also improves the body's use of insulin. People who are at risk for diabetes, Type 2 (insulin resistant) especially, benefit greatly from physical activity because it activates a better usage of insulin and protects the heart. Those who develop diabetes have an increased risk of developing cardiovascular disease. In a study where a sample of around ten thousand adults from the Third National Health and Nutrition Examination Survey, physical activity and metabolic risk factors such as insulin resistance, inflammation, dyslipidemia were assessed. The study adjusted basic confounders with moderate/vigorous physical activity and the relation with CVD mortality. The results displayed physical activity being associated with a lower risk of CVD mortality that was independent of traditional metabolic risk factors.

The American Heart Association recommendations include the same findings as provided in the WCRF/ AICR recommendations list for people who are healthy. In regards to people with lower blood pressure or cholesterol, the association recommends that these individuals aim for around forty minutes of moderate to vigorous physical activity around three or four times a week.

Achieving resilience through physical fitness promotes a vast

and complex range of health related benefits. Individuals who keep up physical fitness levels generally regulate their distribution of body fat and stay away from obesity. Abdominal fat, specifically visceral fat, is most directly affected by engaging in aerobic exercise. Strength training has been known to increase the amount of muscle in the body, however it can also reduce body fat. Sex steroid hormones, insulin, and an appropriate immune response are factors that mediate metabolism in relation to the abdominal fat. Therefore, physical fitness provides weight control through regulation of these bodily functions.

Centers for disease control and prevention provide lifestyle guidelines of maintaining a balanced diet and engaging in physical activity to reduce the risk of disease. The WCRF/ American Institute for Cancer Research (AICR) published a list of recommendations that reflect the evidence they have found through consistency in fitness and dietary factors that directly relate to Cancer prevention.

The WCRF/AICR recommendations include the following:

- "Be as lean as possible without becoming underweight
- Each week, adults should engage in at least 150 minutes of moderate intensity physical activity or 75 minutes of vigorous intensity physical activity
- Children should engage in at least one hour of moderate or vigorous physical activity each week
- Be physically active for at least thirty minutes every day
- Avoid sugar, limit the consumption of energy packed foods
- Balance your diet with a variety of vegetables, grains, fruits, legumes, etc.
- Limit sodium intake, the consumption of red meats and the consumption of processed meats
- Limit alcoholic drinks to two for men and one for women a day"

These recommendations are also widely supported by the American Cancer Society. The guidelines have been evaluated and individuals that have higher guideline adherence scores substantially reduce cancer risk as well as help towards control with a multitude of chronic health problems. Regular physical activity is a factor that helps reduce an individual's blood pressure and improves cholesterol levels, two key components that correlate with heart disease and Type 2 Diabetes. The American Cancer Society encourages the public to "adopt a physically active lifestyle" by meeting the criteria in a variety of physical activities such as hiking, swimming, circuit training, resistance training, lifting, etc. It is understood that cancer is not a disease that can be cured by physical fitness alone, however because it is a multi-factorial disease, physical fitness is a controllable prevention. The large associations tied with being physically fit and reduced cancer risk are enough to provide a strategy to reduce cancer risk. The American Cancer Society assortments different levels of activity ranging from moderate to vigorous to clarify the recommended time spent on a physical activity. These classifications of physical activity consider the intentional exercise and basic activities done on a daily basis and give the public a greater understanding by what fitness levels suffice as future disease prevention.

Statement of the Problem

A Comparison of Physical Fitness Components between Rural and Physical Education Boys Students

Methodology

To conduct the study, 20 rural and 20 physical education boys'

students from different physical education schools and different schools which is situated in villages in district Sirsa (Haryana) were chosen of age between 14-19 years as sample. AAHPHERD youth physical fitness test was administered to the subjects strictly following the instructions as given in the introduction to measurement in the physical education and exercises sciences manual detailed club for administering each test item are given below. Pull –ups for boys, sit-up test, shuttle run, standing broad jump, 50 meters dash, and 600 yards run-walk.

Result

Table 1: Mean and ‘t’ values of rural and physical education students on selected physical fitness components

Physical fitness components	Mean		Difference between Mean	‘t’ value
	Rural Boys	Physical Education		
Pull-ups	2.84	2.16	0.68	0.17
Sit-ups test	2.97	3.13	0.16	0.08
Shuttle run	1.13	0.89	0.24	0.03
Standing broad jump	2.38	1.99	0.39	0.14
50 mtr dash	6.27	6.46	0.19	0.02
600 yards run walk	2.48	2.42	0.06	0.01

Table ‘t’ value = 2.05, level of significance at 0.05

An examination of Table No.1 reveals that pull-ups mean of rural boys and physical education boys is 2.84 and 2.16 respectively, ‘t’ value is 0.17 which is less than 2.05, so, rural boys and physical education boys have no significant difference in pull-ups.

Sit-ups mean of rural boys and physical education boys is 2.97 and 3.13 respectively, ‘t’ value is 0.08 which is less than 2.05, so, rural boys and physical education boys have no significant difference in sit-ups.

Standing Broad Jump mean of rural boys and physical education boys is 2.38 and 1.99 respectively, ‘t’ value is 0.03 which is less than 2.05, so, rural boys and physical education boys have no significant difference in standing broad jump.

50 mtr dash mean of rural boys and physical education boys is 6.27 and 6.46 respectively, ‘t’ value is 0.02 which is less than 2.05, so, rural boys and physical education boys have no significant difference in 50 mtr dash.

600 yards run walk mean of rural boys and physical education boys is 2.48 and 2.42 respectively, ‘t’ value is 0.01 which is less than 2.05, so, rural boys and physical education boys have no significant difference in 600 yards run walk.

Discussion

The level of significance chosen was 0.05. The t ratio of both group was compared and it was found that, the different between the groups compared and it was found that, the different between the groups were not significant.

Conclusion

Based on the limitation and delimitation the study was concluded that, there would be significant difference in the fitness level of the rural boys and physical education students. It indicates the awareness and importance of fitness among the youth.

References

1. Chatterji, Bhandopadya A. Skin fold thickness, body fat percentage and body mass index in obese and non obese of Indian boys, 2006.

2. Elliot BC. Back injuries and the fast bowler in cricket, 2000.
 3. Gabbet TJ. Physiological and anthropometric characteristics amateur rugby Players, 2000.
 4. Stretch RA. Anthropometric profiles of first class cricket players, 1987.
 5. Test, Measurement and Evaluation of Physical Education – Dr.P.L.Karad
 6. https://en.wikipedia.org/wiki/Physical_fitness
 7. Sports Training-Alloway, 101-120.
 8. Exercise Programme for elders Norman van kay, 27-30.
 9. Anatomy and Physiology for elders Missouri, 174-182.