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Association between actual and perceived endurance in high school students

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Abstract

The world is progressing in science, medicine, engineering and other aspects and the progress should not hinder the health aspects of an individual. Health is considered to be an essential component in the wholesome development of an individual in socio-cultural dimensions of life. Health related Physical fitness is used as a way to measure an Individuals fitness. Endurance is the ability to continue with an unpleasant or difficult situation, experience, or activity over a long period of time. Self-body image or self- appearance play a vital role in uplifting our state of physical, mental as well as social health behavior. The purpose of the present investigation was to examine the correlation between actual and perceived endurance in under graduate students. The subjects for the present study were four hundred high school students studying in various schools of Shivamogga district. Beep test was used for measuring the actual endurance capacity of subjects under investigation. Data on perceived endurance of subjects was measured using a five point likert scale. Descriptive statistics including Mean, Standard Deviation and range were calculated in the study. The hypothesis was tested using Paerson product moment correlation coefficient. There is significant *weak* positive linear relationship between measured and perceived endurance in girl's section. In boy's section, it is found that there is significant *moderate* positive linear relationship between measured and perceived endurance.

Keywords: Fitness, endurance, perceived, measured, beep test, high school students

Introduction

The world is progressing in science, medicine, engineering and other aspects and the progress should not hinder the health aspects of an individual. The change in the society has a bad effect on the health of the people and it leads to an unhappy and unhealthy life style which invites many problems in our health and health of the society.

Health is considered to be an essential component in the wholesome development of an individual in socio-cultural dimensions of life. Promotion and maintenance of health is taken very seriously in the modern context. Every individual should take care of his health on the daily basis. To remain fit we should eat healthy and exercise daily to avoid non-communicable diseases.

Across the world many of the people are suffering due to stressful daily routine that they are following in their life. Under the directions of World Health Organization health day to draw the attention of the people regarding health of the individual as well as the global health. World health day provides scope to create awareness in the common people regarding health issues and concern regarding health for the uplifting of the next generation. Health should focus on increasing life expectancy by maintaining good health habits.

Our day to day requirements are changing because of the life style and increase in the technological aspects. Physical fitness is very much essential in modern day. The activity to carry out the daily work with care and consciousness. The fatigue Factor should not be there to do our daily routine activities and we should enjoy our work.

Health related Physical fitness is used as a way to measure an Individuals fitness. Health related physical fitness can be useful in maintaining physical fitness in day to day life. There are five components of health related physical fitness: Cardiovascular Endurance, Muscular Endurance, Muscular Strength, Flexibility and Body Composition

The individual gives more emphasis on health and day to day living because both risk and safer factor in social environment are crucial. Knowing our own body mechanism, we can

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avoid many non-communicable diseases like obesity, hypertension, heart diseases and cancer. The knowledge of one's own health formulated in the earlier life can give good result in the future days. The basic idea regarding attitude of weight control, eating disorders are very important to know our health and fitness very clearly. Self-body image or self-appearance play a vital role in uplifting our state of physical, mental as well as social health behavior. Psychological factors like negative self-body images may spoil our life which leads to denial impression while we get older and older. In these days, life style as an important factor of health for every individual. According to World Health Organization, 60% of related factors to individual health and quality of life are correlated to life style. Thousands of people are following negative type of life style. Illness, weak nutrition and death are very often. The joint fever or disease, skeletal problems like arthritis, Hypo-kinesis, lardosis and scoliosis are very common. Cardio diseases like hypertension and hypotension are high in modern life because of unhealthy life style. Obesity and weight gain are primary risk factor of health (Ziglio, Currie and Rasmussen, 2004) [1].

Endurance is the ability to continue with an unpleasant or difficult situation, experience, or activity over a long period of time. Decreases the risk of heart related diseases. Body composition can be maintained by burning fat easily through cardio exercises. Cardio endurance activities releases stress. Reduces bad cholesterol and helps to improve increase in good cholesterol.

The objective of study

The purpose of the present investigation was to examine the correlation between actual and perceived endurance in under graduate students.

Methodology

The subjects for the present study were four hundred high school students studying in various schools of Shivamogga district. The subjects were studying in 8th to 10th standard. Both male (N=200) and female (N=200) subjects were included in the study. Beep test was used for measuring the actual endurance capacity of subjects under investigation. Subjects reached one line to the, twenty meters apart, before the beep. Over the time the beep sound became shorter and the subject had to increase the speed of his running. Flat and non-slippery surface, cones for marking boundary, measuring tape, audio with beep sound, recording sheet, music system with speaker were used for the conduct of beep test. This test involved continuous running in between the twenty meter marking according to the beep sound. Subject stood facing the twenty meter marking line and cone and started running when the instruction was given. The starting will be slow and at every stage the gap between beep sound becomes shorter and

the subject should run faster than before to catch with the beep. Before the beep sound the subject reached the line, and waited for the beep sound to continue running. If the subject was not reaching the prescribed line should be given warning. If he repeatedly fails to catch the beep and reach the line, the subject was asked to stop running. The level and the number of shuttles were counted and registered in the beep test score sheet. The recorder recorded the last level completed by the subject. The level and the shuttle was then converted to the Vo2 Max measured in milliliters of oxygen per kilogram of bodyweight per minute (ml/kg/min). Data on perceived endurance of subjects was measured using a five point likert scale. The subject was asked to rate their endurance on a questionnaire wherein they were given to tick one of the five options viz a) Higher than the normal b) Normal or c) lower than the normal. The response given by the subject was purely based on the perception of the subject under investigation (Rahmani-Nia, *et al.* 2011) [2]. Descriptive statistics including Mean, Standard Deviation and range were calculated in the study. The hypothesis was tested using Paerson product moment correlation coefficient.

Findings of the study

The raw data on endurance measured in terms of Beep test were subjected to suitable descriptive statistical techniques. The results are given in table 1.

Table 1: Descriptive results on measured endurance of high school students

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Girls	200	18.60	18.90	37.50	27.82	4.05
Boys	200	24.10	19.60	43.70	31.93	5.69

From table 1 it is clear that the cardiovascular fitness and maximum oxygen uptake (VO2 max) of girls is 27.82±4.05 and boys is 31.93±5.69. The raw data on perceived endurance expressed in terms of rating were subjected to suitable descriptive statistical techniques. The results are given in table 2.

Table 2: Descriptive results on perceived endurance of high school students

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Girls	200	4.00	1.00	5.00	2.82	.59
Boys	200	4.00	1.00	5.00	2.96	.82

From table 2 it is evident that the perceived endurance of girls is 2.82±0.59 and boys is 2.96±0.82. The correlation coefficient between measured and perceived endurance were found out to understand the relationship between the two set of scores in both girls and boys section. The results are provided in table 3.

Table 3: Summary of correlation coefficient between measured and perceived endurance in high school students

Section		Perceived Endurance	
Girls	Measured Endurance	Pearson Correlation	.213**
		Sig. (2-tailed)	.002
		N	200
Boys	Measured Endurance	Pearson Correlation	.359**
		Sig. (2-tailed)	.000
		N	200

**Significant at .01 level (2 tailed)

From table 3 it becomes obvious that there is significant *weak* positive linear relationship between measured and perceived endurance in girl's section. In boy's section, it is found that

there is significant *moderate* positive linear relationship between measured and perceived endurance.

Discussion

From the results of this study it can be inferred that there is significant positive correlation between measured and perceived endurance of high school students under investigation. The correlation is weak in girls and moderate in boy's section. This means that the subjects under investigation are aware of their endurance status. It has to be observed here that the boys are better aware than girls.

In similar studies there are results that are contrary as well as supplementary results. Rahmani-Nia, *et al.* (2011) ^[2]. evaluated associations between Self-perceived and measured physical fitness of male college students and found that the self-perceived scores were higher than actual fitness scores. Haugen, Ommundsen and Seiler (2013) ^[3]. investigated if physical fitness mediates the cross-sectional relationship between physical activity and physical self-perception in a sample of 15-year old adolescents. Results revealed that the cardiovascular endurance, stood out as unique mediators in the relationship between physical activity and athletic competence in both genders. Sani, *et al.* (2016) ^[4]. investigated the relationship between physical activities perceived physical fitness. Physical Activity was directly and indirectly associated with perceived physical fitness. Mayorga, Viciano and Cocca (2012) ^[5]. analyzed the relationship between physical self-concept and health-related physical fitness in Spanish children.

Conclusion

There is weak positive linear relationship in high school girls; and moderate positive linear relationship in boys between measured as well as perceived endurance.

References

1. Ziglio E, Currie C, Rasmussen VB. The WHO cross-national study of health behavior in school aged children from 35 countries: findings from 2001-2002. *J School Health*. 2004; 74(6):204-206.
2. Rahmani-Nia F, Damitchi A, Azizi M, Hoseini R. Associations Between Self-Perceived and Measured Physical Fitness of Male College Students, *World Applied Sciences Journal*. 2011; 14(9):1331-1338.
3. Haugen T, Ommundsen Y, Seiler S. The Relationship between Physical Activity and Physical Self-Esteem in Adolescents: The Role of Physical Fitness Indices, *Pediatric exercise science*. 2013; 25(1):138-53.
4. Sani SH Z, Z Fathirezaie, S Brand, U Pühse, E Holsboer-Trachsler, M Gerber, Talepasand S. Physical activity and self-esteem: testing direct and indirect relationships associated with psychological and physical mechanisms, *Journals, Neuropsychiatric Disease and Treatment*. 2016; 12(12):2617-2625.
5. Mayorga D, Viciano J, Cocca,A. Relationship between Physical Self-Concept and Health-Related Physical Fitness in Spanish Schoolchildren, *Procedia-Social and Behavioral Sciences*. 2012; 69:659-668.