

Construction of Norms for Fitness Tests and its Importance



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Abstract

The Purpose of the Study was highlighting the importance of construction of Fitness norms for a specific Population. The paper also highlights the importance of norms. Many Fitness norms are available for various age groups and are prepared by various associations and organisations. However, these norms cannot be used for any population. A Simple example would be the Youth Fitness Test Battery norms prepared by AAHPER cannot be applied and used in the another Country since these norms are developed by American Alliance of Health, Physical Education and Recreation and these norms are valid for the Population of America. These norms will not be valid for a country like Japan where the living conditions, climate, geographical conditions are extremely different from that of America. Hence the author has highlighted the importance of construction of fitness norms for different set of population. Also the author urges more studies to be taken by research scholars in this field of preparing physical fitness norms as it would help in proper assessment of the people whom the tests are conducted upon.

Keywords: Norms, Fitness Test, Physical Education.

Introduction

Physical Education is education. It is learning through physical actions for the expansion of the total behavior of the child, to its amplexness in excellence in body, brain and soul. Instantly, it is concerned with the improvement of physical capability. During the process of trying to achieve this fitness, however, physical education has to train the child's mind, moral and social qualities, arouse its awareness of the atmosphere and advance attentiveness, incidence of mind, imagination, discipline, collaboration and the soul of empathy and kindness to others – qualities that are important for a joyful and well familiar life in a free and democratic world. Physical education can therefore make a very valuable contribution to our national life. An important aspect of physical education is physical fitness. Physical education and physical fitness are inter-linked and cannot be separated from each other.

Aim of the Study

The researcher has highlighted the importance of construction of fitness norms for various people. Without the availability of norms assessment of an individual is not possible. This assessment helps one person to stay fit and thereby live a healthy life.

Physical Education and Physical Fitness

Physical fitness is that part of physical education which is concerned about the Physical well being of a individual. This physical well being is essential cause without being physically well one cannot achieve the basic necessities of life. The person also is not in a position to undertake his day to day activities hence affecting all other areas of person's life. Hence it can be said that physical fitness is a core of Physical Education. Physical Fitness is broadly divided into 2 broad concepts which are Health Related Physical Fitness Factors and Skill Related Physical Fitness Factors. A combination of these factors contributes to the overall fitness of the individual.

Health Related Physical Factors include the Following:

Cardio Vascular Endurance

Cardio Vascular Endurance is the ability to do large muscle activities for a long period of time. C.V. Endurance depends on a number of factors such as the body's ability to breathe in the oxygen from the environment, the ability of the heart to pump blood to the working muscles, the ability of the nervous system to regulate blood flow, the ability of the

body to process the fuel for exercise. A few examples that require a high C.v. Endurance would be running, swimming.

Muscular Strength and Endurance

Muscular Strength is the amount of force a muscle can generate with a single maximum effort. The factors that determine muscular strength are size of muscle fibers and the ability of the nerves to activate the muscle cells. Strong muscles are important to do more and efficient work. Whereas muscular endurance is the ability of the muscle to resist fatigue and maintain a level of tension. Muscular endurance depends on factors such as size of the muscle cells, the ability of the muscles to store fuel, and the blood supply to muscles. Muscular Strength and endurance both are essential for a fit person.

Body Composition

Body composition refers to the proportion of fat and fat free mass in the human body. Fat free mass includes bone, muscles and water. Healthy body composition means a high level of fat free mass to a acceptably low level of fat. Studies indicate that a person having high body composition is more likely to develop health problems to a person having less level of body composition.

Flexibility

Flexibility is the ability to move the joints to the full range of motion. Factors affecting flexibility are joint structure, length and elasticity of connective tissue and nervous system activity.

Skill Related Physical Factors include:

Speed

The ability to perform some movement or action within a short period of time is termed as speed.

Power

The ability to exert force rapidly, based on the combination of speed and strength.

Agility

The ability of the body to change positions quickly and accurately.

Balance

The ability to maintain equilibrium while standing still or moving.

Coordination

The ability to perform motor tasks accurately and smoothly using bodily movements and the senses

Reaction Time

The ability to respond or react to a stimulus quickly.

Assessment of Physical Fitness

In order to develop norms for any physical fitness test it is important to have correct assessment for the physical fitness factors. Also selection of the right tests to measure a particular fitness component is essential. A researcher cannot use a 100M run test to measure Cardio vascular endurance similarly the right equipment should be there to accurate testing. Accurate testing will lead to proper development of norms for the said population. Also proper and systematic training can be provided to the people who require the improvement in fitness or to those who lack fitness.

Physical Fitness and Norms

Norms are derived scores that are determined from the raw score obtained by a specific test. A norm can be well-defined as, "a measure that allows adaptation from a raw total to a score accomplished of contrast and Understanding (Barrow and McGee, 2017). Norms have many advantages over the standards. Norms are created through a Normative Study which involves a careful selection of the sample for which the norms are made. The most important step in this is to make sure that the sample is a representative of the entire population. It is also important for proper Delimitation of the study. For Example if the researcher is developing norms for 100 Meters Sprint for College Boys of a particular city, the researcher should make sure that, his sample should include a certain no. of boys from all the colleges in that particular city. Only of this condition is fulfilled the norms will be valid for that particular population.

Also one has to take care that the norms prepared are for one particular place or Geographical area cannot be applied to some other place cause of the various other conditions prevalent in that place. For example norms for HRF factors for the State of Maharashtra won't be valid for the State of Assam due to a vast difference in the geographical conditions of both the States.

Radadiya,V.K.(20016) , Constructed Physical Fitness Norms for the school boys of 11-12,12-13,13-14,14-15,and 15-16,years of Gujarat state. However these norms cannot be applied to some other age group since the performance of the Subjects will change as per the change in chronological age.

The researcher has to see that the norms that he wants to use are not created years ago since every passing year due to advancement in science and technology there are biological changes in the performance of human beings and lead to increase performances. For example the best time recorded for 100 meters for a State Athletic meet was 10.95 which was set in 1998 but has now changed to 10.82 in 2019.

Importance of construction of norms for fitness test

1. It leads to understand the growing trend prevalent in that area. For example there is a growing trend of mobile games instead of outdoor games, the fitness of the students will reduce.
2. Grading of the Subjects can be done properly.
3. outliers or extreme cases can be identified.
4. People with low level of fitness can be identified and proper training can be provided for the improvement of the same.
5. High fitness people can be pushed to achieve higher levels in fitness
6. Can also help in the formation of Policies for the Government. If there is rise in diabetes in a particular area then government can make a policy where every individual has to spend a certain time on physical activity. Even curriculum changes in education policy can be undertaken.
7. Proper grading as per the age can be done.

8. Easy assessment can be done by the individual himself. If norms are available he can easily assess himself. A simple example is that of a weighing machine.

Conclusion

If a person has to live a healthy life, he should understand the fitness parameters of himself and the people living around his geographical area. To understand this fitness standard's, knowledge and availability of fitness norms is a must. The researcher also encourages more people to undertake normative surveys for health related fitness factors since the studies available are very less to the growing population and change is lifestyle. Hence continuous research into this topic is essential.

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