

Physical Fitness Assessment: Concentrating on the 1st, 2nd And 3rd Year's College Students

Muhammad Safdar Luqman *

Zia-ul-Islam[†]

Mehwish Manzoor[‡]

Abstract

The main propose of the study was to concentrate assessment of physical fitness, especially to focus on the 1st, 2nd And 3rd Year's College students. In most of the advance countries of the globe, different test have been developed in accordance vicinity. Hence, the present study was carryout to develop test batteries for the physical fitness assessment. In this regards, 2340 students of 8th 9th and 10th classes were conveniently selected in the study. Mean and standard deviation were used to test the formulated hypotheses. Poor physical fitness among the students was found. Therefore, it was recommended that the teachers and parents should make it obligatory to take proper care of their students/children's physical fitness by providing a healthy diet and also allow them to participate in sports activities.

Key Words: Terms, Assessment, Physical Fitness, Students, Test Battery

Introduction

The key objectives of youth fitness and action advancement are to expand the likelihood that young will receive customary physical action propensities and keep up satisfactory levels of physical fitness to add to ideal wellbeing and capacity all through life. By applying the thorough physical training programs, we accept there is a more noteworthy chance that youngsters will grow up to end up dynamic and solid grown-ups. Imperativeness and criticalness of physical fitness have generally been recognized independent of the age, field or calling whether it is games, cultivating or exchange, wellbeing or any stroll of our daily life. In this context, Ntoumanis (2001) states that physical fitness has been one of the pre-essentials of effective games and sports profession whereas, satisfactory and successful performance in the field of physical education, sports and athletics is specifically subject to level of physical fitness of the competitor (Smith, 2003). Physical fitness is very important for all age groups (Blair et al., 2001) it maintains blood pressure, lipid profile and controls cardiovascular infirmities (Kell et al., 2001; Soteriades et al., 2011; Vina et al., 2012). Physical fitness and activity reduce the risks of cardiovascular diseases in adolescence. Physical fitness is usually measured in relation to functional expectations that are, typically, by measuring endurance, strength, agility, coordination, and flexibility (Fragala-Pinkham et al., 2005). Similarly, stress testing, which determines the body's settlement to powerful, constant physical stimuli, is utilized to examine fitness and states that If individuals are able to accommodate to the stressors, they are supposed to be fit (Brown et al., 2013 & Hargie et al., 2015). On the premise of these tests, they have been entirely fruitful in conveying the proper player to the suitable game or event. We in Pakistan have been deficient as far as our specialized and advanced way to deal with games related issues. No accessibility of the appropriate test batteries created in similarity with our own financial, physiological and socio-cultural state of the general public has been amongst the center issues of the games field. On the other hand, we are still lacking in developing of battery that could be applied considering economic, physiological and sociocultural condition of the country. Keeping in view

* Ph.D Scholar, Department of Sports Sciences and Physical Education, Gomal University, Dera Ismail Khan, KP, Pakistan.

[†] Professor, Department of Sports Sciences and Physical Education, Gomal University, Dera Ismail Khan, KP, Pakistan.

[‡] Visiting Lecturer. Department of Physical Education, University of Narowal, Narowal, Punjab, Pakistan.

this starving situation, the researcher decided to conduct a study to evaluate the physical fitness of 8th to 10th class students. The researcher is of the opinion that this study carries vital significance on the ground that as a result of this study the researcher developed test battery for measuring the physical fitness level of 1st, 2nd And 3rd Year's College students of Khyber Pakhtunkhwa (KP).

Problem Statement

Universally various test batteries and standards have been created which have viable been serving in determining the fitness level of the competitors. It is likewise a reality that the greater part of the accessible test batteries and standards are produced in the created nations where the financial, physiological and socio-cultural conditions are very not quite the same as our nation. We are as yet ailing in creating of battery that could be connected considering financial, physiological and socio-cultural state of the nation. Keeping in view the deficiency, the researcher intended to develop a similar type of test battery to evaluate the fitness level of 1st, 2nd and 3rd year's college of KP, Pakistan.

Literature Review

Physical fitness is specifically associated with both mental and physical stress. The more a man performs physical activities, the lesser mental and physical distress he or she shows. Physical fitness is connected with reduced depression. Although physical fitness did not intercede the impacts of stressors on distress, there was some proof of a diminishing impact of fitness in the relationship of stressor and distress, both for mental and for physical depression. That is, physical fitness served to cushion the impacts of stressors on both mental and physical depression and distress (Raedeke & Burton, 1997). Several studies proved that mental wellness must be accomplished if your body is working great and one can unwind your own brain and take out burdens by practicing consistently and eating right (Borg et al., 2005; Sieberg, 2011). Individuals who are physically fit are likewise more beneficial, can keep up their most ideal weight, and are additionally not inclined to cardiovascular and other wellbeing issues (Scheuer & Tipton; Ekelund et al., 1988 & Tapia et al., 2007). Physical fitness changes in healthy adolescents are a solid indicator of mortality. Indeed, even little changes in physical fitness are connected with an essentially brought down danger of death (Boin & Hart, 2003). Turning out to be physically fit requires an adjustment in way of life too (Hellison, 2000) whereas, Naidee (2016) in his book "Foundation for health promotion" demonstrates that one needs to join a standard activity routine in life. Furthermore, balanced diet, proper sleep, and strenuous physical activity participation are very beneficial for the promotion and development of fitness. Similarly, numerous studies affirmed that staying away from garbage nourishments, fizzy beverages, negative behavior patterns like smoking and liquor and by getting satisfactory measure of rest, you will have the capacity to end up physically and rationally fit (Palmer, 2015). physical fitness is to a great extent liable of the disturbing indications of exhaustion that cancer patients face while performing activities of everyday life. Leukemia is the most widely recognized adolescence disease and the main source of cancer death among youngsters and youths, This is the "force" that helps you to lift and convey overwhelming items. Without strong quality, your body would be frail and not able to stay aware of the requests set upon it. The best approach to build quality is to prepare with overwhelming weights, working in the 4 - 6 or 12 - 15 rep ranges. The heavier the weight, the fewer reps you ought to perform.

Flexibility is a standout amongst the most essential, yet regularly neglected, segments of physical wellness. Without adaptability, the muscles and joints would develop hardened and development would be restricted. Adaptability preparing guarantees that your body can travel through its whole scope of movement without torment or firmness. To test your flexibility, incline forward and attempt to touch your toes. Those with great adaptability will, as a rule, have the capacity to touch their toes, while those with restricted adaptability won't. The sit and achieve test (sitting on the floor and coming toward your toes) is another great approach to evaluate your flexibility. The more adaptable you are, the nearer you will come to touching your toes and past. Mental health is related with thinking and feeling of people and how they react in different situations. The children may also have mental problems such as anxiety, distress like older people (Castelli, Hillman, Buck, & Erwin, 2007). The adolescent years are critical as far as both mental and physical improvement, and staying fit. The fitness lifestyles an adolescent creates in early years are liable to endure forever (Brent, 2014). The studies explored that fitness training prompts enhanced state of mind, self-concept, and work conduct; the confirmation is less clear as to its impacts on intellectual working, in spite of the fact that it appears to support cognitive performance during and

after physical stress (Folkins, & Sime, 1981), and is also essential for good physical and mental health (Ruiz *et al.*, 2009; USDHHS, 2010) It is proved that physical fitness enhances cognitive control that involves inhibition, working memory, and cognitive flexibility (Pontifex *et al.* 2011; Chaddock, *et al.* 2010; & Diamond, 2013), and is also essential for good physical and mental health (Ruiz *et al.*, 2009; USDHHS, 2010).

Materials and Methods

The population for this particular study comprised of all the 1st, 2nd And 3rd Year's College students studying in government boy's colleges in the province of KP, Pakistan. It was very difficult rather impossible for the researcher to contact each and every student in the province. For the purpose, the researcher confined his study to 13 districts which were randomly selected from the province. After this, 20 colleges were recruited from the selected districts and 2340 students of 1st, 2nd And 3rd Year's College students were conveniently selected and participated in the study. The researcher selected four items which were validated through pilot studies. For this purpose, 45 students of 1st, 2nd And 3rd Year's College students were selected with in the vicinity of Dera Ismail Khan (DIK). The test battery consisted of Sit ups in 30 seconds, Standing broad jump, V sit reach and 1000 m run. The 20 copies of the test battery with full procedure of conducting each test item and 20 Performa's for students' scores in each test item were distributed in 20 colleges. Demonstration of the test items was also given to the concerned Physical Education Teachers/ teachers. They were given three days' time to collect the data from their school. The data collected by the researcher was analyzed by using SPSS version 20. For analysis of data, Percentile Scale, Mean and Standard Deviation were used. Further, the scores were classified into five grades i.e. very good, good, average, poor and very poor.

Data Analysis

Table 1. Norms, Number and Percentage of Students in Each Category Of 30 Seconds Sit-Up Test

Mean and Standard deviation of Norms				
No of Students	Mean		Standard Deviation	
2340	19.23		4.957	
Grading of Norms				
Very Poor	Poor	Average	Good	Very Good
>9sit-ups	9-13sit-ups	14-24 sit-ups	25-29 sit-ups	<29 sit-ups
Number and percentage of students in each category				
Very Poor	Poor	Average	Good	Very Good
1.19% (26)	13% (284)	70.28% (1535)	14.93% (326)	0.6% (13)

Table 1 and Figure 1 and 2 illustrate that in sit-up test, the mean score is 19.23 and standard deviation score is 4.957. similarly, In sit-up test, the scores below 9 sit-ups in 30 seconds are considered very poor, from about 9 to 13 is considered poor, 14 to 24 is considered average, 25 to 29 is considered good and the scores above 29 are considered very good.

Table 2. Mean, standard deviation and grading of students in V-Sit Reach Test

Mean and Standard deviation of Norms				
No of Students	Mean		Standard Deviation	
2340	2.997		2.82	
Grading of Norms				
Very Poor	Poor	Average	Good	Very Good
>-3 inches	-3-(-0.5) inches	0-6 inches	6.5-9 inches	<9 inches
Number and percentage of students in each category				
Very Poor	Poor	Average	Good	Very Good
1.28% (28)	7.78% (170)	81.50% (1780)	6.91% (151)	02.52% (55)

Table 2 and Figure 3 and 4 depict that in V-sit reach test, the mean score was 2.997 and standard deviation

score was 2.82. In V-sit reach test, the scores below -3 inches are considered very poor, from about -3 to -0.5 inches is considered poor, 0 to 6 inches is considered average, 6.5 to 9 inches is considered good and the scores above 9 inches are considered very good

Table 3. Mean, Standard Deviation and Grading of Students in Standing broad Jump

Mean and Standard deviation of Norms				
No of Students		Mean	Standard Deviation	
2340		69.72	12.95	
Grading of Norms				
Very Poor	Poor	Average	Good	Very Good
>44 inches	44-56 inches	57-83 inches	84-96 inches	<96 inches
Number and percentage of students in each category				
Very Poor	Poor	Average	Good	Very Good
4.08% (89)	13.32% (291)	70.56% (1541)	11.68% (255)	0.37% (8)

Table 3 and Figure 5 and 6 show that in standing broad jump, the mean score was 69.72 and standard deviation score was 12.95. In Standing Broad jump, the scores below 44 inches are considered very poor, from about 44 to 56 is considered poor, 57 to 83 is considered average, 84 to 96 is considered good and the scores above 96 are considered very good.

Table 4. Mean, standard deviation and grading of students in 1000 M Run

Mean and Standard deviation of Norms				
No of Students		Mean	Standard Deviation	
2340		289.59	54.36	
Grading of Norms				
Very Poor	Poor	Average	Good	Very Good
<398 seconds	398-345 seconds	344-235 seconds	234-181 seconds	>181 seconds
Number and percentage of students in each category				
Very Poor	Poor	Average	Good	Very Good
4.95% (108)	8.97% (196)	85.35% (1864)	0.73% (16)	0.6% (13)

Table 4 and Figure 7 and 8 illustrate that in 1000 M run test, the mean score was 289.59 and standard deviation was 54.36. In 1000 M run test, the scores above 398 seconds are considered very poor, from about 398 to 345 seconds is considered poor, 344 to 235 seconds is considered average, 234 to 181 seconds is considered good and the scores below 181 seconds are considered very good.

Discussion and Conclusions

The researcher found that in sit-up test, the mean score was 19.23, in V-sit reach test 2.997, in standing broad jump, 69.72, in shuttle run test 10.84, and in 1000 meter run test, the mean score was 289.59. The researcher found that in sit-up test, standard deviation score was 4.957, in V sit reach test 2.82, in standing broad jump 12.95, in shuttle run test 1.08 and in 1000 meter run test standard deviation was 54.36. Thirty-second Sit-up tests in this test, the researcher offered five categories to the population to check their performance {very poor (below 9 sit-ups), poor (9 to 13 situps), average (14 to 24 sit-ups), good (25 to 29 sit-ups) and very good (above 29 set ups)}. V-Sit reach test. In this test, the researcher offered five categories to the population to check their performance {very poor (below -3 inches), poor (-3 to -0.5 inches), average (0 to 6 inches), good (6.5 to 9 inches) and very good (above 9 inches)}. Standing Broad jump In this test, the researcher offered five categories to the population to check their performance {very poor (below 44 inches), poor (44 to 56 inches), average (57 to 83 inches), good (84 to 96 inches) and very good (above 96 inches)}.1000 Meter run test. In this test, the researcher offered five categories to the population to check their performance {very poor (above 398 seconds), poor (398 to 345 seconds), average (344 to 235 seconds), good (234 to 181 seconds) and very good (below 181 seconds)}.

References

- Blair SN, Cheng Y, Holder JS (2001). Is physical activity or physical fitness more important in defining health benefits?. *Medicine and science in sports and exercise*, 33(6; SUPP), S379- S399.
- Boin A, Hart PT (2003). Public leadership in times of crisis: mission impossible?. *Public Administration Review*, 63(5), 544-553.
- Borg M, Sells D, Topor A, Mezzina R, Marin I, Davidson L (2005). What makes a house a home: The role of material resources in recovery from severe mental illness. *American Journal of Psychiatric Rehabilitation*, 8(3), 243-256.
- Brown CJ, Saunders MI, Possingham HP, Richardson AJ (2013). Managing for interactions between local and global stressors of ecosystems. *PLoS one*, 8(6), e65765. Ekelund LG, Haskell WL, Johnson JL, Whaley FS, Criqui MH, Sheps DS (1988). Physical fitness as a predictor of cardiovascular mortality in asymptomatic North American men. *New England Journal of Medicine*, 319(21), 1379-1384.
- Fragala-Pinkham MA, Haley SM, Rabin J, Kharasch VS (2005). A fitness program for children with disabilities. *Physical therapy*, 85(11), 1182-1200.
- Hargie OD, Mitchell DH, Somerville IJ (2015). 'People have a knack of making you feel excluded if they catch on to your difference': Transgender experiences of exclusion in sport. *International Review for the Sociology of Sport*, 1012690215583283.
- Harmony Books. Smith AL (2003). Peer relationships in physical activity contexts: A road less traveled in youth sport and exercise psychology research. *Psychology of sport and Exercise*, 4(1), 25-39.
- Hellison DR (2000). Youth development and physical activity: Linking universities and communities. *Human Kinetics*.
- Kell RT, Bell G, Quinney A (2001). Musculoskeletal fitness, health outcomes and quality of life. *Sports Medicine*, 31(12), 863-873.
- Naidoo J (2016). Foundations for health promotion. Elsevier Health Sciences.
- Ntoumanis N (2001). A self-determination approach to the understanding of motivation in physical education. *British journal of educational psychology*, 71(2), 225-242.
- Palmer S (2015). Toxic childhood: How the modern world is damaging our children and what we can do about it. Orion.
- Raedeke TD, Burton D (1997). Personal investment perspective on leisure-time physical activity participation: Role of incentives, program compatibility, and constraints. *Leisure Sciences*, 19(3), 209-228.
- Scheuer J, Tipton CM (1977). Cardiovascular adaptations to physical training. *Annual review of physiology*, 39(1), 221-251.
- Sieberg D (2011). The Digital Diet: The 4-step plan to break your tech addiction and regain balance in your life.
- Soteriades ES, Smith DL, Tsismenakis AJ, Baur DM, Kales SN (2011). Cardiovascular disease in US firefighters: a systematic review. *Cardiology in review*, 19(4), 202-215.
- Tapia EM, Intille SS, Haskell W, Larson K, Wright J, King A, Friedman R (2007, October). Real-time recognition of physical activities and their intensities using wireless accelerometers and a heart rate monitor. In 2007 11th IEEE international symposium on wearable computers (pp. 37-40). IEEE.
- Vina J, Sanchis-Gomar F, Martinez-Bello V, Gomez-Cabrera MC (2012). Exercise acts as a drug; the pharmacological benefits of exercise. *British journal of pharmacology*, 167(1), 1-12.