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MINIMUM MUSCULAR FITNESS PROFILE OF FIRST YEAR UNDER GRADUATE MALE STUDENTS OF PUNE UNIVERSITY

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Abstract

The purpose of the research was to study the minimum muscular fitness profile of first year undergraduate male students of Pune University. It is a descriptive survey study, in which 1000 male students were selected by simple random method. For data collection Kraus-Weber test of minimum muscular fitness is used. The subjects were give grades as pass or fail on the basis of above tests. For the analysis researcher used chi-square test and descriptive statistics. Statistical analysis of the data indicated that out of total number of the students examined, 73.8% did not prossess minimum muscular fitness as measured by kraus-weber test. This can be attributed to lack of regular exercise or poor nutritional habits.

Keywords : Minimum muscular strength Kraus-Weber test.

Introduction :

The wealth of the nation resides on the health and vitality of its people. Every nation is becoming increasingly concerned about physical fitness of its men, women, and children; recognized physical fitness is fundamental and useful living in any capacity. Physical fitness is the basic of all activities in our society. Physical fitness is defined as a set of attributes that people have or achieve that relates to the ability to perform physical activity

(USDHHS, 1996). Physical fitness means different things to different people and may include muscular strength, muscular endurance, cardio respiratory endurance, body composition, and flexibility. The association between muscular fitness and quality of life is impressive. The benefits of muscular fitness development includes increase in lean body tissue, bone mineral density, connective tissue strength , aerobic power, low back health and self esteem (Neimen, 1995). Fitness development is based upon correct eating habits, regular exercise for average persons; this does not mean drastic dieting or vigorous training. It is not so many years ago that fitness was the preoccupation of the health and strength, the body builder, or the hypochondriac. Today, however millions of ordinary people are realizing that it concerns them. The quality of our lives is bound up with physical fitness. Fitness is based upon correct eating habits and regular exercise. For the average person, this does not mean drastic dieting or vigorous training. The main danger to fitness arises today from our sedentary occupations and past times, from our processed foods, from the stresses of modern life particularly city life and from lack of fresh air. Modernization, urbanization and the consequent social changes have reduced the fitness in children. In developing countries children are without minimum basic services in healthcare, nutrition and education. The main need today is to develop system through effective health care be made both accessible and acceptable to the people.

METHODS AND PROCEDURE :

For the present study population was selected from first year undergraduate male students of Pune University i.e. 1st year B A, 1st year B Com and 1st year B Sc male students. The researcher reviewed the list of Ahmednagar district colleges affiliated to Pune University. In order to obtain the sample, colleges from Ahmednagar district were randomly selected. It was highly impossible to study the entire population i.e. F. Y. B. A., B. Sc., and B. Com. As the strength of first year undergraduate male students varied from college, one third of total strength of a particular college was selected by using random sampling method, and the sample size has been targeted to 1000.

PROCEDURE :

For the data collection colleges from Ahmednagar district, affiliated to University of Pune were selected with the prior permission of Principal and Director of physical education of respective colleges. Data collection was done by using Kraus Weber test of minimum muscular fitness, the researcher demonstrated the various test items to the subjects, so that they will be well acquainted with the procedures of various tests. After

explanation of the tests items the subjects were evaluated in their muscular fitness by the investigator with the help of other research scholar. The conditions of administrating the tests were kept as identical as possible to obtain valid result.

RESULTS AND FINDINGS :

Kraus Weber test of minimum muscular fitness test consist of a battery of six items and failures of any item were interpreted as a test failure. The overall failure percentage in case of first year undergraduate male students was 73.8%. The tests items of lower back, back and hamstring had the highest percentage of the failure. Lower back test had 46.8% back and hamstring test had 44.6%. The test items of upper back had the low percentage of failure 5.8%. The test items of abdominal plus psoas, abdominal minus psoas and psoas had 12.5%, 20.6% and 15.4% failures respectively. Failures of first year undergraduate male students in one test were 32.2%. Three test items were 10.7%, four test items were 4.1%, five test items were 2.5% and six test items were 1.0%. This finding may be attributed to the fact that either male students belonging to first year did not taking regular exercise or they do not have proper nutrition and they do not participate in sports and games. Statistical analysis was carried out using chi-square test and descriptive statistics as shown in table 1,2,3 & 4.

Table 1: Chi-square Test Frequencies, Total Pass Test I

Sr. No.	Observed N	Expected N	Residual
0	10	142.9	-132.9
1	25	142.9	-117.9
2	41	142.9	-101.9
3	107	142.9	-35.9
4	232	142.9	89
5	323	142.9	180
6	262	142.9	119.1
Total	1000		

Table 1 represents observed values and expected values of all the tests. All together ten students failed in all tests, any 25 students passed in one tests, 41 students passed in two tests, 107 students passed in three tests, 232 students passed in five tests all of six tests and remaining 262 students passed in all tests. While expected fail and pass student's number for all tests is 142.9.

Table 2: Total Pass Test Frequency

Chi-square Test Statistics

	Total pass test
Chi-square	684.564
df	006.000
Asymp sig	000.000

A.0 cells (.0%) have expected frequency less than 5. The minimum expected cell frequency is 42.9.

Table 2 represents chi-square test table which indicates that square value was 684.564 with sixth degree of freedom which was statistically significant at 0.85 significance level (p=0.001) this indicates that category was significant difference test passing number of students.

Table 3: Over all Pass and Fail Frequency Over all Pass or Fail.

	Frequency	Percent	Valid percent	Cumulative Percent
Valid Fail	738	73.8	73.8	73.8
Pass	262	26.2	26.2	100
Total	1000	100.0	100.0	

Table 3. Represents pass and fail number of student in the overall tests. There were 738 students failed in the tests out of 1000 students. This implies fail percentage was 73.8% similarly there were 262 students passed. The test which was 26.2% of the total sample.

Table 4 : Chi-square Test Frequencies Overall Pass or Fail.

	Observed N	Expected N	Residual
Fail	738	500.0	238.0
Pass	262	500.0	-238.0
	1000		

Table 4. Represents observed values and Overall 738 students were failed and 262 students were passed which expected fail and pass students number was 500 each expected values of overall test.

Table 5 : Overall Pass and Fail Chi-square Test Statistics Overall Pass or Fail.

Chi-square	226.576
dif	001.000
Asymp sig	000.000

CONCLUSIONS :

1) Out of the total number of students examined, 73.8% did not possess minimum muscular fitness as measured by Kraus-Weber test.
2) Out of the total number of students examined, 46.8% possess poor muscular strength in lower back test.
3) Out of the total number of students examined, 44.6% students were failed in back and hamstring flexibility test.
4) Male students were found to possess better strength of upper back muscles than lower back muscles.
5) Failures in more than three items were 10.7%.
6) Lower back, back and hamstring flexibility tests and greatest percentage of failures.
7) Abdominal, lower abdominal and psoas and upper back muscle strength was comparatively better than lower back and back and hamstring muscle strength.

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