

A Survey on Physical Fitness of School girls

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Abstract

Background- The purpose of study was assessing the physical variables of 14 years school girls.

Procedure and Methodology- The subjects were 330 girls who given trail for physical fitness in school of Chandigarh (India) for the purpose of the study. The physical variables of girls also tested. The physical variables were- 1. Weight (weighing machine), 2. Height (by Steadiometer), 3. Abdominal muscular strength (by no. of sit-ups), 4. Flexibility (sit and rich test) and 5. Speed (30 m dash). The test was conducted in morning time.

Statistical Technique- Percentiles were computed to analyse physical variables of school girls.

Result- Percentile values at 90th, 50th and 10th percentile of height are 156, 146 and 135 respectively and abdominal muscular endurance 39, 28 and 13 respectively, flexibility 38, 31 and 22 respectively, weight 43, 35 and 28 respectively. Speed 7.30, 6.40, and 5.56.

Conclusions: Most of the school girls (63%) are having average height range from 141-155cm. Majority of the school girls (66%) are having good weight according to his height. They are having good abdominal muscular endurance, and flexibility.

Key Note - Height, Weight, Abdominal Strength, Speed, Flexibility.

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Introduction

Fitness is the term, which is widely used in the present day health conscious society. The people have realized the importance of fitness in day to day routines and also in achieving sports excellence. Fitness denotes a person status of physique in relation to its physical achievements. The latest scientific evidence also edict the fact that for internal or physiological soundness physical fitness is necessary. Modern physical educators divided the factor of fitness into skill related and Health related physical fitness.

Physical fitness refers to the capacity of an athlete to meet the varied physical demands of their sport without reducing the athlete to a fatigued state. The components of physical fitness are: Strength, Endurance, Speed, Flexibility and Coordination.

The characteristics of physical fitness such as strength, endurance, agility, balance and flexibility are essential for physiological function and good health. Physically fit girls get the maximum satisfaction in everyday life, better physical co-ordination, mental judgement and emotional control. Physically fit girls are able to withstand fatigue for longer periods and are better equipped to tolerate physical stress.

Objective of the study

The objective of the study was to find out status of Physical Fitness of school girls.

Procedure and methodology:

Selection of the subject

Three hundred thirty school girls from Chandigarh between the age group of 10 to 14 years were selected as subjects for the study. They were given trail for physical fitness. The data was taken in morning time.

Selection of variables

Physical variables selected for the purpose of this study were:-

Physical variable:-

- Weight (weighing machine)
- Height (Stadiometer)
- Abdominal Muscular endurance (No. of sit-ups in 1 min.)

- Flexibility (sit and reach test)
- Speed (30 m. dash)

Analysis and interpretation of data

Percentile for the physical variables is given in table-1 and Mean and S.D. of selected physical variables are given in table-2

Table-1
Percentile of Physical Fitness Component

Percentile	Height	Weight	Abdominal strength	Flexibility	speed
10	135.00	28.00	13.00	22.00	5.56
20	138.20	30.00	19.00	26.00	5.81
30	142.00	32.00	23.00	27.00	6.05
40	143.00	34.00	25.00	29.00	6.22
50	146.00	35.00	28.00	31.00	6.40
60	147.60	37.00	31.00	32.00	6.55
70	150.00	39.00	33.00	33.50	6.74
80	153.00	40.00	36.00	35.00	6.93
90	156.00	43.00	39.00	38.00	7.30

Table-2
Mean and Standard Deviation of selected Physical Variable

Variables	Mean	Standard Deviation
Height	145.45	7.89
Weight	35.63	6.08
Abdominal strength	27.90	8.99
Flexibility	30.37	6.01
Speed	6.42	.72

Table -1 reveals that the percentile values of selected physical variables of girls student. In case of height, percentile value at the 90th percentile was 156 cm, 50th percentile was 146, and 10th percentile was 135 cm.

In case of weight, the value at the 90th percentile was 43 kg, at the 50th percentile was 35 kg and the 10th percentile was 28 kg.

Abdominal strength percentile at the 90th percentile was 39, 50th percentile was 28, 10th percentile was 13.

Flexibility value at the 90th percentile was 38, 50th percentile was 31, 10th percentile was 22.

Speed value at the 90th percentile was 7.30 sec., 50th percentile was 6.40 sec, and 10th percentile was 5.56 sec.

Fig.1 : Percentage of Girls on Body Height (scores in cm)

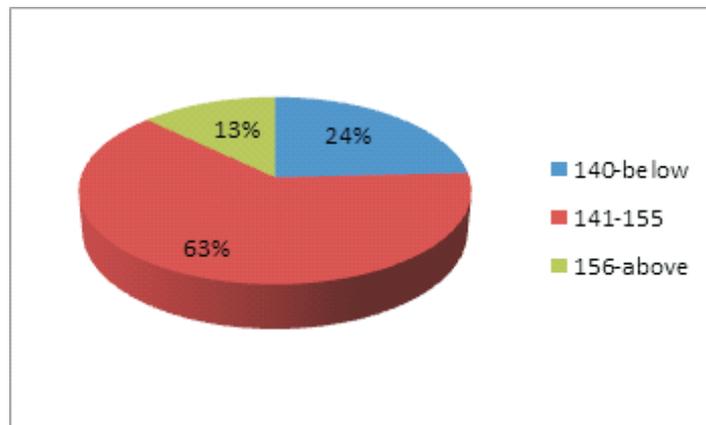


Figure-1 represents the body height of girls, 24% of girls scored 140 cm or less; 63% had a score ranging from 141-155 cm and 13% of them scored 156 cm or above.

Fig.2 : Percentage of girls on Body Weight (Kg.)

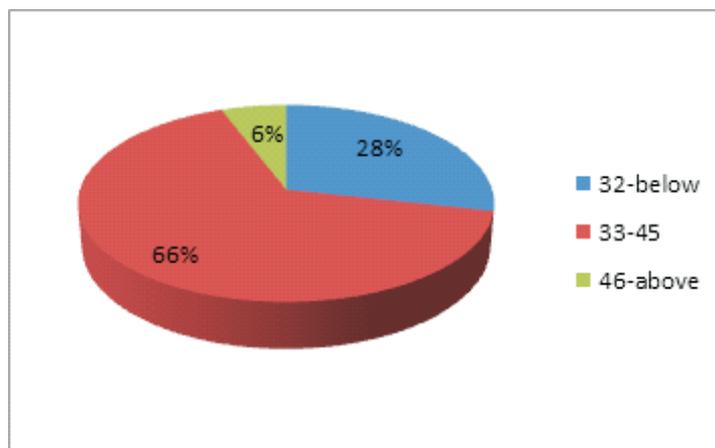


Fig.2 represents the body weight of girls, 28% of boys scored 32kg or less, 66% of them had scored ranging from 33-45 kg and 6% of them scored above 46 kg.

Fig-3 :Percentage of girls on abdominal muscular endurance (scores in no.)

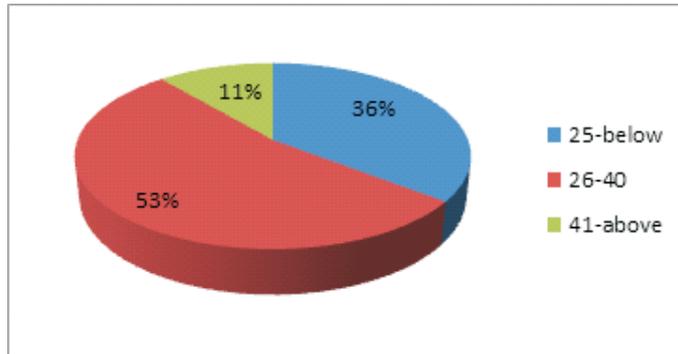


Fig-3 represents the abdominal muscular endurance of girls, 36% of them scored 25 or less; 53% of them scored between 26 to 40 and 11% of them scored above 41.

Fig-4 : Percentage of girls on Flexibility (score in cm)

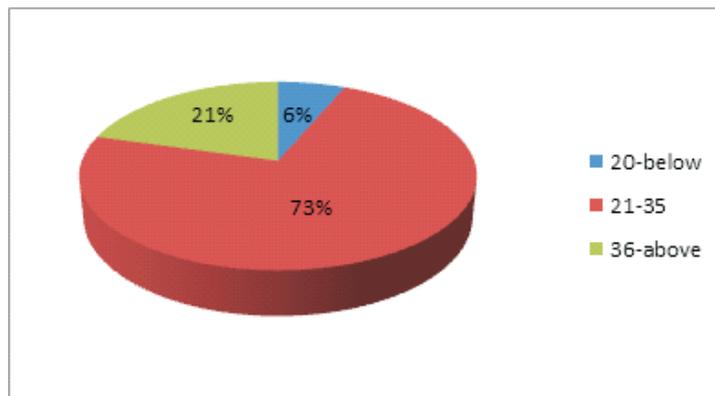


Fig-4 represents the flexibility of girls, 6% of them scored 20 cm or less, 73% of them score between 21 to 35 cm and 21% of them scored 36 cm or above.

Fig-5 : Percentage of girls on Speed (score in sec.)

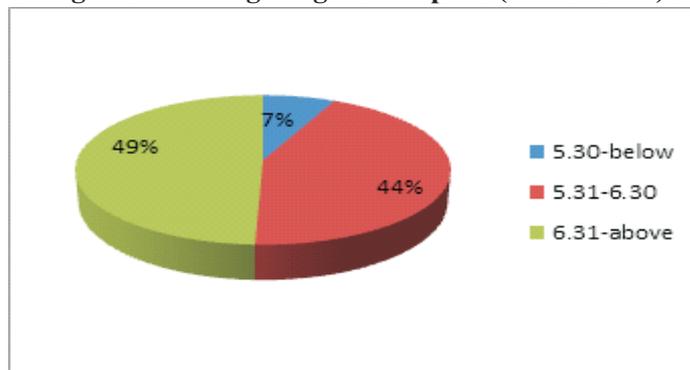


Fig-5 represents the speed of girls, 7% had a score 5.30 sec or less: 44% of them had a score between 5.31sec to 6.30sec: 49% of them score 6.31sec or above.

Discussion of findings

In case of abdominal muscular endurance 11% of the girls did 41 or above the 41 sit-ups while 53% had done between 26-40. The rectus abdominal muscles are weak muscles which can develop only through specific exercise. Lack of such specific exercise would have resulted in poor muscles endurance.

In case of flexibility 73% of them had a score of between 21cm-35cm. 21% of them had score of 36cm or above because girls have good flexibility.

In case of speed 44% of them had run between 5.31sec-6.30sec. 7% of them had run in 5.3sec or less time and 49% of them had score 6.31sec or above. Girls have low speed in 13-14 year because they are in faster growing stage.

In case of height 13% of them had get height 156 cm or above and 63% had get between 141 to 155. This refers to good height of girls. 63% girls had get 33kg -45 kg Weight. It is also good according to height.

Conclusion

Most of the girls have good weight, flexibility and abdominal muscular strength according to their height.

Reference

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