

A Comparative Study of Physical Performance of Baseball Girls with Non Baseball Girls

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Abstract

The aim of this study was to investigate and compare the Physical performance of baseball girl players and non-baseball players. Total 70 girls between the age group of 18-20 years were selected as subjects. Out of these 35 girls was baseball players, who participated at inter-university level competition and other 35 girls were non-players, who never took active part in any event or game at any age level. The purpose of the study was to judge against the physical performance difference of girls baseball players and non-baseball players. Means, standard deviation and independent student's' test were used as statistical tools. It was found that baseball players were slightly heavier and taller than the non-baseball players. Baseball players performed better in physical performance tests than non-baseball players, however the significant difference was only observed in standing broad jump. Outcome of this study depicted that non-baseball players being physically active did not differentiate much than the baseball girl's player.

Keywords: Physical Fitness, Performance, Baseball

Introduction

Baseball is a mind game, fastest in nature and mostly dependent on motor abilities. Physical growth and one's motor development are of fundamental importance in developing the criteria of talent selection in sport. Physical performance is mainly a function of an individuals' size, shape, sex, and age, but not entirely so. Success in sport at whatever level also depends on fitness. It is assumed, of course, that implicit in any definition of fitness is the absence of acute or chronic illness. Nevertheless, fitness for any sport has five common elements - strength, speed, endurance, flexibility, and skill. And athletic performance is "carrying out of specific physical routines or procedures by one who is trained or skilled in physical activity. Performance is also influenced by a combination of physiological, psychological,

and socio-cultural factors. The physical fitness is the ability of the body to perform daily tasks alertly and vigorously, with energy left over for enjoying free time activities and meeting emergency demands.

According to Nixon physical fitness refers to the organic capacity of the individual to perform the normal task of daily living without undue tiredness or fatigue having reserves of strength and energy available to meet satisfactorily any emergency demands suddenly placed upon him. The physical fitness components which we have used in comparing the physical performance of baseball girl players and non-baseball players are as follows-

1. Speed
2. Strength
3. Endurance
4. Flexibility
5. coordinative ability

In this present study attempt has been made to investigate and compare the Physical performance of baseball girl players and non-baseball players.

Materials and Methods

The sample for the present study was drawn from district Maharishi Dayanand University, Rohtak in Haryana through random sampling. A total 70 girls between the age group of 18-20 years ,35 girls were baseball playing girls, who participated at inter-university level competition and others 35 girls were non-sports, who never took active part in any event or game at any age level. The Mean, standard deviation and independent student 't' test were used as statistical tools. Following test was used to compare the Physical performance of base ball girl players and non-baseball players.

1. 50 yards dash (Speed)
2. Standing Broad Jump (Strength)
3. 10 x 4 meters shuttle Rum (Agility)
4. Sit and Reach Test (Flexibility)
5. 600 Yards rum walk test. (Endurance)
6. Medicine ball throw (shoulder strength)

7. Vertical high jump (power of leg)

Procedure Administration of the Test

1. 600 YARDS RUN

- Purpose** : To measure the endurance of the subjects
- Equipment** : Electronic stop watches, marker flags, measuring tape.
- Description** : The subject make run for 600 yards continuously, A standard track is used for conducting this test. On the signal of "got they start running. One completion of 800 meter signal is given to stop running.
- Scoring** : The total time taken by subject is recorded to the nearest 10th second.

2. 50 yards Race

- Purpose** : To measure the speed of the subjects
- Equipment** : Clapper and Stopwatch
- Description** : On the track, 50 yards distance mark with starting and finishing lines. After a short warm up, the sub-take their position behind the starting line. On the sound of clapper, the subjects start their race and run as fast as possible up to the finishing line and two time keepers for each runner record the time.
- Scoring** : The time is recorded to the nearest one 10th of a second

3. 4 × 10 meters Shuttle Run

- Purpose** : To measure agility of the subjects in running and changing direction

Equipment : Marking tape, stop watch and two wooden blocks.

Description : Two parallel lines A and B is marked on the ground 10 mtr. A part since the subjects must over run both of these lines, it was necessary to have several feet more of floor space at both end. The subject stands at one of the lines with the two blocks at the other line. On the signal to start the subject run to the block, take one and return to the starting line and place the block behind that line. She then returns to second block, which he carried across the starting line on her way back.

Scoring : The score is the time taken in the better of two trails recorded to the nearest 10th of second.

4. Medicine Ball Throw

Purpose : To measure arm and shoulder girdle strength and co-ordination

Equipment : Medicine ball and the measuring tape.

Description : The subject stands behind the throwing line. He/she make the throw down the course. He/she must not step on or across the throwing line.

Scoring : Three con consecuted throws are permitted and the best throw is recorded to nearest feet.

5. Forward Bend and Reach

Purpose : To measure the subjects trunk flexibility.

Equipment : A specific marked box

Description : A 40 inches scale, is fixed on the front side of the bench, so that 1/4th of the scale is above 3/4 of the scale is below in vertical position. The subject asks to stand erect on bench with toes even with the front edge of the bench and against the back side of this scale. He/she bend the trunk forward, with finger in the front of the scale. The subject then try to reach slowly down wards as much

as possible, the finger, tips of both hand move parallel to each other and equally down ward on the scale. He/she is not permitted to flex his knees.

6. Vertical High Jump

- Purpose** : To measure the power of the legs on jumping vertically into the air.
- Equipment** : A wall mounted board; a height scale, chalk for the fingertips is required.
- Description** : The subject removes her/his shoes and hight and weight are measured and recorded. The subjects then selects a piece of chalk, holding it such that is slightly extends beyond the fingertips. The subject stands with the preferred body side to the wall, with the soles of the feet remaining on the floor reaches as high as possible u the wall/making a short horizontal mark with the chalk (or places a small magnet on the board.

Still holding the chalk and standing side to the wall, the subject crouches preparing to jump as high as possible, the chalk mark is placed at the highest point on the graduate board.

- Scoring** : Preliminary arm swings, prior to jumping are allowed. A total of 3 attempts are made, each being recorded on the data entry screen, the effective height is calculated.

7. Standing Broad Jump

- Purpose** : To measure the explosive strength of the subjects.
- Equipment** : A measuring tape, long jumping pit.
- Description** : Each subject asks to stand behind a take off line with his/her feet comfortably apart. Before Jumping, the subject allows dipping at the knees and swing the arm backward and then jump forward by simultaneous by extending the knees and swinging arms forward to cover maximum possible horizontal distance, landing on both the feet.

Scoring : The score is the best of the three trials in feet and inches (metres and centimeters) to the nearest inch.

Results and Discussion

Descriptive Statistics of Various Physical Performance Tests In baseball Players And Non-baseball Players Age 18-20 Years.

Tests	Baseball players N=35		Non-Baseball players N=35		“t” value
	Mean	S.D	Mean	S.D	
50 yards dash	7.34	1.57	7.24	1.52	0.42
Standing Broad Jump	5.14	1.46	5.09	1.69	0.20
10 x 4 meters shuttle Run	12.08	1.15	11.17	1.57.	1.65
Sit and Reach Test	10.52	1.78	10.44	1.59	0.28
600 Yards run walk test.	35.09	3.48	34.61	3.72	0.81
. Medicine ball throw	5.09	1.69	4.85	1.72	0.86
Vertical high jump	34.61	3.72	33.52	3.56	1.83

*Significant at 0.01 level

On the basis of results of present study, it is concluded that that there was no much difference between baseball playing and non-playing girls in terms of physique, body composition and physical performance. Routine physical work might be the reason that change radically the body composition and consequently improve the performance of non-baseball playing girls living in rural area.

References

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