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A comparative analysis on motor fitness between university level cricket and softball players

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Abstract
Fitness is one of the most important components of individual performance capacity. But demand of different sports is somewhat different from one another. The demand of physical fitness may not be equal for cricket players and softball players, due to the size of play field, duration and nature of these ball games. Keeping on view in the present study the researcher has intended to observe the difference in motor fitness and its component between two groups of players. 24 University level players of Jiwaji University under 21 to 25 years of age group from cricket and softball were selected as the subject of the present study. Each group consist of 12 numbers of subjects. To measure the Motor fitness of the players Barrow Motor ability test (short form) were conducted through standard procedure. After collecting the data to observe the difference between the groups T test was conducted. On the basis of the results following conclusion were drawn. In agility cricket players were better than softball players. In case of leg explosive strength cricket players and softball players were more or less equal. In arm and shoulder strength softball players were better than cricket players. In total fitness cricket players were better than softball players.

Keywords: Cricket, Softball, Agility, Leg Explosive Strength, Motor Fitness.

Introduction
Fitness is a condition of the entire organism, characterized by energy and efficiency but also guided by attitudes and habit patterns that contribute to mental and emotional poise. It is the ability to perform muscular work satisfactorily and ability to carry out our daily tasks without undue fatigue. Physical Fitness is one of most important aspects in the field of physical education. Physical Fitness may be defined as the ability to carry out daily tasks with alertness without undue fatigue and having ample energy to enjoy leisure time pursuit and meet unforeseen emergencies. Motor fitness is a limited phase of physical fitness and it concerns the capacity to move the body efficiently with force over a reasonable length of time. It refers an efficient performance of an individual in such basic requirement as jumping, running, falling in a variety of situation. It is the limited phase of general motor ability. Motor ability has been defined as the present acquired and innate ability to perform motor skills of a general and fundamental nature exclusive of highly specialized sports and gymnastic techniques. Cricket and softball are the best known members of a family of related bat and ball games, despite their similarities, the two sports also have many differences in play in strategy. Though these games are similar in nature and are both derived from England, they have various differences among them including rules, regulations, game play, bat, ball etc. while the principle is same, the two games differ in their rules, terminology, playing equipment, number of players, field size etc. in sports today best performance can only be achieved through accurately planned, executed and controlled training system loosed on scientific knowledge, theoretical and methodical fundamental of sports training.

Methodology
24 university level 22 to 25 years age group players from different game, i.e. cricket and softball were selected as the subject of the present study, each group consists of equal number of subjects. For the present study all the subjects were gone through a Motor Fitness Test. The Motor Fitness of the subjects were measures using the 'Barrow Motor Ability Test' (shot form) which consist of three test items, zigzag run, Standing Broad Jump and 6 Pound

Medicine Ball put for distance. Zigzag Run was conducted to measure agility, SBJ for leg explosive strength and 6 PMP for Arm and Shoulder strength. All the tests were conducted through standard procedure. After collecting the data, mean, SD, T value were calculated to observe the differences between groups.

Results and Discussion

Personal Data

Table 1: Mean and SD of Height and Weight of the two groups-cricket and softball

Groups		Cricket	Softball
Height	Mean	169.36	171.79
	S.D	2.64	3.87
Weight	Mean	65.96	68.61
	S.D	1.41	2.82

The mean value of Height of Volleyball and Handball groups was 169.36, 171.79 and SD were +2.64 and +3.87 respectively. The Mean value of weight of Volleyball and Handball groups was 65.96, 68.82 and SD were 1.41 and 2.82 respectively.

Table 2: Mean, SD, 't' value of agility of two groups

	Cricket	Softball	t value	Tabulated value	Remark
Mean	25.54	27.02	2.74	2.07	Significant
S.D	1.72	0.69			

The Mean agility of cricket and softball groups were 25.54 and 27.02 and SD were +1.72 and +0.69 respectively. To observe the significant difference between two groups T value was calculated and found to be 2.74 which is significant at 22df at 0.05 level. So it is seen from the table that cricket group was better than softball group in agility run. In case of agility lowest time shows better performance. In zigzag run cricket group was better than softball group.

Table 3: Mean, SD, T value of Leg Explosive strength of two groups

	Cricket	Softball	t value	Tabulated value	Remark
Mean	92.08	95.12	1.14	2.07	insignificant
S.D	2.21	3.37			

The mean value of Leg Explosive Strength of cricket and softball group were 92.08, 95.512 and SD were +2.21 and +3.37 respectively. To observe the significant difference in Leg Explosive Strength between two groups T. Value was calculated and found to be 1.14 which is insignificant at 22 df at 0.05 level. So it is seen from the table that cricket group and softball group were more or less equal in Leg Explosive strength. In case of Leg Explosive Strength highest distance shows better performance. In standing broad jump cricket group and softball group were more or less equal.

Table 4: Mean, SD, T value of Arm and shoulder strength of two groups

	Cricket	Softball	t value	Tabulated value	Remark
Mean	32.34	38.67	3.01	2.07	significant
S.D	3.12	2.73			

The mean value of Arm and shoulder Strength of cricket and softball group were 32.34, 38.67and SD were +3.12 and +2.73 respectively. To observe the significant difference in Arm and shoulder Strength between two groups T. Value was calculated and found to be 3.01 which is significant at 22 df at 0.05 level. So it is seen from the table that softball group was better than cricket group in Arm and shoulder Strength. In case of Arm and shoulder Strength highest distance shows better performance. In 6 Pound Medicine Ball Put softball group was better than cricket group.

Table 5: Mean, SD, T value of Total Fitness of two groups

	Cricket	Softball	t value	Tabulated value	Remark
Mean	148.33	136.25	3.42	2.07	significant
S.D	8.62	5.87			

The mean value of Total Fitness of cricket and softball group was 148.33, 136.25 and SD were 8.62 and 5.37 respectively. To observe the significant difference in Total Fitness between two groups T. Value was calculated and found to be 3.42 which is significant at 22 df at 0.05 level. So it is seen from the table that cricket group was significantly better than softball Group in Total Fitness.

Conclusion

On the basis of results obtained following conclusion was drawn.

I. In agility cricket players were better than softball players.
II. In leg explosive strength cricket players and softball players were more or less equal.
III. In arm and shoulder strength softball players were better than cricket players.
IV. In total fitness cricket players were better than softball players.

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