



ISSN: 2456-0057  
IJPNPE 2018; 3(1): 1101-1102  
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www.journalofsports.com  
Received: 04-11-2017  
Accepted: 06-12-2017

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## A comparative study of explosive strength and abdominal strength between urban and rural female cricket players

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### Abstract

The present study was selected to compare explosive strength and abdominal strength between urban and rural female cricket players. For the purpose of the study 100 female cricket players were selected randomly (urban and rural) from Chandigarh, Fifty from rural and fifty from urban areas between the age range from 19-24 years. The players which have selected for the study had participated at least state level tournament. For comparing strength of abdomen and explosive strength of leg of rural and urban players mean, S. D and 't' ratio was computed so as to see whether any significant difference existed between both parameters. From the analysis of the data the investigator found that the rural female cricket players performed significantly better than the urban cricket players in the test items of bent knee sit-ups. There was no significant difference in the performance of rural and urban female cricket players in the test items of standing broad jump.

**Keywords:** strength, explosive strength

### Introduction

In sports activities some amount of resistance (if not external then one's own body weight) has to be overcome. The strength therefore is an important factor as which the sports performance depends. Depending upon the magnitude and type of resistance is to be tackled in various sports, the sportsman of different sports need different level and types of strength to achieve good performance. The greater the resistance the stronger should be the sportsman. Strength is needed not only for competition but also for successfully carrying out the training programmes. The strength has provided various benefits in the field of games and sports. Strong and well-conditioned muscle act as shock absorbers and decrease the force that goes through the joints when exercising. They also act as important balancing agents throughout our body.

### Material and Method

For the study 100 female cricket players were selected randomly from Chandigarh aged between 19-24. The selection of tool was of vital importance for this study since the aim was to analyse explosive strength and abdominal strength among female cricket players. There were two variables for the purpose of the study i: e abdominal strength (which was measured by no. of bent knee sit ups) and explosive strength (which was administered by standing broad jump). For comparing strength of abdomen and explosive strength of leg of rural and urban players mean, SD and 't' ratio was computed so as to see whether any significant differences existed between both parameters.

### Result and Discussion

For comparing strength of abdomen and explosive strength of leg of rural and urban players mean, SD and 't' ratio was computed so as to see whether any significant differences existed between both parameters.

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**Table 1:** Number of subjects in varying groups with age (years)

S.No.	Group	Number	Age		Range		Difference
			X	S.D	MIN	MAX	
1.	Urban	50	14.31	1.07	13	17	0.6
2.	Rural	50	14.91	1.32	13	17	

Table 1 show that the average age in case of urban players was 22.32 and in case of rural players it was 23.92 years and the mean difference is 0.6 years. The rural subjects were older

in age. The S.D in case of urban players was +1.07 years of mean and +1.32 years of mean in case of rural players.

**Table 2:** Mean, S.D and 't' ratio of (n=100) urban and rural female cricket players in sit-ups

S.No	Group	No.	Mean	S. D	M. Diff	S. E	't' Ratio
1.	URBAN	50	21.41	9.887	9.45	1.2533	2.4
2.	RURAL	50	26.96	8.3548			

Tabulated value of  $t = 2.00$

In this table the urban players have a mean is 21.41 and S.D is 9.8879, in other side the mean of rural players is 26.96 and S. D is 8.3548 or men difference is .45, S. E is 1.2533. T ratio =

2.43. Statistically significant at .05 levels because calculated value is greater than tabulated value.

**Table 3:** Mean, S.D and 't' ratio of (n=100) urban and rural female cricket players in standing broad jump

S.No	Group	No.	Mean	S. D	M. Diff	S. E	't' Ratio
1.	URBAN	50	1.81	.1969	0.0264	0.0264	.7575
2.	RURAL	50	1.79	.1931			

Tabulated value of  $t = 2.00$

Above table shows that urban players had a Mean is 1.81 and S.D. 1969 and rural players mean is 1.79 and S.D. 1931. A difference of mean (0.02 cm) in favour of urban female cricket players, yet the difference were statistically insignificant. Hence, the performance in standing broad jump was identical of both the urban and rural players and null hypothesis is accepted because calculated value (.757) is less than the tabulated value (2.00). The result is showing that there was significant difference found between urban and rural cricket players in relation to abdominal strength, rural players have more abdominal strength comparatively to urban. Rural players in addition to playing cricket they work hard in other works like farming and working in their home this may be the reason of difference between rural and urban female cricket players. There was also insignificant difference found in relation to explosive strength.

## Conclusion

From the analysis of the data the investigator found that the rural female cricket players performed significantly better than the urban cricket players in the test items of bent knee sit-ups. There was no significant difference in the performance of rural and urban female cricket players in the test items of standing broad jump. The overall picture which emerges from the analysis of data reveals that neither rural players nor urban cricket players were categorically superior to their counterparts. There was a mixed response regarding their strength of abdominal and explosive strength of leg. The entire research work find out that rural female cricket players are superior than component of physical fitness, but some urban female cricket players are also superior in component of fitness.

## References

1. Aahper. Measurement and evaluation material in health Physical education and recreation association, Washington D.C, 1957.
2. Anchal Chaudhary. Physical fitness of female players studying in high schools in the rural and urban areas from

kurukshetra university unpublished thesis for the degree of M.phill, 1998

3. Andrews Barry Craig, Physical fitness levels of Canadian and south African school boys. Dissertation abstract international, 1999; 36(9):274-78.
4. Aujla Iqbal Kaur. A comparative study of physical fitness or urban and rural school girls" unpublished M.phill thesis, L.N.C.P.E Gwalior.
5. Gill Jagtar Singh *et al.*, A comparative study of physical fitness and self-concept of college students.