



Comparison Of Selected Cardio Respiratory Function Between Selected Players Of Respective Games

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Abstract:

A main objective of the study was to find out the Cardio Respiratory function between selected players of respective games of Himachal Pradesh University, Shimla of Himachal Pradesh State. 80 Male players were selected on the bases of simple random sampling method in which 40-40 players were selected from Himachal Pradesh state university Shimla. To find out significant different comparative 't' test was implemented. Interuniversity's Football Players was found significantly higher Resting Heart Rate than the Inter-Collegiate Football Players. For Vital capacity there was no significant difference found between Inter-Collegiate Football Players Groups and Inter- University Football Players Groups 0.05 level of significant. In Aerobic capacity Interuniversity Football Players was significantly higher in Aerobic Capacity in comparison Intercollege Football Players at 0.05 level of significance.

Keywords: Cardio Respiratory Function & selected players of H.P University.

Introduction:

Cardio Respiratory function is the ability to take and deliver and uses of oxygen. It's dependent on the function of cardio respiratory system like heart and lungs. The improvement of cardio respiratory fitness is directly related with the frequency, intensity, duration and mode of exercises.

Sport plays a vital role in the development of human being. Due to regular physical activities we can enhance our anatomical, physiological and psychological structure.

Objective of the Study:

The objective of the study was to compare the selected cardio respiratory function between selected players of respective games of Himachal Pradesh University, Shimla of Himachal Pradesh State.

Design of the Study:

For this study, 80 Male Players in which 40-40 players were selected players of H.P University. The average age of the subjects was 18-24 years as obtained records from Department of Sports, H.P University. The level of participation of players was at Intercollege and Interuniversity level of competitions.

The test had been selected for related physiological variables;

- Resting Heart Rate: Measure of Resting Heart Rate by Pulpatory Method
- Vital Capacity: Measure of Vital Capacity by using Wet Spirometer.
- Aerobic Capacity: Cooper's 12 Minutes Run-Walk Test.

The reliability co-efficient of the test items of selected cardio-vascular functions were calculated by test re-test correlation.

Statistical Analysis:

Table: I reliability co-efficient of test items of resting heart rate, Vital capacity and aerobic capacity

Sr. No.	Name of the Test Items	Co-efficient 'r'
1.	Resting Heart Rate	0.99*
2.	Vital Capacity	0.94*
3.	Cooper's 12 minute Run-Walk Test (Aerobic Capacity)	0.85*

To see the comparative significance difference level between the inter college and inter university players the comparative t-test was employed for the selected physiological variables Aerobic endurance, Resting Heart Rate and Vital Capacity. The level of significant chosen was 0.05 level of confidence.

Table No: II T- Test for comparing means for comparing means of Resting Heart Rate of Players

Study Parameter	Group	Mean	S.D.	T- Value	p- value
Resting Heart Rate	Inter College	63.85	3.009	-8.798*	0.000
	Inter University	69.675	2.9123		

*Significant at 0.05 level.

It was observed that from the table no. II comparison means of resting heart rate of selected players. The comparative t test value was found no significant at 0.05 level of confidence, since the test value 0.1 was found less than the p-value 0.000.

Table No: III T- Test for comparing means of Vital Capacity of Football Players

Study Parameter	Group	Mean	S.D.	T- Value	p- value
Vital Capacity	Inter College	3.6115	0.3535	-0.1	0.921
	Inter University	3.62	0.4065		

Significant at 0.05 level.

It was observed that from the table no. III comparisons of vital capacity of inter college and inter university football players. The comparative test value was found no significant at 0.05 level of confidence, since the test value 0.1 was found smaller than the p-value 0.921.

Table No: IV T- Test for comparing means of Aerobic Capacity of Football Players

Study Parameter	Group	Mean	S.D.	T- Value	p- value
Aerobic Capacity	Inter College	56.565	2.5059	1.592*	0.115
	Inter University	5.247	5.247		

Significant at 0.05 level.

It is seemed from the above table no. IV that comparisons of aerobic capacity of inter college and inter university football players. The comparative test value was found significant at 0.05 level of confidence, since the test value 1.592 was found greater than the p-value 0.115.

Discussion on Findings:

Inter- University's Football Players was found significantly higher Resting Heart Rate than the Inter- College Football Players since the t-test value -8.798 was greater than p-value 0.000 (-8.798 > p-value 0.000). since the lest heart rate signified the better heart rate Inter college Player are having better heart rate than the inter University Players. For Vital capacity there is no significant difference found between Inter- College Football Players Groups and Inter- University Football Players Groups (-0.1 < P-value = 0.921) at 0.05 level of significant. In Aerobic capacity Inter- University Football Players was significantly lower in Aerobic Capacity than Intercollege players (1.592 > p- value 0.015) at 0.05 level of significance.

Conclusion:

After the analysis of the study following conclusions were drawn: Resting Heart Rate, Vital Capacity, and Aerobic Spirometer, Cooper's 12min Run-Walk Test. These were all Capacity was measured by using the pulpatory method, wet- valid and reliable test for objective measurement of selected physiological components;

- I. In case of resting heart rate (RH), the comparative t test values were found higher than the p values. Since the slower resting heart rate indicates the better heart rate inter college players were having better heart rate than inter university players at 0.05 level of confidence.
- II. Inter college and Inter University players were no significant difference found in vital capacity at 0.05 level of significant.
- III. The comparison of Aerobic capacity was found significantly higher in inter college football players than inter university players at 0.05 level of significant.

It was conclude that the Intercollege football players were having better cardio respiratory function than the Interuniversity football players with regards to this study shown that the resting heart rate and aerobic capacity were found better in the inter college players than inter university players.

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