

CHAPTER V

SUMMARY, FINDINGS, CONCLUSION AND RECOMMENDATIONS

Summary

Sports mean all those physical activities done for diversion, amusement, pleasure or success. These provide physical exertion for amusement or competition governed by definite rules. All these sport activities need physical fitness as well as anthropometrically sound players for enhancing their playing abilities and achieving success. A player ought to possess specific speed, strength, power, agility flexibility & endurance in abundance so as to learn & master the techniques of the game. Measurement of body size and proportions include skin fold thickness, circumference, bony width and lengths, stature and body weight. Researchers for the sake of coaches and selectors are trying to find out the importance of both physical fitness and anthropometric measurements in the field of sports for improving the performance of players.

Many sport activities are played world-wide. The game of cricket has a long history. Cricket is played everywhere. So this comparative study was conducted on 450 cricket players (150 slow bowlers + 150 fast bowler + 150 batsmen) age ranging between 16 to 18 years from different cricket academies of Chandigarh, Punjab & Haryana state. Physical fitness, anthropometric measures and playing ability has been compared among players in terms of mean, standard deviation with t-test, test of variance etc. Relationship of playing ability with these parameters has been assessed with correlation and linear regression analysis.

The findings of the current study shows that playing ability of cricket players especially both types of bowlers is significantly positively correlated to speed, but non-significant for batsman. But strength had significant negative correlation with ability for batsman individually. Whereas endurance, flexibility and agility were found to be non-significantly related to playing ability. Calf circumference was found to be significant correlated with playing ability for all cricket players. Total leg length for slow bowlers and thigh circumference for batsman had significant relationship with playing ability of players. Whereas none of the variables was found to be significant for fast bowlers.

Findings of the study

While considering the results of present study following findings were observed :

Slow vs. fast bowlers: Physical fitness

Present study reveals that slow bowler were significantly faster than fast bowlers in 50m dash. Both slow and fast bowlers possessed almost equal strength. More Endurance was witnessed among fast bowlers compared to slow bowlers. Average flexibility of fast bowlers was statistically greater than slow bowlers. More agility was observed among slow bowlers.

1. Slow bowler vs. batsman: Physical fitness

Mean comparison shows average speed of slow bowlers was marked statistically significant over batsman. Batsman had greater strength than slow bowlers. More endurance was exhibited by slow bowlers compared with batsman. Batsman were significantly flexible than slow bowlers. Agility was higher among slow bowlers than batsman.

2. Fast bowler vs. batsman: Physical fitness

Mean comparison of speed between fast bowlers and batsman was found to be non-significant as both had same speed. Equal strength was witnessed among both types of players. Fast bowlers showcased more but non-significant average endurance than batsman. Even fast bowlers and batsman were almost equally flexible. Both type of players had similar agility. Thus no significant difference was found among fast bowlers and batsman related to physical fitness.

3. Slow vs. fast bowlers: Anthropometric parameters

Weight of slow and fast bowlers was almost same. Fast bowlers were significantly taller than slow bowlers. No difference was seen in total arm length between both type of bowlers. Although mean total leg length of fast bowlers was greater than slow bowlers but non-significant difference was observed. Upper arm circumference of slow bowlers was slightly more than fast bowlers. But forearm circumference of slow bowlers was significantly greater than fast bowlers. Fast bowlers had little higher thigh circumference compared to slow bowlers. On the other hand calf circumference

of slow bowlers was significantly higher than fast bowlers. Biceps skin-fold among both categories of bowlers was almost equal. Whereas triceps skin-fold was measured significantly more in fast bowlers. Sub-scapular skin-fold and thigh skin-fold were observed to be equal in both types of bowlers. Calf skin-fold of slow bowlers was little more compared to fast bowlers.

4. Slow bowler vs. batsman: Anthropometric parameters

Batsmen were found to be heavier than slow bowlers. Significantly higher average height was measured among batsman compared to slow bowlers. Slow bowlers were having slightly more total arm length than batsman. Total leg length of slow bowlers was longer than batsman. More average upper arm circumference was observed among slow bowlers than batsman. Average forearm circumference of slow bowlers was greater than batsman. With highly significant difference batsman had higher thigh circumference than slow bowlers. Calf circumference of slow bowlers was more in comparison to batsman. Biceps skin-fold was observed little more among batsman than slow bowlers. Batsman were having significantly higher triceps skin-fold compared to slow bowlers. Sub-scapular skin-fold was slightly more among slow bowlers than batsman. More thigh skin-fold was recorded among batsman when compared to slow bowlers. Little bit higher calf skin-fold was observed among slow bowlers than batsman.

5. Fast bowler vs. batsman: Anthropometric parameters

Almost equal weight was observed among fast bowlers and batsman. The difference between height of fast bowlers and batsman was non-significant. Total arm length of fast bowlers was similar to batsman. Fast bowlers had longer total leg length compared to batsman. Average upper arm circumference of fast bowlers and batsman was almost same. Wider forearm circumference of batsman than fast bowlers implies stronger forearms. Thigh circumference of batsman was higher than fast bowlers. Batsman showed more average calf circumference in comparison to fast bowlers. Biceps skin-fold was calculated as equal among fast bowlers as well as batsman. Triceps skin-fold was more among batsman than fast bowlers. Sub scapular skin-fold was not very different among fast bowlers and batsman. Batsman possessed more thigh skin-fold compared to fast bowlers. Average calf skin-fold was same in fast bowlers and batsman.

6. Correlation between playing ability and physical fitness:

Playing ability of cricket players especially both types of bowlers is significantly positively correlated to speed, but non-significant for batsman. But strength had significant negative correlation with ability for batsman individually. Whereas endurance, flexibility and agility were found to non-significantly related to playing ability.

7. Correlation between playing ability and anthropometric parameters:

Calf circumference was found to be significant correlated with playing ability for all cricket players. Total leg length for slow bowlers and thigh circumference for batsman had significant relationship with playing ability of players. Whereas none of the variables was found to be significant for fast bowlers.

5.3 Conclusion:

1. Slow bowlers among all players were fastest whereas fast bowlers showed least speed among all.
2. Strength wise all categories of cricket players were same.
3. Maximum endurance was exhibited by fast bowlers, followed by slow bowlers and batsman in the end
4. Slow bowlers were significantly least flexible than fast bowlers and batsman.
5. Agility among various categories of cricket players was not very different yet slow bowlers showed more agility compared to fast bowlers and batsman.
6. Weight of all players was almost same yet batsmen were little heavier than bowlers.
7. Batsmen were found to be tallest among all players followed by fast bowlers.
8. Both categories of bowlers had same total arm length but batsmen were little behind with shorter arm length compared to bowlers.
9. Average total leg length of slow bowlers and batsman was almost similar though fast bowlers had longer legs than other players.

10. Higher mean value for upper arm circumference of slow bowlers signifies stronger upper arm among slow bowlers than fast bowlers and batsmen.
11. Statistically significant higher average forearm circumference was recorded among slow bowlers followed by batsmen compared to fast bowlers.
12. Thigh circumference of batsman was significantly higher than both type of bowlers.
13. Slow bowlers showed more calf circumference among all. Even batsman had stronger calves than fast bowlers.
14. All groups of players were not very different in terms of biceps skin-fold.
15. Batsman surpassed their other counterpart in case of triceps skin-fold. Slow bowlers had least triceps skin-fold.
16. Sub-scapular skin-fold was observed to be same among all type of cricket players.
17. Batsman possessed more thigh skin-fold than slow and fast bowlers.
18. More calf skin-fold was measured among slow bowlers whereas fast bowlers and batsman were equal in terms of calf skin-fold.
19. Highest mean playing ability was calculated among batsman, followed by slow bowlers. Least playing ability average was found among fast bowlers.
20. Correlation coefficient of playing ability with various anthropometric variables shows very weak relationship among almost all parameters.
21. Relationship between playing ability and physical fitness parameters shows very weak to weak correlation co-efficient.

RECOMMENDATIONS AND SUGGESTIONS

During the process of present study limitations faced by the researcher motivated to think about some other related topics for further research work in future. The following advancements in the study can help coaches, trainers and selectors to understand the necessary parameters for enhancing the playing ability of cricket players.

1. The data collection work was done in three states Chandigarh, Punjab and Haryana. The diet, lifestyle and facilities in different states can make big differences in physical as well as anthropometric parameters resulting to varied playing ability.
2. The present research was confined to players in the age group 16-18 years only. The comparison of junior level and senior level players can also help to understand the importance of age.
3. The duration of playing cricket was not a part of consideration in the present study but experience can also influence the playing ability of cricket players.
4. Similarly duration of practice sessions per day can also influence the playing ability of players which was beyond the limits of present study.
5. The present study was limited to male players only thus gender difference can be concluded only if females players would be added.
6. Further comparison can be based on state level and national level players.