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RELATIONSHIP OF ANTHROPOMETRIC VARIABLES WITH BASKETBALL PLAYING ABILITY

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Short Profile

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ABSTRACT:
The aim of the study was to find out the relationship of selected anthropometric variables andbasketball playing ability among university players.Eighty inter university basketball players were randomly selected from different Universities of Karnataka with the age ranging from 18-25 years. To achieve the aim of the study a series of anthropometric measurements were taken from each player. These include height measured by stadiometer; body weight measured by weighting machine, arm length, forearm length and leg length were measured by Gulick tapeand the basketball playingability was assessed by the experts during the match.The data was analyzed by using the Pearson's product moment correlation statistical technique and results showed that there is a correlation between the selected anthropometric variables and Basketball playing ability.

KEYWORDS
Anthropometric variables, height, weight, arm length, forearm length and leg length.

INTRODUCTION:

Sports performance depends upon various factors. Every sports activity requires a specific type of body structure. Anthropometry is used to evaluate physical performance of athletes through evaluating their physical structure and function. The Anthropometry equips us with the knowledgeand technique for various body measurements, so that one can find the art of relationship of anthropometric variables with success.Anthropometric characteristics are related to a player's profile and might be used to predict a player's success. Anthropometric characteristics of players has been an interest of sports trainers, exercise scientists, physical education and sport medicine professionals for years and many of them assumed the practicing players might be expected to exhibited structural and functional characteristics that are specifically favorable for the sport. The knowledge of anthropometric characteristics is necessary to establish their importance for the success in competitive sport.

Few normative data exist in the scientific literature for the current physical size and proportionality characteristics of elite female basketball players. These data are useful for coaches when initially selecting players for various positions, and play a role in the development of players' personal skills.The anthropometric variables, plays a crucial role in the performance of Basketball players.

Aim of the study:

The aim of the study was to know the relationship between the selected anthropometric variables and Basketball playing ability.

MATERIAL & METHODS

For the present study, Eighty (N=80) Basketballmale players (inter-university level) of age ranging from 18-25 years were selected as subjects from various Universities of Karnataka state. The random sampling technique was used to select the subjects.

Instruments: The instrument used for collection of data was gullick tape.

Variables:Height measurements were taken by using stadiometer and weight by weighing machine and length measurements with the gullicktape.

Statistical Analysis: The data collected was analyzed by using Product moment correlation. The level of significance was set at 0.05. Data was analyzed using SPSS Version 20.0 (Statistical Package for the Social Sciences, version 20.0, SPSS Inc, and Chicago, IL, USA).

Results:After analyzing the data collected within the limitations of the study the results are presented in following table

TABLE – 1- Descriptive statistics of University basketball players

Sl. No.	Variables	Mean value	Standard deviation	N
1.	Height	184.74	9.63	80
2.	Weight	70.85	9.24	80
3.	Arm length.	49.69	2.86	80
4.	Fore arm length	27.28	2.99	80
5.	Leg length	79.73	2.39	80
6.	Playing ability	41.13	5.80	80

The above table states the mean value and standard deviation of the selected anthropometric variables of basketball University players.

Table – 2 Shows the relationship between Basketball playing ability and the selected Anthropometric measurements

Sl. No.	Variables	Correlation coefficient
1.	Basketball playing ability and height	.751**
2.	Basketball playing ability and weight	.771**
3.	Basketball playing ability and arm length.	.572**
4.	Basketball playing ability and fore arm length	.243*
5.	Basketball playing ability and leg length	..334**

** Significant at 0.01 level
*Significant at 0.05 level

The above table indicates that Basketball playing ability significantly related to height =.751**, weight = .771, arm length = .572**fore arm length =.243*and**, leg length = .334**Therefore, it is evident that height, weight, leg length, arm length and fore arm length contributing for basketball playing ability.

CONCLUSIONS

Performance in any sports discipline depends to a most extent on anthropometric variables, sports administrators concentrate on the general and specific fitness. From the results of the study, the selected anthropometric variable height, weight, arm length, fore arm length and leg length are significantly correlated to basketball playing ability. It is established that body build plays an important role in achievements in many sport since it provides a basis for the formation and improvement of movement techniques, as well as specific physical performance. Basketball sport has high requirement of anthropometric variables of players in a sport such as basketball, several elements in anthropometric

profile such as variable height, weight, arm length, fore arm length and leg length all can influence the competitivesuccess. Soit rightly said that “Structure decides function and function decide structure”. Therefore, coaches and trainers should select the athlete’s bykeeping in view of player’s anthropometric variables, level of performance, training ability and nature of the sports activity

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