EFFECT OF RELATED AND UNRELATED WARM-UP ON SHOOTING ACCURACY IN BASKETBALL FROM DIFFERENT ANGLES

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Abstract :

Physical Education has got the potential of contributing to the wholesome development of the total personality of an individual. Basketball has progressed to be a worldwide game, internationally popular and universally accepted. It is one of the most strenuous and thrilling games, and it demands physical fitness, speed and endurance. As a result of this study it might be determined whether certain shooting angles are made perfect, which will be helpful in game situation. The shooting accuracy considerably improves when done after related warm up exercises. And there is no significant improvement in the shooting accuracy in case of unrelated and no warm up exercises.

Key Words : Warm up, Shooting accuracy.

Introduction :

Physical Education attains the educational objectives, which are sought through participation in various games and sports. Physical Education has got the potential of contributing to the wholesome development of the total personality of an individual.

The potentials of the physical activities need to be viewed in the light of two important aspects. First, participation in physical education activities should be safe for the students and secondly, the selection of activities should be such that the students get a wholesome experience including a sense of accomplishment.

The various games and sports which comprise physical education programs differ in terms of the demands placed upon the anatomico-physiological system and the psychological set up of the participants, in the area of play the involvement of equipment, the nature of activity etc. Basketball has progressed to be a worldwide game, internationally popular and universally accepted. It is one of the most strenuous and thrilling games, and it demands physical fitness, speed and endurance.

In spite of the fact that this game is played in a relatively smaller area of 28 x 15 meters, it demands very heavy exertion on the part of the players who have to be capable of repeated sprints of short distance with sudden stops and changes in direction over a period of 30 to 40 minutes at a stretch with a little rest in between.

It would be quite reasonable to state that warm up is very essential before participation in the game of Basketball. The recommendation found in leading texts on this game reflects the importance of warming up.

The warm up must be specific to activity being performed and should be increased in intensity as the performance becomes better conditioned. The duration of the warm up is also very important. If there is a long delay between the warm up and the performance, the beneficial effects of the warm up may be reduced.

Warming up in essence, is described as the preparation carried out immediately before participation in a vigorous physical activity with the intention of producing optimum work performance and preventing injuries. The acclaimed beneficial effects of warm up include the anatomical physiological changes in the muscles, the joints and circulo-respiratory system as well as psychological adjustment to the situation,

almost all these changes and adjustments resulting from warm up make simultaneous contribution to prevention of injuries, to the facilitation of optimum performance, and ultimately to make the actual participation wholesome and fruitful.

The present investigation was therefore undertaken to gain a better understanding of the importance of two district types of warming up on shooting accuracy in basketball, viz. related warming up and unrelated warming up.

Significance of the Study :

The common trend among coaches is to give greater weight age to practice of the skills involved in the activity. As a result of this study it might be determined whether certain shooting angles are made perfect, which will be helpful in game situation.

Methodology :

Twenty Five men students of the Bachelor's and Master's degree classes of Lakshmibai National College of Physical Education, Gwalior specializing in Basketball were the subjects for this study. The average age of the subjects was 21 years ranging from 17 years to 26 years by Lottery.

Criterion Measure :

The total number of baskets scored from each angle out of 10 attempts and mean score of each angle is the criterion measure of this study. Each subject will be given 10 chances from each angle.

Scoring Data

Scores in the test of shooting accuracy, comprises the sum of points scored from the fives different angles, the maximum possible score for the test being 50.

Reliability of Data :

Reliability of scores in the test for shooting accuracy was established by the test re test method, the obtained reliability co-efficient are presented in Table 1.

Table 1

Reliability Co-efficient for test, re test scores

(10 Shooting Accuracy)

Treatment condition	Reliability Co-effieients
A. Without warm up	0.86
B. Unrelated warm up	0.90
C. Related warm up	0.91

Statistical Treatment of Data :

To compare the performance from all the angles under two experimental treatment conditions and the control condition the means obtained under each condition were subjected to analysis of variance. Significance of F-ratio's obtained as well as the difference between paired group means was tested at point .05 level of confidence.

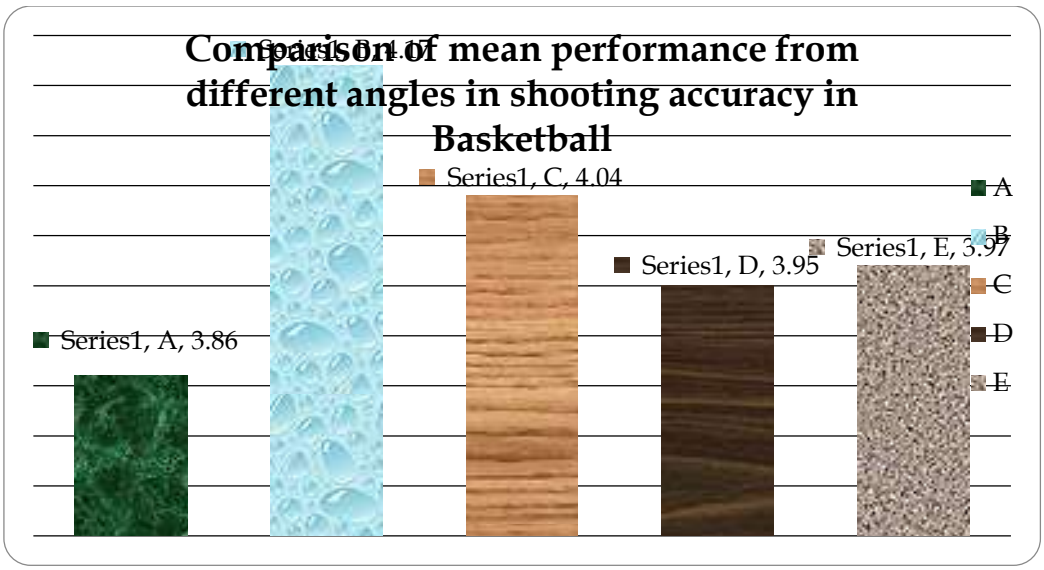
Table 2

Analysis of Variance for Data on Shooting Accuracy

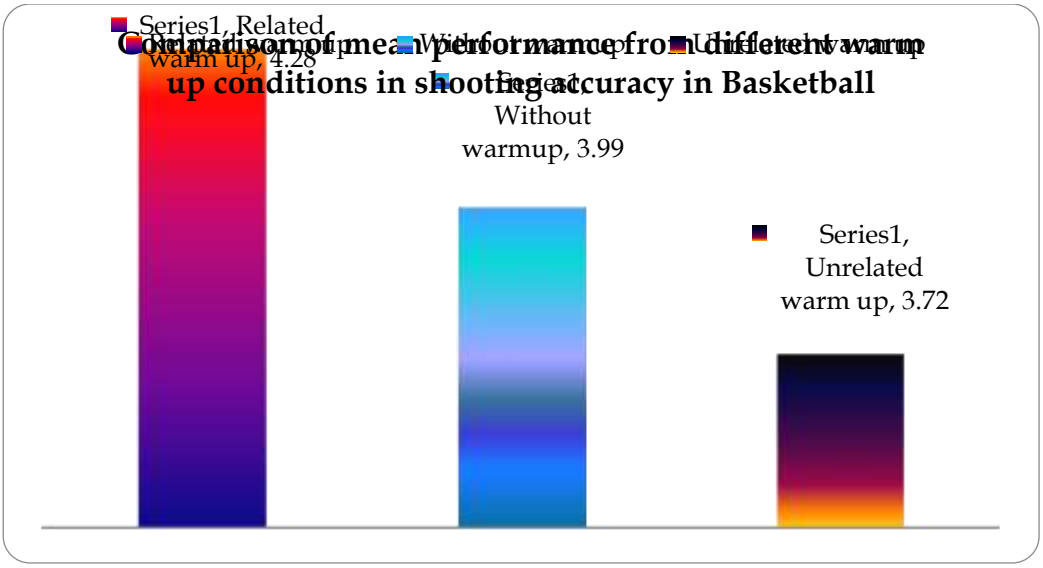
Source of Variance	**df**	**SSW**	**MSS**	**F-ratio**
Row	2	19.06	9.53	3.54
Column	4	3.97	.993	.369
Interaction	8	3.03125	1.125	
Error	360	969.72	2.694	

* Significant at .05 level.

Tab F at .05 (2,360) = 3.02 / cali F = 3.54



* A = L-0^0 B = L-45^0 C = 90^0 D = R-45^0 E = R-0^0



Analysis of variance presented in Table 2, show that shooting accuracy in basketball is influenced by the nature of warm up exercises engaged in prior to performance. The significant F-ratio led to the rejection of the null hypothesis of no significant difference in shooting accuracy as a result of different types of warm up.

Post hoc comparison of paired group means by Scheff's t-test revealed that related and no warm up had better effect on shooting accuracy that unrelated warm up exercises. The significant difference obtained between effect of related warm up and unrelated warm indicated that lack of related warm up prior to shooting would not make a player perform his best in basketball shooting. The hypothesis stated earlier in chapter I could not be accepted fully as there was significant difference between the effect of unrelated warm up and related warm up prior to the performance of the task prescribed.

The results indicated that the no warm up and related warm up were equally effective. The insignificant difference between related warm up and no warm up could not be explained.

Conclusion :

1. The shooting accuracy considerably improves when done after related warm up exercises.
2. There is no significant improvement in the shooting accuracy in case of unrelated and no warm up exercises.

Recommendations :

1. It is recommend that warm up for basketball may comprise of related and unrelated activities.
2. The findings of this study with reference to the effect of related warm up on shooting accuracy did not indicate any advantage over no warm up, it may be fruitful to undertake further studies utilizing more intense related warm up.
3. Similar studies using different combinations of intensity and duration of warm up may be undertaken.
4. It may also be meaningful to study the effect of different types of warm up on other aspects of the game such as dribbling, speed passing etc.

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