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SPECIAL EFFECTS OF DIVERSE TRAINING ON MOTOR FITNESS VARIABLES IN THE COLLEGE MEN BASKETBALL PLAYERS

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ABSTRACT

The purpose of the study was to find out the effects of diverse training programs on motor fitness variables in college men's basketball players. To achieve these purposes, identifying thirty intercollegiate competitions at the college level men basketball players were selected at random to study. All the subjects were students of AVVM Sri Pushpam Arts and Science College (Autonomous), Poondi, Tanjavur, Tamil Nadu, India. The ages of the subjects ranged between 18 and 23 years. They were simplified into two groups. Each group consists of fifteen players, which was assumed to be appropriate for the purpose of the study. The diverse training for the training group (group I) and the control group (group II), group I, underwent their respective training programs for three days per week for twelve weeks; they did not undergo any special training programs apart from their regular physical education curriculum. The control group did not go for any training. All the subjects were tested prior toand after the experimental treatment periods on selected criterion variables related to motor fitness. The following variables, such as speed and strength endurance, were selected as criterion variables: speed was assessed by a 50-meter run (Seconds) and strength endurance was assessed by sit-

ups (numbers/m min). All the subjects in the two groups were tested on selected criterion variables prior to and immediately after the training program as pre- and post-tests. An analysis of covariance (ANCOVA) was used to find out the significant difference, if any, among the groups on each selected criterion variable separately. In all the cases, a.05 level of confidence was fixed to test the significance, which was considered appropriate. There was a significant difference between the diverse training group and the control group on criterion variables such as speed, strength endurance.

Keywords: Diverse, training group, the control group , speed , strength, endurance basketball players.

Physical wellness may be a pivotal component of athletic execution, particularly in college basketball players who depend on their engine wellness factors to exceed expectations on the court. The impacts of assorted preparing programs on these factors have been a point of intrigued among coaches and sports researchers. By investigating the effect ofdifferent training methods on dexterity, speed, and control, we will way better get it how to optimize the execution of college men basketball players. This paper will contend that differing preparing programs can upgrade by and large engine wellness factors in college ball players by moving forward their dexterity, speed, and control, eventually driving to way better on-court executionphysical fitness in sports dates back to ancient times, with athletes in various cultures engaging in rigorous training regimens to improve their performance. In the context of basketball, the emphasis on fitness and training has evolved over the years. In the early days of the sport, players relied primarily on natural talent and skill, with little emphasis on physical conditioning. However, as the game became more competitive and demanding, coaches began to recognize the importance of physical fitness in enhancing performance on the court.

Training programs in basketball have become more specialized and focused on improving specific motor fitness variables such as speed, agility, strength, and endurance. With advancements in sports science and technology, coaches have gained a better understanding of the importance of targeted training programs in optimizing athletic performance. Today, college men basketball players are exposed to a variety of diverse training programs designed to improve their motor fitness and overall physical conditioning. Diverse Training Programs:

The impact of diverse training programs on motor fitness variables in college men basketball players cannot be overstated. These programs play a crucial role in enhancing

players' performance on the court and reducing the risk of injury. By targeting specific motor fitness variables such as speed, agility, and endurance, coaches can help players improve their overall athleticism and game skills. Additionally, diverse training programs can help players build strength and stamina, allowing them to withstand the physical demands of a long basketball season.

One of the key benefits of diverse training programs is improved physical conditioning. By incorporating a variety of training modalities such as strength training, agility drills, and cardiovascular exercises, coaches can help players increase their overall fitness levels. This, in turn, can lead to improved performance on the court, as players are better able to handle the demands of a fast-paced game. Furthermore, diverse training programs can help prevent injuries by strengthening the muscles and ligaments that are most susceptible to injury in basketball.

Influential Individuals:

Several influential individuals have made significant contributions to the field of motor fitness training in basketball. One such individual is Dr. Michael Yessis, a sports scientist and author who has conducted extensive research on motor fitness variables in athletes. Dr. Yessis's work has helped coaches and trainers better understand thebiomechanics of athletic movement and develop more effective training programs for basketball players.

Another influential individual in the field is Dr. Jack Daniels, a renowned exercise physiologist and coach who has worked with elite athletes in various sports. Dr. Daniels's research on the physiological demands of basketball has helped coaches design training programs that are tailored to the specific needs of basketball players. His expertise in exercise science has shaped the way coaches approach motor fitness training in basketball.

METHODOLOGY

In this chapter deals with the procedures followed in the selection of the subjects, experimental design, selection of variables, selection of tests, instrument reliability, reliability of the data, pilot study, competence of the tester, orientation to the subjects, training program, collection of data, test administration, experimental design, and statistical procedure.

SELECTION OF SUBJECTS

To achieve this purpose of the study was to find out the effects of diverse training programs on motor fitness variables in college men's basketball players. To achieve these purposes, identifying thirty intercollegiate competitions at the college level men basketball players were selected at random to study. All the subjects were students of AVVM Sri Pushpam Arts and Science College (Autonomous), Poondi, Tanjavur, Tamil Nadu, India. The ages of the subjects ranged between 18 and 23 years. They were simplified into two groups.

Each group consists of fifteen players, which was assumed to be appropriate for the purpose of the study. The diverse training for the training group (group I) and the control group (group II), group I, underwent their respective training programs for three days per week for twelve weeks; they did not undergo any special training programs apart from their regular physical education curriculum. The control group did not go for any training. All the subjects were testedprior to and after the experimental treatment periods on selected criterion variables related to motor fitness. The following variables, such as speed and strength endurance, were selected as criterion variables: speed was assessed by a 50-meter run (Seconds) and strength endurance was assessed by sit-ups (numbers/m min). All the subjects in the two groups were tested on selected criterion variables prior to and immediately after the training program as pre- and post- tests. An analysis of covariance (ANCOVA) was used to find out the significant difference, if any, among the groups on each selected criterion variable separately. In all the cases, a.05 level of confidence was fixed to test the significance, which was considered appropriate.

TRAINING PROGRAMME

During the training period, there were two groups of subjects: experimental group I diverse training group, and control group II without training. The experimental groups were given training programs, whereas the control group was given training programs without any training. The training procedure was conducted for three days per week for twelve weeks in addition to their regular physical education activities. Every day's workout lasted about 45–60 minutes, including warm-up and warm-down exercises. Group II acted as a control group and did not participate in any specific training; however, they participated in a regular physical education program. Thus, the training program was conducted with the following: Dependant Variables Parameters for motor fitness variables were selected, such as speed and strength endurance.

STATISTICAL ANALYSIS

The data was collected from two groups prior to and after the completion of the training period on selected criterion variables and statistically examined for significant differences, if any, by applying analysis of covariance (ANCOVA). The Scheffe's post hoc test was applied to determine if there was a significant difference between groups if their ‘F’ ratio was significant. In all cases, a 0.05 level of confidence was utilized to test thesignificance. All these techniques were used with the help of the statistical procedure of thesocial sciences software package version SPSS-21.00.

ANALYSIS OF DATA

The persuasion of the independent variable on each dependent variable was analyzed and presented below:

SPEED

The mean values of the speed of the control group and the diverse training group at different stages of testing have been analyzed and submitted in Table I.

Table - I

ANALYSIS OF COVARIANCE ON SPEED ON PRE TEST AND POST TEST DATA OF EXPERIMENTAL AND CONTROL GROUP

Test	Control Group	Diverse Training Group	Source of Variance	Sum of Square	df	Mean Squares	Obtained 'F' Ratio
Pre- test Mean S.D	7.9207 0.8606	7.9140 0.9375	Between Within	.000 .227	1 28	.000 .008	.041
Post- test Mean S.D	7.9307 0.6508	7.6393 0.1984	Between Within	.637 .610	1 28	.637 .022	29.201*
Adjusted Post- test Mean	7.927	7.643	Between Within	.601 .289	1 27	.601 011	56.278*

**** Significant at 0.05 level of significance.***

(The table value required for significance at 0.05 level of significance with df 1 and 28 and 1 and 27 were 4.196 and 4.210 respectively).

Table – I shows that the pre-test means and S.D on speed of control and diverse training group were 7.9207, 0.8606 and 7.9140, 0.9375 respectively. The obtained 'F' - ratio value of 0.041 for pre-test score on speed was fewer than the required table value of 4.196 was significant with df 1 and 28 at 0.05 level of significance.

The post-test mean values of speed of control and diverse training group were 7.9307, 0.6508 and 7.6393, 0.1984 respectively. The obtained 'F' - ratio value of 29.201 for post test scores was significant than the table value of 4.196 for connotation with df 1 and

28.

The adjusted post-test mean values of control and diverse training group were 7.927 and 7.643. The obtained 'F' - ratio proportion of 56.278 was significant than the required table value of 4.210.

The above statistical analysis indicates that there was a significant improvement in performance of speed after the training periods. Further the adjusted post-test mean values on speed of control and diverse training group were graphically represented in figure - I.

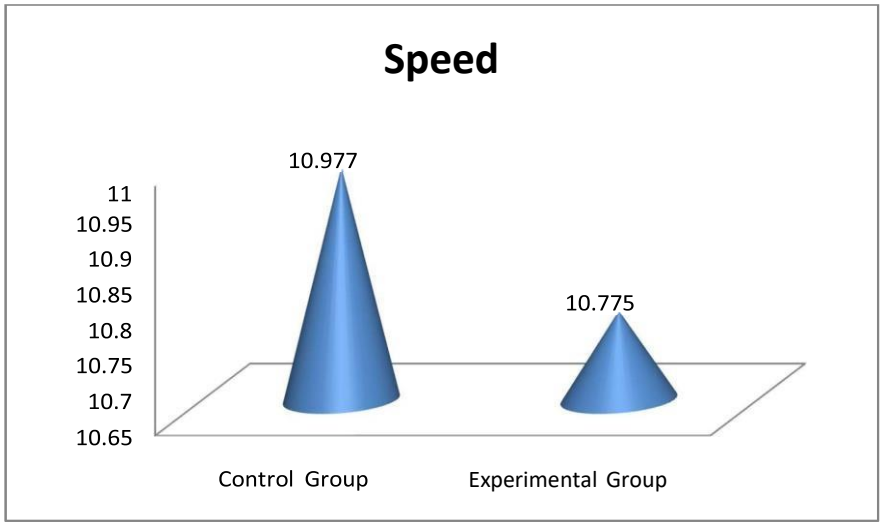

Figure-I: Adjusted post-test mean values on speed of control and diverse training group

STRENGTH ENDURANCE

The mean values of strength endurance of control group and diverse training group at different stages of tests have been analyzed and submitted in table – II.

TABLE - II

ANALYSIS OF COVARIANCE ON STRENGTH ENDURANCE ON PRE TEST AND POST TEST DATA OF EXPERIMENTAL AND CONTROL GROUP

Test	Control Group	Diverse Training Group	Source of Variance	Sum of Square	df	Mean Squares	Obtained 'F' Ratio
Pre- test Mean S.D	37.4667 1.88478	38.4000 1.95667	Between Within	6.533 3.333	1 28	6.533 3.690	1.770
Post- test Mean S.D	38.4667 1.76743	41.4000 1.63881	Between Within	64.533 81.333	1 28	64.533 2.905	22.216*
Adjusted Post- test Mean	38.522	41.344	Between Within	56.173 79.861	1 27	56.173 2.958	18.991*

** Significant at 0.05 level of significance.*

(The table value required for significance at 0.05 level of significance with df 1 and 28 and 1and 27 were 4.196 and 4.210 respectively).

Table – II shows that the pre-test means and S.D on strength endurance of control and Diverse Training group were 37.4667 ± 1.88478 and 38.400 ± 1.95667 respectively. The obtained 'F' - ratio value of 1.770 for pre-test score on strength endurance was fewer than the required table value of 4.196 was significant with df 1 and 28 at 0.05 level of significance.

The post-test mean values of strength endurance of control and diverse training group were 38.4667 ± 1.76743 and 41.4000 ± 1.63881 respectively. The obtained 'F' - ratio value of 22.216 for post test scores was significant than the table value of 4.196 for connotation with df 1 and 28.

The adjusted post-test mean values of control and diverse training group were 38.522 and 41.344. The obtained 'F' - ratios proportion of 18.991 was significant than the required table value of 4.210.

The above statistical analysis indicates that there was a significant improvement in performance of strength endurance after the training periods. Further the adjusted post-test mean values on strength endurance of control and diverse training group were graphically

represented in figure – II.

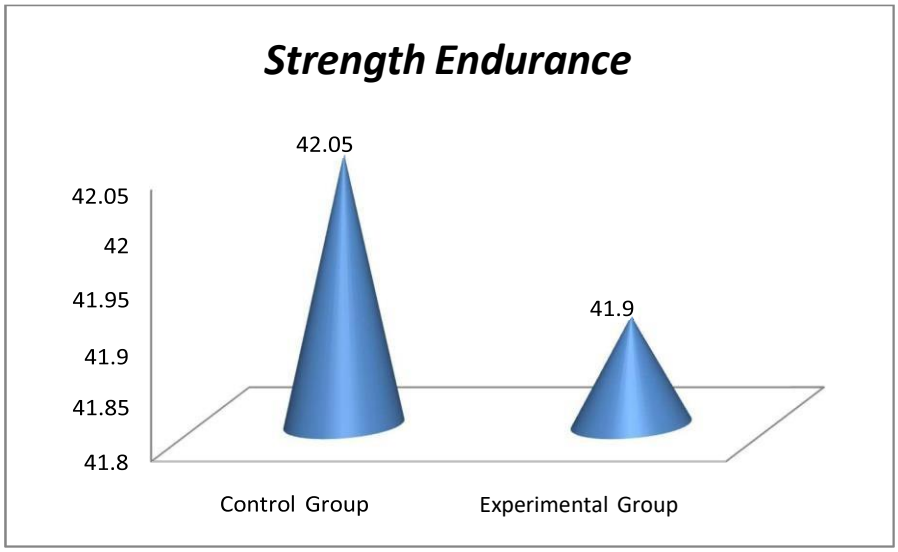

Figure-II: Adjusted post-test mean values on strength endurance of control and diverse training

CONCLUSIONS

From the findings of the study, the following conclusions were derived:

1. The result shows that there was a significant improvement in speed for diverse training group as compared to control group.
2. There was a significant increase in strength endurance for diverse training group as compared to control group.
3. Incorporating diverse training programs is essential for college men basketball players to improve their motor fitness variables and enhance their overall performance on the court. By focusing on speed strength endurance players can elevate their game to the next level and achieve success in their athletic endeavors.

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