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EFFECT OF BALANCE TRAINING ON SELECTED PHYSICAL AND PERFOMANCE VARIABLES OF JUNIOR LEVEL BASKETBALL PLAYER

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ABSTRACT: -

Main determination of the study was to discoverthe Balance training effect on some physical and skill related performance variables of Basketball players. For this study 24 junior level basketball players were selected using purposive sampling method from Sree Narayana Public School Chenkkottukonam Trivandrum, Kerala. Subjects were distributed into 2 groups. Balanceand Control group has 10 subjects each. Experimental group (Balance group) were under go 12 weeks of training. Pre-test, post-test experimental design was used in this study. Pre-test has taken at the starting of the training program after 12 weeks post-test has taken. Collected data's were used for analysis of covariance in spess version 20. Result: Balance training is more effective than control group.

KEYWORDS: *Balance training, Basketball Player.*

INTRODUCTION :

Balance is the ability to keep up equilibrium once a body is in moving or stationary through the coordinated action of our sensory functions. Chiefly balance is 2 varieties, static and dynamic balance. Static means that the ability to keep up the balance is in a stationary position and therefore the ability to keep up balance throughout the movement is dynamic balance.

Basketball is that the second quickest game within the world. Balance may be a predominant quality of a basketball player. as the game is evolving day by day; no charge semi-circle has introduced which is giving advantages for offensive players in which a player can drive in

OBJECTIVE

The researcher scrutinizes the improvement of selected physical and skill related performance variables such as balance, muscular endurance, coordination and shooting of basketball players by giving balance training. Balance training may influence the Shooting accuracy of subjects.

HYPOTHESIS

- It is hypothesized that there would be a be majorchanges in physical variables such as balance, muscular endurance and coordination
- Balance group will have more shooting accuracy than the other group

METHOD

For this study totally 24 subjects were selected from Sree Narayana Public School Trivandrum, Kerala. The subjects' age ranges from 14 to 17 years. 24 subjects were separated into 2 groups. Group 1 is balance (n=12), and Control group(n=12). Balance group will undergo 12 weeks of training and control group won't go for any training. The subjects will be tested at the beginning (pre-test) and at the end of the experiment period of 12 weeks post-test will be taken.

The training will be schedule for evening session from 5 to 6pm.

Table 4.1

ANALYSIS OF CO VARIANCE FORPRETEST, POSTTEST AND ADJUSTED POSTTEST DATAS ON BALANCE

TEST		BALANCE GROUP	CONTROL GROUP	SOV	SUM OF SQUARES	df	MEAN SQUARE	F RATIO
PRE TEST	MEAN	12.42	14.65	B	29.64	1	29.64	3.77
	S.D	1.03	3.82	W	172.89	22	7.86	
POST TEST	MEAN	32	20.53	B	788.33	1	788.33	29.39*
	SD	6.75	2.84	W	590.14	22	26.82	
ADJUSTED POST TEST	MEAN	31. 50	21.03	B	560.70	1	560.70	21.21*
				W	555.16	21	26.44	

The table value of 1 & 22 and 1 & 21 degrees of freedom are 4.30 and 4.33 respectively, significant at the level of 0.05

Pre-test mean values from the above table, of balance and control groups are 12.42, 14. 65 respectively and their standard deviation is 1.03 and 3.82. The f ratio value on balance and control groups of pre-test is 3.77, which is fewer than them and atory table value of 4.30, it designates that balance and control group showing no significant difference before the starting of training period

Post-test mean values are 32 and 20.53of both groups, the calculated “F” ratio value is 29.39 is greaterthan4.40 (table value), which means there is a significant difference between both groups. It’s because of the training effect.

The mean values of adjusted post-test on Balance, control groups are 31.50 and 21.03. F ratio value 21.21 is higher than the table value of 1 & 21 degrees of freedom is 4.33; it illustrate that there is a significant difference among both groups

Diagram 4.1 A

GRAPHICAL REPREENTATION ON ADJUSTED, POSTAND PRE TEST MEAN VALUES OF BOTH GROUP ON BALANCE

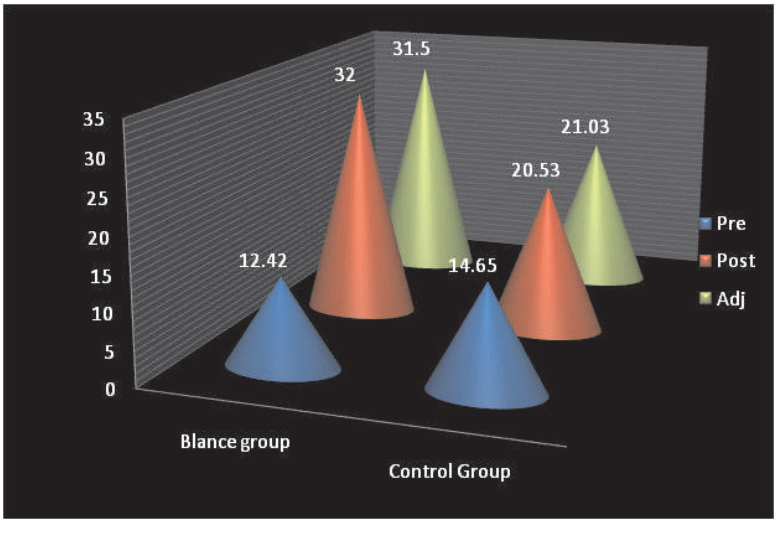


Table 4.2

PRETEST, POST TEST AND ADJUSTED POST TEST DATAS ON COORDINATION EXAMINED BY ANALYSIS OF CO VARIANCE IN BENEATH TABLE

TEST		BALANCE GROUP	CONTROL GROUP	SOV	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO
PRETEST	MEAN	22.50	21.25	B	9.38	1	9.38	0.69
	S.D	3.37	3.96	W	297.25	22	13.51	
POST TEST	MEAN	32.17	20.5	B	816.67	1	816.67	31.05*
	SD	6.07	3.97	W	578.67	22	26.30	
ADJUSTED POST TEST	MEAN	32.23	20.44	B	809.20	1	809.20	29.53*
				W	575.54	21	27.40	

The table value of 1 & 22 and 1 & 21 degrees of freedom are 4.30 and 4.33 respectively, significant at 0.05 level

From above table, pre-test mean values of Experimental and control group are 22.50, 21.25respectively and their standard deviation is 3.37 and 3.96. The f ratio value on balance and control groups of pre-test is 0.69, 4.30 is the table value which is higher than f ratio, it express the insignificance among both groups before the starting of training

Post-test mean values of experimental and control groups are 32.17, 20.5separately, 31.05 is the f ratio value is greater than the table value 4.40, So we can say that both groups showing significant difference.

The adjusted mean values of post-test on Balance and control groups are 32.23 and 20.44. F ratio value 29. 53 is higher than the table value of 1 & 21 degrees of freedom is 4.33, it illustrate that there is a significant difference among two groups.

Diagram 4.2 B

PRE TEST POST TEST AND ADJUSTED POST TESTMEAN VALUES OF EXPIRIMENTAL AND CONTROL GROUP ARE GRAPHICALLY REPRESENTED BELOW

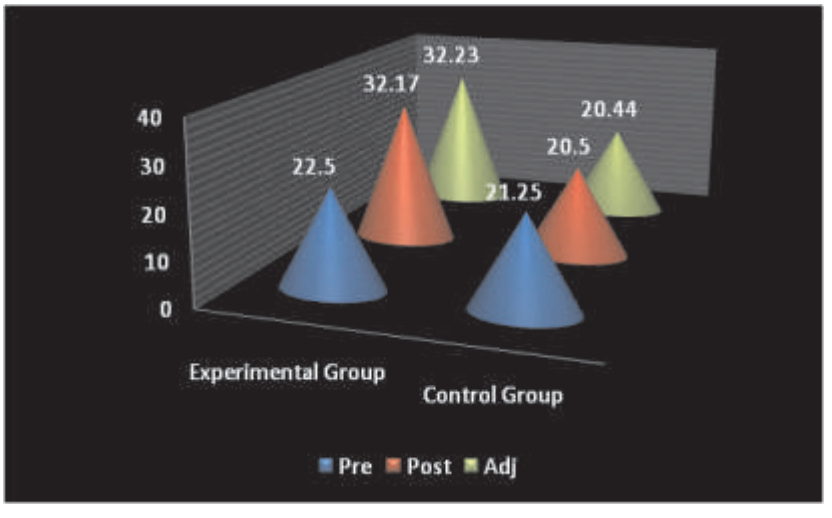


Table 4.3

COLLECTED DATA OF MUSCULAR ENDURANCE FROM PLAYERS WHICH WAS INVESTIGATED WITH ANALYSIS OF CO VARIANCE THAT OBTAINABLE BELOW

TEST		BALANCE GROUP	CONTROL GROUP	SOV	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO
PRE TEST	MEAN	26.58	25.08	B	13.5	1	13.5	0.49
	S.D	5.25	5.25	W	605.83	22	27.54	
POST TEST	MEAN	35.08	25.58	B	541.5	1	541.5	32.74*
	SD	4.70	6.27	W	363.8	22	16.54	
ADJUSTED POST TEST	MEAN	34.72	25.95	B	451.17	1	451.17	43.19*
				W	219.38	21	10.45	

The table value of 1 & 22 and 1 & 21 degrees of freedom are 4.30 and 4.33 respectively, significant at 0.05 level

Detected from table 4.3, pre-test mean values of balance and control group are26.58, 25.08respectively. The f ratio value on balance and control groups of pre-test is 0.49, which is not as much of 4.30(table value).Itpoint out that there is no significant difference among twogroups before the starting of training

Post-test mean values are 35.08, 25.58in that order, the considered f ratio value is 32.74 is very higher than the table value 4.40, So it specified there is a significant difference among both groups. It's because of the training effect.

The values of Balance and control groups on adjusted post-test are 34.72 and 25.95. F ratio value 43.19 is higher than the table value of 1 & 21 degrees of freedom is 4.33; it illustrate that there is a significant difference among both groups

Diagram 4.3 C

PRE TEST, POST TEST AND ADJUSTED POST TEST MEAN VALUES OF EXPERIMENTAL GROUP AND CONTROL GROUP ON MUSCULAR ENDURANCE

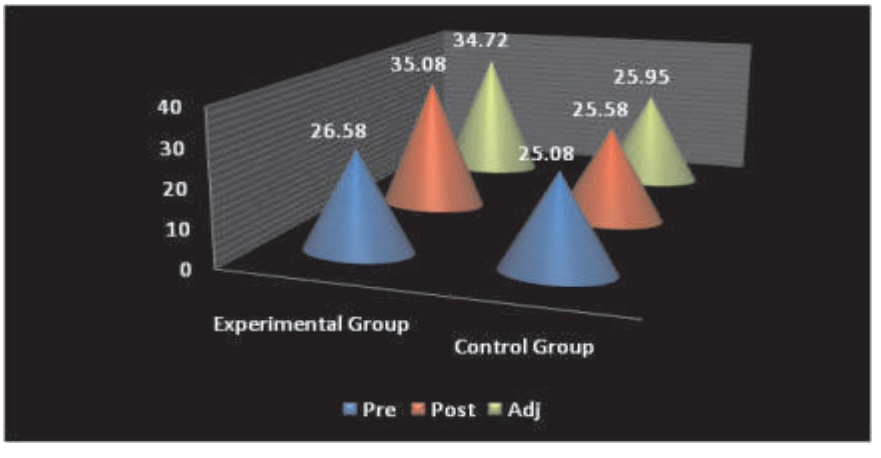


Table 4.4

COMPOSED DATA ON SHOOTING FROM THE PLAYERS WHICH WAS ANALYZED WITH ANALYSIS OF COVARIANCE THAT IS PRESENTED ON FOLLOWING TABLE

TEST		BALANCE GROUP	CONTROL GROUP	SOV	SUM OF SQUARES	DF	MEAN SQUARE	F RATIO
PRE TEST	MEAN	7.5	7.67	B	.17	1	0.17	.021
	S.D	2.78	2.84	W	173.67	22	7.89	
POST TEST	MEAN	9.92	6.25	B	80.67	1	80.67	8.74*s
	SD	2.23	3.67	W	203.17	22	9.24	
ADJUSTED POST TEST	MEAN	9.98	6.19	B	86.41	1	86.41	18.62*
				W	97.45	21	4.64	

The table value of 1 & 22 and 1 & 21 degrees of freedom are 4.30 and 4.33 respectively, significant at level of 0.05

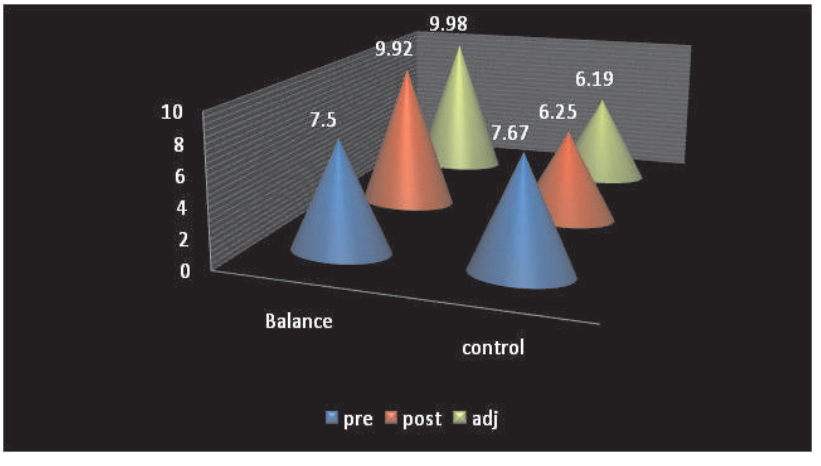
It is observed from the table, pre-test mean values of balance and control group are 7.5, 7.7 respectively. The f ratio value on balance and control groups of pre-test is 0.49, which is a lesser amount than the table value 0.21, it indicates that before the starting period of training no significant difference among the both groups

Experimental and control groups post-test mean values are9.92,6.25, the calculated f ratio value is 8.74 is greater than the table value 4.40, and there is a significant difference between the players in different groups. It's because of the training effect.

The adjusted post-test mean values of Balance and control groups are 9.82&.19. F ratio value 18.62 is higher than the table value of 1 & 21 degrees of freedom is 4.33; it illustrate that there is a significant difference among both groups

Diagram 4.4 D

GRAPHICAL REPREENTATION ON PRE TEST, POST TEST AND ADJUSTED POST TEST MEAN VALUES OF EXPERIMENTAL AND CONTROL GROUP



CONCLUSION

First hypothesis is accepted hence there is a significant difference in physical variables such as balance; coordination and muscular strength significant level at 0.05. Second hypothesis also accepted that there is a significant difference in skill related performance variable (shooting) significant level at 0.05. Basketball is a body contact game. During the game so many situations may occur that the player loss their balance at the time of shooting, passing, dribbling and doing other skills. Balance training is very effective because the players are practicing the shooting skills in an imbalance position. It helps to improve accuracy. Balance exercise helps to strengthen the core, lower body muscles and alsocoordination, balance and muscular endurance

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