

**EFFECT OF PRESSURE TRAINING ON SELECTED PERFORMANCE
VARIABLES OF HANDBALL AND BASKETBALL PLAYERS**

***Josemon. J, **Dr.F.A.Juliance Rajasingh, ***Dr.S.Sethu**

*Ph.D. Research Scholar, Reg. No. 20124012121023, Department of Physical Education & Sports, Manonmaniam Sundaranar University, Tirunelveli - 627012, Tamil Nadu, India.

** Supervisor, Director of Physical Education, C.S.I. Jayaraj Annapackiam College, Nallur, Alankulam, Tirunelveli-627853 Tamil Nadu, India.

*** Joint-Supervisor, Department of Physical Education, Manonmaniam Sundaranar University, Tirunelveli - 627012, Tamil Nadu, India.

Abstract

The target of the present study was to find out the impact of pressure training on accuracy throw, obstacle dribble, and jump shoot of handball and basketball players. To achieve the purpose of the study, thirty inter collegiate players, Kanyakumari, Tamilnadu, were selected as subjects at random and their age group range between 22 to 25 years. The study was formulated as pre and post test random group design, in which thirty inter collegiate players were divided into two equal groups. The experimental group-1(n=15) underwent pressure training. In this study, only one training program were adopted as independent variables and ability of accuracy throw, obstacle dribble and jump shoot was selected as dependent variable and it was tested by accuracy throw zinn handball battery test, performance was recorded in points and obstacle dribble was tested by zinn handball test was recorded in seconds and jump shoot was tested by zinn handball test was recorded in points. The training period of this intervention 3 days in a week for twelve weeks. The collected pre and post data was critically analyzed with dependent 't' test. The level of significance was fixed at 0.05 levels for all the cases in order to find out the significance. The result clearly proved that the pressure training demonstrated better improvement on accuracy throw, obstacle dribble and jump shoot.

Key words: 1. Pressure Training 2. Accuracy throw 3. Obstacle dribble 4. Jump shoot 5. 't' test 6. Handball 7. Basketball.

INTRODUCTION

Modern handball is played on a court 40 by 20 meters (131 by 66 ft), with a goal in the center of each end. The goals are surrounded by a 6-meter zone where only the defending goalkeeper is allowed; the goals must be scored by throwing the ball from outside the zone or while "jumping" into it. The sport is usually played indoors, but outdoor variants exist in the forms of field handball and Czech handball (which were

more common in the past) and beach handball (also called sand ball). The game is quite fast and includes body contact, as the defenders try to stop the attackers from approaching the goal. Goals are scored quite frequently; teams typically score between 20 and 35 goals each. Good basic basketball offensive and defense does require speed and quickness, however, players make up for these physical shortcomings by out-hustling and developing a defensive attitude that is aggressive. It is necessary that a player should be highly skilled to play effective, hard-nosed defense. Running speed enables a defender to move from one court position to another more quickly than the other players. Speed and quickness allows him to recover from defensive mistakes, assuming a new defensive position with little danger to the team. Quickness of feet, hands and arms enables a defender to keep the offense in a protective attitude by individual harassment. Quickness effectively neutralizes an opponent's superior speed. Because the normal defensive distance from the basket is between eighteen and twenty two feet, quickness is probably a bigger asset that speeds.

Pressure is an important parameter in processes. An accurate pressure measurement ensures that the quality of the end product is stable and of a high level. Measuring pressure and calibrating pressure measuring equipment is not as easy as it seems and often goes wrong. In one day you will become acquainted with common errors during pressure measurement and calibration.

METHODS AND TOOLS

To achieve the purpose of the study thirty inter collegiate players in the age group of 22 to 25 years were selected as subjects at Kanyakumari district, Tamilnadu. The study was formulated as pre and post test random group design, in which thirty subjects were divided into two equal groups. The experimental group I undergone (n=15, SSADT) for pressure training purpose. In this study, one training program were adopted as independent variables and the accuracy throw, obstacle dribble and jump shoot was selected as dependent variables and which were measured by zinn battery handball test. The performance of the subjects were recorded in meters and centimeters. One intervention group was performed 3 days in per week for 12 weeks. The collected pre and post data was critically analyzed with dependent 't' test was applied for the determined mean differences. The level of confidence was fixed at 0.05 levels for all the cases in order to find out the significance.

TRAININGPROGRAMME

The training programme was lasted for 60 minutes for session in a day, 6 days in a week for a period of 12 weeks duration. These 60 minutes included warm up for 10 minutes, 40 minutes pressure training and 10 minutes warm down. The equivalent in pressure training is the length of the time each action in total 3 day per weeks. (Monday,

TABLE - I

COMPUTATION OF ‘T’ RATIO OF ACCURACY THROW OF PRESSURE TRAINING ON HANDBALL AND BASKETBALL PLAYERS

(Scores in Numbers/ Points)

Group	Test		Mean	Std. Deviation	T ratio
Accuracy Throw	Handball Players	Pre test	27.25	0.09	16.86*
		Post test	30.95	2.31	
	Basketball Players	Pre test	27.50	1.12	15.37*
		Post test	32.50	0.85	

*significant level 0.05 level (degree of freedom 2.14, 1 and 14)

Table I reveals the computation of mean, standard deviation and ‘t’ ratio on accuracy throw of experimental group. The obtained ‘t’ ratio on accuracy throw were 16.86 and 15.37 respectively. The required table value was 2.14 for the degrees of freedom 1 and 14 at the 0.05 level of significance. Since the experimental group ‘t’ values were greater than the table value of 2.14, it was found to be statistically significant.

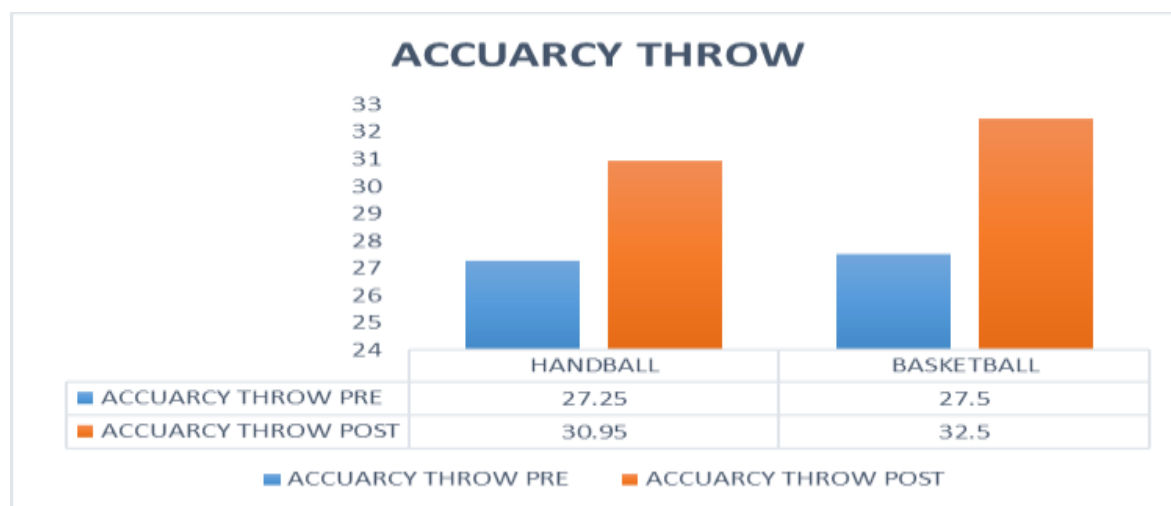


FIGURE- I

BAR DIAGRAM SHOWING THE MEAN VALUE ON ACCURACY THROW OF PRESSURE TRAINING ON HANDBALL AND BASKETBALL PLAYERS

TABLE - II
COMPUTATION OF ‘T’ RATIO OF OBSTACLE DRIBBLE OF PRESSURE TRAINING ON HANDBALL AND BASKETBALL PLAYERS
 (Scores in Numbers/ Points)

Group	Test		Mean	Std. Deviation	T ratio
Obstacle Dribble	Handball Players	Pre test	22.50	0.06	12.56*
		Post test	20.51	1.24	
	Basketball Players	Pre test	22.15	1.35	9.79*
		Post test	19.85	2.02	

*significant level 0.05 level (degree of freedom 2.14, 1 and 14)

Table I reveals the computation of mean, standard deviation and ‘t’ ratio on Obstacle dribble of experimental group. The obtained ‘t’ ratio on Obstacle dribble were 12.56 and 9.79 respectively. The required table value was 2.14 for the degrees of freedom 1 and 14 at the 0.05 level of significance. Since the experimental group ‘t’ values were greater than the table value of 2.14, it was found to be statistically significant.

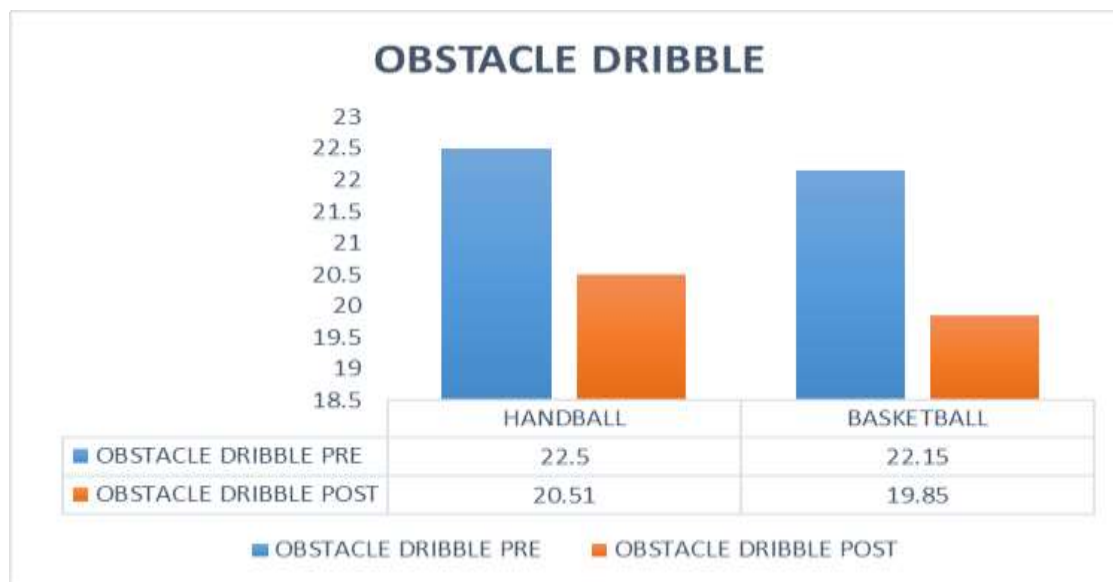


FIGURE- II

BAR DIAGRAM SHOWING THE MEAN VALUE ON OBSTACLE DRIBBLE OF PRESSURE TRAINING ON HANDBALL AND BASKETBALL PLAYERS

TABLE - III

COMPUTATION OF ‘T’ RATIO OF JUMP SHOOT OF PRESSURE TRAINING ON HANDBALL AND BASKETBALL PLAYERS

(Scores in Numbers/ Points)

Group	Test		Mean	Std. Deviation	T ratio
Jump Shoot	Handball Players	Pre test	27.55	1.25	17.56*
		Post test	33.05	1.65	
	Basketball Players	Pre test	27.70	1.54	8.79*
		Post test	30.95	1.25	

*significant level 0.05 level (degree of freedom 2.14, 1 and 14)

Table I reveals the computation of mean, standard deviation and ‘t’ ratio on Jump Shoot of experimental group. The obtained ‘t’ ratio on accuracy throw were 17.56 and 8.79 respectively. The required table value was 2.14 for the degrees of freedom 1 and 14 at the 0.05 level of significance. Since the experimental group ‘t’ values were greater than the table value of 2.14, it was found to be statistically significant.



FIGURE- III

BAR DIAGRAM SHOWING THE MEAN VALUE ON JUMP SHOOT OF PRESSURE TRAINING ON HANDBALL AND BASKETBALL PLAYERS

DISCUSSION ON FINDINGS

The present study experimented the effect of pressure trainings on performance variables of handball and basketball players. The result of the study shows that the pressure trainings improved the accuracy throw, obstacle dribble and jump shoot. The findings of the present study had similarity with the findings of the investigations referred in this study. However, there was a significantly changes of subjects in the present study the accuracy throw, obstacle dribble and jump shoot was significantly improved of subject in the group may be due to the in pressure training.

Dulger (2021) strength values were also negatively correlated with closed-eye average forward-backward velocity, Examination of the analysis results showed that balance values decreased as vertical jump, horizontal jump, leg strength, and anaerobic strength increased.

According to these results; it can be said that regular, structured and planned pressure training for 12 weeks of handball and basketball players who have a positive effect on improving their performance. Pressure training intervention program doing the match situation gaining more advantages of the players in decision making and performance ability improving. Accuracy throw for the training on pressure it will be helpful for accurate passing the in team players in current situation. Noted that obstacle dribble also dribbling capability doing more advantages in basketball players doing the performance. Finally the jump shoot of the training program practice the explosive better different in handball player than basketball players.

Conclusion

From the results of the study and discussion the following conclusions were drawn. The results of the present study demonstrated that 12 weeks of pressure training increased the accuracy throw, obstacle dribble and jump shoot of handball and basketball players. Therefore, it is suggested that pressure training should be used as an effective strategy to promote improvements in the performance ability of apparently healthy participants. Its low operational cost, easy applicability, high attendance rate, and the fact that it can be performed by many individuals of different fitness levels at the same time make this modality viable to be implemented in any community center. Findings from the current study substantially contribute to the understanding of pressure training in handball and basketball players will assist in evidence-based intervention design to increase c accuracy throw, obstacle dribble and jump shoot. It was concluded that the pressure training have been significantly changes in accuracy throw, obstacle dribble and jump shoot among handball and basketball players.

From the findings of the study, it was concluded that accuracy throw of basketball players have been better improvement than handball player for pressure training.

It was concluded that obstacle dribble of basketball players have been better improvement than handball player for pressure training.

It was concluded that jump shoot of handball players have been better improvement than basketball player for pressure training.

REFERENCE

1. Ceylan, H. İ., İrez, G. B., & Saygın, Ö. (2014). Examining of the effects of aerobic dance and step dance exercises on some hematological parameters and blood lipids. *Journal of Human Sciences*, 11(2), 980-991.
2. Chakraborty, G., Kaur, S., & Dogra, D. K. (2017). Impact of aerobic dance programme on the physical fitness among intercollegiate female players.
3. Chapek, C. L. (1992). The effects of a ten-week step aerobic training program on aerobic capacity of college-aged females (Doctoral dissertation).
4. Chutia, S. (2016). Effect of suryanamaskar on flexibility of middle elementary school students. *Int J Phys Educ Sports Health*, 3, 142-3.
5. Jakhotia, K. A., Shimpi, A. P., Rairikar, S. A., Mhendale, P., Hatekar, R., Shyam, A., & Sancheti, P. K. (2015). Suryanamaskar: An equivalent approach towards management of physical fitness in obese females. *International journal of yoga*, 8(1), 27.
6. Kennedy, M. M., & Newton, M. (1997). Effect of exercise intensity on mood in step aerobics. *The Journal of sports medicine and physical fitness*, 37(3), 200-204.
7. Kodeeswaran, N., Kumaran, S. S., Ooraniyan, K., Rajesh, S., & Princy, S. (2022). Impacts of Pressure Training Intervention with Yogic Practices on Ability of Kicking and Self-Confidence among Football Players. *J Adv Sport Phys Edu*, 5(10), 235-239.
8. Maniazhagu, D., Alexander, C. R., & Sha, S. (2011). Effects of aerobic training and circuit training on muscular strength and muscular endurance. *International journal of physical education*, 4(2), 132-134.
9. Morgan, D., Martin, P. H. I. L. I. P., Craib, M. I. T. C. H., Caruso, C. H. R. I. S., Clifton, R., & Hopewell, R. E. G. I. N. A. (1994). Effect of step length optimization on the aerobic demand of running. *Journal of Applied Physiology*, 77(1), 245-251.

10. Nayek, B., & Chatterjee, K. (2016). Effect of 6-weeks yoga and aerobic exercise on muscular strength and flexibility of pre-adolescence students. *International Journal of Yogic, Human Movement and Sports Sciences*, 1(1), 12-16.
11. Pereira Neiva, H., Brandão Faíl, L., Izquierdo, M., Marques, M. C., & Marinho, D. A. (2018). The effect of 12 weeks of water-aerobics on health status and physical fitness: An ecological approach. *PloS one*, 13(5), e0198319.
12. Phadke, S. S. D., Joshi, R. S., & Yardi, S. (2014). Effect on Muscle-Power, Aerobic Capacity and Emotional State after Practice of Suryanamaskar. *International Journal of Physiology*, 2(1), 35.
13. Rockefeller, K. A., & Burke, E. J. (1979). Psycho-physiological analysis of an aerobic dance programme for women. *British Journal of Sports Medicine*, 13(2), 77-80.