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EFFECTS OF SPECIFIC DRILLS TRAINING ON SELECTED PHYSICAL VARIABLES AND PERFORMANCE VARIABLES OF MEN HANDBALL PLAYERS

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ABSTRACT
Handball is a high-intensity intermittent sport that demands a combination of physical fitness, technical skill, and tactical efficiency. The purpose of this study is to examine the effects of specific drills training on selected physical variables and performance variables of handball players. Physical variables include speed, while performance variables include shooting accuracy. Previous research indicates that structured training interventions such as plyometric training, (Speed), and resistance training significantly enhance athletic performance in handball players. A sample of handball players underwent a structured training program consisting of specific drills over a defined period. Pre-test and post-test measurements were recorded using standardized tests. Statistical analysis revealed significant improvements in both physical and performance variables after the training intervention. The findings suggest that incorporating sport-specific drills into training programs enhances overall performance and contributes to better competitive outcomes.

KEY WORDS: *Specific Drills Training, Performance Variables, Physical Variables, Handball Players.*

INTRODUCTION

Handball is characterized by rapid movements such as sprinting, jumping, throwing, and directional changes, requiring high levels of physical and physiological fitness. The sport demands explosive strength, speed, coordination, and endurance to execute skills effectively during competition . In modern training approaches, emphasis has shifted toward specific drills training, which focuses on replicating actual game situations. These drills are designed to improve both physical abilities (e.g., speed,) and performance variables (e.g., shooting accuracy,).Research has shown that specific drills training enhances speed , shooting accuary ,.Despite the availability of various training methods, there is a need to systematically evaluate the combined effects of specific drills training on both physical and performance variables in handball players. This study aims to fill that gap by analyzing the effectiveness of structured drill-based training. **Chaouachi,** *et ,al* **(2009).**

METHODOLOGY

1. Research Design

The study employed an experimental design with pre-test and post-test measures. Total subjects: 15 handball players. Age group: 14 - 17 years Level: district level players. Sampling technique: Random sampling**.** Variables: Physical Variables: Speed ; Performance Variables: Shooting accuracy. Training Programme : Duration: 8 weeks , Frequency: 5 days/week, Session duration: 45 minutes.

2. Training Structure

1. Warm-up – 10 min
2. Main drills – 27 min
3. Game/skill application – 5 min
4. Cool down – 3 min

TABLE – I
WEEKLY TRAINING SCHEDULE

Day	Aim	Drill/Skills	Duration in Minutes	Intensity	Total Duration
1st – Week Monday - Friday	Basic Foundation	Warm up	10	50%	45 min
		Speed training	8		
		Jump and power training	7		
		Skill training –dribbling(straight dribble)	7		
		Shooting practice(stand and shooting)	5		

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		Game	5		
		Cool down	3		
2nd – Week Monday - Friday	Technique Development	Warm up	10	55%	45 min
		Speed training	8		
		Jump and power training	7		
		Skill training –dribbling	7		
		Shooting practice	5		
		Game	5		
		Cool down	3		
3rd – Week Monday - Friday	Moderate Intensity	Warm up	10	60%	45 min
		Speed training	8		
		Jump and power training	7		
		Skill training –dribbling	7		
		Shooting practice(stand and shooting)	5		
		Game	5		
		Cool down	3		
4th – Week Monday - Friday	Performance Development	Warm up	10	65%	45 min
		Speed training	8		
		Jump and power training	7		
		Skill training –dribbling(straight dribble)	7		
		Shooting practice	5		
		Game	5		
		Cool down	3		
5th – Week Monday - Friday	Skill Focusing	Warm up	10	70%	45 min
		Speed training	8		
		Jump and power training	7		
		Skill training –dribbling	7		
		Shooting practice	5		
		Gam	5		
		Cool down	3		
6th – Week Monday - Friday	Improve Skill	Warm up	10	75%	45 min
		Speed training	8		
		Jump and power training	7		
		Skill training –dribbling	7		
		Shooting practice	5		
		Game	5		
		Cool down	3		
7th – Week Monday - Friday	High Intensity	Warm up	10	80%	45 min
		Speed training	8		
		Jump and power training	7		
		Skill training –dribbling	7		
		Shooting practice	5		
		Game	5		
		Cool down	3		

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8th – week Monday -Friday	Peak Performance	Warm up	10	85%	45 min
		Speed training	8		
		Jump and power training	7		
		Skill training –dribbling(straight dribble)	7		
		Shooting practice(stand and shooting)	5		
		Game	5		
		Cool down	3		

S.NO	DEPENDENT VARIABLES	TEST ITEM	UNIT OF MEASUREMENT
1.)	Speed	30m sprint test	Seconds
2.)	Shooting	Target cones	points

6. Statistical Analysis

The collected data were analysed using appropriate statistical techniques to determine the effect of specific drills training on selected physical and performance variables of handball players. Descriptive statistics such as mean and standard deviation were calculated to summarize the data .A paired sample t-test was used to compare pre-test and post-test scores of the subjects .The level of significance was set at 0.05.If the calculated t-value was greater than the table value at 0.05 level, the result was considered statistically significant .The analysis revealed that there was a significant improvement in all selected physical variables (speed) and performance variables (shooting accuracy) after the training program.

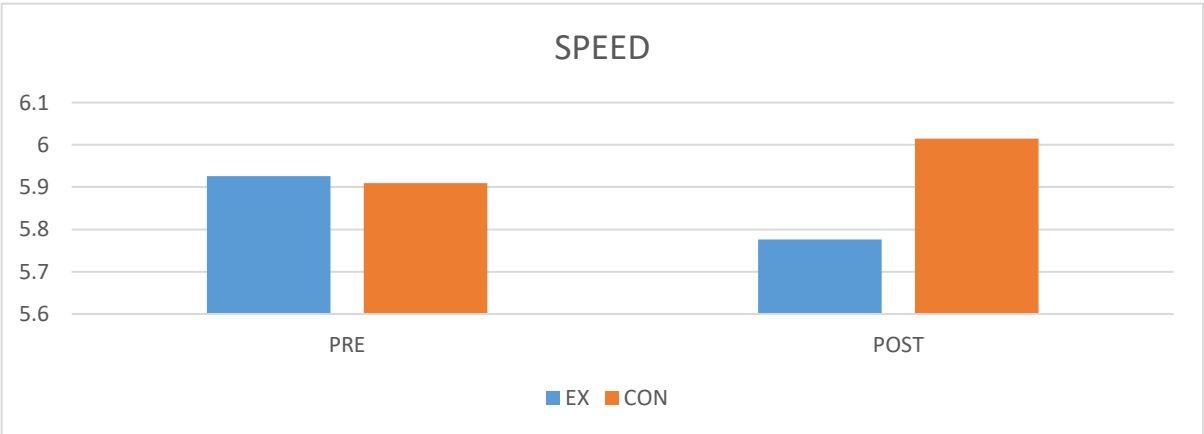
TABLE - I
COMPUTATION OF 'T' RATIO ON SPEED OF HANDBALL PLAYERS ON EXPERIMENTAL AND CONTROL GROUPS
(Scores in seconds)

Group	Test		Mean	Std. Deviation	T ratio
speed	Experimental Group	Pre Test	4.8540	0.51209	10.013*
		Post Test	4.5787	0.52504	
	Control Group	Pre Test	4.8353	0.50100	0.175
		Post Test	4.8573	0.66711	

* Significant at 0.05 level (Degree of freedom = 14, Table value = 2.14).

Table I shows the mean, standard deviation, and computed 't' ratio for speed of Handball players in both experimental and control groups. The obtained 't' value for the experimental group was 2.14 , which is higher than the table value of 2.14 at 0.05 level of significance with 14 degrees of freedom. This indicates that the improvement in speed of the experimental group was statistically Significant.Similarly, the 't' value for the control group was 0.175, which is lower than the table value. Therefore, the change observed in the control group was not statistically significant

FIGURE- I
BAR DIAGRAM SHOWING THE MEAN VALUE ON SPEED OF HANDBALL PLAYERS ON EXPERIMENTAL GROUP AND CONTROL GROUP
(Scores in seconds)



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TABLE - Ⅱ
COMPUTATION OF 'T' RATIO ON SHOOTING ACCURACY OF HANDBALL PLAYERS ON EXPERIMENTAL AND CONTROL GROUPS
(SCORES IN POINTS)

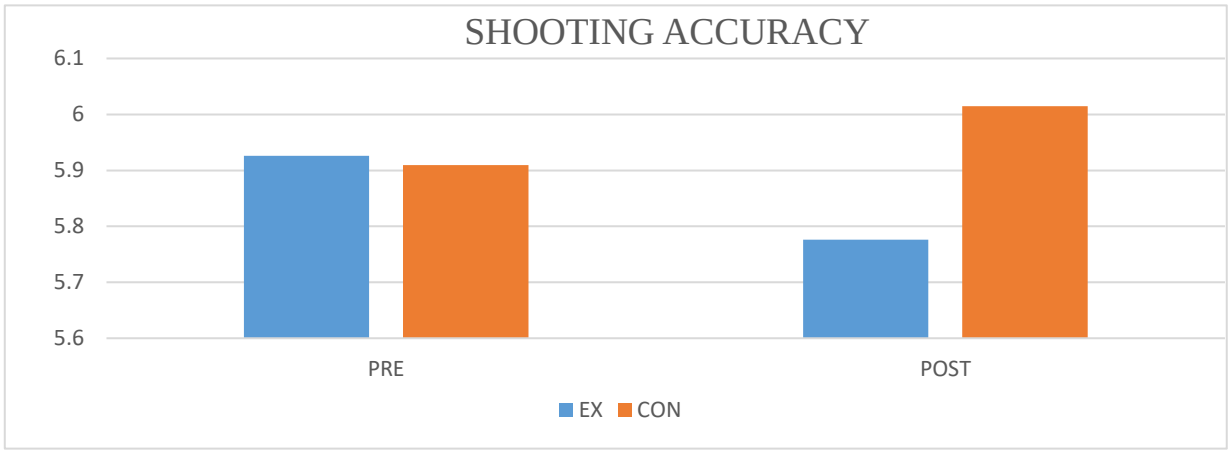
Group	Test		Mean	Std. Deviation	T ratio
Shooting accuracy	Experimental Group	Pre Test	3.0667	0.59362	11.225*
		Post Test	5.4667	0.91548	
	Control Group	Pre Test	3.0000	0.37796	1.146
		Post Test	2.8000	0.41404	

* Significant at 0.05 level (Degree of freedom = 14, Table value = 2.14).

Table I shows the mean, standard deviation, and computed 't' ratio for shooting accuracy speed of Handball players in both experimental and control groups. The obtained 't' value for the experimental group was 2.14 , which is higher than the table value of 2.14 at 0.05 level of significance with 14 degrees of freedom. This indicates that the improvement in speed of the experimental group was statistically significant.

Similarly, the 't' value for the control group was 1.146 , which is lower than the table value. Therefore, the change observed in the control group was not statistically significant.

FIGURE- Ⅱ
BAR DIAGRAM SHOWING THE MEAN VALUE ON SHOOTING ACCURACY OF HANDBALL PLAYERS ON EXPERIMEN AL GROUP AND CONTROL GROUP
(Scores in Points)



DISCUSSION

The results indicated significant improvement in all selected variables after the training program. Speed and explosive power improved due to training Shooting and dribbling improved These findings align with earlier studies that demonstrated improvements in jumping, sprinting, and throwing performance through structured training interventions.

CONCLUSION

The study concludes that specific drills training has a significant positive effect on both physical and performance variables of handball players. Key conclusions**:** Enhances physical fitness components such as speed, explosive Improves technical skills like shooting, and dribbling .Increases overall game performance Should be integrated into regular training programs Thus, coaches and trainers are recommended to incorporate structured drill-based training to maximize player performance.

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