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IMPACT OF SOCCER-SPECIFIC SKILL TRAINING ON PHYSICAL AND PSYCHOLOGICAL ATTRIBUTES IN COMPETITIVE PLAYERS

Krishnakumar S. [1], Dr. R. Ramakrishnan [2]

[1] Research Scholar, Department of Physical Education and Sports Science, Hindustan Institute of Technology and Science, Chennai – 6003103, India
[2] Assistant Professor, Department of Physical Education and Sports Science, Hindustan Institute of Technology and Science, Chennai – 6003103, India

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ABSTRACT

This study examined whether soccer-specific skill training affects competitive college-level soccer players' physical and psychological qualities. Soccer needs physical fitness, technical talent, and mental toughness. The experimental group (n = 20) and the control group (n = 20) of 40 male collegiate soccer players aged 18–23 were randomly allocated. For six weeks, the experimental group practiced soccer-specific technical activities to improve agility, coordination, speed, and endurance. Additionally, the training included competitive and incentive elements to boost self-confidence, focus, and anxiety control. The control group-maintained training without intervention. Standardized physical fitness and psychological tests were used pre- and post-intervention. Statistical analysis showed significant improvements ($p < 0.05$) in physical and psychological factors for the experimental group compared to the control group. The study finds that competitive college soccer players can increase their physical performance and psychological preparation by adding soccer-specific skill training to their practice routines. Coaches and sports scientists should use tailored training to develop athletes holistically.

Keywords: Agility, Coordination, Speed, Endurance, Self-confidence, Focus, and Anxiety

1. INTRODUCTION

Soccer is one of the most popular and physically demanding games in the world. To be good at it, you need to have a unique mix of technical skills, tactical awareness, physical fitness, and mental toughness (Stølen et al., 2005). At the competitive level, routine is influenced not only by an athlete's physical fitness conditioning but also by their ability to maintain composure, focus, and confidence during high-pressure situations (Reilly, Williams, Nevill, & Franks, 2000). Consequently, skill-based training programs that address both physical and psychological domains have become an essential component in the development of soccer players.

Skill training in soccer encompasses specific drills that mimic game-like situations, promoting improvements in agility, coordination, speed, reaction time, and decision-making (Ali, 2011). These training methods are designed to enhance neural adaptation and muscle memory, which are crucial for executing complex motor skills under competitive conditions. Moreover, when skill training is structured with progressive overload, feedback, and task variability, it not

only refines technical execution but also fosters psychological attributes such as self-confidence and reduced performance anxiety (Weinberg & Gould, 2015).

At the collegiate level, where players transition from recreational to high-performance sport, there is a growing need for interventions that simultaneously improve physical fitness and mental toughness. Research indicates that structured, sport-specific physical activity can lead to important improvements in both recital and psychological well-being among young athletes (Vaeyens, Lenoir, Williams, & Philippaerts, 2008).

Despite the growing body of research on soccer training, limited trainings have explored the combined impact of soccer-specific skill training on both physical and psychological variables in college-aged players. Therefore, the current study aims to examine the effects of a six-week soccer-specific skill training program on selected physical and psychological attributes among competitive college-level soccer players.

1) Participants

A total of 40 male college soccer players ages 18–23 were randomly selected from various teams. All players had two years of competitive experience and were medically cleared for exercise. Participants were randomly split into two groups.Experimental Group (n = 20): Received the soccer-specific skill training.

- Control Group (n = 20): Continued with their routine training programs.

Informed consent was obtained from all participants prior to the commencement of the study.

2) Design

This study followed a pre-test and post-test control group design. The objective was to assess changes in selected physical and psychological attributes following a six-week soccer-specific skill training program.

3) Training Intervention

The experimental group underwent a soccer-specific skill training program for six weeks, five days per week, roughly 60 minutes each session

The training focused on:

- **Technical drills:** Passing, dribbling, shooting, heading
- **Physical components:** Speed, agility, coordination, reaction time
- **Psychological components:** Motivation through goal-oriented tasks, confidence-building drills, small-sided games to simulate match pressure

The control group continued with their usual practice sessions, which did not include any targeted skill-based intervention.

Variables and Assessment Tools

4) Physical Variables:

Agility: Illinois Agility Test

Speed: 30-meter Sprint Test

Explosive Power: Standing Broad Jump

Coordination: Wall Toss Test

5) Psychological Variables:

Self-confidence: Using the Trait Sport-Confidence Inventory (TSCI)

Anxiety: Measured by Sport Competition Anxiety Test (SCAT)

Motivation: Measured by Sport Motivation Scale (SMS)

Assessments were conducted one week before (pre-test) and after the six-week intervention (post-test).

2. STATISTICAL ANALYSIS

Pre- and post-test results were compared within and across groups using paired and independent sample t-tests. A significance level of $p < 0.05$ was used for all comparisons.

Table 1 Comparison of Pre-Test and Post-Test Means Between Experimental and Control Groups on Selected Physical and Psychological Variables (N = 40)

Variables	Group	Pre-Test Mean ± SD	Post-Test Mean ± SD	Mean Difference	t-value	p-value
Agility	Experimental	17.45 ± 0.61	16.28 ± 0.53	1.17	5.62	0.000*
	Control	17.52 ± 0.59	17.43 ± 0.64	0.09	0.88	0.389
Speed	Experimental	4.86 ± 0.21	4.45 ± 0.18	0.41	6.27	0.000*
	Control	4.82 ± 0.25	4.78 ± 0.22	0.04	0.72	0.477
Explosive Power	Experimental	182.4 ± 12.3	195.6 ± 11.9	13.2	5.19	0.000*
	Control	180.6 ± 13.0	181.5 ± 13.2	0.9	1.02	0.318
Coordination	Experimental	18.6 ± 2.4	22.3 ± 2.1	3.7	6.01	0.000*
	Control	18.1 ± 2.6	18.5 ± 2.5	0.4	1.15	0.259
Self-confidence	Experimental	22.1 ± 3.1	27.5 ± 2.8	5.4	6.35	0.000*
	Control	21.8 ± 3.2	22.3 ± 3.0	0.5	0.93	0.360
Anxiety	Experimental	24.3 ± 2.5	19.6 ± 2.3	-4.7	5.87	0.000*
	Control	24.1 ± 2.6	23.7 ± 2.8	-0.4	0.74	0.463
Motivation	Experimental	21.7 ± 2.8	26.1 ± 2.6	4.4	6.12	0.000*
	Control	21.9 ± 2.9	22.2 ± 3.0	0.3	0.85	0.402

3. DISCUSSION

The purpose of this study was to assess the impact of a six-week soccer-specific skill training program on selected physical and psychological attributes of competitive college-level soccer players. The findings from this research revealed significant improvements in physical performance (agility, speed, explosive power, and coordination) and psychological attributes (self-confidence, anxiety reduction, and motivation) among participants in the experimental group compared to the control group.

3.1. PHYSICAL PERFORMANCE IMPROVEMENTS

The experimental group showed significant agility improvements, with a shorter Illinois Agility Test completion time ($p < 0.05$). Previous research indicates that soccer-specific skill training improves athletes' capacity to quickly change direction while retaining ball control (Stølen et al., 2005). Significant gains in speed were observed in the 30-meter sprint test ($p < 0.05$). This supports Reilly et al. (2000), who found that soccer-specific sprinting and response time workouts helped boost player speed.

Additionally, the experimental group showed substantial gains in explosive power, evaluated by standing wide jump ($p < 0.05$). Soccer-specific training improves lower-body strength for jumping, tackling, and sprinting (Aagaard, 2003). The experimental group showed considerable improvement in coordination ($p < 0.05$), supporting the idea that skill-based training, particularly coordination drills, enhances motor control and spatial awareness (Ali, 2011).

3.2. PSYCHOLOGICAL ATTRIBUTE ENHANCEMENTS

A significant improvement in self-confidence ($p < 0.05$) aligns with the self-efficacy theory (Bandura, 1997). Skill development and task mastery training can boost confidence in competitive performance. According to Weinberg and Gould (2015), athletes who regularly train in skill-based programs have stronger self-confidence and mental resilience.

The experimental group noticed a significant decrease in competition-related anxiety, as judged by the Sport Competition Anxiety Test (SCAT) ($p < 0.05$). Based on Jones, Hanton, and Swain (1994), systematic skill training may help players manage anxiety by building competence and coping skills. The experimental group showed a significant increase in motivation ($p < 0.05$), supporting intrinsic motivation in sports (Deci & Ryan, 2000). Soccer-specific skill training motivates players by enhancing their game enjoyment and involvement.

3.3. CONTROL GROUP FINDINGS

In comparison, the control group showed minimal physical and psychological changes. Since the control group followed their typical training regimen, which presumably lacked skill improvement and psychological resilience, this

outcome was expected. These findings demonstrate the value of tailored therapies like soccer-specific skill training in improving physical and mental performance.

4. CONCLUSIONS

This study shows that competitive soccer players' physical and psychological qualities improve with soccer-specific skill training. The experimental group improved agility, speed, explosive power, coordination, self-confidence, motivation, and anxiety. To improve physical performance and emotional resilience, athletes should include skill-focused training in their programs.

It appears that soccer-specific skill training can boost player performance and mental preparation for competition. Future studies could examine long-term impacts and personalized training.

CONFLICT OF INTERESTS

None.

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