



A COMPARATIVE STUDY ON SPEED PERFORMANCE BETWEEN KHO-KHO AND KABADDI PLAYERS

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Abstract

This research investigates and compares the Speed Performance of male Kho-Kho and Kabaddi players at the university level. Both sports, rooted in India's cultural heritage, demand exceptional physical and physiological capabilities. The study focuses on motor fitness attributes such as speed.

A sample of 60 players, 30 from each sport, aged 17-24 years, was assessed through standardized tests. Statistical analysis revealed significant differences between the two groups. Kho-Kho players exhibited superior speed (mean time: 7.56 seconds) and agility due to the game's emphasis on rapid directional changes and short bursts of activity. In contrast, Kabaddi players demonstrated higher muscular strength, aligning with the sport's demand for sustained physical effort and strategic gameplay.

The findings underline the specific Speed Performance each sport. This research contributes to the understanding of athletic performance in traditional Indian sports and offers insights for coaches to tailor training programs that enhance player performance. Moreover, the study highlights the potential for further research on optimizing fitness components to elevate the global competitiveness of these indigenous game

Key words—speed, kho-kho, kabaddi

Introduction

Sports have always been a significant medium to showcase the physical and mental prowess of individuals, reflecting not only their skills but also the cultural essence of their origins. Kho-Kho and Kabaddi, two traditional Indian sports, exemplify this heritage. While both games share the commonality of requiring exceptional physical fitness and strategic acumen, they differ substantially in their physiological demands and gameplay characteristics.

Kho-Kho, a high-intensity tag sport, demands extraordinary speed, agility, and quick reflexes. Players must constantly shift between attacking and defending roles, emphasizing their ability

to execute rapid changes in direction and short bursts of movement. The dynamic nature of the game tests both physical and psychomotor abilities, fostering attributes like teamwork, coordination, and spatial awareness.

Kabaddi, on the other hand, combines the elements of physical contact, strategy, and endurance. It challenges players to balance strength, speed, and cardiovascular resilience. The game involves intense physical exertion as players raid their opponent's territory, requiring not only muscular power but also precise control over breathing and movement under pressure. Kabaddi's emphasis on sustained effort and strength differentiates it from the rapid pace of Kho-Kho.

This study aims to explore and compare the motor fitness components and cardiopulmonary indices of Kho-Kho and Kabaddi players. By analyzing key parameters like speed, agility, and flexibility alongside measures of cardiopulmonary fitness, the research seeks to provide a deeper understanding of the physiological demands unique to each sport. The findings will offer insights for coaches and athletes to optimize training regimens and promote these indigenous sports on a global stage.

Methodology

This research investigates and compares the Speed Performance of male Kho-Kho and Kabaddi players at the university level. Both sports, rooted in India's cultural heritage, demand exceptional physical and physiological capabilities. The study focuses on motor fitness attributes such as speed.

A sample of 60 players, 30 from each sport, aged 17-24 years, was assessed through standardized tests. Statistical analysis revealed significant differences between the two groups. Kho-Kho players exhibited superior speed (mean time: 7.56 seconds) and agility due to the game's emphasis on rapid directional changes and short bursts of activity. In contrast, Kabaddi players demonstrated higher muscular strength and cardiopulmonary endurance, aligning with the sport's demand for sustained physical effort and strategic gameplay.

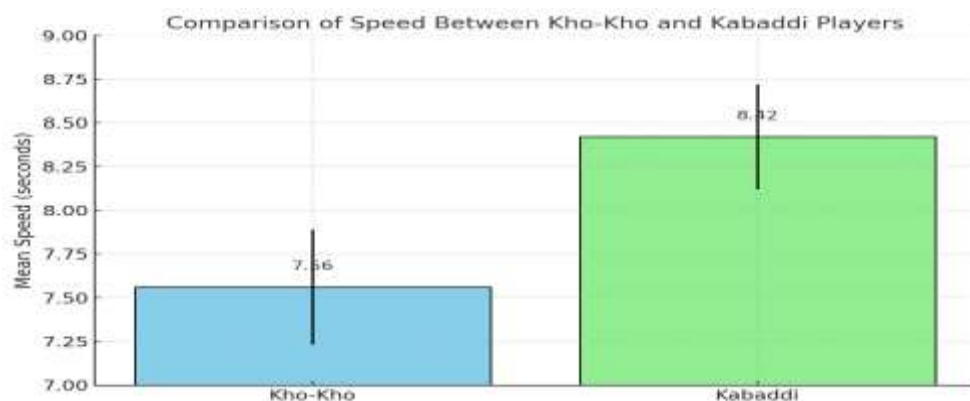
The findings underline the specific physical and physiological adaptations required for each sport. This research contributes to the understanding of athletic performance in traditional Indian sports and offers insights for coaches to tailor training programs that enhance player performance. Moreover, the study highlights the potential for further research on optimizing fitness components to elevate the global competitiveness of these indigenous games.

1. Speed Comparison:

- **Kho-Kho Players:** The average speed for Kho-Kho players was recorded at **7.56 seconds** (mean value), with a standard deviation of **0.33 seconds**.
- **Kabaddi Players:** The average speed for Kabaddi players was noted as **8.42 seconds**, with a standard deviation of **0.30 seconds**.

2. Statistical Analysis:

- The results indicate that Kho-Kho players demonstrated superior speed compared to Kabaddi players. This difference is attributed to the nature of the game, where Kho-Kho demands rapid changes in direction and quick sprints, emphasizing agility and short bursts of speed.



the graphical representation of the speed comparison between **Kho-Kho** and **Kabaddi** players:

- **Kho-Kho players:** Average speed is 7.56 seconds (faster performance).
- **Kabaddi players:** Average speed is 8.42 seconds (slightly slower).

The bars represent the mean speed, and the error bars show the standard deviation for each group. Let me know if you'd like this graph in a downloadable format or embedded into your research document.

3. Conclusion:

- The distinct gameplay of Kho-Kho, requiring players to constantly chase and tag opponents, contributes to their enhanced speed performance. On the other hand, Kabaddi players emphasize strength and endurance over pure speed, aligning with the sport's requirements of sustained physical effort and strategic maneuvering.

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