

SKILL PERFORMANCE AMONG SOCCER PLAYERS IN RELATION TO THEIR MOTOR FITNESS COMPONENTS

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ABSTRACT

The present study was designed to determine the skill performance among soccer players in relation to their motor fitness components. Total one hundred (N=100) national level sub junior male soccer players from five northern Indian states; Chandigarh (N=20), Delhi (N=20), Haryana (N=20), Himachal Pradesh (N=20) and Punjab (N=20) were selected to act as subjects for the present study. Skill performance of the soccer players was assessed by using SAI soccer skill test. Motor fitness components; speed, muscular strength and endurance, cardiovascular endurance, agility and explosive strength were measured by employing 30 yard dash, Sit-Ups Test, 600 Yard Run Test, Shuttle Run Test and Standing Broad Jump Test respectively. Pearson's product moment correlation method was employed to examine the relationship of skill performance with motor fitness components. Results of the study explicated significantly negative relationship of skill performance with motor ability components; speed and cardiovascular endurance which indicated betterment in skill performance as lesser the time better the performance in speed and cardiovascular endurance. However, statistically positive significant relationship of skill performance with regard to motor fitness components; muscular strength endurance and motor fitness (composite) was observed among soccer player. However, insignificant relationship was found between skill performance and motor fitness components; agility and explosive strength.

Key Words: Skill Performance, Soccer Players and Motor Fitness Components

INTRODUCTION:

Soccer is on top in all competitive sports, this game having very rich tradition throughout the globe. But this game has changed rapidly in recent times in lieu to physical fitness, motor fitness technical and tactical approach. Motor fitness components and coordinative abilities become backbone to develop fundamental skill in soccer. Most definitely believe that in India has abundance of right talent in soccer. But it always becomes a question that how talent is identified at sub junior level and provide fundamental training to develop their motor fitness to improve their soccer skill performance. In India, we do have to improve a lot and it all starts with grassroots where our children start to take up the game. Today, the game has become so advanced and competitive globally that unless our young player are identified and taught the right way from the beginning to develop basic motor abilities to which can improve skill performance, it would be impossible for us to make a mark in world football(Bhutia, 2012).

According to Frank (1955) soccer is a game of ball control both individually and in combination with other members of the team. To able to control soccer ball, a player must master the fundamentals by using any part of his body but his hand and arms should not be used. The fundamentals are kicking, dribbling, trapping, tackling and heading.

It is reported that in every sports event, top level performers require a particular attention at grassroots level, while other aspects could be nearly similar (Garry, 1968). In European and Latin American countries they concentrate on street footballers, those countries already developed talent hunt program in various schools and soccer academies. Efforts to improve soccer performance often focus on techniques and tactics at the expense of physical fitness. During a 90-minute game, elite-level players run about 10 kilometers at an average intensity close to the anaerobic threshold (80-90% of maximal heart rate). Within this endurance context, numerous explosive bursts of activity are required, including jumping, kicking, tackling, turning, sprinting, changing pace, and sustaining forceful contractions to maintain balance and control of the ball against defensive pressure (Stolen et al., 2005).

All sports disciplines may be divided into three groups, depending on the level of movement coordination. The most difficult disciplines require accurate and rapid movement under changing conditions, soccer is one of these. Significant research attention has been given to the technical difficulty of physical fitness (Reilly et al., 2000).

A soccer player needs to meet at least minimum physical, physiological and psychological requirements to cope with the demands of competition and reduce the risk of injury. Soccer is characterized as vigorous, high intensity, intermittent, ball and contact sport. Functional activities include acceleration, deceleration, jumping, cutting, pivoting, turning, heading and kicking of the ball. It is obvious that the game of soccer puts many demands on the technical and physical skills of the individual player; Football is a fast moving and exciting game requiring quick thinking as well as physical skills. It gives pleasure to players and spectators alike, the greater the skill, greater the pleasure but the game football is an opportunity to combine, intelligence speed of judgment, speed of physical and mental reaction and expertise with the ball.

The physical development of a sportsperson at the peak of his performance has also become a prime interest to anyone involved in the cultivation of young sportsmen. In the recent past, in India also, there have been attempts to search for talent and to determine various factors, which could be responsible for ultimate success. The sports scientists working with the top coaches in the concerned sports are trying to find out the basic physical and the physiological characteristics that might be performance limiting factors (William, 1982).

The poor performance of sportsmen at the higher competitions, not only concern especially to the coaches, trainers, physical educationists and sports scientists, but it is also concerned directly to the player's inborn quality. Numerous factors, like skill abilities, motor abilities, psychological factors, social and environmental factors etc. are responsible as the performance limiting factors behind the sportsman's poor performance in competition. Natural ability is essential, but it needs to be combined with hard work, good coaching and challenging match experience. Motor fitness components play vital role among soccer players in relation to their skill performance in the game of soccer. Therefore, an attempt has been made to explore the skill performance among soccer players in relation to their motor fitness components.

METHODOLOGY:

The presented study was conducted with the purpose to determine the skill performance among soccer players in relation to their motor fitness components namely speed, muscular strength and endurance, cardiovascular endurance, agility and explosive strength. Total one hundred (N=100) national level, sub junior male soccer players from five northern Indian states; Chandigarh (N=20), Delhi (N=20), Haryana (N=20), Himachal Pradesh (N=20) and Punjab (N=20) were selected to act as subjects for the present study. Skill performance of the soccer players was assessed by using SAI Soccer Skill Test. Motor fitness components; speed, muscular strength and endurance, cardiovascular endurance, agility and explosive strength were measured by employing 30 Yard Dash, Sit-Ups Test, 600 Yard Run Test, Shuttle Run Test and Standing Broad Jump test respectively. Pearson's product moment method was employed to examine the relationship of skill performance with motor fitness abilities.

RESULTS:

Skill performance among soccer players in relation to their motor fitness and its components has been presented in table-1.

Table1-1

Skill Performance among Soccer Players in relation to their Motor Fitness and its Components

Variables	Correlation Value (r - value)	Sig
Speed	-.205*	.04
Muscular Strength & Endurance	.241*	.02
Cardiovascular Endurance	-.200*	.05
Agility	-.139	.17
Explosive strength	.149	.14
Motor fitness (Composite)	.349**	.000*

Significant at 0.05 level

The motor fitness components such as speed ($r=-.205$, $p=.041$), muscular strength endurance ($r=.241$, $p=.016$) and cardiovascular endurance ($r=-.200$, $p=.046$) were significantly associated with the skill performance. The negative relationship of skill performance with speed and cardiovascular endurance was observed whereas the positive relationship between maximum leg strength and skill performance was reported. The negative relationship of speed and cardiovascular endurance with skill performance was contributing for better skill performance in

soccer as lesser the time in speed and cardiovascular endurance better the performance. The association between the agility and explosive strength were found to be non-significant.

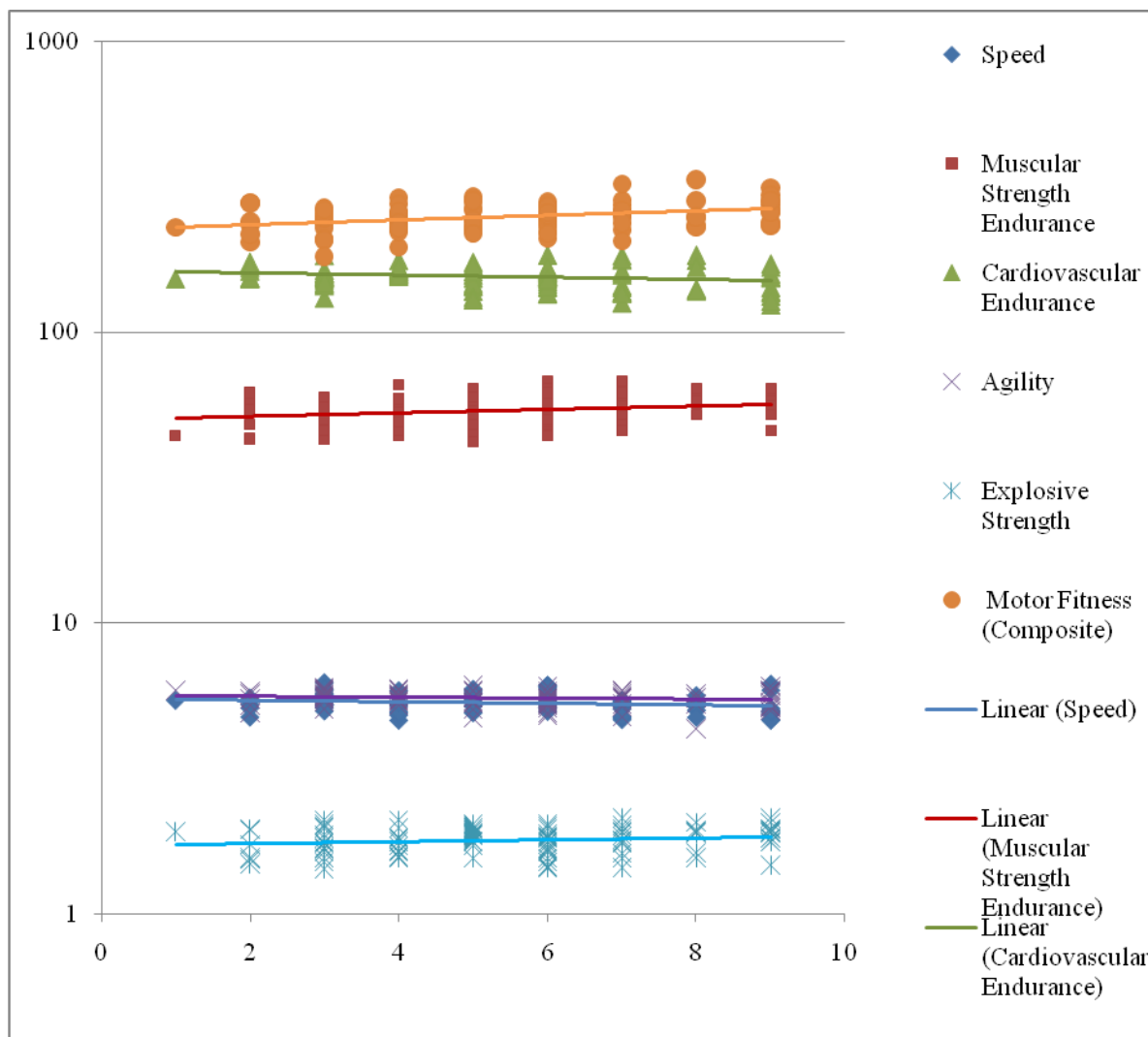


Figure-1: Skill Performance among Soccer Players in relation to their Motor Fitness and its Components

DISCUSSION:

Table-1 demonstrated the positive significant relationship of skill performance with regard to motor fitness components; speed, muscular strength and endurance, cardiovascular endurance and overall motor fitness among soccer players. The outcome of the study is due to the fact that skill performance is complex phenomena and motor fitness components such as speed, muscular

strength and endurance, cardiovascular endurance, agility and explosive strength are indispensable for football skills like dribbling with ball, kicking, dodging, passing, heading the ball for the period lasting 90 minutes. Motor fitness components are amongst the pre-requisite for the skill development and skill performance of any game and sports, including soccer. Better motor fitness contributes towards the efficient skill performance in games and sports. Therefore, a player who does not possess required motor fitness cannot perform well at higher levels. Research finding of present study are in line with the findings of Reilly et al. (2000) which elucidated that speed and explosive power are considered as prerequisites for the success of youth soccer players. Further, they revealed that elite soccer skill performers were found to have better sprinting at short distances, vertical jumping, agility and explosive power as compared to sub-elite youth soccer players. Similar results were reported by Mitra et al. (2013) which revealed significant correlation with regard to power, agility, and speed and cardio respiratory endurance among basketball player. Research conducted by Ghosh (2015) supported the findings of present study while illuminating the significant positive relationship of soccer skill performance with motor fitness components; speed, cardio respiratory endurance and muscular strength endurance whereas insignificant correlation exists between motor fitness component agility with soccer performance.

CONCLUSIONS:

It was concluded that motor fitness components; speed, muscular strength and endurance, cardiovascular endurance and motor fitness (composite) contributed towards the improvement of skill performance among soccer player. However, motor fitness components; agility and explosive strength reported insignificant relationship with skill performance among soccer players.

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