Prediction of Playing Ability from Selected Skills, Physical, Physiological, Psychological and Anthropometric Variables among Ethiopian Super League Male football Players

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Abstract

Introduction: *Football is the most popular sport in the world. Football demands better skill, physical abilities and better physiological and psychological condition. Advanced countries in soccer identify these factors that contribute for successful playing ability of the players. However, in our country there is no previous study conducted to predict the playing ability of Ethiopian players and also to determine the factors which contributed for successful playing ability.*

Objective: *To assess and predict the playing ability from selected skills, physical, physiological, psychological and anthropometric variables among Ethiopian super league male football players, Ethiopia, East Africa, 2017*

Methods: *Quantitative cross-sectional study design was conducted in Ethiopiafrom January 2 to February 30, 2017. The study included 290 male soccer players from Ethiopian super league. The study participants were selected by cluster stage sampling. Data were collected using structured and pretested questionnaires and physical tests. Correlation test and Multivariate logistic regression analyses were done.*

Results: *Leg length, shoulder strength, speed, agility, body weight, thigh girth, calf girth, body fat percentage and achievement motivation correlated with soccer game performance. Knee diameter, strong legs, thigh girth, speed, agility, self-confidence, and aggressiveness were predictors of good game performance.*

Conclusion: *Leg length and achievement motivation were positively correlated with soccer game performance. Those having large knee diameter, strong legs, self-confidence, good speed and agility are related to a higher likelihood of good game performing in soccer. Having high score in aggressiveness and large thigh girth showed negative association.*

Recommendations: *To have better game playing, players needed to improve their physical, anthropometrical and psychological variables.*

1. Introduction

1.1 Background information

Soccer (more formally known as association football) is unarguably the world's most popular sport. It is performed by men and women, children and adults with different levels of expertise. Also it is a simple game requiring very minimum infrastructure and equipment(Singh and Singh 2015). Popularity of the game is reflected in the millions who participate in Soccer in lower levels of play. Soccer is now being played in more than 210 countries throughout the world(Burke and Hawley 1997).Recent burgeoning of the football industry has enhanced the attractiveness of the sport as a professional occupation for performers at the highest standard, where the financial rewards for success are considerable(Reilly, Bangsbo et al. 2000).

In Ethiopia, football is not just played on the field. It has much more meaning than a game. Ethiopians are die-hard supporters of their national team and favorite clubs despite poor results. Ethiopia is one of the founding members of the African Football Confederation (CAF) together with Sudan and Egypt. However, Ethiopia has not appeared in the African Cup of Nations for many years. Its football fans desperately need to return to the Pan-African tournament again and again(Sparre). Now a day Ethiopia football federation has many clubs compute each other under in three different levels. These are Ethiopia premier league, Ethiopia super league and Ethiopia national league. Ethiopia football federation and sport commission design and implement different football projects and currently sport academies. Even if this kind of effort had been conducted for long period of time, Ethiopian football was still not growing as compared to other countries. This is implied by lack of success by national team and Ethiopian clubs in international competitions. Identification and selection of talented soccer players are not straightforward operations. Detection and identification of talent are more difficult in team games than in individual sports such as running, cycling or rowing, where predictors of performance are more easily scientifically prescribed(Reilly, Williams et al. 2000).

Research findings indicate that success in soccer is dependent upon a variety of factors including the physical characteristics and physiological capacities of the players, their level of skill, their degree of motivation, and tactics employed by them against the opposition. (Robertson and Mosher 1985). Some of these factors are not easily measured objectively, but others can be tested using standardized methods and can provide useful information for coaches Fitness especially physical fitness regarded as an essential component even if the team consists of highly skilled, technically sound and experienced player physical fitness is guarded by performance and this performance is based on outcome of many factors. The most commonly mentioned fitness factors are strength, endurance, power, speed and agility. Scientist's seas that the techniques and tactics of a player or a team, physical and physiological characteristics help him for better performance(Sahu 2016).

The ideal level of fitness is arguably never achieved. Athletes always strive toimprove, to push their limits as far upwards as possible. As soccer makes demandson the majority of the body's physiological systems, fitness for the game includesmany factors besides competence in game skills and tactical awareness. A keyaim in fitness for soccer is to enhance or maintain fitness in areas of strengthwhile correcting weaknesses. In this way the goal of securing an optimalcombination of fitness measures can be realised (Reilly 2007).

1.2 Statement of the problem

Soccer demands better skill, physical abilities and better physiological and psychological condition. It is a known fact that in high profile soccer countries Soccer players should be better in morphological measures, body composition, motor fitness components, physiological traits and psychological variables.

Advanced countries identify these factors that contribute for successful playing ability of the players and they use this result for talent identification, giving due considerations to the performance determining factors. Then, they develop the identified talents guidelines on scientific lines. With the costs of purchasing players through the transfer market spiralling and the success of Ethiopian football national team and clubs in international arena decreasing through time, the importance of identifying, developing and nurturing talented young soccer players has mandatory to identify the determinant factors of good playing ability become a priority(Williams 2000). To perform this, it is.

Even if different researches conducted to identify the major problems of Ethiopian football, in investigators best knowledge there is no previous study conducted to predict the playing ability of Ethiopian football players and also to determine the determinant factors which contributed for successful playing ability. So, the purpose of this study is to assess and predict the playing ability of Ethiopian super league male football players from selected skills, physical, physiological, anthropometrical, and psychological variables.

1.3 Objectives

General objective

- To assess and predict the playing ability from selected skills, physical, physiological, psychological and anthropometric variables among Ethiopian super league male football players, Ethiopia, East Africa, 2017

Specific objectives

- To examine the affiliation between playing ability and selected physical variables.
- To examine the relationship among playing ability and selected physiological variables.
- To assess the affiliation between playing ability and selected psychological variables.
- To identify the correlation between playing ability and selected anthropometrical variables.
- To predict the football playing ability.
- To identify the associated factors with playing ability

2. Methods, Procedures and Materials

2.1 The Study Design and Period

A quantitative cross sectional research design was employed from January 2 to February 30.

2.2 The study Area

The study was conducted in Ethiopia. Ethiopia is located in the north-eastern part of Africa commonly known as the Horn of Africa. Neighbouring countries include Djibouti and Somalia in the east, Kenya in the south; Sudan in the west and south-west; and Eritrea in the north and north-east. In Ethiopian there are different soccer competitions that are prepared by national and regional football federations. The three male soccer league competitions that are prepared by national football federation are National league, super league and premier league. This paper focused on super league, because this league is the bridge from the lower league to the highest league (premier league). The investigators believe that super league is more representative to Ethiopian soccer status and other factors than others.

2.3 Population of the Study

Target population: **Male football players aged above 18, who playing in Ethiopian football clubs that are registered in Ethiopian football federation**

The sampling frame was obtained from Ethiopian

Sample population: male football players 18 up to 28 participated in Ethiopian super league.

Subject of the study: male football players aged 18up to 28 participated in Ethiopian super league and selected to be included in the study.

2.4 Inclusion and exclusion criteria

2.4.1 Inclusion criteria

Male football players aged above 18 from clubs participated in Ethiopian super league.

2.4.2 Exclusion criteria

Those injured players.

2.5 Sample size determination and sampling procedure

The required sample size is determined by using Epi info statistical software version 7 by assuming the following assumptions:

Population…..832 (32 clubs x 26 players)

Proportion ……50%

Margin of error……. 5%

Finally, the minimum sample size of 263 was obtained. By adding 10% non-response rates (27) the final sample size will be 290.

In Ethiopian super league 32 (thirty two) football clubs and totally 832 (Eight hundred thirty two) players are participating in the competition. Among these, 290 **players were selected by stratified sampling method based on their playing position with proportional allocation**

2.6 Variables of the study

2.6.1 Dependent variable: - Playing ability

Independent variables

Physical Variables:-Leg Strength, Shoulder Strength, Speed, Agility, and Flexibility

Physiological Variables:- Resting pulse rate, and Breathing holding time

Psychological Variables:-Anxiety, Self-confidence, Aggression, Achievement Motivation

- **Anthropometrical Variables:-** Body height, Body weight, Body mass index, Leg length, knee diameter, Thigh girth, Calf girth, and body fat percentage.

2.7 Operational Definitions

Playing ability: refers to overall ability of the players to play football game efficiently and assessed by the judges through subjective rating.

Good playing ability: a player who scores an average of 61 and above

Poor playing ability: a player who scores an average of below 61

2.8. Tools and Collection of Data

A number of instruments were used for taking accurate measurements on the anthropometric, physiological and physical fitness.

For this study football players of different playing categories had go through physical fitness measurements, anthropometric and performance measures. All the physical fitness, anthropometric, physiological, and psychological and performance measures was taken with care and precision. Investigators were taken the cooperation with coaches to collect the data. Each test was properly explained and demonstrated to football players. All the anthropometric measurements were taken in morning in minimum clothing

Anthropometric Measurement

The skin fold sites were triceps, sub scapula, midaxillary, anterior suprailiac, chest, abdomen, and mid-thigh. The landmarks were identified and measured according to Wilmore and Behnke (Wilmore and Behnke 1969) Body density and the percentage of fat were determined according to equations of Jackson and Pollock(Jackson and Pollock 1978)

Physical fitness

Physical fitness components were measured by the following tests. Speed was tested by 35 meter dash (in football boots), Flexibility was assessed by Sit and reach test, Agility by Illinois agility run test, shoulder strength by hand grip dynamometer and Muscular endurance by wall sit test.

The physiological parameters

The Physiological parameters namely resting heart rate and Breath holding time were assessed by Digitalized heart rate monitor and Manual nose clip method respectively.

Psychological factors

Psychological factors namely Somatic anxiety, Cognitive anxiety and Self-confidence was assessed by Competitive Sports Anxiety Inventory – II (CSAI - 2) questionnaire developed by Martens et.al (Martens, Vealey et al. 1990), Sports achievement motivation level was assessed by (Kamlesh 1990) Sport achievement motivation test (SAMT) questionnaire and standardize Smith's questionnaire for sporting aggression was used to scale the aggressiveness.

Ability Evaluation

The dependent variable, playing ability of the selected super league players was assessed by three qualified Football coaching specialists who were holders of license B in coaching football and Msc in football coaching. The guidelines for assessment based on playing position were provided by the investigator.

Each coach was rated the playing ability of the selected players in 10 points scale for each study participant. The ratings given by the coaches on each subject was added and divided by three to make the individual score of the subject. The correlation between the coaches on performance ratings was also tested by chronbach alpha (0.79).

The data of Ethiopian male super league players was collected before, during and after their matches and also during their rest time and training time. Necessary instruction was given to the subjects before administration of the test of selected physical fitness, anthropometry measurement, physiological, psychological and performance Variables.

2.9. Statistical technique for analysis of data

The study consists of one dependent variable, namely playing ability of Football players, and 20 independent variables. Data was checked, entered and cleaned using Epi-info version 7 statistical software and then transferred to SPSS (Statistical Package for Social Science) version 20 for analysis. To determine the relationship between dependent variable and independent variable Pearson product moment correlation was used. To identify the major determinant factors binary logistic regression model, bivariate analysis was used to identify the confounders. All variables were entered to multivariable logistic regression to identify factors which have statistically significant association. Thus, variables having p-value of $\leq$ 0.05 was considered as Significant.

Adjusted odds ratio (AOR) with 95% confidence interval was used to show strength of association. The model fitness was tested by Hosmer and leme show test.

3. Results

The study included 290 soccer players, among these 17 players were refuse to participate in the study. Seven questionnaires found incomplete and excluded from analysis. A sample of 266 (91.72% from the sample) male soccer players from Ethiopian super league was tested and filled the questionnaires.

Socio Demographic Characteristics of Study Participants

The mean reported age of the study participants was 24.11 (S.D $\pm$ 2.772). The minimum and maximum age was 19 and 37 respectively. Majority of the study participants were orthodox Christian (65.5%) followed by Muslims (12%).

About half of the players were from Amhara region (40.2%) followed by SNNP region (22.2%). Of the participants more than half had secondary school education level (Grade 9- Grade 12) and the rest had college and above [Table: 1].

Table 1:

Socio-demographic characteristics of the study participants (n-266) Ethiopia, 2017

Correlation Relationship of selected physical, physiological, psychological, and anthropometrical variables with game performance

Correlation Relationship of Selected Physical Variables with Game Performance

Characteristics	Frequency	Percent
Religion		
Orthodox	185	69.5
Muslim	32	12
Protestant	29	10.9
Catholics	10	3.8
Others	10	3.8
Ethnicity		
Amhara	107	40.2
Tigrie	32	12
Oromo	53	19.5
SNNP	59	22.2
Others	16	6
Current marital status		
Single	154	57.9
Married	102	38.3
Divorce	6	2.3
Widowed	4	1.5
Education		
Secondary school	160	60.2
College and above	106	39.8

Most physical variables except flexibility showed statistically significant correlation with performance. There was a positive correlation between the leg strength and performance, r = 0.363, p = <0.001. Statistically significant negative correlation was obtained between performance (dependent variables) and shoulder strength r = -0.160, p = <0.001, speed (time that takes to finish 35m sprint)r = -0.266, p = <0.001, and agility (time that takes to finish Illinois test) r = -0.302, p = <0.001 [Table 2].

Table 2: Pearson's Coefficient of Correlation of selected physical variables and game performance of Ethiopian super league soccer players (n=266), Ethiopia, East Africa, 2017

	Leg strength	Shoulder strength	Speed	Agility	Flexibility	Performance
Leg strength	1	0.013	0.024	-0.194**	0.116	0.363**
Shoulder strength	X	1	0.098	-0.058	0.042	-0.160**
Speed	X	X	1	0.091	-0.097	-0.266**
Agility	X	X	X	1	0.130*	-0.302**
Flexibility	X	X	X	X	1	.022
Performance	X	X	X	X	X	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Correlation Relationship of selected physiological variables with game performance

The Pearson correlation result showed that no statistical significant relationship between physiological variables and performance [Table 3].

Table 3: Pearson's Coefficient of Correlation of selected physiological variables and game performance of Ethiopian super league soccer players (n=266), Ethiopia, East Africa,2017

	Resting pulse rate	Breathing holding time	Performance
Resting pulse rate	1	0.035	-.016
Breathing holding time	X	1	-.015
Performance	X	X	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Correlation Relationship of Selected Anthropometrical Variables with Game Performance

Results showed that half of the anthropometrical variables were correlated with performance. Body weight, thigh girth, calf girth, and body fat percentage were the variables. All of these correlations were negative correlation. Among those showed negative correlation the strongest negative correlation was between body fat percentage and performance r =-0.198, p = < .001 followed by body weight r = -0.166, p = < .001[Table 4].

Table 4: Pearson's Coefficient of Correlation of selected Anthropometrical variables and game performance of Ethiopian super league soccer players (n=266), Ethiopia, East Africa, 2017

	Body weight	Body height	Leg length	Knee diameter	Thigh girth	Calf girth	Body fat percentage	BMI	Performance
Body weight	1	0.430**	0.240**	0.346**	0.208**	0.252**	0.317**	0.675**	-0.166**
Body height	X	1	0.632**	0.343**	0.324**	0.115	-0.038	-0.374**	-0.099
Leg length	X	X	1	0.333**	0.184**	-0.061	0.048	-0.272**	-0.009
Knee diameter	X	X	X	1	0.328**	0.451**	0.218**	0.068	-0.018
Thigh girth	X	X	X	X	1	0.158**	0.125*	-0.061	-0.136*
Calf girth	X	X	X	X	X	1	0.153*	0.163**	-0.143*
Body fat percentage	X	X	X	X	X	X	1	0.361**	-0.198**
BMI	X	X	X	X	X	X	X	1	-0.086
Performance	X	X	X	X	X	X	X	X	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Correlation Relationship of Selected Psychological Variables with Game Performance

Among the psychological variables Achievement motivation and Aggressiveness were showed statistically significant correlation with performance. Positive correlation between Achievement

motivation and performance, r = 0.142, p = <0 .05, were observed. There was a negative correlation between Aggressiveness and performance, r = -0.128, p = < .05 [Table5].

Table 5:

Pearson's Coefficient of Correlation of selected psychological variables and game performance of Ethiopian super league soccer players (n=266), Ethiopia, East Africa, 2017

	CSA	SSA	SC	AMQ	AQ	Performance
Cognitive State Anxiety	1	0.236**	0.077	0.038	0.146*	-0.033
Somatic State Anxiety	X	1	-0.348**	-0.168**	0.219**	0.109
Self confidence	X	X	1	0.111	-0.182**	0.100
Achievement motivation	X	X	X	1	-0.222**	0.142*
Aggressiveness	X	X	X	X	1	-0.128*
Performance	X	X	X	X	X	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Factors associated with good game performance

Table 6 provides the adjusted OR and 95% CI that quantify the association between the independent variables and the outcome variable (soccer game playing performance). These estimates were obtained using the multivariable logistic regression analysis. Seven variables showed statistically significant association with soccer game playing performance at a 5% level of significant. Among those associated factors anthropometrical variables were one of them. Knee diameter and thigh girth were statistically associated with soccer game playing performance. As knee diameter increase by 1 cm, the odds of being good performer increased by 57% (AOR= 1.569, 95% CI: 1.237, 1.99). Thigh girth was negatively associated with good performance. The odds of being good performer were decreased by 24% (AOR= 0.860, 95% CI: 0.785, 0.941) for each additional 1cm thigh girth. Physical variables were the maximum variables that showed significant association with the dependent variable. Positive association was observed between Leg strength and good performance. For every second increase for wall sit test, the odds of being good performer was multiplied by 2.452 (AOR= 2.452, 95% CI: 1.825, 3.295). In the other hand negative association was observed between speed and agility with good performance.

After adjusting all variables, the odds of being good performer were decreased by 94% (AOR= 0.062, 95% CI: 0.021, 0.186) for every second increase to finish the 35 meter dash run. And also for agility after adjusting all variables, the odds of being good performer were decreased by 77% (AOR= 0.331, 95% CI: 0.190, 0.576) for every second increase to finish the 35 meter dash run.

Two of psychological variables conducted in the study, which is Self-confidence and

aggressiveness, were found to be statistically associated with good performance. The odds of being good performer were increased by 20% (AOR= 1.203, 95% CI: 1.076, 1.345) for each additional 1 score obtained from self-confidence test.

In the other hand the odds of being good performer were decreased by about 16% (AOR= 0.8451, 95% CI: 0.750, 0.952) for each additional 1 score obtained from aggressiveness questionnaire.

The other variables, which were Body height, Body weight, Body mass index, Leg length, Calf girth, and body fat percentage, Shoulder Strength, Resting pulse rate, Breathing holding time, Anxiety, Self-confidence, Aggression, and Achievement Motivation were removed in the iteration process of backward logistic regression method

Table 6:

Multivariate logistic regression analysis for potential factors associated with good game performance of Ethiopian super league soccer players (n=266), Ethiopia, East Africa, 2017

Variables	Crude OR(95%CI)	Adjusted OR(95%CI)	P-value
Anthropometrical variables			
Knee diameter	1.079(0.935,1.245)	**1.569(1.237,1.99)****	<0.001
Thigh girth	0.985(0.928,1.047)	**0.860(0.785, 0.941)***	0.001
Body fat percentage	0.990(0.925,1.059)	1.090(0.990,1.200)	0.079
Physical variables			
Leg Strength	**1.682(1.369,2.068)****	**2.452(1.825,3.295)****	<0.001
Speed	**0.133(0.057,0.307)****	**0.062(0.021,0.186)****	<0.001
Agility	**0.389(0.258,0.588)****	**0.331(0.190,0.576)****	<0.001
Flexibility	0.959(0.959,1.026)	0.961(0.920,1.004)	0.073
Psychological variables			
Self confidence	**1.126(1.037,1.223)***	**1.203(1.076,1.345)***	0.001
Aggressiveness	0.919(0.838,1.007)	**0.845(0.750,0.952)***	0.006

Discussion

The findings of the present study show weak negative and positive correlations between the independent variables and soccer game performance. Therefore, the present study findings demonstrated that physical variables (leg strength, shoulder strength, Speed (The time spent to finish 30m dash run), and Agility (The time spent to finish Illinois agility test)), Anthropometrical variables (Body weight, thigh girth, calf girth and body fat percentage) and psychological variables (achievement motivation and aggressiveness) were the determinants of soccer game performance Leg strength and

The paucity of studies relating to selected variables treated in this investigation makes difficult at the moment to comparing data and results.

The observed correlations were weak uphill and downhill linear relationship. The weak uphill linear correlations were observed in shoulder strength, Speed (The time spent to finish 30m dash run), Agility (The time spent to finish Illinois agility test), body weight, thigh girth, calf girth body fat percentage, and aggressiveness variables.

achievement motivation variables were showed statistical significant weak downhill linear relationship with soccer game performance.

These most results of physical variables are in line with previous studies conducted on other sports (Hoare 2000, Sierer, Battaglini et al. 2008, Mohamed, Vaeyens et al. 2009). A study conducted in Australia on elite junior basketball involving predicting success with junior players from physical profiles revealed that the 'best' players could be distinguished from the 'rest' players on speed and agility(Hoare 2000).

In America's National Football League (NFL), major differences were observed with speed between drafted and non-drafted players in the skill players' group(Sierer, Battaglini et al. 2008). A study conducted by Hasan Mohamed et.al in junior handball, elite players scored significantly better on strength and speed(Mohamed, Vaeyens et al. 2009).

Elite professional soccer is a complex sport and performance depends on a number of factors such as physical, physiological anthropometrical and psychological. Throughout the most recent couple of years, the part of psychology in professional soccer clubs has been fully recognized.

Psychological factors like anxiety, self-confidence, achievement motivation, and aggressiveness were tested. From the variables in psychological category achievement motivation (weak positive correlation) and aggressiveness (weak negative correlation) were found to be a determinant factor for soccer game performance. Similar results were also obtained from previous studies (Tufekcioglu, Kanniyan et al. , Theodorakis 1995, Abdullah, Musa et al. 2016).

In the case of anthropometrical variables four variables which were body weight, thigh girth, calf girth and body fat percentage were showed significant weak negative correlation with soccer game performance.

To further understand the relationships of the physical fitness components with the football performance of the football players, we conducted stepwise binary regression analyses.

The regression analyses between soccer game performance and physical fitness components showed that football performance is determined by the speed, leg strength and agility. Speed was the prime predictor variable in the equation for predicting football performance as odds of being good performer were decreased by 94% for every second increase to finish the 35 meter dash run.

These study results are in line with a study conducted by Kanwar Mandeep Singh et.al which obtained 28% of the variance was accounted for by speed, 4% was explained by strength, 1% was explained by agility and an additional 1% of the variance was explained by endurance(Singh, Singh et al. 2017)

In the other hand, these findings are in contrast to those reported by Sawyer et al. (2002)(Sawyer, Ostarello et al. 2002). They predicted the football performance on the basis of anthropometric and performance measures and reported vertical jump

as prime predictor variable for football performance.

Conclusion

Based on the results the following conclusions were drawn from the present study:

- Leg length and achievement motivation were positively correlated with soccer game performance.
- The rest variables which were shoulder strength, speed, agility, body weight, thigh girth, calf girth, body fat percentage and achievement motivation were negatively correlated with soccer game performance.
- Those having large knee diameter, strong legs, self-confidence, good speed and agility are related to a higher likelihood of good game performing in soccer.
- Having high score in aggressiveness and large thigh girth showed negative association.

Recommendations

To Ethiopian and regional Football federation

- Coaching materials prepared by these federations are better to incorporate for the development of those physical, anthropometrical and psychological variables.

To Ethiopian football clubs

- It is better to improve physical, psychological and anthropometrical qualities of the players to improve their performance of during the game.

To coaches

It advised to measure the physical, psychological, physiological and anthropometrical variables and work to improve on these variables to improve players' performance.

To players

- It is needed to improve their speed, agility, leg strength hand performance and reduce their body fat percentage to be successful in their playing career. Better to concentrate on psychological variables to be a better player.

To researchers

Further research is needed with longitudinal research design, enlarge the study, and include other populations and additional independent variables

References

- Abdullah, M. R., et al. (2016). "Role of psychological factors on the performance of elite soccer players." Journal of Physical Education and Sport**16**(1): 170.
- Burke, L. M. and J. A. Hawley (1997). "Fluid balance in team sports." Sports medicine**24**(1): 38-54.
- Hoare, D. G. (2000). "Predicting success in junior elite basketball players—the contribution of anthropometic and physiological attributes." Journal of Science and Medicine in Sport**3**(4): 391-405.
- Jackson, A. S. and M. L. Pollock (1978). "Generalized equations for predicting body density of men." British journal of nutrition**40**(3): 497-504.
- Kamlesh, M. (1990). "Manual of sports achievement motivation test." NIS Scientific journal**13**(3): 28-39.
- Martens, R., et al. (1990). "Competitive Sports Anxiety Inventory-2." Champaign Ill.
- Mohamed, H., et al. (2009). "Anthropometric and performance measures for the development of a talent detection and identification model in youth handball." Journal of sports sciences**27**(3): 257-266.
- Reilly, T. (2007). "The science of training–soccer." Oxon: Routledge.
- Reilly, T., et al. (2000). "Anthropometric and physiological predispositions for elite soccer." Journal of sports sciences**18**(9): 669-683.
- Reilly, T., et al. (2000). "A multidisciplinary approach to talent identification in soccer." Journal of sports sciences**18**(9): 695-702.
- Robertson, D. and R. Mosher (1985). "Work and power of the leg muscles in soccer kicking." Biomechanics IX-b: 533-538.
- Sahu, D. P. (2016). "Comparative study on soccer skill performance between rural and urban women soccer club player's in West Bengal."
- Sawyer, D. T., et al. (2002). "Relationship between football playing ability and selected performance measures." The Journal of Strength & Conditioning Research**16**(4): 611-616.
- Sierer, S. P., et al. (2008). "The National Football League Combine: performance differences between drafted and nondrafted players entering the 2004 and 2005 drafts." The Journal of Strength & Conditioning Research**22**(1): 6-12.
- Singh, A. and B. Singh (2015). "Comparative study of selected anthropometric variables between defenders and midfielders in football." IJAR**1**(12): 91-93.
- Singh, K. M., et al. (2017). "Relationship of Physical Fitness Parameters with Performance among the College Level Football Players." International Journal of Current Research and Review**9**(20): 30-34.
- Sparre, K. "AGAINST ALL ODDS."
- Theodorakis, Y. (1995). "Effects of self-efficacy, satisfaction, and personal goals on swimming performance." The Sport Psychologist**9**(3): 245-253.
- Tufekcioglu, E., et al. "Impact of Psychological Variables on Playing Ability of University Level Soccer Players."
- Williams, A. M. (2000). "Perceptual skill in soccer: Implications for talent identification and development." Journal of sports sciences**18**(9): 737-750.
- Wilmore, J. H. and A. R. Behnke (1969). "An anthropometric estimation of body density and lean body weight in young men." Journal of Applied Physiology**27**(1): 25-31.

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