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# The Relationships between Sporting Imagery, Self confidence, and Body Mass Index with Sporting Success in Elite Futsal Athletes

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#### **ABSTRACT**

The purpose of this study was to analyze the multi-relationships between imagery in sports, self-confidence and body mass index and sporting success of male and female elite futsal athletes. 60 male and 40 female served as subjects for this study. Three questionnaires were used to measure imagery in sports, self-confidence and conceptual sporting success. The psychometric characteristics of these instruments in this study and the studies by others were reported to be successful. Also measuring height and weight were used for determining the body mass index. Multi regression equation was applied to test which predictor variables (imagery in sport, self-confidence, body mass index), could predict criterion variable (sporting success). The results, at significant level ( $\alpha$ = 0.05), showed that the variable of imagery in sports in male athletes and self-confidence variable in female athletes could more effectively predict their sporting success in futsal games. It is, therefore, to propose that the coaches should provide such conditions for male elite athletes to improve imagery variable and self-confidence in female elite athletes to achieve success in futsal games.

**Keywords**: imagery in sports, self-confidence, body mass index, sporting success.

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#### INTRODUCTION

Considering physical properties and psychological characteristics of athletes and their relations have been revealed for some time, for both the coaches and athletes, but it has rarely been evaluated and scientifically analyzed and the delay has somewhat disappointed many coaches in achieving the susceptibility in their athletes. Awareness of coaches and athletes from the results, analyzing skills, psychological characteristics and their effects on sportive efficiency, not only allow the coaches for better condition and more effective short term and long term planning and provide a newer horizon from the coaching and training arts for them, but also encourage the athletes to improve their weak points and strengthen the positive psychological characteristics. Developing this way could be achieved by measuring the level of psychological skills of elite athletes. Undoubtedly, the psychological readiness of an athlete, which is an important job of coaches, has its own special complexities and requires identification of different psychological and physical dimensions of the athletes.

Imagery and self-confidence in sports are among the known factors in increasing or improving the athletes' performances [1]. The common point and by the aid of image makers, changes could be made in the body that are

far away from the mind influence domain. Imagery that could effect on controlling elements of the body is a tool for transformation and getting rid of errors and exercises for unconscious minds [2]. Research has shown that when person is engaged in imagery, the brain regards the images as real images with external drives and this characteristic develops imagery up to his or her extent [3], but using imagery could not only be an effective method for the notion of success and the athletes require both exercises of imagery and self-confidence [1]. Self-confidence or self-belief is a feature that distinguishes elite athletes from others. Self-belief is developed in years and is resulted from positive ideas and successful experiences, and is one of the most important factors affecting sporting performances [1]. Athletes with high Self-confidence has better opportunity for their success in games and competitions and have better performances in reaching their success through the belief they have in fulfilling their capabilities.

Anthropometric properties are effective in identification of athletes, their talent, skill development and also physical-motor performance [4]. Using these basic information, helps coaches and athletes to achieve high level physical performance which finally leads to their success [6]. High body fat can decrease optimal performance [7], therefore low body fat and optimal muscle weight can have positive influence on physical performance [8].

## MATERIALS AND METHODS

The method of this study is descriptive and multi-correlation was used to analyze the data. 60 male and 40 female elite futsal athletes were used as subjects for this study. Two questionnaires imagery in sport [9], self-confidence [10] were applied to measure the predictor variables. The alpha Cronbach reliability coefficients for these two instruments were reported to be 0.77, 0.70., Also height and weight were used to measure body mass index another predictor variable. Sporting success questionnaire [11] was used to measure criterion variable. The alpha Cronbach reliability coefficients for this instrument were reported to be 0.69.

## RESULTS AND DISCUSSION

The present study was conducted to find out which independent factors (sporting imagery, self-confidence body mass index) could predict sporting success. Regression is the most path to the prediction equation when one is interested in identifying subsets of potent predictors and eliminating those which do not provide additional information to the predictors already entered. So regression analyses (enter) was applied to the data for both male and female elite athletes. The content of table 1 shows the results of regression equation for men. The analyses revealed that regressive equation predicting sporting success from independent factors (sporting imagery, self-confidence, body mass index), with R of 0.45 while F = 4.79, it is significant at 0.005 probability. Sport imagery with coefficient  $\beta$  of 0.33 is the most potent factor that could predict sporting success in male elite futsal athletes. The value of R square indicates that all three predictors explained total 20% of the variance in sporting success. The content of table 1 shows summary of regressive analyses.

Table 1: Summary of regressive analyses, Dependent Variable: Sporting Success

Predictor variables	R	$\mathbb{R}^2$	F	P	β	T	P
Sport Imagery					0.33	2.33	0.030
Self-confidence	0.45	0.20	4.79	0.001	0.15	1.04	0.229
Body mass index					0.20	1.68	0.097

Same regressive analyses were applied for female elite athletes in futsal games. The analyses revealed that regressive equation predicting sporting success from independent factors (sporting imagery, self-confidence, body mass index), for female elite athletes with R of 0.52 while F = 4.62, it is significant at 0.008 probability. Self-confidence with coefficient  $\beta$  of .58 is the most potent factor that could predict sporting success in female elite futsal athletes. The value of R square indicates that all three predictors explained total 28% of the variance in sporting success. The content of table 2 shows summary of regressive analyses.

Table 2: Summary Regressive Analyses, Dependent Variable: Sporting Success

Predictors	R	$\mathbb{R}^2$	F	P	β	T	P
Imaging in Sports					-0.13	-0.674	0.505
Self -confidence	0.52	0.28	4.62	0.008	0.58	3.05	0.004
Body Mas Index					-0.13	-0.914	0.367

#### **CONCLUSION**

The present study was an attempt to study the sporting success problems in relation to three predictors such as sporting imagery, self-confidence, and body mass index. The obtained results are discussed in the light of the theoretical framework of the subject and research studies already conducted in the field Levy and Nicholls (2010) who found a positive and significantly relationship between sporting success and imagery in sport and self-confidence [12]. Recent work in sporting success has suggested that sporting imagery identified among male elite athletes and self-confidence factor identified among female elite athletes may fit within the framework provided in the present study [13, 14, 15].

In the present study regression equation revealed that predicting sporting success from sporting imagery, self-confidence, and body mass index consider to be significant at 0.005 probability. It was, however found that the imagery in sport for male elite athletes was a pertinent predictor experiencing success in futsal game. When regression equation applied to the data for female elite athletes, it was shown that self-confidence was considered to be a pertinent factor in predicting sporting success in female elite athletes in futsal games. In other words, All three variables of sporting success explained total 20% of the variance of winning the sporting events in men, whereas these predictor variables of sporting success explained total 28% of the variance to achieve success in futsal game in female.

The research conducted by Adegbesan(2010), Rattanakoses and et.al(2009), Callow and Hardy(2001), Mills and et.al(2001) confirms the results of this research [13, 15, 14, 16]. It is, therefore, to suggest that coaches who are concern about their teams to win the difficult games, should be aware that sporting imagery in men and self-confidence in women elite athletes play important role in achieving success in futsal games. It further means that coaches should provide their athletes opportunities and encourage them to think about and practice these relevant psychological factors. This may help their athletes to achieve success in different futsal events. The more increasing imagery in men and self-confidence in women elite athletes, the more success and achievements are expected to be obtained in difficult situations.

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