

## Relationship between Perceived Autonomy - Supportive Behaviors of Coaches and Self- Determined Motivation of Elite Female Players

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### ABSTRACT

The aim of this study was to determine the relationship between perceived autonomy-supportive behaviors of coaches and self-determined motivation of elite female players in team sport fields. The research design was a descriptive- survey one which was conducted as a filed study. The research population included all female athletes in premier league team sports such as futsal, volleyball, basketball and handball, in the year 2011-12, which were about 530 people. 30 people were selected randomly from among each sport field and totally 120 athletes were tested as research samples. Autonomy-supportive behaviors of coaches and self-determined motivation were assessed through using perceived autonomy support scale for exercise settings (PASSSES) and sport motivation scale (SMS) respectively. Moreover, demographic questionnaire was also distributed. The validity and reliability of mentioned questionnaires were measured and modified. In order to analyze the data, descriptive statistics, and to ascertain the relationship and predict the amount of the self-determined motivation through autonomy-supportive behaviors of coaches stepwise regression and SPSS software were used. The findings showed that autonomy-supportive behaviors of coaches had a significant positive and correlation with intrinsic motivation, interjected regulation and identified regulation of team players ( $\alpha = 0.05$ ) in other words, these variables can be predicted in athletes through autonomy-supportive behaviors of coaches. While there was no significant correlation at ( $\alpha = 0.05$ ) level between autonomy-supportive behaviors of coaches and a motivation of team players. The results of stepwise regression showed that autonomy-supportive behaviors of coaches can predict the players' a motivation in reverse form. It can be inferred from the findings that autonomy-supportive behaviors of coaches directly influence the self-determined motivation of the players.

**KEYWORDS:** autonomy-supportive behaviors, self-determined motivation, women's premier league, team sports

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### 1. INTRODUCTION

Beside technique and skill, the mental and psychological conditions of player play an important role in her positive performance in race field. Thus, not only adverse psychological factors affecting the players' performance should be harnessed, but also with discovery and application of positive psychological affecting factors the players' performance in the race filed can be optimized. It can safely be said that in this regard due to the behavior adoption coach is the most influential factor.

In all competitive levels, from youth sports to professional, the manner in which coaches make playing and practicing conditions, apply decision-making processes, the quality and quantity of feedback in response to the athlete performance, communicate with the athletes, the ways which use to motivate them, all have effect on behavior, cognition and emotional responses of the athletes [11,13]. Coaches can influence athletes to achieve high levels, enjoy their experiences, prove their effort and strength, develop their sense of competence and self-determined motivation, but their particular behavior can also lead to negative psychological and performance outcomes e.g. poor performance, low self-esteem, high levels of competitive anxiety, burn – out [2].

In order to achieve its objectives along with taking into account the conditions coach can employ a variety of styles and techniques. One of those approaches was proposed by Vallerand during which the coach is in the position of authority, while the use of the pressure and command is minimized, coach uses the opinions of others (athletes), considers their feelings and provides the appropriate information and choice opportunities for them [16].

This coaching style is called autonomy- supportive behaviors of coach which is outstanding because of its ability to shape and improve the coach plans. It can also be interpreted as a part of motivational climate (atmosphere and conditions that coach provides in the team) in which the activities take place. The functional aspect of autonomy - supportive climate is that people feel that their own behavior rather than external pressures and demands are originated from themselves. In contrast with the controlling climate, autonomy- supportive climate is associated with intrinsic motivation, Creativity, cognitive flexibility, conceptual learning, self-esteem, perceived competence, trust and health [3].

Three environmental factors play an important role in autonomy- supportive leadership style that are namely a possibility of making choice, giving basic, logical and meaningful reasons and awareness of the feelings and

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views of others [4]. Various studies show that athletes' perception of coaches' behavior i.e. supporting the autonomy of athletes by coaches through satisfying three psychological and organism needs i.e. autonomy, competence and relatedness is related to their self-determined motivation [18, 20 and 24].

Self-determined motivation originates from the well-known theory of self-determined motivation which was proposed for the first time in 1985 by Ryan and Deci. Self-determined motivation theory as a general theory has two important assumptions [20], which are as follows:

- 1 - Motivation is a multidimensional construct and its different types will have different effects on cognitive, feeling and behaving outcomes.
- 2 - The type of motivation in a particular environment is determined through the way in which the basic psychological needs of an individual e.g. autonomy, competence and relatedness are satisfied by the factors of that environment [5].

According to the first assumption, Ryan and Deci (1991) believed that intrinsic and extrinsic motivations are not enough to explain the motivational behavior of human and, considered several types of motivation which take place in different parts of the continuum of self-determined theory. This theory assumes that the motivation lies on a continuum, ranging from intrinsic motivation, to external, and finally to a motivation and from high to low levels of self-determination [6]. A motivation occurs in the absence of self-determination [5]. According to this theory, intrinsic motivation will lead to a higher level of self-determination [6].

Under the second assumption, all human beings have three fundamental psychological needs including; need for autonomy, competence and relatedness.

Studies show that perception of the autonomy-supportive behavior nurtures through creating autonomy-supportive conditions by significant others e.g. parents, coaches, teammates in motivational aspects [16]. In addition, studies in some environments show that the perception of autonomy-supportive is an effective variable in anticipation of the autonomous forms of motivation [9], but the contradictions arising from the results of these studies do not allow us to provide a general opinion in this regard.

Some of these studies showed that autonomy - supportive behavior of coach has effect on all dimensions of autonomous motivation (Gagne et al, 2008; Vansteenkiste et al, 2004; Hagger and Chatzisarantis, 2007; Smith et al, 2007). [7, 10, 21 and 25]

While some studies showed that this type of coach behavior has impact on high levels of autonomous motivation (intrinsic motivation, integrated regulation and identified regulation) (Richer & Vallerand, 1995; pelletier et al. 2001; Hagger et al, 2003; Ginn et al, 2008; Wilson et al, 2004; Lim and Wang, 2009) [7, 10, 17, 15, 19and 26]. However, no significant relationship between of autonomy-supportive behaviors of coach and athletes motivation was observed by the Ianchini (2008) and Kamaroa (2010), [12, 14] and Geme (2010) only observed the relationship between autonomy-supportive behavior of coach and identified regulation [8].

Supporting the autonomy of player and involving him in the decision-making process can provoke him and have favorable outcomes in emotional, behavioral and cognitive areas. In contrast, perhaps coaches regardless of the negative impact of their behavior may want to provoke athletes through threatening, criticizing and blaming, thus achieve their own desired objectives. These methods are certainly short-term ones and according to the surveys of the researchers may even lead to fatigue and players' withdrawal from exercise [23].

Many believe that motivation is the basis of the athletic performance and success. Without motivation, even the best performers can't achieve their athletic abilities. Interest in self-determination theory in sport, exercise and physical education has been increased gradually in recent years [27].

Due to the importance of supporting the autonomy and motivation of players, less attention is paid on this issue in our country (Iran) and it seems that in sportive environment the autonomy - supportive behaviors of coach as an example can play a role in order to satisfy the psychological needs of athletes their arousal. On the other hand, inconsistency in the results of studies requires further research in this area.

Thus the present research with aim of investigating perceived autonomy-supportive behaviors of coaches and self- determined motivation of elite female players was carried out to respond this question that whether there is a correlation between autonomy-supportive behavior of coach as a social agents and self- determined motivation of female players in team sport fields or not ?

## 2. MATERIAL AND METHODS

The research population included all female athletes in premier league team sports such as futsal, volleyball, basketball and handball, in the year 2011-12 (n=530) and 30 people were selected randomly from among each sport field and totally 120 athletes were tested as research samples. Given that the present study investigates the relationship between perceived autonomy - supportive behaviors of coaches and self-determined motivation of players, thus the most appropriate method for this research was a descriptive survey in which data was collected through the field study. Measurement tools included the following questionnaires:

- 1 - Demographic characteristics of players: included questions about age, playing history, the history of membership in a team and the history of the playing under the supervision of current coach.

2 - Perceived Autonomy Support Scale for Exercise Settings (PASSES): in this study, perceived autonomy support scale for exercise settings was employed in young people. This scale was developed in 2007 by Hagger et al and was used for researches in the UK, Estonia and Hungary. The questionnaire contained 12 questions (items) and measured the extent to which athletes feel that coach support their autonomy. In the studies conducted by Hagger et al (2007) and Gillet et al (2008), the internal consistency of the questionnaire through cronbach's alpha was reported  $r = 0.82$  and  $r = 0.91$  respectively, and its reliability through test - retest was reported 0.69 and 0.71 respectively. The content validity of this questionnaire was confirmed by 15 distinguished professors of sports management.

3 - Sport Motivation Scale (SMS): in order to evaluate the different components of motivation (i.e. the intrinsic motivation, extrinsic motivation and amotivation) in self-determination theory sport motivation scale was used. This questionnaire was introduced by Pelletier et al (1995) in order to determine the direction of the athletes' motivation in the specific sport field. The main focus of this questionnaire is to acquire the reasons for which an exercise is done. Thus, a general question was asked that why do you exercise, and then, the questions were asked in the form of twenty-eight items and seven subscales.

The mean internal consistency coefficient for the questionnaire was reported  $r = 0.82$ . The mean reliability coefficient for the test - retest, at the interval of one month was reported 0.69 (Pelletier et al, 1995). The internal consistency of the questionnaire was assessed by Araby et al. (2010) through Cronbach's alpha ( $r = 0.81$ ). The content validity of the questionnaire was confirmed by 15 distinguished professor of sports psychology.

In order to organize, sum up and classify the raw scores, descriptive statistics (frequency, percentage, mean, standard deviation (SD), and tables) were used and also to determine the relationship between the predictor and criterion variables stepwise regression was used. In this regard, the perceived autonomy-supportive behaviors as a predictor variable and intrinsic motivation, extrinsic motivation and amotivation were as criterion variables.

### 3. RESULTS

The results obtained from the demographic characteristics of athletes showed that the mean of players' age, history of playing, history of membership in the current team and duration of the activities with current coach were 24.90, 7.87, 6.13 and 4.14 respectively and their standard derivation were 3.24, 4.49, 2.59 and 1.90 respectively (Table 1).

Table 1 - Demographic characteristics of subjects

Variables	Number	Average	SD
Age	120	24/90	3/24
History of playing	120	7/87	4/49
History of membership in the current team	120	6/13	2/59
Duration of the activities with current coach	120	4/14	1/90

Table 2: Stepwise regression associated with predictor variables

Criterion variable	Predictor variables	$\beta$ amount	$\beta$ Coefficient	t	Sig.
intrinsic motivation	perceived autonomy - supportive behaviors of coaches	0.76	0.38	3.29	0.001
Introjected regulation	perceived autonomy - supportive behaviors of coaches	0.24	0.28	2.39	0.019
Identified regulation	perceived autonomy - supportive behaviors of coaches	0.34	0.30	3.34	0.021
extrinsic motivation	perceived autonomy - supportive behaviors of coaches	0.18	0.12	1.14	0.257
Amotivation	perceived autonomy - supportive behaviors of coaches	-0.16	-0.25	-1.70	0.092

According to the stepwise regression coefficient of the data in table 2, it can be seen that at  $\alpha = 0.05$  level there is a positive significant correlation between "autonomy - supportive behavior" and "intrinsic motivation" of players. In other words, the "intrinsic motivation" of players increases through an increase in their "perceived autonomy - supportive behavior" and lowers with its decrease.

There is a positive significant correlation between "autonomy - supportive behavior" and "introjected regulation". In other words, an increase in "autonomy - supportive behavior" also increases the "introjected regulation" and its reduction lowers it. There is a positive significant correlation between "autonomy - supportive behavior" and "identified regulation" of players. In other words, with an increase in "autonomy - supportive behavior" of players "identified regulation" increases and lowers with its decrease. There is no positive significant correlation between "autonomy - supportive behavior" and "extrinsic motivation" of players. In other words, an increase or decrease in "autonomy - supportive behavior" of players do not change their "extrinsic motivation". There is no positive significant correlation between "autonomy - supportive behavior"

and "amotivation" of players. In other words, an increase or decrease in "autonomy -supportive behavior" of players do not change their "amotivation".

#### 4. DISCUSSION AND CONCLUSION

The findings showed that there was a positive significant correlation between autonomy - supportive behaviors of coaches and intrinsic motivation of team players ( $\alpha = 0.05$ ). Stepwise regression results also showed that autonomy - supportive behaviors of coaches can predict intrinsic motivation of players. In the researches which have been done in this area, Richer & Vallerand (1995), Pelletier et al (2001), Hagger et al (2003), Ginn et al (2003), Margeau and Vallerand (2003), Vansteenkiste et al (2004), Edmunds et al (2006), Standage et al (2006), Amorose and Butcher (2007), Hagger and Chatzisarantis (2007), Smith et al. (2007), Lim and Wang (2008) and Alvarez et al (2009) have stated a positive relationship between the coach autonomy and intrinsic motivation supports of players.

But the research results of Ianchini (2008) and Kamaroa (2010) and a part of the Geme study (2010), reported no significant correlation between autonomy - supportive behaviors of coach and intrinsic motivation; which was not in agreement with the present findings. The findings also showed that there was a positive significant between autonomy - supportive behaviors of coaches and introjected regulation of players ( $\alpha = 0.05$ ). Stepwise regression results also showed that autonomy - supportive behaviors of coaches can predict introjected regulation of players.

These results were consistent with the results obtained by , Pelletier et al (2001), Hagger et al (2003), Ginn et al (2003), Margeau and Vallerand (2003), Vansteenkiste et al (2004), Wilson et al (2006), Standage et al (2006), Hagger and Chatzisarantis (2007), Smith et al. (2007), Lim and Wang (2008), Alvarez et al (2009) and Geme(2010) have stated a positive relationship between the coach autonomy and intrinsic motivation supports of players and in these researches a significant positive relation between autonomy - supportive behaviors of coaches and autonomous forms of motivation have been reported. While this was inconsistent with the findings of the Ianchini (2008) and Kamaroa (2010) who had reported no significant relationship between autonomy-supportive behaviors of coaches and various forms of motivation.

According to the self-determination theory the coaches who supports the autonomy of their players, actually provide the groundwork for the incidence of various autonomous forms of motivation and take advantage of its beneficial behavioral outcomes. Conversely, shifting the focus of causality from inner to outer, reduces the sense of autonomy in activities and consequently reduces the autonomous forms of motivation (intrinsic motivation, integrated regulation and identified regulation), while increases the forms of controlled forms of motivation (introjected regulation, extrinsic and amotivation).

The non-autonomous forms of motivation (amotivation, external regulation or both) have positive significant relationship with fatigue and sadness. In addition, a negative correlation was observed between amotivation toward physical education and the tendency of people to do physical activity in leisure times. Based on the results obtained autonomy - supportive behaviors of coaches had a positive significant relationship with identified regulation of team players ( $\alpha = 0.05$ ). The stepwise regression results also showed that autonomy - supportive behaviors of coaches can predict identified regulation of players.

These findings were consistent with the results obtained by Pelletier et al (2001) and Edmunds et al (2006), who had reported the same positive correlation, while were inconsistent with the findings of Wilson et al (2006) and Lim and Wang (2008) who had reported a negative significant correlation and the findings of Ianchini (2008) and Kamaroa (2010) who had reported no significant relationship between autonomy - supportive behaviors of coaches and identified regulation.

No significant correlation was found between autonomy - supportive behaviors of coaches and external regulation of team players ( $\alpha = 0.05$ ), this was consistent with the study results of Pelletier et al (2001), Geme(2010) , Kamaroa (2010) who had not report a significant correlation between autonomy - supportive behaviors of coaches and extrinsic motivation, but it was inconsistent with the results obtained from Wilson et al (2006) and Lim and Wang (2008) studies in which they had reported a negative correlation between these two variables.

Also the findings showed that there was a negative significant between autonomy- supportive behaviors of coaches and amotivation of team players ( $\alpha = 0.05$ ). Stepwise regression results also showed that autonomy - supportive behaviors of coaches can predicate the amotivation of players in reverse form. It means that the increase in autonomy- supportive behaviors of coaches decreases the level of amotivation in players and vice versa. These results were consistent with those of Pelletier et al (2001), Edmunds et al (2006), Lim and Wang (2008) who had reported it negative, while the results were inconsistent with those in Kamaroa (2010) study who had reported no correlation between these two variables.

Perhaps it can be said that the inconsistency among the various research results in this study area is due to the variety of samples in terms of their age, gender, level of performance and even the cultural characteristics of

society and the various interpretation of the people about conditions and coach behavior, since according to Smith and Smoll (1996) the effect of coach behavior depends on how athletes interpret it.

Thus experiencing the high levels of intrinsic motivation by the athletes is depended on the amount of perceived coaching behaviors and the extent to which their basic psychological needs are satisfied (Mageau and Vallerand, 2003). Although more researches are required on autonomous and controlled motivation areas, especially in professional sport.

Finally, it can be concluded that intrinsic and extrinsic autonomous motivations are similar to some extent and are opposed to extrinsic non-autonomous motivation. Thus the extrinsic motivation is an essential element for optimal performance of athletes since, being involved in sport requires consistent training and discipline, which is not always fun. Thus, athletes cannot always rely on the intrinsic motivation and various types of extrinsic motivation should also be considered. It means that Athletes should accept the importance and value of educations to develop their skills in the sport (Margeau and Vallerand, 2003). Surprisingly; the importance of intrinsic and extrinsic autonomous motivations has been approved by many sports psychologists. The researches show that autonomous extrinsic motivation compared with non-autonomous one results in an effective and positive perception and brings very similar behavioral outcomes like those in intrinsic motivation for an individual (Vallerand, 1997). The high levels of performance and concentration has been reported in the athletes with autonomous intrinsic and extrinsic motivations than in the ones who just relied on various kinds of non-autonomous external motivation (Pelletier et al., 1995). Therefore, coaches should develop the autonomous intrinsic and extrinsic motivations in players through autonomy support of the players and create the sense of competence and autonomy in them, thus employ autonomous motivation related behavioral and emotional outcomes for the optimal performance of the team.

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