

Predicting Self-determined Motivation of Elite Female Volleyball Players from Leadership Styles of Coaches in Iran

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Abstract. The purpose of this study was to predict self-determined motivation of elite female volleyball players from leadership styles of coaches. The sample composed of 12 volleyball teams in woman league (137 athletes) in Iran. Leadership styles were measured by Leadership Scale for Sports (LSS) (Chelladurai & Saleh, 1980) and self-determined motivation was measured by Sport Motivation Scale (SMS) (Pelletier et al., 1995). The statistical procedure also was based on descriptive statistics and inferential statistics including multivariable regression. The results indicated that democratic behavior and autocratic behavior were related to self-determined motivation (intrinsic motivation, extrinsic motivation, and amotivation). Moreover, training and instruction was related to two dimensions of self-determined motivation (intrinsic motivation, extrinsic motivation). Social support was associated only with one dimension of self-determined motivation (amotivation). However, positive feedback had no relationship with self-determined motivation. It is suggested that coach regards his leadership style to increase self-determined motivation of athletes.

Keywords: Leadership style; Self-determined motivation; Elite; Volleyball

1. Introduction

In developing and developed countries, it is politically, socially, economically and culturally prominent to succeed in international, world and Olympic sport competitions. Nowadays champions are found in sport fields not in war. Winston Churchill, famous British statesman, has said “those who can win a war well can rarely make a good peace and those who could make a good peace would never have won the war” [1]. We should uncover succeeding factors such as paying attention to elite athletes, employing experienced coaches, providing suitable mental conditions of athletes, financial facilities, sport space and equipments to win sport competitions [31]. Considering important role of coach as human resource in sport environments, his leadership style and behavior affect team function and success. Coaches, as most important factors of team success, enjoy various leadership styles [28]. Case (1984) found that coaches are vital elements of human resources in sport organizations. He believed that even if coaches do not consider term of leadership for themselves, their duties like other developed and organized activities require leadership [8]. Chelladurai (1984) believed that sport coaching needs to apply leadership; influencing process on players towards determined goals, coach interacts with players as leadership role [10]. The studies of three previous decades have shown that coaches have important role in psychological development of athletes [11,21].

Leadership styles have been examined through several approaches. Studies of leadership characteristics have been started since 30s and continued along behavioral and contingency approaches in 50s and 70s.

Several research have been done about leadership styles in sport which Chelladurai and Saleh launched them in 1980. They evaluated leadership behavior by their proposed model, leadership scale for sports (LSS) including five subscales; training and instruction, positive feedback, social support, autocratic behavior and democratic behavior. These dimensions are associated with motivation in different situations. Training and instruction are behaviors that coach tries to improve performance of athletes. Social support explains behaviors that coach regards his positive interpersonal relationship with athlete, welfare of athlete, and positive group atmosphere. Positive feedback presents behaviors requiring identification of athlete's good performance and rewarding it. Democratic and autocratic behaviors show style of coach's decision-making. Democratic style lets athlete participate in decision-making related to team. Autocratic style is independent

decision-making of coach with purely personal authority and power [12].

Coach, as a leader, should motivate athletes towards determined goals. Coaches strongly influence motivation of athlete [32]. Motivation is the success basis of recreational and competitive activities. Along path of success, athlete's attempt depends on his motivation [22]. Ferrer-Caja and Weiss (2000) said that the basis of professional sport success is to meet mental needs such as self-determination, perceived competence and goal orientations [15]. Therefore, coach should consider reciprocal influence of athlete-coach to select leadership style [18]. Coach's encounter and behavior make fair environment to optimize function of athletes [27]. The suitable leadership style provides self-determined motivation leading to desirable mental condition for athletes [17]. There is absolutely positive correlation between coach's behavior and athletes' motivation [2].

The world of professional athletes is full of stress, excitement, anxiety, competition, and prediction. Therefore, coaches should try to find motivation of athletes in order to stimulate them. Mostly athletes lack sufficient motivation to progress. Mageau and Vallerand (2003) believed that leadership styles are one of most prominent factors influencing motivation of athletes [26]. Creating motivation is a value in sport. Type of motivation is important because rate of self-determination affecting emotion and performance of athletes differs based on various types [32]. Deci, and Ryan (2000) found that people prefer to be self-determined and self-controlled. People who feel self-determined maybe have more motivation. Indeed, they enjoy self-determined motivation [13].

Self-determined theory (SDT) is one of the most effective theories in subject of human motivation. SDT has been developed since three previous decades. It has been originated from humanist researchers' studies like White (1959) and was developed by Deci, and Ryan [18]. SDT of Deci and Ryan (2000) was utilized as the theoretical framework for this study. SDT theorizes motivation into three main categories (amotivation, extrinsic motivation, intrinsic motivation) reflecting varying degree of self-determination along a motivation continuum from the least autonomous to the most autonomous [13]. Intrinsic motivation, as one side of continuum, shows high level of self-determination. Autonomy causes person to enjoy work, and increase learning. In contrast, extrinsic motivation happens when the outcome is more important than work such as public recognition and external rewards. In the middle of motivation continuum, extrinsic motivation is further categorized into four types which are different based on self-determined level: 1) external regulation, it can be considered as self-unwanted external motivation that is controlling behavior by reward power, obligation, and fear of punishment; 2) introjected regulation, it is somewhat self-wanted external motivation that is controlling behavior to avoid default and shame; 3) identified regulation, it is self-wanted external motivation that is controlling behavior voluntarily for personal importance following special belief or behavior [32]; 4) integrated regulation, it is absolutely self-wanted external motivation that is controlling behavior in compatible with individual values, needs and goals. Amotivation, as the other side of continuum, is lack of interest to do work resulting from being non-experienced, non-competent or finding work unvalued. The above-mentioned types of motivation are shown in Fig. 1 [13].

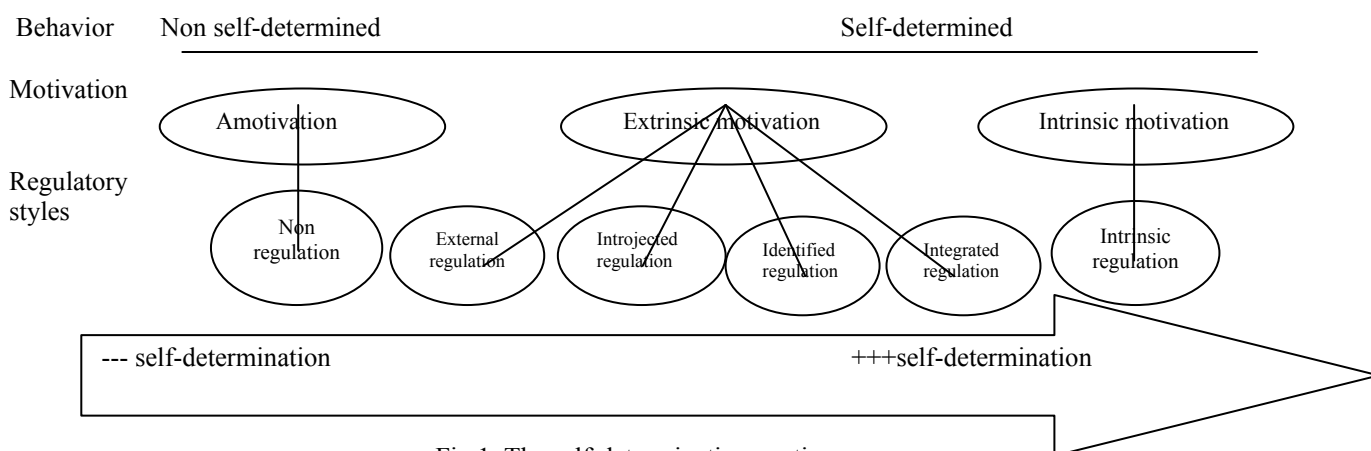


Fig 1. The self-determination continuum

Moreover, Ryan and Deci (2000) believed that different forms of self-determined motivations will be possible if social basis is favorable [3]. Motivation of athletes is affected by behavior and leadership styles of coaches [4, 35]. There is significant relationship between behavior of coaches and motivation of athletes [9, 14, 21]. Gilmour (2007) said that self-determined motivation is an active force making a work to start,

continue and being a way opposing many challenges [16]. Therefore, self-determined motivation should be considered seriously to keep athletes motivated. Olympiou, Jowett, and Duda (2008) indicated that coach-athlete relationship is one of most important factors motivating athletes in sport teams [29]. However, Reinboth, Duda, and Ntoumanis (2004) showed that leadership behaviors of coaches do not influence motivation of athletes significantly [33]. Barić, and Bucik (2009) examined motivation differences in athletes trained by coaches of different motivational and leadership profiles. They observed that behaviors of coaches affect motivational atmosphere of team and self-determined motivation of athletes slightly [6]. Hasty (2010) confirmed that coaching styles affect intrinsic motivation of athletes [19]. Koka, and Hagger (2010) found that self-determined motivation of athletes results from leadership styles of coaches [24]. Whereas, Bauer (2009) demonstrated that only democratic behavior has significantly reverse relationship with extrinsic motivation. There was non-significantly slight association between other dimensions of coaches' behaviors and motivation of athletes [7].

According to research background, undesirable consequences will happen in teams and motivation of athletes will decrease if desirable leadership styles are not applied. Despite of great expenses and investments, not considering leadership styles cause teams not to succeed expectedly. So, it is prominent to consider leadership styles in sport life of athletes. Coaches always try to find why a capable and clever athlete does not continue specific sport or why an athlete leaves a team or quit sport suddenly [28]. Therefore, leadership styles should be considered to find the most effective one to coach a team. We studied leadership styles of coach to predict self-determined motivation of athletes.

2. Methodology

This research was descriptive examining prediction of self-determined motivation of elite female volleyball players from leadership styles of coach in Iran. The population composed of 12 volleyball teams (144 players) in woman league in 2009-2010 season. All of players were considered as participants except seven of them who did not take part in this study. *LSS* was used to measure leadership styles of coach. As previously stated, it was designed by Chelladurai and Saleh [12]. *LSS* is a 43 item inventory comprised of five subscales. Participants responded to all items using a 5-point Likert Scale ranging from 1 (never) to 5 (always). The subscales are training and instruction (14 items), positive feedback (6 items), social support (10 items), autocratic behavior (8 items) and democratic behavior (5 items). A reliability test of inventory (original version) revealed a satisfactory internal consistency ($\alpha = 0.75$). An adapted version of the *LSS* was used in this study. This measure had been previously translated into Persian by Mohammadzadeh. He also reported satisfactory internal consistency ($\alpha = 0.86$). The *SMS* (Pelletier et al., 1995) is a measure of contextual motivation that is intended to identify the perceived reasons for participating in sport. The *SMS* consists of seven subscales that measure three types of intrinsic motivation (IM: IM to know, IM to accomplish things and IM to experience stimulation), three forms of regulation for extrinsic motivation (identified, introjected, and external) and amotivation. It contains 28 items; 12 item intrinsic motivation, 12 item extrinsic motivation, and 4 item amotivation. Participants responded seven-point scale ranging from 1= *strongly disagree* to 7= *strongly agree*. A reliability test of inventory (original version) revealed a satisfactory internal consistency ($\alpha = 0.91$). Firstly, *SMS* was used in present study in Iran. It was reported satisfactory internal consistency ($\alpha = 0.81$). Face and content validity were confirmed by experts of sport management. Data collecting happened at the end of season. Six month season was desirable for athletes to fill questionnaires with knowledge of coach behaviors. The statistical procedure was based on descriptive statistics and inferential statistics including multivariable regression.

3. Results

We want to find prediction of motivation from leadership styles.

Table 1. ANOVA (Linear relationship between the leadership styles and motivation)

	Sum of squares	df	Mean square	F	Sig.
Regression	14737.31	5	2947.46	7.62	0.001
Residual	50612.74	131	386.35		
Total	65350.05	136			

Table 1 showed significant linear relationship between leadership styles and motivation ($p < 0.01$).

Therefore, motivation could be predicted by leadership styles. Table 2, 3, and 4 presents prediction of motivation (intrinsic, extrinsic, and amotivation) from leadership styles.

Table 2. Multiple regression predicting intrinsic motivation from leadership styles

	B	Beta	T	Sig.
Training and instruction	0.45	0.35	3.78	0.001
Positive feedback	0.01	0.01	0.02	0.97
Democratic behavior	0.56	0.21	2.26	0.02
Social support	0.34	0.10	1.14	0.25
Autocratic support	-0.97	-0.34	-3.13	0.002

Dependent variable: intrinsic motivation

In table 2, the Beta weights for all five leadership styles were presented. Training and instruction, democratic behavior and autocratic behavior were related significantly to intrinsic motivation ($p < 0.05$), whereas positive feedback and social support were not ($p > 0.05$). It could be seen that training and instruction and democratic behavior had the strongest and weakest significant relationship with intrinsic motivation respectively (training and instruction: Beta=0.35, $t=3.78$, $p < 0.05$; democratic behavior: Beta=0.21, $t=2.26$, $p < 0.05$). Moreover, the positive direction of training and instruction and democratic behavior associated with intrinsic motivation showed that the more coach used these kinds of leaderships, the more volleyball players had intrinsic motivation. Conversely, the negative direction of autocratic behavior indicated that the more coach used autocratic behavior, the less volleyball players had intrinsic motivation.

Table 3. Multiple regression predicting extrinsic motivation from leadership styles

	B	Beta	T	Sig.
Training and instruction	-0.54	-0.26	-2.83	0.005
Positive feedback	-0.20	-0.07	-0.79	0.40
Democratic behavior	-1.71	-0.41	-4.27	0.001
Social support	0.04	0.01	0.09	0.92
Autocratic support	1.37	0.22	2.73	0.007

Dependent variable: extrinsic motivation

In table 3, the Beta weights for all five leadership styles were presented. Training and instruction, democratic behavior and autocratic behavior were related significantly to extrinsic motivation ($p < 0.05$), whereas positive feedback and social support were not ($p > 0.05$). It could be seen that democratic behavior and autocratic behavior had the strongest and weakest significant relationship with extrinsic motivation respectively (democratic behavior: Beta=-0.41, $t=-4.27$, $p < 0.05$; autocratic behavior: Beta=0.22, $t=2.73$, $p < 0.05$). Moreover, the positive direction of autocratic behavior associated with extrinsic motivation showed that the more coach used this kind of leadership, the more volleyball players had extrinsic motivation. Conversely, the negative direction of training and instruction and democratic behavior indicated that the more coach used these kinds of leaderships, the less volleyball players had extrinsic motivation.

Table 4. Multiple regression predicting amotivation from leadership styles

	B	Beta	t	Sig.
Training and instruction	-0.06	-0.07	-0.80	0.42
Positive feedback	-0.04	-0.03	-0.35	0.72
Democratic behavior	-0.42	-0.23	-2.48	0.01
Social support	-0.51	-0.22	-2.52	-0.01
Autocratic support	1.01	0.37	4.68	0.001

Dependent variable: amotivation

In table 4, the Beta weights for all five leadership styles were presented. Democratic behavior, social support, and autocratic behavior were related significantly to amotivation ($p < 0.05$), whereas training and instruction and positive feedback were not ($p > 0.05$). It could be seen that autocratic behavior and social support had the strongest and weakest significant relationship with amotivation respectively (autocratic behavior: Beta=0.37, $t=4.68$, $p < 0.05$; social support: Beta=-0.22, $t=-2.52$, $p < 0.05$). Moreover, the positive direction of autocratic behavior associated with amotivation showed that the more coach used this kind of leadership, the more volleyball players had amotivation. Conversely, the negative direction of democratic behavior and social support indicated that the more coach used these kinds of leaderships, the less volleyball players had amotivation.

4. Discussion

The purpose of this study was to predict self-determined motivation of elite female volleyball players from leadership styles of coaches. Results showed that leadership styles of coaches were related to self-determined motivation of athletes. Democratic behavior and autocratic behavior were related to self-determined motivation. Training and instruction and democratic behavior had significantly positive relationship with intrinsic motivation but autocratic behavior had significantly reverse relationship with it. Athletes like to influence decision-making and successes of their teams. These results are in consistent with findings of Amorose and Horn (2000) [5]. They found that democratic behavior and positive feedback increase intrinsic motivation and autocratic behavior and punishment feedback decrease intrinsic motivation. Moreover, we found that democratic behavior and social support had significantly reverse relationship with amotivation. However, autocratic behavior had significantly positive relationship with amotivation and extrinsic motivation. These findings are in consistent with results of Hollembeak and Amorose (2005), Mageau and Vallerand (2003), and Sarrazin, Vallerand, Guillet, Pelletier, and Cury (2002) [20, 26, 34]. They believe that many factors including leadership styles influence motivational forces. There are other research which confirm it [2, 4, 14, 19, 25]. Horn (2008) presented similar results indicating training and instruction, positive feedback, social support, autocratic behavior and democratic behavior create self-determined motivation [21]. Olympiou, Jowett and Duda (2008) proved that coach- athlete relationship affects motivation of athletes [29]. Keegan, Harwood, Spray, and Lavalley (2008) examined effects of coach, parents and peers to motivate elite athletes [23]. First, coach influences motivation of athletes through instruction. Second, parents affect them through support methods. Finally, competitive behaviors and relationship of peers are effective. Koka, and Hagger (2010) indicated that training and education, positive feedback, and democratic behavior of coaches were associated positively with self-determined motivation but autocratic behavior was associated negatively [24]. Reinboth, Duda, and Ntoumanis (2004) showed that leadership styles did not influence self-determined motivation [33]. This finding differs from ours probably because of different samples. Barić, and Bucik (2009) and Bauer (2009) observed that behaviors of coaches affect self-determined motivation of athletes slightly [6,7]. It maybe results from nature of individual sports which have been examined in these studies. Coaching quality and coach-athlete relationship are vital to train athletes. It is suggested that coach considers training and education plus democratic behavior to increase self-determined motivation of athletes. Finally, researches are limited in the field of mental needs (competence, self-determination, goal orientations). Therefore, it must be considered in future research to assist coaches.

5. References

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