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Relationship between coaching leadership styles and athletic stress in team sports from universities of Tehran

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ABSTRACT

The current paper aims to investigate the relationship between coaches' leadership styles and athletes' stress in team sports from universities of Tehran (Iran). An applied-correlational descriptive-survey method is applied. The statistical population includes 300 male and female athletes from handball and volleyball teams in universities of Tehran during the academic year 2011-2012. The sample is 169 subjects chosen by the Krejecie-Morgan table method. Three questionnaires of personality characteristics, stress, and leadership scale for sports (L.S.S) are used to collect data. Research reliability is determined by Cronbach's alpha test for the questionnaires of stress (α = 0.872) and leadership scale for sports (α = 0.721). Data analysis is carried out through Kolmogorov– Smirnoff (K-S) test in order to determine normal distribution for data. Moreover, Pearson's correlation coefficient test is applied to measure research hypotheses. Results of Pearson test show that there is significant relationship between athletic stress and coaching leadership styles of democratic (r=0.22, p=0.003) and autocratic (r=0.30, p=0.001) in team sports in universities of Tehran. Increasing scores with coaches' democratic and autocratic leadership styles is followed by increasing scores with athletes' stress in team sports. Due to the presence of significant relationship between autocratic leadership style and stress in team sports, it is recommended to establish appropriate training courses for coaches, so that their improper behaviors associated with autocratic style leading to increased stress among athletes can be removed. Furthermore, alternative styles of leadership must be applied in amateur and professional levels.

Keywords: Stress, training and instruction, social support, democratic, autocratic and positive feedback

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INTRODUCTION

Teamwork success requires good and efficient management; management's effective role in success or failure of groups and organizations could not be simply ignored. When a group is trying to achieve goals, someone usually takes the responsibility to manage and lead the group, who should have skills and attributes required from a leader to bring out desired goals in the team. For sports, this role is assigned to a coach and that is the coach who will take the practice of team guidance and his/her effective leadership plays a great role in athletic performance. Many good coaches have insight, personality and skills that can honestly help athletes to reach their own potential performance. Teams with such coach are typically successful and their members are often very satisfied and pleased. What coaches do and how they act impose significant effect on attitudes, feelings, stress, and performance of athletes [7].
As Frast claimed, coaches are the key foundation for sports teams. Among the three factors of coach, athlete, and spectator; for team leadership coaches can be considered as a strong organizing element and the infrastructure of all advances. Experiences have indicated definitely that coaching is different from other areas and needs a wide range of skills [8].

The leadership style reveals the way of thinking, worldview and personality of leaders. If chosen improperly, the leadership style will lead to reduction in individual efficiency; moreover, it is considered as the causative agent of psychological stress or pressure in individuals [26].

Attitudes a leader has toward the roles of his and his subordinates affect leadership styles. Many leaders chose styles which are coincident with their own characteristics, or it may simply be easily done; however, few leaders can their styles with different situations and people. Research indicates that personality, leadership style and behavior of coaches are associated with performance, motivation, stress and satisfaction in athletes [4].

The present study applies the coaching behavior and leadership styles developed by Chelladurai and Saleh, by which leadership styles are investigated as five common styles including: training and instruction, social support, democratic, autocratic, and positive feedback. Training and instruction style aims to achieve improvement in athletic performance by training techniques. For sport teams, this refers to coordinating activities of all members, and through the style, the emphasis is on understanding individual strengths and weaknesses and improving skills. Democratic behavior allows athletes participate in making decisions about team goals and how to achieve them. By this style, decisions are not only made by coaches, but players' ideas are also asked for determining techniques, instructions, and other important coaching issues. Autocratic behavior defines as a style where athletes are not involved by coaches in making decisions about team goals and issues, and they have to obey coaching instructions. By social support style, coaches seek to meet mutual and individual needs of athletes, maintain friendly relationship with them, solve their problems, and resolve challenges among team members. Finally, positive feedback – or rewarding- means that coaches praise athletes' effort and engagement [23].

Each leadership style employed by coaches may have an impact on increasing /decreasing psychological stress in athletes. Stress has a long history in psychiatry, and for many years it has been evaluated as a topic of management sciences due to its significant effects on individual behavior and performance. Stress can make it difficult to perform general body functions, which are easily done under normal circumstances [6].

Today, psychical pressure (stress) has been an integral part of human life and found great importance in order to determine personal health or disorder. Stress is defined as a physical or mental pressure resulted from factors tend to change current balance [28]. As McEwen stated, stress can be regarded as physiological or psychological threat leading to behavioral or physiological responses by individuals [17].

Lazarus regarded stress as an external situation imposing extra and unusual demands on people. It can be defined as individual responses to stressful events, including: emotional responses such as fear, anxiety or anger; motor responses such as speech disorders, tremors and excessive sweating; cognitive responses such as inability to concentrate, cognitive disorders, and son one; and physical changes in heart rate and breathing. Some researchers prefer to regard stress associated with the inner world of person's mind, meaning that accidents and events will result in stress just when they are considered as threats [10].

Stress has different effects. They are divided into five groups: visual, behavioral, cognitive, physiological, and institutional effects [18]. A more general classification of stress has been developed in terms of physiological, psychological and behavioral factors [12].

When stress moderated, performance will be high; in this case, individuals spend their energy for enhancing performance, rather than confronting stress. However, if stress exceeds, personal energy will be spent to deal with it, instead of improving performance [21].

Being led by stress, most people often complain about leadership styles of their leaders [12]. Based on studies, the signs of stress can be observed in a high percentage of organizational employees [1].

Any increase in workplace pressure which could be unmanageable may result in stress. Dramatic and short-term stress can lead to physical and psychological disorders, although increased levels of stress can motivate people to achieve amazing things [2].

Improper responses to stress may lead to reduction in physiological functions, such as growth, metabolism, circulation, reproduction, immune response, and inflammation. Studies indicate that sports create a sense of psychological health and rapid decrease in stress levels among women [19]. Indeed, athletic competition can improve mood and quality of sleep and enhance mental health [9]. Therefore, it is necessary to reduce stress to more acceptable levels, select good stress, and eliminate bad stress.

Since concentration is one of the most important elements to advance in any sporting course and stress causes it to reduce, and because of destructive effects of stress on athletic achievement, the great importance of athletes for team success, and the potential influence of leadership styles on athletic performance; the present study seeks to assess the five styles of leadership and their effects on handball and volleyball athletes in universities of Tehran. The objective is to determine and investigate effects of leadership styles on athletes' stress.

To guide and direct a team is one of the most complex tasks a coach takes. Leadership is the integral element of coaching and it plays a fundamental role in coaches' activities. If there is just one factor distinguishing features between successful and unsuccessful teams, this is undoubtedly the effective leadership. Today, the role of coaches as leaders has became important so that ongoing efforts are taken to find people able to lead teams, and vast funds have spent to do this.

Adopting improper leadership styles by coaches may reduce athletic efficiency on the one hand, and it is counted as a factor bringing them into stress on the other hand. Since athletes are the major human resource for sports and such valuable elements are required to be maintained, it is necessary to identify and to eliminate or weaken parameters causing stress in athletes; in addition to satisfy their mental health, these activities can improve athletes' performance in order to achieve team goals.

The use of scientific findings helps athletes and coaches to gain more success in this field. Due to the lack of national research on the relationship between coaching leadership styles and athletic stress, and because all current studies deal with organizational context and the effects of managers' leadership styles on employees' stress, and since it is clear that the sporting context can make high stress levels in coaches and athletes, and finally with regards to few research conducted about coaching stress while emphasizing to investigate stress among athletes and its effect on efficiency of their performance; the present paper tries to assess effects of coaching leadership styles on athletic stress in team sports.

The following are some studies on this field:
In their research "*Comparing effects of managers' leadership styles on employees' stress according to personality types*", Alavi and Kazemizadeh found that exploitative- autocratic leadership style led to increased stress in employees with personality types A and B; while benevolent- autocratic leadership style was only associated with increased stress levels in personality type A. However, benevolent- autocratic leadership style did not affect stress level in personality type B. Also, participative leadership style caused an increase in stress levels among employees with both personality types A and B. Overall, the authors concluded a significant relationship between leadership styles of managers and stress level of employees based on their personality [6].

Comparing stress levels in athletic and nonathletic university students, Abedi showed that nonathletic students experienced more stress than athletic ones, and with no meaningful difference between two groups, different sporting activities had positive impact on decreasing stress [3].

Yusefi and his colleagues examined the relationship between coaching leadership styles and motivational climate in sports teams. The research concluded that the style of training and instruction was more common among coaches, and then the styles of positive feedback, social support, liberal, and autocratic were followed, respectively. Furthermore, skill climate was observed more than functional. There was a negative and significant relationship between leadership styles (except of autocratic) and skill climate, while leadership styles provided positive and significant correlation with functional climate. From the perspective of team athletes, their coaches more tended to social support style. Also, there was no significant difference between motivational, skill, and functional climates among individual and team sports and in terms of age groups. Comparing leadership styles among coaches showed that athletes with higher education levels found coaches' leadership styles more liberal and supportive [29].

Mozafari et al. provided that there was a significant relationship between leadership styles of human- and task-oriented styles of world wrestling coaches and general attitudes to their coaching success. Moreover, a significant relationship was observed between success attitudes and leadership styles for wrestling coaches, and success levels and human-oriented leadership style were correlated [20].

In a study entitled "*Relationship between leadership styles and employees 'stress*" with 138 participants, Lopez et al. achieved significant relationship between employees' stress and managers' leadership styles. If managers are more thoughtful, lower emotional exhaustion and inferiority employees feel [11].

Through studying 214 patients under stressful environment, Lyons and Schneider concluded that leadership styles had direct relationship with performance rate [14].

In 1989, Dale and Weinberg studied the relationship between leadership styles and exhaustion, and found that depersonalization and emotional exhaustion were more observed for coaches employed the style [24].

MATERIALS AND METHODS

An applied-correlational descriptive-survey field research is employed. The statistical population composes of 300 male and female players in handball and volleyball sports from universities of Tehran during the academic year 2011-2012. Universities of Tehran include Tehran, Tarbiat Moallem, Shahid Beheshti, Shariati, Shahid Rajaie, and Payame Noor universities as well as Central Tehran, South Tehran and Research & Science branches of Islamic Azad University. Using the Krejecie-Morgan table method, the sample consisting of 169 subjects is chosen by a random sampling technique.

Due to the nature of the present study, three questionnaires are applied to collect research data, namely:

Regarding the predetermined objectives, the personality questionnaire was developed by the author, included demographic information for gender, marital status, education, sports and exercise history. However, the leadership scale for sports (LSS) questionnaire with 40 questions and the stress questionnaire developed by Maleki Ranjbar are also used [16].

Using the cronbach's alpha test, the values of research reliability are determined for all subscales of leadership scale for sports (LSS) ($\alpha > 0.72$) and stress ($\alpha = 0.87$) questionnaires.

RESULTS

Table 1 provides the descriptive data associated with the stress levels in male and female students. Male students had the highest mean stress scores (m= 1.752, SD=0.59).

Table 1- Stress Levels in Male and Female Students

Gender	Max.	Min.	Mean	SD
Male	0.83	3	1.75	0.59
Female	0.17	3.22	1.7	

Leadership Styles

First, a Kolmogorov– Smirnoff (K-S) test was conducted in order to determine normal distribution for data dealt with stress and leadership styles. The results indicated that all variables were distributed normally. Moreover, a Levin's test confirmed the assumption of the homogeneous variances.

Null Hypothesis

There is no significant relationship between coaching leadership styles and athletic stress in team sports in universities of Tehran.

The results of Pearson's correlation test revealed a significant relationship between athletic stress and coaching leadership styles of democratic (r=0.22, p=0.003) and autocratic (r=0.30, p=0.001) in team sports in universities of Tehran. Increasing scores with coaches' democratic and autocratic leadership styles are followed by increasing scores with athletes' stress in team sports. While there is poor correlation between athletic stress and democratic leadership style (r< 0.26), athletic stress and autocratic style are moderately correlated (0.26< r< 0.50).

Table 2- Coaches' Leadership Styles vs. Athletes' Stress

		Training & Instruction	Democratic	Autocratic	Social Support	Positive Feedback
Stress	**Pearson Correlation**	-0.03	0.22	0.30	0.01	-0.14
	Two-tailed Significance Level	0.725	0.003	0.001	0.831	0.056

Null Hypothesis

There is no significant difference between male and female students in team sports in universities of Tehran for stress levels.

The results of Levin's test confirmed the homogeneity of variances (p> 0.05). The significance level obtained from an independent sample t-test revealed that the null hypothesis could be accepted (t= 4.02, p= 0.001), and therefore, there was no significant difference for stress between male and female students in universities of Tehran.

Table 3- Comparative Results for Stress in Male and Female Athletes by Independent t-test

	Levin's Test		T	Degree of Freedom	Two-Tailed Significance Level
	F	Significance Level			
Levels of Stress	2.42	0.121	1.97	183	0.051

DISCUSSION AND CONCLUSION

The subject of stress has had a long history in psychiatry, and due to its significant impact on individual behavior and performance, it has been studies as a topic of management science for many years. Each leadership style employed by coaches may be effective on increasing or decreasing mental stress in athletes. Stress causes difficulty to perform human body functions, which can be simply exercised under normal status [6]. The present study aimed to investigate the relationship between coaching leadership styles and athletic stress in team sports in universities of Tehran. Results showed that male students had more stress compared to female students playing at the same sports. However, it should be noted that such comparison was only conducted among athletic students. Some research founded that stress tends to be less likely for athletes than non-athletes [5, 22].

The leadership styles of autocratic and social support have been more applied by team coaches. Salminen and Liukkonen found that the democratic style of leadership is correlated with the coaching behavior observed, and that coaches with higher attention to their own views and feelings can provide best behavior with their athletes [27]. Also, Banihashemian stated that women leaders use more participative leadership style than men do [13].

Yusefi and his colleagues showed that the leadership style of training and instruction is more common among coaches, and the styles of positive feedback, social support, liberal and autocratic are the next priorities [29]. Studying behavior of young coaches, Sherman found that coaches from baseball, soccer and tennis sports used more autocratic style during exercise and competition. The author noted that young and inexperienced trainers had tendency to use this style in order to control and manage exercises and dominate athletes [27].

Meanwhile, a significant relationship was observed between athletic stress and coaching leadership styles of democratic and autocratic in team sports in universities of Tehran. Any increase in scores with coaches' democratic and autocratic leadership styles were followed by increased scores with athletes' stress in team sports.

Alavi and Kazemizadeh showed that there was significant relationship between managers' leadership styles and employees' stress based on personality types. The exploitative - autocratic leadership style led to increased stress levels in employees with personality types A and B; while benevolent-autocratic leadership style was only associated with increased stress levels in personality type A. However, benevolent-autocratic leadership style did not affect stress level in personality type B, and participative leadership style caused an increase in stress levels among employees with both personality types A and B [6]. Beiginia and Kalantari observed the highest levels of mental stress for authoritative style, and lowest levels for consultative –participative leadership styles [26].

The findings of a research conducted by Abedi revealed that nonathletic students may experience more stress than athletic students. However, no significant differences were observed between two groups. Although some researchers have placed great emphasis on more female disruptions due to stress, compared to male [3]. Dedovic et al. pointed out that such difference may appear during the mature stage, and the prevalence domain still remains high thereafter up to menopause stage during women's life. Different stages of pregnancy and hormonal instability in females seem to play important role in differentiation between two genders.

In general, it can be concluded due to the relationship observed between autocratic leadership style and increased stress levels among athletes in team sports, this style seems to be the most inappropriate style to manage stress levels for team athletes.

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