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The relationship between locus of control with methods of coping with stress in young male athletes of team sports

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Abstract

The aim of this study is to determine the relationship between locus of control with methods of coping with stress in young male athletes of team sports in Karaj. In this study, 120 athletes of team sports were selected through stratified non-random sampling method. This study is conducted through correlation and regression research methodology. Data were collected by Lonson questionnaire of locus of control (1981), and Endler & Parker coping with stress methods (1990), then, the normality of data was revealed using Kolomogorov- Smirnov test. Because of the lack variance homogeneity and nonparametric statistics, Kendall's correlation coefficient and multiple regressions were used. Test results showed that athletes of team sports with internal locus of control have used three coping methods, but they were more inclined toward emotion-focused coping method, and 22.3% were inclined toward emotion-focused coping method because of internal locus of control. Also, the athletes of team sports with external locus of control-tendency toward chance were avoidance-oriented, and 15.7% inclined toward avoidance due to the presence of external locus of control-tendency toward chance. However, athletes of team sports with external locus of control-tendency toward powerful people, used each three methods of coping, but they were more inclined toward problem-focused coping method, and 20.9% were inclined toward problem-focused coping method through external locus of control-tendency toward powerful people.

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Introduction

People of all ages experience stress and try to deal with it. Since the emotional and physical pressures are because of unpleasant and disturbing stress, then people are invoked to do some activities to reduce their stress (Sarafino, 1999). Stress is one of the elements which impact on the behavior and performance of the athlete. Not only athletes are influenced by various as well as severe kinds of stress, but also their reaction differs toward these stresses. Exercise poses physical and mental stressors for athletes. Sports' dynamic and competitive environment, not only has a positive and constructive incentives, but negative and stressful incentives also affect athletes' performance. On the other hand, athletic performance and success are largely influenced by common stressful factors of exercise, such as committing mental or physical fouls, injury, pain and discomfort, observing fraud or success of a rival, being penalized by a referee, coach and fan expectations, the perspective of media, job security and a rebuke from the coach. Research findings have indicated that inability in effectively coping with exercise-related stresses is detrimental to performance and personal satisfaction of the athlete (Anshel, 2006).

Due to the great number of stressful resources and incentives, athletes make use of methods of coping with stress for managing and controlling stress. These methods consist of all cognitive and behavioral efforts which are considered as stressor and beyond personal resources for managing external and internal necessities, and its aim is to eliminate, remove, minimize and/or tolerate the stress. These efforts are either in the form of an activity as well as doing a job, or mental activities (Rasti, 2009). The techniques of coping with stress immunize the athlete against interfering thoughts and actions, so that the athlete not be distracted by internal and external events, and be able to perform technical and tactical skills efficiently.

Each individual's methods of coping with stress are his/her unique ways of dealing with life's problems, and it causes compatibility or incompatibility of the individual, and these methods are divided into three methods of "problem-focused coping", "emotion-focused coping" and "avoidance oriented coping". Problem-focused coping methods are those cognitive and behavioral efforts in which the athletes try to change the source of stress. But in emotion-focused coping method, the individual tries to reduce unintended physical and emotional repercussions of stress (Abby, 2006). In avoidance or preventative oriented coping methods, the athlete ignores the source of stress and tries to reduce its negative consequences by physical or mental keeping-away (Yoo, 2000). It seems that the selection of such methods is influenced by several factors, such as personal and personality differences. One of the effective factors that researchers have significantly noticed is control factor or locus of control (Karimi, 2003).

The locus of control can be internal or external (tendency toward chance, tendency toward powerful individuals). Those who have internal locus of control believe that they are the sole creators of their lives, but those who have external locus of control believe that all the things they encounter are originally the results of chance, accident or the results of others' actions. People with external control, are usually sentimental and irrational, and are unable to understand the incidents and events or their causes. In facing with different threatening situations in their lives, they resort to pathological behavior, such as avoidance, indifference and anxiety. While, those with internal control, are often courageous, and feel that they are affecting the rewards and punishments of life, rather than being passive and helpless. These people have high mental power, and show more tolerance toward the imposed stress (Ganji, 2012).
Researchers have reported conflicting results regarding the methods of coping with stress in athletes of team sports. For instance, Aria-Pouran and Abol-Ghasemi (2006) have shown that athletes in team sports often use problem-focused coping

method in dealing with stress (Ariapour and Abolghasemi, 2006). Which was unlike the results of Ramezani-Nejad *et al.* (2011)? They considered problem-focused coping method as the prevalent method among individual sports (Ramezani-Nejad *et al*; 2011). Furthermore, Ramezani-Nejad *et al.* (2009) and Enshel (2001) have indicated that athletes in team sports often use avoidance oriented method in coping with stress (Ramezani-Nejad *et al*; 2009). This finding is unlike those of Gold (1993) and Malika *et al.* (2005), who considered the avoidance oriented coping as the prevalent method among individual sports (Richard, 2006). However, in another research, Ramezani-Nejad *et al.* (2010) have shown that there is no relationship between any kind of methods of coping with stress and sports type. In this regard, Khosravi and Aghajani (2005), Hahn (2000) and Anderson (1977) have shown that the more internal the locus of control, the more problem-focused coping method the individuals use (Khosravi, 2005). While, the findings of Mas'oodi-Nia (2007) show that individuals with external locus of control use problem-focused coping method, and those with internal locus of control use emotion-focused coping and avoidance methods (Mas'ood-Nia, 2008).

Because of some contradictions in findings of researchers in individuals' use of locus of control and methods of coping with stress in athletes and team sports, the present study aims to determine the relationship between locus of control with methods of coping with stress in youth male athletes of team sports in Karaj, so that a step towards developing a method maybe taken to identify how to relate these two variables based on the type of activity.

Research methodology

Subjects of this study are all young male athletes of team sports (Football- Volleyball) in Karaj in 2013, and it consists of 120 subjects in 18-30 years of age. The age average of the subjects was 20.85 with ±7.99 SD.

Measuring tools

In order to conduct this research, two questionnaires of locus of control (Lonson, 1981) were used, which consisted of 24 questions in the form of Likert scale of 6 value, and methods of coping with stress (Endler, 1990) consisted of 48 question in the form of Likert scale of 5 value. The validity of the questionnaires of locus of control and methods of coping with stress was calculated as 0.87 and 0.83 in Sama'ee and Saeedi's researches, respectively. Reliability coefficient, through using Cronbach's alpha, in case of scales of locus of control and methods of coping with stress was 0.88 and 0.91, respectively.

Methods

In order to collect information and access to participants, we visited the Department of Youth and Sports in the city of Karaj, and after the submission of an introducing letter on the behalf of the university in order to distribute the questionnaire among various boards, an official letter was received. Then, by referring to various sports boards and offering the letter of the department of youth and sports in case of providing the necessary cooperation, the names of participants were received, and then, after attending the Department of Boards and the time when athletes were training, the researcher provided general and necessary details on how to complete the questionnaires. The questionnaires were delivered to the participants and they were asked to answer the questions accurately and sincerely, therefore, the required information about the participants was collected.

Statistical methods

For analyzing the data, Kolomogrov-Smirnov tests, Kendell's correlation coefficient and multiple regressions with a-0.05 level of significance were used. The assessment of the status of normal distribution of data was performed through using Kolomogrov-Smirnov test, and it showed that data follow a normal distribution. The test of variances' homogeneity also indicated that there is no homogeneity in some components of the research. Thus, non-parametric statistics were used.

Research findings

Table 1 shows the ± correlation coefficient between locus of control and methods of coping with stress in athletes of team sports.

According to the data of locus of control and methods of coping with stress among athletes of some team sports that was illustrated in table 1, there is a significant relationship (0.229) between problem-focused coping (m=52.03, sd=8.02) and internal control (m=29.4, sd=7.38), and there is a positive and significant relationship (0.264) between problem-focused coping method (m=52.0.3, sd=8.02) and external locus of control-tendency toward powerful people (m=32.25, sd=6.99). Also, based on the evidences, there is a significant and positive relationship (0.321) between emotion-focused coping (m=51.58, sd=10.74) and internal control (m=29.4, sd=7.38), and there is a significant positive relationship (0.151) between emotion-focused coping (m=51.58, sd=10.74) and external locus of control-tendency toward powerful people (m=32.25, sd=6.99). Also, there is a significant positive relationship (0.197) between avoidance oriented coping (m=57.76,sd=9.02) and internal locus of control (m=29.4, sd=7.38), and there is a significant positive relationship (0.222) between avoidance oriented coping (m=57.76, sd=9.02) and external locus of control-tendency toward powerful people (m=32.25, sd=6.99). Also, there is a significant positive relationship (0.147) between avoidance oriented coping (m=57.76, sd=9.02) and external control-tendency toward chance (m=29.3, sd=7.67). Multiple regression analysis was performed to explain and assess interactive impact of variables of this section of the study, so that each of the coping methods including problem-focused, emotion-focused and avoidance-oriented as dependent variable (criterion) and the components of the locus of control as independent variable (predictor) of athletes of some team sports be interred into regression equation, which results are displayed in the following tables respectively.

The results of table 2 indicate that among athletes of some team sports, components of locus of control with problem-focused coping method has 45.7% correlation coefficient (multiple), and explains 20.9% of their variable variance of problem-focused coping method. Also, components of locus of control with emotion-focused coping method has 47.3% correlation coefficient (multiple), and explains 22.3% of their variable variance of emotion-focused coping method, and components of locus of control with avoidance oriented coping has 39.6% correlation coefficient (multiple), and explains 15.7 of their variable variance of avoidance-oriented coping method.

The figures contained in levels of table 3 indicate that locus of control affects the method of coping with stress in athletes of some team sports, and their methods of coping with stress can be predicted based on the scores of locus of control.

So, according to standard coefficient of regression separation (Beta), it can be concluded that: there is a significant and positive relationship between problem-focused coping method with internal control and external locus of control-tendency toward powerful people in athletes of some team sports. The coefficients of internal locus of control (b=0.239) and external locus of control-tendency toward powerful people (b=0.475), with respect to t-statistics, indicate that with 95% of confidence, both variables can predict the changes of problem-focused coping method. Also, there is a significant and positive relationship between emotion-focused coping methods and internal locus of control in athletes of some team sports. The coefficients of internal locus of control (b=0.633), with respect to t-statistics, indicate that with 95% of confidence, this variable can predict changes of emotion-oriented coping method, and there is a significant and positive relationship between avoidance-oriented coping methods with internal locus of control and external locus of control-tendency toward powerful people in athletes of some team sports (p>0.05). The coefficients of internal

locus of control (b=0.232) and external locus of control-tendency toward powerful people (b=0.351), with respect to t-statistics, indicate that with 95% of confidence, these two variables can predict the changes of avoidance-oriented coping method.

Discussion and conclusion

The results have shown that among athletes of team sports, individuals with internal locus of control have all three coping methods, but they are more inclined toward emotion-focus coping method, and 22.3% are inclined toward emotion-focused coping method due to internal locus of control. The probable reason for these results is that athletes of team sports with internal locus of control believe in their self-autonomy and that they are governing the destiny and control the life from within. Since they believe that life events are the results of their precise planning and efforts, they use emotion-focused coping method for taking control of stressful factors; they focus on themselves and their effort is directed at reducing discomfort, and may show unpleasant reactions. Also, they may express their emotions to friends or family members. This result is compatible with that of Mas'oodi-Nia (2007). Mas'oodi-Nia (2007) concluded that people with internal locus of control use emotion-focused and avoidance-oriented coping methods. While, this is not compatible with the results of Khosravi and Aghajani (2005), Anderson (1977), Blanchard *et al.* (1988) and Hahn (2000). In their studies, these researchers found out that people with internal locus of control use more problem-focused coping method. Also, athletes of team sports with external locus of control-tendency toward chance are more avoidance oriented. The probable reason of this result is that people with external locus of control believe that they have less control on their life events. Thus, they are more stressed, and via avoidance-oriented coping method they try to keep away from the source of stress. This result is compatible with those of Blanchard *et al.* (1998) and Hahn (2000). While, this is incompatible with findings of Anderson (1977), Khosravi and Aghajani (2005) and Mas'oodi-Nia (2007). Anderson, Khosravi and Aghajani in their studies revealed that people with external locus of control-tendency toward chance, use emotion-focused coping method. While, Mas'oodi-Nia have already found out that people with external locus of control-tendency toward chance, use problem-focused coping method. The athletes of team sports with external locus of control-tendency toward powerful people, use three methods of coping with stress, but they are more inclined toward problem-focused coping method, and 20.9% inclined toward problem-focused coping method due to external locus of control-tendency toward powerful people. This result is compatible with findings of Mas'oodi-Nia (2007). Mas'oodi-Nia (2007) found out that people with external locus of control use problem-solving coping method. While, this is incompatible with findings of Khosravi and Aghajani (2005), Anderson (1977) and Hahn (2000). In their studies, these researchers found that people with external locus of control-tendency toward powerful people, use emotion-focused coping method. Also, in his study, Hahn showed that those with external locus of control-tendency toward powerful people, select avoidance-oriented coping method.

The probable reason of contradictions between findings of this study and that of previous ones is due to stressful situations, with respect to which, participants had answered the questions of coping method scale. In those studies, the coping methods were delivered to participants who were involved in work-related stress, illness and or economic bankruptcy. While in this study, the participants are athletes of team sports who are involved in sport-related stresses, such as committing mental or physical fouls, tolerance to pain and discomfort, observing frauds and success of competitors, getting penalty by referee and rebuked by the coach. The use of coping methods depends on various factors, including the type stressful factor, and people in different situations react differently to stressful factors. On the other hand, the results of the present study were unlike those of other studies in which participants were involved in team sports

competition-related stresses,- as the present study is. Perhaps, as a justification of these differences it can be said that, people respond to different stressful situations depending on their evaluation of stressful factor, and then compare the results of their evaluations with available resources for coping with stress, and finally consider an appropriate respond. Thus, the type of using coping methods does not solely depends on the type of stressor, but it depends also on some other factors such as individual differences, evaluations, confidence, personality, history of sports successes etc., and perhaps that's why the results of the conducted studies differ to such large extend, and it seems that they cannot be explained by current knowledge, and further studies are required to obtain reasons for this discrepancies.

Generally, the issue of locus of control and its relationship with methods of coping with stress among athletes of team sports is crucial, because both the locus of control among the athletes and the behaviors for coping with stress affect their lives in various ways. Because, the locus of control is a system derived from individuals' beliefs, to which they attribute their success, failures and important events of life. This behavior affects the morale and feelings of the athlete and in addition to its effects during sporting competitions at official or international levels, it also affect their social functioning i.e. their ability to achieve satisfaction in work, friendship and finally physical health.

Table 1. The matrix of Kendall's correlation coefficient between locus of control and methods of coping with stress among athletes of some team sports (n=120).

variable	Index	Internal control	External locus of control-tendency toward chance	External locus of control-tendency toward powerful people
Problem-focused coping	Kendall's correlation	0.229	0.069	0.264
	Bilateral significance p	0.000	0.286	0.000
Emotion-focused coping	Kendall's correlation	0.321	0.121	0.151(*)
	Bilateral significance p	0.000	0.057	0.018
Avoidance coping	Kendall's correlation	0.197	0.147 (*)	0.222
	Bilateral significance p	0.002	0.022	0.001

Table 2. Indices and statistics of regression analysis between method of coping with stress and components of locus of control in athletes of some team sports.

	Correlation coefficient R	Square of correlation coefficient R2	Adjusted coefficient	Standard error of estimate
Problem-focused coping	0.457	0.209	0.189	7.22
Emotion-focused coping	0.473	0.223	0.203	9.583
Avoidance oriented coping	0.396	0.157	0.135	8.38545

In facing with their personal and professional life problems as well as competing with their competitors, group athletes should enjoy rational and logical methods, and this is of great importance to athletes. Regarding the adoption of different effective and ineffective approaches of coping with stress among athletes, it is recommended that coaches and sports administrators make use of sport psychologists for athletes to justify them and introduce them effective and standard coping methods.

On the other hand, it seems that in order to make the results of the present and other studies more effective, it is necessary to examine the role of other variables such as sensitivity of situation, predictability of the results of the event, the actual results of the event etc. in the future studies.

Table 3. variables interred into regression.

indices	Separation factor		Standard coefficient of regression separation	t-attitude	Level of significance
	B	SD	Beta		
Fixed value	47.583	1.060		44.895	0.001
Internal control	0.239	0.098	0.220	2.432	0.017
External locus of control- tendency toward chance	-0.147	0.104	-0.140	-1.413	0.160
External locus of control- tendency toward powerful people	0.475	0.109	0.414	4.350	0.001
Fixed value	47.206	1.406		33.582	0.001
Internal control	0.633	0.130	0.435	4.853	0.001
External locus of control- tendency toward chance	0.062	0.138	0.045	0.452	0.652
External locus of control- tendency toward powerful people	0.076	0.145	0.050	0.527	0.599
Fixed value	63.363	1.230		43.386	0.001
Internal control	0.232	0.114	0.189	2.029	0.045
External locus of control- tendency toward chance	0.048	0.121	0.041	0.399	0.691
External locus of control- tendency toward powerful people	0.351	0.127	0.272	2.768	0.007

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