THE SURVEY OF MOOD STATES IN MALE AND FEMALE HIGH SCHOOL CHESS PLAYERS OF LORESTAN PROVINCE

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Abstract:

The purpose of this study was to survey mood states in male and female high school chess players of Lorestan Province. The method of study was causal - comparative. The statistical population of this study was all selected high school chess players (the first and second year of high school) of Lorestan Province. The instrument for collecting of data is included the Brunel Mood State Inventory (BRUMS). The collected data were analyzed by independent t-test ($\alpha \leq 0.05$). The results of this study showed that there was a significant difference between male and female high school chess players in tension, depression, anger, confusion, and fatigue subscales. The results of this study showed that there was no significant difference between male and female high school chess players in relaxation, vigor, and happiness subscales.

Keywords: mood states, chess players, Lorestan Province

Introduction

Mood is a variable and unstable emotional state and arousal. The pride and happiness sense does not last over several hours or several days while self-confidence or self-esteem that is a sign of person's personality status is stable. Mood refers those

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psychological characteristics that originate from physiological processes. On the other hand, some authors believe that mood is the result of emotional reactions at a given time. In other words, mood is an underlying emotional talent that is full of emotional and instinctive tendencies and offers pleasant and unpleasant aspects to mental states.

Therefore, mood is related to the brain excitability, autonomic nervous system, and endocrine system in person. Mood characteristics include feelings such as anxiety, depression, anger, fatigue, and confusion. Since the mood is not static phenomenon, it seems logical that the method and pattern of life influence on mood. The person's mental health will enhance if negative mood factors decrease. It is well known that physical activities are one of the effective factors on the physical and mental health. But the effect of physical activities had been twofold on the mental and physical health and other factors such as demographic characteristics, lifestyle, and activity affect on mental and physical health. Therefore, the relationship between physical activities and mood are not well defined that the inconsistent results in studies of this field are the reason of this claim (Azerbaijani, et al., 2012). Morgan (1988) stated that the increasing of training intensity can increase total mood disorders. The reason of its decreasing can be related to subjects' adaptation with training intensity in this study (Morgan, 1988). Berlin, et al., (2006) showed that competition stress is one of effective factors on mood. If the presence of individuals is not selective for the participation in sports activities, they will not compete with each other and there will not competitive tension during exercise. So this can lead to the decreasing of negative characteristics in mood (Berlin, et al., 2006).

As physical characteristics are affected by the training intensity and duration, behavioral and psychological characteristics are also affected by these changes. If the regularly person does physical trainings and with moderate-intensity, he/she will experience the reduction of anxiety and depression and the increasing of self-confidence (Bartholomew, et al., 2005; Berlin, et al., 2006). Mood is another sensitive psychological parameter to the changes in training intensity and volume (Morgan, 1987). It seems that mental game plays an important role in chess. It can even be said that psychological factor is important as players' technical skills at World Championships. These psychological were considered tricks in the past, but now they are essential for elite chess players (Euwe, 1997). However, there is the widespread consensus about the necessity of special knowledge for professional performance in chess, but there is disagreements about the importance of individual's general characteristics in the adjusting of achieved performance level and the process of skill acquisition (Roland, et al., 2006). The Profile of Mood States Inventory (POMS) was frequently used to assess mood changes in sports. The Profile of Mood States is one of the first psychological instruments to display training pressure. Morgan, et al., (1987) reported that athletes'

assessment on the basis of mood profile scores was potential method to prevent mood disorders. The preliminary studies shows that mood disorders total increase alongside negative mood components after weeks of intense training in swimmers, but a mood powerful factor that is considered as a positive mood factor decreases. This means that negative components of mood including tension, depression, anger, fatigue, and confusion increase and vigor component decreases. Morgan, et al., (1987) after the 10-year study about mood found that mood disorders total increased significantly as the increasing of training load and if training load reduced, it would return to the initial values (Morgan et al., 1987).

Some psychological tests such as the profile of mood states is used in sport in recent years. These tests measure a person's mental condition and it is used to show what is called overtraining. It is believed that positive thinking, high concentration on task, enough self-confidence, high motivation, and the ability to cope with stress is effective in the reduction of injuries. Also, psychological factors such as poor concentration, low motivation, negative thinking, lack of self-confidence, and low ability to deal with stress can lead to the increasing of injuries (Shafi Zadeh and Zahedi, 2007). Researchers use the interactive model on the basis of athlete's personality characteristics and position for the better and more accurate prediction of athlete's performance because athlete's mood is the resultant of his/her character and situation at any time. So, the measurement of athletes' mood will be valid method in performance time (Bergen and Motel, 2000). Some researchers believe that the use of this test to measure athletes' psychological characteristics is an appropriate method to prevent the extreme fatigue. The preliminary studies shows that scores total of mood disorders increases after periods of heavy training in swimmers, but a mood powerful factor that is considered as a positive mood factor decreases and athletes' profile iceberg is reversed (O'connor, et al., 1991; Raglin,1993). Herbert and Potgieter (2005) examined mood states during a successful world record underwater diving attempt.

The mood states of a diver were recorded over a period of almost 10 days of submersion. Scores on the Profile of Mood States obtained on the components of depression, anger, and confusion suggested that there were no signs of psychological disintegration over this period. As expected, scores on Fatigue increased whereas perceived vigor diminished over time (Herbert and Potgieter, 2005). Covassin and Pero (2004) studied the Relationship Between self-confidence, mood state, and anxiety among collegiate tennis players. Twenty-four collegiate tennis players completed the POMS and CSAI-2 30 minutes prior to their tennis match during their participation in the NCAA Regional (VII) Team Tennis Tournament. Results revealed winning tennis players displayed significantly higher self-confidence, lower cognitive and somatic

anxiety levels, and lower total mood disturbance scores than losing players. In addition, winning tennis players exhibited the iceberg profile on the POMS (Covassin and Pero, 2004). Few studies have been done about the comparison of mood states in both gender and in sport environments that the results of these studies have showed little difference between men and women in scores of emotional states (Fuchs & Zaichkowsky, 1983; Terry & Lane, 2000). Terry and Lane (2000) examined normative values for the profile of mood states for use with athletic samples. They reported no significant difference between men and women in the comparison of mood scores (Terry & Lane, 2000). Fuchs and Zaichkowsky (1983) compared psychological characteristics in male and female body builders. They reported that personality and mood characteristics were similar in male and female body builders (Fuchs & Zaichkowsky, 1983).

Several studies were conducted about the profile of mood states and its changes as a result of sports activities and in athletes (Shafi Zadeh and Zahedi, 2007; Salehi, 2003; and Mirzaei, et al., 2006). Mirzaei, et al., (2006) compared profile of mood states in wrestlers of the junior and senior national teams in freestyle and Greco Roman wrestling. The results showed that there was no significant difference between groups in anger, vigor, confusion, depression, and fatigue subscales. However, the profile of mood states in the four groups consistent with Morgan's pattern of the iceberg in elite athletes (Mirzaei, et al., 2006). Therefore, the purpose of this study was to survey mood states in male and female high school chess players of Lorestan Province.

Methodology

Method
This study was a causal - comparative research.

Participants
The statistical population of this study was all selected high school chess players (the first and second year of high school) of Lorestan Province. 102 players were selected by census sampling (N Female = 61, N Male = 41).

Instruments and Tasks
The instrument was the Brunel Mood State Inventory (BRUMS) including 32 questions. The first part of his questionnaire was included the questions about players' individual characteristics on age, gender, sport history of s activities, level of skills – competitive experience, and type of sport. The second part of the questionnaire was included the questions about players' mood states using the Brunel Mood State Inventory. Its

purpose was to determine the validity and reliability of the Persian version of Lane, et al.,'s (2007) BRUMS including 32 questions. So, 423 (216 male and 207 female) athletes with different skill levels (beginner, non-elite, and elite) were randomly selected in 10 individual and team sports. They completed questionnaires.

At first, the face and content validity of the Persian version of questionnaire was confirmed by three sport psychology experts and three English language training expert. Then, confirmatory factor analysis based on structural equation modeling was used to determine construct validity of the questionnaire.

Cronbach's alpha coefficient was used to determine the internal consistency of the questionnaire and intra-class correlation coefficient in test-retest method with 2-week interval was used to determine the time-out questionnaire (the stability of questions answers). The results of study showed that measurement model of 32 questions was acceptable in the propriety indicator (TLI=0.93, CFI=0.94, RMSEA=0.08), the internal consistency indicator (confusion=0.72, fatigue=0.76, anger=0.72, depression=0.70, happiness=0.77, relaxation=0.78, tension=0.74, vigor=0.80, and the entire questionnaire=0.78), the time-out questionnaire indicator (confusion=0.84, fatigue=0.86, anger=0.86, depression=0.88, happiness=0.87, relaxation=0.86, tension=0.90, vigor=0.87, and the entire questionnaire=0.88). This shows the appropriate reliability and validity of the Persian version of the Brunel Mood State Inventory (BRUMS) including 32 questions.

Therefore, the Persian version of the Brunel Mood State Inventory (BRUMS) including 32 questions can be used as an instrument to study and evaluate Iranian athletes' mood and emotional characteristics (Farokhi, et al., 2013). Answers was expressed with a 5-point scale so that 0 = I do not feel that way, 1= I feel a little bit, 2= I almost felt, 3=I'm feeling a lot, 4= I absolutely feel.

Procedure

The researcher distributed questionnaires among subjects. He explained the inventory for the subjects before its completing. Each subject had 30 minutes to complete the questionnaire. The subjects completed questionnaires without name due to the subjects' security sense.

Data Analysis

The collected data were classified by descriptive statistical methods and were analyzed by independent t-test. The SPSS software (version 19) was used for data analysis ($\alpha \leq 0.05$).

Results

The results in table (1) show that the mean, standard deviation (SD), and standard error of the mean (SEM) of mood states subscales in male and female high school chess players of Lorestan Province. The results in table (2) showed that there was a significant difference between male and female high school chess players in mood states subscales.

Table 1: The mean, standard deviation, and standard error of the mean of mood states subscales male and female high school chess players

Gender		N	Mean	SD	SEM
Male	Tension	41	1.1280	0.97166	0.15175
Female		61	0.6762	0.68821	0.08812
Male	Depression	41	0.7622	0.87491	0.13664
Female		61	0.2582	0.46986	0.06016
Male	Anger	41	0.8476	0.73075	0.11412
Female		61	0.3361	0.49557	0.06345
Male	Vigor	41	2.5305	0.88423	0.13809
Female		61	2.5943	1.11539	0.14281
Male	Fatigue	41	0.7012	0.85736	0.13390
Female		61	0.4180	0.54337	0.06957
Male	Confusion	41	0.7927	0.79235	0.12374
Female		61	0.5328	0.60977	0.07807
Male	Relaxation	41	1.9695	0.83516	0.13043
Female		61	2.1803	1.07929	0.13819
Male	Happiness	41	2.2622	0.83095	0.12977
Female		61	2.4918	1.11052	0.14219

Table 2: The results of independent t-test for the determination of difference between male and female high school chess players in mood states subscales

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Tension	Equal variances assumed	7.316	0.008	2.750	100	0.007	0.45182	0.16429	0.12587	0.77777
	Equal variances not assumed			2.575	66.483	0.012	0.45182	0.17548	0.10152	0.80212
Depression	Equal variances assumed	17.216	0.001	3.768	100	0.000	0.50400	0.13375	0.23864	0.76936
	Equal variances not assumed			3.376	55.617	0.001	0.50400	0.14930	0.20488	0.80312
Anger	Equal variances assumed	10.275	0.002	4.216	100	0.000	0.51150	0.12133	0.27078	0.75221
	Equal variances not assumed			3.917	64.447	0.001	0.51150	0.13058	0.25067	0.77232
Vigor	Equal variances assumed	4.237	0.042	0.307	100	0.760	0.6377	0.20784	0.47613	0.34858
	Equal variances not assumed			0.321	97.196	0.749	0.6377	0.19866	0.45804	0.33050
Fatigue	Equal variances assumed	5.192	0.025	2.043	100	0.044	0.28319	0.13862	0.00816	0.55821
	Equal variances not assumed			1.877	61.524	0.035	0.28319	0.15089	0.01849	0.58486
Confusion	Equal variances assumed	2.485	0.118	1.869	100	0.035	0.25990	0.13907	0.01602	0.53581
	Equal variances not assumed			1.776	70.714	0.080	0.25990	0.14632	0.03187	0.55166
Relaxation	Equal variances assumed	4.636	0.034	1.056	100	0.294	0.21082	0.19971	0.60703	0.18540
	Equal variances not assumed			1.109	97.935	0.270	0.21082	0.19002	0.58791	0.16628
Happiness	Equal variances assumed	7.566	0.007	1.128	100	0.262	0.22961	0.20357	0.63349	0.17428
	Equal variances not assumed			1.193	98.780	0.236	0.22961	0.19251	0.61159	0.15237

The results in table (2) showed that there was a significant difference between male and female high school chess players in tension, depression, anger, confusion, and fatigue subscales (P≤0.05). The results of this study showed that there was no significant difference between male and female high school chess players in relaxation, vigor, and happiness subscales (P≥0.05).

Discussion and conclusion

The results of this study showed that there was a significant difference between male and female high school chess players in tension, depression, anger, confusion, and fatigue subscales. The results of this study showed that there was no significant difference between male and female high school chess players in relaxation, vigor, and happiness subscales. The results is consistent with the results of Bartholomew et al., (2005) and Berlin et al', s (2006) study that they concluded that If the regularly person

does physical trainings and with moderate-intensity, he/she will experience the reduction of anxiety and depression and the increasing of self-confidence.

Also, Morgan, et al., (1987) stated that mood disorders total increased significantly as the increasing of training load and if training load reduced, it would return to the initial values and Covassin and Pero (2004) expressed that winning tennis players displayed significantly lower total mood disturbance scores than losing players. The results of this study are conflict with the results of Fuchs and Zaichkowsky (1983); Mirzaei, et al., (2006); Herbert and Potgieter (2005); and Covassin and Pero's (2004) study. Covassin and Pero' (2004) showed that there was no significant difference between men and women in mood states scores. Fuchs and Zaichkowsky (1983) stated that personality and mood traits were similar between men and women. Mirzaei, et al., (2006) compared profile of mood states in wrestlers of the junior and senior national teams in freestyle and Greco Roman wrestling.

The results showed that there was no significant difference between groups in anger, vigor, confusion, depression, and fatigue subscales. There was a significant difference between groups in tension subscale. Herbert and Potgieter (2005) showed that scores on the Profile of Mood States obtained on the components of depression, anger, and confusion suggested that there were no signs of psychological disintegration over this period. Sports coaches need to identify athletes' mood status due to the importance of mood states in athletes' performance because this identification guides them to adjust training pressure, involved sports and physiological factors in the training and facilitates athletes' successful performance. It is obvious that coaches must assess their athletes' mood states in different age groups and skill levels including adolescent and semi-skilled athletes) using appropriate instruments and implementation of researches such as this study to achieve this goal.

Also, coaches can design appropriate training for their athletes with the comparison of results of conducted studies in elite players including this study. In addition, the use of the results of these studies can facilitate athletes' talent, selection, and training.

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