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The survey and comparison of soccer players' (14-20 years old) mood states in different posts of Khorramabad

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Abstract

The purpose of this study was the survey and comparison of soccer players' (14-20 years old) mood states in different posts of Khorramabad. The method of study was cross-correlational. 80 soccer players (14- 20 years old) were selected as a statistical sample by stratified sampling. The instrument for collecting of data is included the Profile of Mood States Inventory (POMS). The collected data were classified by descriptive statistical methods and were analyzed by ANOVA ($P \leq 0.05$). The results of this study showed that there is no significant difference between all components of mood states (confusion, fatigue, anger, depression, tension, and vigor) in soccer players.

Keywords: Mood states, soccer players, different post

1. Introduction

Soccer is the most popular and exciting sport in the world today. The most of people like to play this sport. The changeable conditions and lack of foresight in soccer is one issue that is increased the soccer fans, spectators, coaches, and commentators [1]. In recent years, the most researches of sport psychology seek to determine variables that are effective in sports performance. An athlete should be in an optimal state for achieving the success so the role of some psychological variables such as anxiety, stress, and mood is considered in this area [2]. So far, many psychological variables have been identified that affect the athletes' success and failure [3]. One of psychological factors is mood states that it is considered an effective factor in sports performance in sport psychology and it is used for more accurate prediction of athletes' performance [4, 5]. Leen, et al (2005) considers mood as a set of fleeting senses that is variable in intensity and duration and it is usually longer than excitement. They consider it as a factor that is intervened in the assessment and interpretation of a psychological situation and about performance in the past, present and future time. The content of Mood is such that is effective on individuals' cognition and behavior and their success and failure in external situations. According to the two dimensions of mood (positive and negative), we can consider the anxiety, depression, anger, fatigue, and confusion as the negative mood and the vigor as the positive mood [6]. Morgan (1985) stated that successful athletes had more positive characteristics of mental health than less successful athletes and populace and they had a unique profile that it was called the iceberg profile. The athletes' scores are at the bottom of the chart in the negative components of mood and are on top of the chart in the positive components in this state and it creates a shape like an iceberg. It means that the score of vigor is higher than other scores and the scores of the negative mood are lower than this level. As results, Morgan's hypothesis can be simple in this way that successful athletes have the bigger iceberg than the less successful athletes [5, 7]. Also, Leen and Terry (2005) expressed that positive mood states are created the appropriate resources for an individual's concentration with the providing of enough information of desired task and opportunity and enable him/her to predict the result of competition according to his/her strategy while the negative mood are appeared due to the creating of mismatches between a individual's personal standards and perceived opportunity and are decreased self-esteem and then performance level with the creating of a problematic and difficult situation [6]. Applied sport psychology is focused on psychological skills and is used the questionnaires that

psychologists design them using scientific methods and with basis on valid theories for the measuring of statues of athletes' mental skills. Today, the interactive model is used according to athlete' personality characteristics and position for the accurate prediction of performance because the athlete mood is the production of his/her personality and situation in every time. So, the measurement of athlete' mood will be a valid method in performance time [8]. The questionnaire of the profile of mood states was created based on an interactive approach. This questionnaire is helped researches and psychologist to interpret the information that the individual does not want or enable to express them [9]. A belief and opinion to an ideal character for athletes created from decade of the 60s. Morgan was the first person that used this test in the scope of sport sciences. He used this test for the understanding of athletes' mood state and he introduced the iceberg diagram (figure 1) to the sport psychology literature that elite athletes' ordinary mood is expressed by this diagram [10].

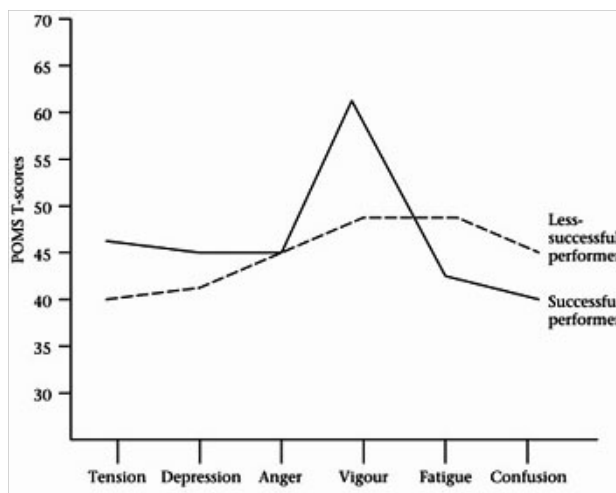


Fig1: Morgan's iceberg diagram

This diagram shows elite athletes' mental state. The higher score of vigor than other scores is created the image like iceberg that its peak is out of the water. The measurement of total score of mood disorders is one of problems in the using of profile of mood states (POMS). Many sport studies have been used the total score in this area [10, 11]. It seems that changes in fatigue and vigor factors are more physiologic than psychological and it represents possibly the differences using of it for two groups of subjects (athletes and patients). There is a possibility of misinterpretation in this area since a total score of mood is affected by the scores of fatigue and vigor factors. An athlete's mood disorders do not mean the athlete's low total score of mood in hard physical exercise but it means that the athlete engaged in intense exercise. So, one of problems in the using of POMS is that we can not say clearly that the athletes has mood disorders or not and their fatigue is due to physiological changes or not. The researches who study the athletes' mental changes can not easily use the depression word for the description of athletes who have an excessive exercise syndrome because it is difficult to interpret this word in athletes. Depression is a clinical term with specified symptoms and the depression scores during intense training periods show the literature of excessive exercise syndrome in POMS test and the increasing of depression scores during intense training

periods is very common in POMS test [12, 13]. Prapavessis (2000) examined successful and unsuccessful athletes and he concluded that the results of characteristics and mood states were better in successful athletes than unsuccessful. This finding shows the high reliability of POMS although it should be noted that it should not be limited only to POMS in the prediction of athletes' performance and it should be considered other items [14]. Athletes have acquired weaker total results than non-athletes in the POMS test and they had higher energy levels and lower fatigue levels than non-athletes that this issue is known as the iceberg profile. The results of POMS demonstrate the high total levels in the case of overtraining which it indicates a low energy level and a high fatigue level (inverted iceberg profile). The coach can be awareness of the stress level on the team during the season if POMS tests are conducted on a regular basis. The experience has shown that levels of stress are dependent on the stress level. Also, the implementation of POMS tests provide an opportunity for the early awareness of symptoms of overtraining in players. When we interpret the results of test we should considered that the stress of training and competition is only one type of existing stresses and other factors of stress may influence the results. So, the coach should have a good and warm relationship with players and he/she should show enough sensitivity for the assessment of different results [15]. In this regard, Cohen, et al describes mood states as a period that a person tries to be compatible with environmental requirements. According to this definition, we can say that the mood swings are dependent on environmental condition. This condition can be related to internal environment (individual assessment of the events) or to external environment (climate and physical activity) [16]. It is clear that mood is a basic element in human's behavior so it effective factors on behavior should be considered from the perspective of mood. The evolution and development of football knowledge is growing increasingly in literature of studies about football [17]. Today, researchers have obtained very good results in the field of football activities of different posts [18, 19, 20]. Since players' tasks, activities [21], the intensity of physical activity [22], physiological profile, anthropometric characteristics, muscle strength and flexibility are differ in different posts it is expected patterns and mood states levels be differ between players in different posts too [23]. The important question of this study is that whether soccer players' mood states in different posts is differ or not. Widmeyer and Birch (1974) examined the relationship between aggression and success [24]. They expressed that elite student players were very aggressive or not aggressive at all and non-elite student players had a balance in aggression. Also, they found out that elite defenders had more aggression than other players while elite attackers had the least aggression and successful defenders are more aggressive than unsuccessful defenders and successful attackers had the least aggressive than unsuccessful attackers [23, 24, 25]. Jonson (1979) stated that the type of post or type of sport is effective in the incidence of aggressive response [26]. Android and Whitewood (1980) showed that there is no difference between winner and loser team in the number of errors during two season of the 1st grade games in England. Their study showed that defensive players had more error than attacker players [25]. Broumand (2006) showed in his study that there was a significant difference between players' aggressive behaviors in different posts of

Pegah team and these behaviors was more in midfielder post than other posts. In general, the results of this study showed that there was a significant difference between aggressive behaviors with the comparison of competition results and game in different posts of soccer. Midfielder and defensive players had more verbal and physical aggression and goalkeepers had the least aggression in this study [27]. Peyman’s (1998) study showed that there was no significant difference between players’ personal characteristics in four posts: defense, midfielder, attack, and goalkeeper post [28]. It has not been examined independently soccer players’ mood states in different posts of Iran. Therefore, the researchers want to examine this issue so that sports officials, coaches and athletes consider the necessary actions to improve sport and they help athletes using the appropriate psychological interventions. However there is specifically a little knowledge about soccer players’ mood states in different posts in sport psychology and it is clear that it is required more studies about mood states in sport area. If mood states will be differ in different posts of soccer the coaches will be able to use this knowledge in the more improvement of athletes’ mental health. So, the researchers of this study want to response this question that whether there is a significant difference between soccer players’ mood states in different posts or not.

2. Methodology

2.1 Method

This study was a descriptive correlational research.

2.2 Participants

The statistical population of this study was all adolescent and young soccer players (14-20 years old) in Khorramabad. 80 players were selected by stratified sampling for this study.

2.3 Instruments and Tasks

The instrument was the Profile of Mood States Inventory (POMS). POMS include 65 questions and Mc Nair, Lorr, and Dropplemen (1971) designed this inventory for non-hospitalized patients’ psychometric purposes [29, 30, 31]. The designers’ main goal was the creation of an instrument to survey the fleeting states of psychoanalysis and drug therapy but it was been used quickly in sport psychology area. POMS perform through an instruction that the subject is requested to express his/her present and last week feeling (including the

current sense). POMS review six mood states: confusion, fatigue, anger, depression, tension, and vigor [8, 13, 29, 31]. Anger is typified by feelings which vary in intensity from mild annoyance or aggravation to fury and rage and is associated with arousal of the autonomic nervous system (Spielberger, 1991) [32]. Confusion is proposed to be a feeling state characterized by feelings of bewilderment, uncertainty, and is associated with a general failure to control attention and emotions. Depression is associated with a negative self-schema characterized by themes such as hopelessness, personal deficiency, worthlessness, and self-blame [33]. Depression symptoms include psychomotor retardation, withdraw from others, insomnia, and lack of appetite [34]. Fatigue is typified by feelings of mental and physical tiredness. Tension is typified by feelings such as nervousness, apprehension, worry, and anxiety. Vigor is typified by feelings of excitement, alertness, and physical energy. This inventory is the Likert type and every question has 5 items: not at all, small, medium, almost too much, and too much. Responses were provided on a scale from 0 (“not at all”) to 4 (“too much”). The first item (not at all) indicates the lack of that state of mood. The intensity of that state is respectively increased in the following items. It is obtained six scores from each of test questions related to one of six mood states [29]. However it is expected that mood change over time but the designers of this inventory found that POMS validity and reliability do not change much in three different time frames that have been intended for the implementation of test [8].

2.4 Procedure

The researcher distributed the inventories among the subjects. He explained the inventory for the subjects before its completing. The subjects complete the questionnaires without name due to the subjects, security sense.

2.5 Data Analysis

The collected data were classified by descriptive statistical methods and were analyzed by ANOVA. The SPSS software (version 18) was used for data analysis ($\alpha \leq 0.05$).

3. Results

The results of table (1) show that the mean and standard deviation of six mood states in different posts of soccer.

Table1: The mean and standard deviation of six mood states in the goal keeper, defense, midfielder, and, forward posts of soccer

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	
					Lower Bound	Upper Bound			
Tension	GK	7	10.0000	4.35890	1.64751	5.9687	14.0313	5.00	17.00
	Defender	20	9.8000	5.09489	1.13925	7.4155	12.1845	3.00	18.00
	Midfielder	30	9.5000	4.91830	.89795	7.6635	11.3365	3.00	20.00
	Forward	22	11.8636	5.53169	1.17936	9.4110	14.3162	3.00	24.00
	Total	79	10.2785	5.10137	.57395	9.1358	11.4211	3.00	24.00
Depression	GK	7	7.7143	5.21901	1.97260	2.8875	12.5411	1.00	17.00
	Defender	20	6.5000	5.44349	1.21720	3.9524	9.0476	.00	20.00
	Midfielder	30	7.5667	8.08013	1.47522	4.5495	10.5838	.00	35.00
	Forward	22	11.8182	10.64419	2.26935	7.0988	16.5375	.00	45.00
	Total	79	8.4937	8.28324	.93194	6.6383	10.3490	.00	45.00
Anger	GK	7	12.5714	10.93705	4.13382	2.4563	22.6865	1.00	33.00
	Defender	20	7.4000	6.87788	1.53794	4.1811	10.6189	.00	23.00
	Midfielder	30	7.9000	6.76884	1.23582	5.3725	10.4275	.00	25.00
	Forward	22	9.4091	9.23585	1.96909	5.3141	13.5040	.00	34.00
	Total	79	8.6076	7.92985	.89218	6.8314	10.3838	.00	34.00

Fatigue	GK	7	5.4286	4.42934	1.67413	1.3321	9.5250	2.00	14.00
	Defender	20	2.7500	3.59642	.80418	1.0668	4.4332	.00	14.00
	Midfielder	30	3.3667	3.62447	.66173	2.0133	4.7201	.00	14.00
	Forward	22	4.2727	4.42053	.94246	2.3128	6.2327	.00	18.00
	Total	79	3.6456	3.92898	.44204	2.7655	4.5256	.00	18.00
Confusion	GK	7	6.7143	2.87021	1.08484	4.0598	9.3688	3.00	11.00
	Defender	20	5.9000	3.00701	.67239	4.4927	7.3073	1.00	16.00
	Midfielder	30	5.1000	3.04393	.55574	3.9634	6.2366	.00	14.00
	Forward	22	6.2273	3.58478	.76428	4.6379	7.8167	1.00	15.00
	Total	79	5.7595	3.17125	.35679	5.0492	6.4698	.00	16.00
Vigor	GK	7	22.2857	5.28250	1.99660	17.4002	27.1712	11.00	27.00
	Defender	20	21.2500	5.15930	1.15366	18.8354	23.6646	14.00	30.00
	Midfielder	30	22.6667	4.34966	.79414	21.0425	24.2909	15.00	31.00
	Forward	22	22.9545	4.02938	.85907	21.1680	24.7411	16.00	29.00
	Total	79	22.3544	4.52638	.50926	21.3406	23.3683	11.00	31.00
TMD	GK	7	20.1429	29.50948	11.15354	-7.1489-	47.4346	-13.00-	81.00
	Defender	20	11.1000	18.88163	4.22206	2.2631	19.9369	-18.00-	53.00
	Midfielder	30	10.7667	22.94023	4.18829	2.2006	19.3327	-18.00-	75.00
	Forward	22	20.6364	31.84269	6.78888	6.5181	34.7546	-17.00-	102.00
	Total	79	14.4304	25.38255	2.85576	8.7450	20.1158	-18.00-	102.00

Table2: The results of ANOVA for the determining of difference between soccer players’ mood states in the goal keeper, defense, midfielder, and, forward posts

		Sum of Squares	df	Mean Square	F	Sig.
Tension	Between Groups	78.583	3	26.194	1.007	.395
	Within Groups	1951.291	75	26.017		
	Total	2029.873	78			
Depression	Between Groups	352.679	3	117.560	1.764	.161
	Within Groups	4999.068	75	66.654		
	Total	5351.747	78			
Anger	Between Groups	168.303	3	56.101	.888	.451
	Within Groups	4736.532	75	63.154		
	Total	4904.835	78			
Fatigue	Between Groups	49.281	3	16.427	1.067	.368
	Within Groups	1154.795	75	15.397		
	Total	1204.076	78			
Confusion	Between Groups	24.638	3	8.213	.811	.492
	Within Groups	759.792	75	10.131		
	Total	784.430	78			
Vigour	Between Groups	35.276	3	11.759	.564	.640
	Within Groups	1562.800	75	20.837		
	Total	1598.076	78			
TMD	Between Groups	1700.252	3	566.751	.875	.458
	Within Groups	48553.115	75	647.375		
	Total	50253.367	78			

According to table (2), the probability value is greater than the significance level (0.05). So we can conclude:

1. There is no significant difference between confusion in the goal keeper, defense, midfielder, and, forward posts.
2. There is no significant difference between fatigue in the goal keeper, defense, midfielder, and, forward posts.
3. There is no significant difference between vigor in the goal keeper, defense, midfielder, and, forward posts.
4. There is no significant difference between anger in the goal keeper, defense, midfielder, and, forward posts.
5. There is no significant difference between depression in the goal keeper, defense, midfielder, and, forward posts.
6. There is no significant difference between tension in the goal keeper, defense, midfielder, and, forward posts.
7. There is no significant difference between vigor in the goal keeper, defense, midfielder, and, forward posts.

8. There is no significant difference between mood states in the goal keeper, defense, midfielder, and, forward posts of soccer.

4. Discussion

The increasing attention to mood states and its changes was been reflected under the different names of treatment and sports interventions in the research literature. This wide attention has revealed the need for a quick and economical method to detect and measure the fleeting emotional states. The important of mood states is so much for sports coaches that some of their common decisions such as the increasing of training pressure are affected by it. It is obvious that every sports coach needs to use an appropriate instrument to determine his/her athletes’ mood states and a norm to assess them. We assume that interested coaches know the important mood states so using of an appropriate instrument and having of a norm are a priority. The Mood states reliability and

validity has been recognized [4, 32]. The clarity, fluency, simplicity, and comprehensiveness of this inventory increase its competence for the application in our country [32]. The different factors have effects on athletes' POMS that soccer players' different posts can be one of these factors. Since there was no study about the comparison of soccer players' mood states in different posts of Iran, researchers wanted to examine soccer players' mood disorders in different posts. The results of this study showed that there was no significant difference between all components of mood states (confusion, fatigue, anger, depression, tension, and vigor) in the goal keeper, defense, midfielder, and, forward posts of soccer. This finding is consistent with Peyman's (1998) study that he stated there was no significant difference between players' personal characteristics in four posts: defense, midfielder, attack, and goalkeeper post [28]. This finding is conflicted with results of Widmeyer and Birch (1974); Android and Whitewood (1980); Jonson (1979); and Broumand's (2006) study [24, 5, 27]. The possible reasons for results of these studies can be game systems for example: defense and midfielder posts have more players than other posts in 4-4-2, 4-5-1, 3-6-1 systems. So, it seems logical that there are more aggression behaviors in defense and midfielder posts. The subjects of this study were young and adolescent soccer players in Khorramabad. It seems to expect better results this study is performed in other age groups and in players with different skills. Since there is no study in this area thus more studies are needed to determine the reasons of this issue. A possible explanation of this finding of study is that sports performance and success are affected by the mechanisms of interaction with others, solidarity motivation, and maintaining and continuity of social relationship in team sports and the results of success and failure will be decided as a group. So, group mood states affect every individual's mood states and negative moods of every member of team can affect negatively the every individual's mood in team [35]. According to Cohen, et al that they described mood states as a period that a person tries to be compatible with environmental requirements [16]. Thus it should consider internal environment (individual assessment of self) or to external environment (climate and physical activity) because according to this definition the mood swings are dependent on environmental condition. The place of game (home games and away from home) has not been considered in studies about mood states that we can help the decreasing of athletes' psychological anxieties with attention to this component. It seems that more studies are needed to conclude in this issue.

5. Conclusion

It is obvious that coaches should consider all aspects to achieve the goals and they should assess their athletes' mood states in different skill levels and age groups (for example: adolescent and semi-skilled athletes) during season using an appropriate instrument. Also, Coaches should design the appropriate interventions in elite athletes with a comparison of results of studies.

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