



ANALYSIS OF MOOD STATES AMONG CRICKET PLAYERS DURING COMPETITIVE SEASON

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DOI: 10.26524/14415

Abstract: The aim of the study was to analyze the mood states of high and low level cricket players during competitive season. 260 cricket players those participated in the Virudhunagar district cricket league during the year 2012-13 were selected as subjects to achieve the study objectives. The subjects confined to this study were classified into two groups as high and low level cricket players on the basis of their competitive standards. The high level group comprising 130 players selected from A Division teams and low level group constitutes 130 players selected from B Division teams. The age of the subjects were ranged between 15 and 34 years. Profile of Mood States Questionnaire developed by McNair *et al.*, (1971) was used in the present study. This questionnaire constitutes 65-items which measures five negative scales such as fatigue, depression, tension, anger, confusion and positive scale vigour. The two-way factorial ANOVA with repeated measures on the last factor showed that tension, depression, anger and confusion showed no difference during cricket season between high and low level cricket players. However, vigor and fatigue interaction is significant and Scheffé S post hoc test was applied. Vigor and fatigue showed significant difference between the groups at start and mid season. However, vigor showed significant difference between the groups at end and within low level cricket players. It is concluded that positive factor vigor showed high in high level cricket players than low level cricket players. The cricket season showed fatigue in the middle of the season.

Keywords: POMS, cricket, players, high and low



Introduction

Sport is generally considered a primarily physical endeavor, involving the marshaling of bodily resources to complete a variety of specialized, demanding physical tasks. Undeniably, physical attributes such as speed, strength, endurance, power, coordination, agility, flexibility, and resilience are richly rewarded in competitive sport. Recognizing the abundant physical component of sport performance, scientists have investigated biomechanical, physiological, nutritional, metabolic, epidemiological, biochemical, pharmacological, and medical aspects of sport. Applied practitioners in exercise physiology, physiotherapy, sport biomechanics, sports medicine, sports nutrition, strength and conditioning, and other disciplines have translated research findings into interventions designed to enhance the physical performance capabilities of the athletes.

Despite the pronounced emphasis on physical matters in the sport sciences, it is widely accepted that sport performance is influenced not only by physical attributes, but also by psychological factors. Some athletes seem to have a mental edge over other athletes with comparable physical characteristics and training backgrounds. Some athletes perform better under pressure, implement strategies more effectively, tolerate discomfort better, concentrate more intensely, identify more creative solutions to challenging sport situations, push themselves harder, learn new skills more quickly, or prepare themselves for competition better than their physically similar peers. Issues associated with the mental advantage gained by these athletes fall squarely within the domain of sport psychology.

The ability to produce and maintain appropriate emotional feelings before competition is universally recognized by athletes and coaches as one of the most important factors contributing to athletic performance. Thus, it is not surprising that the relationship between precompetitive emotions and sport performance has generated considerable interest from researchers in the field of sport psychology [1-6]. One popular line of research has focused on discriminating between successful and less successful performers based on their mood states prior to competition. The conceptual (*descriptive*) approach primarily used in this line of research has been Morgan's (1980) [7] Mental Health Model. It is proposed through this model that positive mental (*i.e., emotional*) health and successful athletic performance are highly correlated. Specifically, athletes who are less anxious, angry, depressed, confused and fatigued, and more vigorous will be more successful than those athletes who exhibit the opposite profile, as assessed by the Profile of Mood States [8]. This positive profile of mood states has been termed the iceberg profile by Morgan since the five negative moods fall below the population norm and the one positive mood lies above it. The main aim of the study was to analyze the mood states of high and low level cricket players during competitive season.



Methods and Materials

Subjects

In this study 260 cricket players those participated in the Virudhunagar district cricket league during the year 2012-13 were selected as subjects to achieve the study objectives. The subjects confined to this study were classified into two groups as high and low level cricket players on the basis of their competitive standards. The high level group comprising 130 players selected from A Division teams and low level group constitutes 130 players selected from B Division teams. The age of the subjects were ranged between 15 and 34 years.

Variables

The ability to produce and maintain appropriate emotional feelings before competition is universally recognized by athletes and coaches as one of the most important factors contributing to athletic performance. Several studies had showed that positive mental health and successful athletic performance are highly correlated. The athletes who are less anxious, angry, depressed, confused and fatigued, and more vigorous will be more successful than those athletes who exhibit the opposite profile. Hence, to give due importance and analyse the mood of the cricket players during the cricket season, the profile of the mood states (POMS) was selected as criterion variables of this study.

Instruments

Profile of Mood States Questionnaire developed by McNair *et al.*, (1971) [8] was used in the present study. This questionnaire constitutes 65-items which measures five negative scales such as fatigue, depression, tension, anger, confusion and positive scale vigour. The total mood disturbance score is calculated by summation of the negative scales and subtraction of the positive scale.

Administration of Questionnaire

The data was collected by administrating the questionnaire by the investigator himself. To ensure maximum co-operation from the subject, the research scholar had a meeting with the subject in the presence of their respective coaches. The purpose of the study was clearly explained to them so that there was no ambiguity among the subject regarding the efforts which they had to put for the successful completion of the investigation.

Subjects were seated and the questionnaires were distributed to them. The directions were given by the research scholar from the test booklet, while the subject read them silently. All the doubts were clearly explained by the research scholar. Then the subjects were asked to answer the questions following the directions given on the questionnaire. The subjects were asked to respond as quickly as possible. The completed questionnaires were collected back by



the research scholar himself. These subjects completed the POMS two hours prior to the match on three separate occasions related to the start, middle and finally towards the end of their cricket league.

Statistical Techniques

The two-way factorial ANOVA with repeated measures on the last factor was calculated for mood states and total mood disturbance. Whenever, the interaction effect is found significant, the simple effect test was applied. Scheffé S post hoc test was applied to know the difference between the tests. Results were reported as the mean \pm SD of all observations, and the level of significance was set at $p < 0.05$.

Results

The result of the study showed that tension, depression, anger and confusion showed no difference during cricket season between high and low level cricket players (Table 1).

Table 1: Two-way factorial ANOVA with repeated measures on the last factor was calculated for mood states

POMS	Groups (High & low level cricket players) <i>F value</i>	Testing condition (Start, mid & end) <i>F value</i>	Interaction (Group \times Testing condition) <i>F value</i>
Tension	4.59*	1.44	0.661
Depression	0.987	0.921	0.914
Anger	0.180	1.17	0.90
Vigor	20.78*	12.32*	4.82*
Fatigue	1.037	0.536	4.52*
Confusion	0.083	4.326*	2.84

* $p < 0.05$

Since vigor and fatigue interaction is significant Scheffé S post hoc test was applied. Vigor and fatigue showed significant difference between the groups at start and mid season. However, vigor showed significant difference between the groups at end and within low level cricket players (Table 2).

Table 2: Scheffé S post hoc test on low level cricket players

Start	Mid	End	MD	CI
7.22	8.99		1.77*	0.628
7.22		7.18	0.04	0.628
	8.99	7.18	1.81*	0.628



This clearly showed that vigor during the mid season of the cricket league found to be high. Thereby it shows significant difference at 0.05 level of confidence when compared between start to mid and mid to end.

Discussion

The ability to produce and maintain appropriate emotional feelings before competition is universally recognized by athletes and coaches as one of the most important factors contributing to athletic performance. Mood states have been shown to fluctuate before and after competition [9,10] and away from the competition environment [11]. The knowledge of “normal” mood responses before competition could be especially valuable for the applied practitioner.

In the present study POMS was measured for cricket players during different phases of cricket season. The positive and negative mood factors which clearly distinguish the level of players as successful and less successful performers based on their mood states prior to competition. Specifically, athletes who are less anxious, angry, depressed, confused and fatigued, and more vigorous will be more successful than those athletes who exhibit the opposite profile. This study was intended to measure the profile of mood states of high and low level cricket players, which demonstrated no difference between groups on anger and depression. Similar findings were reported by Durtschi and Weiss (1986) [12] assessed the mood states of elite and non elite marathoners using the POMS prior to an important race. Similar results were reported by Terry and Youngs (1996) [13] with field hockey players and Tharion, Strowman and Rauch (1988) [14] with ultramarathoners.

Tension which is the negative factor showed significant difference between the groups ($p < 0.05$) and found to be high in low level cricket players. Cockerill, Nevill and Lyons (1991) [15] used a regression model to show that tension, depression and anger could collectively predict finish time among cross-country runners. This may be the reason that they show decreased performance and placed them in lower division.

Vigor is the only positive factor in the POMS. In the present study it is evident that vigor showed significant difference between the groups at the start ($p < 0.05$) and at end ($p < 0.05$). High level cricket players showed greater vigor than low level cricket players during start (20.13%) and end (20.22%). Similarly, low level cricket players had greater vigor during mid season than start and end. Similar results were reported by Mahoney (1989) [16] with weightlifters. However, Friend and LeUnes (1990) [17] found vigor to be related to a range of baseball performance indicators. Rowley and his colleagues (1995) [18] suggest that successful athletes demonstrate a mood profile slightly positive than less successful athletes. Group comparisons have shown significant variations is reported in vigor was associated with the competitive situation and level of competition. Regarding situational differences, the finding that mood was less positive before



competition than after may be explained by the well-documented effects of competition on emotions. For example, impending competition has been clearly shown to be associated with elevations in competition anxiety [19]. It appears that the prospect of competition may also be associated with disturbances to mood that dissipate by the time competition is over. However, for the recreational participants, the reported differences may be better explained by the mood-enhancing properties of physical activity [20,21] rather than competition effects. It is acknowledged that high and low level cricket players show difference in vigor.

The result of the study showed that fatigue was found to show significant difference between the groups at the start ($p < 0.05$) and mid ($p < 0.05$) season. The low level cricket players elicited greater fatigue than high level cricket players. The players performance will suffer when fatigue drop below optimal. This mood states are typified by negative self-perception and affect and cannot facilitate performance. Moods such as depression, confusion, and fatigue should be detrimental to performance because these moods are associated with lower levels of physiological arousal (motivation effects). This may be the reason for the difference elicited between the groups on fatigue. Similar results are noticed in McNair, *et al.*, (1971) [8].

Conclusions

1. Tension, depression, anger and confusion showed no difference between high and low level cricket players across competitive season. Similarly, no difference is elicited within the competitive season of high and low level cricket players independently.
2. Vigor showed significant difference between the groups high and low level cricket players at the start and end of the season. High level cricket players showed greater vigor than low level cricket players. In the low level cricket players vigor fluctuated across the season and found to record higher vigor during mid season but high level cricket players showed no difference across competitive season.
3. Fatigue showed significant difference between the groups high and low level cricket players at the start and mid season. The low level cricket players elicited greater fatigue than high level cricket players. In the high and low level cricket players fatigue remained unchanged across the competitive season.



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