

A comparative study of team sportspersons and individual sportspersons on stress and anxiety

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Abstract

Team sports are often considered to involve affiliation and support. These elements serve to build cohesiveness and cooperation. This support also helps them to deal with stress and also reduces anxiety. Individual sports on the other hand place a lot of stress on the athlete as there is quite a lot of pressure on him/her. The current study was designed to compare stress and anxiety among team sportspersons and individual sportspersons. The sample for the current investigation consisted of 60 participants (where 30 are team sportspersons and 30 are individual sportspersons) in the age group of 18-23 years. For this purpose, Perceived Stress Scale (Cohen *et al.*, 1983), Stress Symptoms Rating Scale (Heilbrun and Pepe, 1985), and State-Trait Anxiety Inventory (Spielberger *et al.*, 1970) was administered to the sample. The t test was used for statistical analysis of the results in order to compare stress and anxiety in team sportspersons and individual sportspersons. Results will be discussed in terms of its implications.

Keywords: team sports, stress, anxiety

Introduction

Many sportspersons struggle with stress and anxiety on a daily basis. Each sportsperson reacts to the stress and anxiety differently. The purpose of this paper is to explore the differences between team sportspersons and individual sportspersons on stress and anxiety. The factors which can increase stress and anxiety are physical demands, psychological demands, environmental demands, expectations and pressure to perform to a high standard, significant other stressors, relationship issues and life direction concerns (Reilly and Williams, 2003) [12].

Stress

Stress is a general term to describe tense situations and reaction to stress usually has a strong emotional content. Seyle (1956) [13] defined stress as the nonspecific (that is, common) result of any demand upon the body, be the effect mental or somatic. Stress is defined neither by the conditions acting on the person (the stressor), nor by the state of the person (coping resources, ego strength etc), nor by his reactions (stress responses), but rather by the interplay of the three (Korchin, 1986) [9]. Lazarus and Folkman (1984) [2] defined stress as "a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her wellbeing.

Larsen (2000) [10] opined that stress is the subjective feeling that is produced by events that are perceived as overwhelming and beyond one's control. Events that typically elicit stress are called stressors. There are individual differences in response to stress. Stress really lies in the transaction between the person and the characteristics of the environment.

Anxiety

Anxiety is defined as a complex state that includes cognitive, emotional, behavioral and bodily reactions. Worry refers to the cognitive aspect of anxiety whereas anxiety refers to its awareness (Spielberger, 1966) [15]. Anxiety is a stage characterized by heightened autonomic system activity, specifically activation of the sympathetic nervous system i.e., increased heart rate, blood pressure, respiration and muscle tone, subjective feelings of tensions and cognitions involve apprehensions and worrying (Kazdin, 2000) [8].

Spielberger (1966) [15] also proposed that trait anxiety reflects anxiety proneness, that is stable i.e. there were individual differences in the tendency to respond with increased state anxiety to various levels of stress. In short, anxiety as a process refers to a sequence of cognitive, affective, physiological and behavioral events. A-State is characterized by feelings of tension, apprehension, worry and autonomic arousal occurring in response to perceptions of either threats to personal adequacy or objective physical danger. A-Trait specifically refers to the tendency of individuals to respond with A-State elevations to situations which are perceived as potentially threatening to self-esteem (Mohan *et al.*, 2002) [11].

Hypotheses

1. It is expected that there will be significant differences in terms of stress among team sportspersons and individual sportspersons.
2. It is expected that there will be significant differences in terms of anxiety among team sportspersons and individual sportspersons.

Methodology

Sample

The sample for the current study consists of 60 athletes, where 30 are team sportspersons and the other 30 are individual sportspersons. The subjects range from 18-23 years of age.

Statistical Analysis

After the data for the entire sample has been collected for the psychosocial variables of the investigation, arithmetic mean, standard deviation, and t-ratio is applied to it for statistical analyses. The t-test is applied to find if there are any significant differences between the 2 groups, that is, team sportspersons and individual sportspersons, in terms of perceived stress, stress symptoms, state anxiety, and trait anxiety. The data is depicted in a tabular manner and the results are discussed further.

Measures used in the study

The current investigation is designed to compare team sportspersons and individual sportspersons on stress and anxiety. For this purpose, the following tests are administered to the sample:

- Perceived Stress Scale by Cohen, Kamarck, and Mermelstein (1983) ^[1].
- Stress Symptoms Rating Scale by Heilbrun and Pepe (1985) ^[6].
- State-Trait Anxiety Inventory by Spielberger, Gorsuch, Lushene, Vagg, and Jacobs (1970) ^[14].

Results

Table 1: shows the mean and standard deviation of the scores of team sportspersons on the psychosocial variables of the study

Variable	Mean	Standard Deviation
Perceived Stress	12.566	3.635
Stress Symptoms	26.3	10.658
State Anxiety	102.166	4.609
Trait Anxiety	82.4	2.943

Table 2: shows the mean and standard deviation of the scores of individual sportspersons on the psychosocial variables of the study

Variable	Mean	Standard Deviation
Perceived Stress	25.533	3.848
Stress Symptoms	56.433	11.595
State Anxiety	102.133	3.599
Trait Anxiety	84.566	2.344

Table 3: shows the t values of all the variables of the current study between team sportspersons and individual sportspersons (df = 58)

Variable	t Value
Perceived Stress	1.984
Stress Symptoms	5.32**
State Anxiety	0.975
Trait Anxiety	0.002

** Significant at 0.01 level

Discussion

The purpose of the current study was to compare team sportspersons and individual sportspersons on psychosocial variables, namely: perceived stress, stress symptoms, state

anxiety, and trait anxiety.

As shown by the results in table 3, the t value for perceived stress is not significant. No significant differences have been found between team sportspersons and individual sportspersons. Review of literature shows that individual sportspersons perceive more stress than team sportspersons. This is also supported by the mean scores in the present study, that is, the mean scores of perceived stress is higher in individual sportspersons as compared to team sportspersons. Significant differences have been found between team sportspersons and individual sportspersons in terms of stress symptoms, as shown by the results obtained in Table 3. Thus, hypothesis 1 is accepted.

Athletes must work in groups that they can share experiences which lower their perceived stress. It serves as a support mechanism for those having difficulties (Harris, Altekruze, & Engels, 2003) ^[5]. Individual sportspersons lack satisfactory relationships which leads to increase in perceived stress as compared to team sportspersons (Humphrey *et al.*, 2000) ^[7]. Team sportspersons have better coping skills, better self-control levels than individual sportspersons (Wolfe & Johnson, 1995) ^[17].

No significant differences have been found between team sportspersons and individual sportspersons in anxiety. Thus, Hypothesis 2 is not accepted. This may be due to the small sample size. However, the previous studies show that team sportspersons exhibit less anxiety as compared to individual sportspersons. The entire burden of performance lies on the individual in individual games, such as wrestling, chess etc. as compared to team games such as cricket, hockey etc. where the performance is not entirely dependent on one individual. Thus, leading to more anxiety in individual sportspersons as compared to team sportspersons.

Being part of a team alleviates some of the pressure experienced by those who compete alone (Hall, 1997). Hann (2000) ^[3] stated "of all the psychological factors thought to influence sport performance, anxiety is often considered the most important," which explains why so much research has concentrated on stress and anxiety in athletes. Anxiety results when the individual doubts his or her ability to cope with the situation that causes him or her stress (Hardy *et al.*, 1996) ^[4]. Previous research outside of sport and exercise psychology has indicated that individuals with high trait anxiety who are state anxious attend to threat related information, while individuals with low trait anxiety who are state anxious will attend away from threat related information (MacLeod, 1990). Within the context of sports, those individuals who are low trait anxious and experience high state anxiety would find it facilitative to a peak performance; but, those individuals with who are high trait anxious and experience state anxiety will find it debilitating to athletic performance (Hardy *et al.*, 1996) ^[4].

Conclusion

Stress and anxiety affect everyone daily, but research has found that sportspersons struggle with these conditions more than the rest of the population. Further, individual sportspersons suffer more stress and anxiety as compared to individual sportspersons. Athletic trainers and coaches need to be sure they help their athletes utilize the counseling center,

and other techniques to help limit their stress and anxiety.

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