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A comparative study of anxiety and aggression level between university and national level volleyball players

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Abstract

The socio-psychological variables play an important role in prompting sportsmen to unveil best performance during competition. Competitive sports demands physical mental and emotional toughness. The aim of the study is to compare the anxiety and aggression level between university and national level volleyball players. For the purpose of the present study 12 subjects Age ranges in between 19-25 years were selected out of which 06 were university players and 06 were national players were randomly selected on the performance basis. Anxiety and aggression were measured through Sports Competition Anxiety Test (Martens, R 1977) and Buss Perry Aggression Questionnaire (BPAQ, 1992) respectively. Independent t-test were employed for measuring the anxiety and aggression. The statistical results of the study revealed that there is no difference between aggression and anxiety levels of national and inter university players.

Keywords: Anxiety, aggression, volleyball

Introduction

Sport is believed one of the sources of physical, psychological, mental and social change. It is asserted that sport plays great role in socialization and success. Sports have become a psycho- social activity. The socio-psychological variables play an important role in prompting sportsmen to unveil best performance during competition. Competitive sports demands physical mental and emotional toughness. These sports are more distinguished than those games which do not require passiveness. Competitive sports are surrounded in the term of aggressiveness, level of competition, strength and exclusivity Such sports enables an athlete to make choices moreover it enables an athlete to build confidence in pursuing of acquisition of skills. Psychological variables play a dominant role in deciding the performance level of soccer players, athletes and players (Anshel, 1997). Researches into sports psychology and performances suggest that the best performers tend to have: higher levels of self-confidence, more task-oriented focus, and control over their anxiety levels, more determination and commitment (Woodman, Lew, 2003). Self-efficacy or self-concept can affect motivation in terms of the amount of effort a performer puts in, and how long they persist at a task (Bandura, 1977).

An extensive amount of research has been conducted on the effect that state anxiety levels have on performance within the athletic domain (Yerkes & Dodson, 1908; Seward, 1956; Weinberg & Gould, 2007). Psychologists observed a positive linear link between arousal and athletic performance in well-trained athletes (Spence & Spence, 1966). For example, a runner with higher arousal will run a faster time than when she has lower arousal. However, this idea is rarely supported in sports that require finesse movements; such as golf or basketball (Martens, Vealey, & Burton, 1990).

Arousal is a state of alertness both mentally and physically. Anxiety is the physiological or psychological reaction when a threat is perceived (Weinberg & Gould, 2007). According to the Inverted-U, athletes need to have a moderate level of arousal, or performance will suffer. This theory has more research support (Weinberg & Gould, 2007); however it lacks the ability to account for individual differences between athletes. These theories suggest sports psychologists believe that there is one optimal anxiety point that applies to everyone. The relationship between aggressive behavior and sports competitive anxiety on volleyball playing ability has received limited attention by researchers.

As a contribution to closing this gap, the purpose of the present investigation was to examine the relationship between aggressive behavior and sports competitive anxiety on volleyball playing ability and it was hypothesized that there would be a significant difference between aggression and volleyball playing ability; sports competitive anxiety and volleyball playing ability.

Methods and Materials

Subjects

Subjects for this study were selected considering the relevance of the study. The study was conceptualized to investigate the difference between the anxiety and aggression level of university and national level volleyball players.

For the purpose of the present study 12 subjects Age ranges in between 19-25 years were selected out of which 06 were university players and 06 were national players were randomly selected on the performance basis.

Selection of variables and criterion measures

Based on conceptualization and formulation of this study, mainly two psychological variables were selected to investigate its status among the university and national level players. These psychological variables were found to be highly relevant to investigate in relation to the team performance during the game. The selection of variables was done on the basis of extensive literature reviews, discussion and consultation with the experts of the field and supervisor. Anxiety and aggression were measured through Sports Competition Anxiety Test (Martens, R 1977) and Buss Perry Aggression Questionnaire (BPAQ, 1992) respectively.

Administration of the tests

For measuring the anxiety of the subjects, Sports Competition Anxiety Test questionnaire developed by Martens in 1977 was used, Sports competition anxiety test questionnaire consists of total 15 questions. It is a likert type three points scale i.e. Rarely, Sometimes, Often.

The scoring of the filled questionnaires was done according to the instructions mentioned in the test manual for the purpose. To obtain total score for the complete test all the scores for different items were recorded in the specified space provided in the questionnaire of the scale. The range of score for on sports competition anxiety test could range between 9-36. The higher scores show a high and lower

score shows low level of anxiety.

According the manual of Ranier Martien 1977 the subjects who score

Sl. No	Score	Anxiety Level
1.	Less than 17	Player having low level anxiety.
2.	17 to 24	Player having average level at anxiety
3.	More than 24	Player having high level of anxiety

Aggression Questionnaire (BPAQ, 1992)

For measuring the aggression of the subjects, Aggression Questionnaire developed by Buss & Perry, in 1992 was used. This Questionnaire consists of total 29 questions. It is a likert type five points scale the questionnaire items were to be rated with responses on, extremely uncharacteristic, somewhat uncharacteristic, neither uncharacteristic nor characteristic, somewhat characteristic, extremely characteristic.

The Aggression scale consists of 4 factors

1. Physical Aggression (PA), 9 items
2. Verbal Aggression (VA), 5 items
3. Anger (A), 8 items and
4. Hostility (H), 8 items.

Note: The total score for Aggression is the sum of the factor scores.

The average scores from the original Buss and Perry (1992) paper are shown below.

Scale	Range	Men	Women
Physical Aggression	9-45	24.3	17.9
Verbal Aggression	5-25	15.2	13.5
Anger	7-35	17.0	16.7
Hostility	8-40	21.3	20.2
Total score	29-145	77.3	68.2

The Aggression scale consists of 4 factors ranked from 0-1, with 1 being the maximum. While there is no numerical cut-off, higher scores indicate increasing severity.

Statistical Technique

Independent t-test will be used as the statistical technique to find out significant differences between the groups. The level of significance will be set at 0.05.

Results

Table 1: Descriptive Statistics of Anxiety

Players	N	Mean	Standard deviation	Standard error mean
National	06	17.8333	4.07022	1.66166
University	06	16.0000	3.46410	1.41421

Table 1. Indicates that the mean of national level players is 17.8333 and standard deviation is 4.07022. While the mean

of university level players is 16.0000 and standard deviation is 3.46410.

Table 2: Independent Sample Test of Anxiety

	F	Sig.	T	df	Sig.2- tailed	Mean difference	Standard error difference
Equal variance assumed	0.781	0.398	0.840	10	0.420	1.83333	2.18200
Equal variance not assumed			0.840	9.751	0.421	1.83333	2.18200

No significant difference has occurred between anxiety levels of national and university level players. As it can be

seen than $p = 0.420$, which is higher than 0.05.

Table 3: Descriptive Statistics of Aggression

Players	N	Mean	Standard deviation	Standard error mean
National	06	0.5183	0.08886	0.03628
University	06	0.3900	0.13784	0.05627

Table 3. Indicates that the mean and SD of national level players is 0.5183 respectively. While the mean of university

level players is 0.3900 and standard deviation is 0.13784.

Table 4: Independent Samples T Test

	F	Sig.	T	Df	Sig.(2-tailed)	Mean difference	Standard error difference
Equal variances assumed	2.770	0.127	1.917	10	0.084	0.12	0.06
Equal variances not assumed			1.917	8.544	0.089	0.12	0.06

No significant difference has occurred between Aggression level of national and university level players. As it can be seen that $p = 0.084$, which is higher than 0.05.

Discussion of findings

The purpose of the study was to investigate the aggression and anxiety among the university and national level volleyball players. For the purpose of the study 12 male hockey players were selected (06 players from Inter-Zonal University and 06 national level players). The statistical results of the study revealed that there is no difference between aggression and anxiety levels of national and inter university players.

Anxiety of the national and university male hockey players is presented in table 1. The mean and standard deviation of national volleyball players on the variable anxiety were 17.8333 and 4.07022 respectively. The mean and standard deviation of university players on the variable anxiety were 16.0000 and 3.46410 respectively. In table 2, the independent sample t-test revealed that there was no significant difference in anxiety between national and university players, whereas aggression of the national and university players is presented in table 3. The mean and standard deviation of national players on the variable aggression were 0.5183 and 0.08886 respectively. The mean and standard deviation of university players on the variable aggression were 0.3900 and 0.13784 respectively. In table 4, the independent sample t-test revealed that then was no significant difference in aggression between national and university level players.

Conclusions

On the basis of the results obtained from the present empirical investigation, it may be concluded that the Inter-University and national level volleyball players did not differ on their level of state anxiety. Furthermore, it may also be inferred that both Inter-University and national level volleyball players have a similar level of anxiety and aggression during the competition.

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