

A Comparative Assessment of Sports Competition Anxiety among Athletes and Non-Athletes across Urban and Rural Regions of Uttar Pradesh

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Abstract:

To characterise the psychological Parameters: Sports Competition Anxiety of physical education students from various districts of Gorakhpur, Deoria and Kushinagar, D.D.U., Gorakhpur University, Gorakhpur. To compare the psychological Parameters: Sports Competition Anxiety of physical education students from various districts of Gorakhpur, Deoria and Kushinagar, D.D.U., Gorakhpur University, Gorakhpur. The subjects selected for this study were a total number of subjects, three hundred (N= 300) from each group, for equal subjects from hundred (100) from Gorakhpur, one hundred (100) from Deoria and one hundred (100) from Kushinagar of physical education students from various districts of D.D.U., Gorakhpur University, Gorakhpur. The selection of the variables selected were body fat percentage of physical education students from various districts of D.D.U., Gorakhpur University, Gorakhpur. To understand the characteristics of the subjects, descriptive statistics, including the mean and standard deviation, were employed. To compare the selected psychological parameters, sports competition anxiety of physical education students from different districts, such as Gorakhpur, Deoria, and Kushinagar, at D.D.U., Gorakhpur University, ANOVA, along with a post hoc test, was conducted using SPSS-21 software. The significance level was established at 0.05.

Keywords: Assessment, Sports, Competition, Anxiety, Variable, Among, Athletes, Urban, Rural, etc.

Introduction:

Physical health is a crucial aspect of leading a healthy and productive life. As technology advances, the necessity for physical fitness in daily activities becomes increasingly vital, complicating the situation further. Physical fitness refers to the ability to perform everyday tasks with minimal exertion while remaining capable of engaging in extended leisure activities and responding effectively during emergencies. It encompasses multiple dimensions, including strength, endurance, flexibility, speed, agility, and coordination. Research indicates that physical fitness significantly impacts not only physical health but also mental and psychological well-being. In today's sports environment, physical fitness is essential for enhancing athletic performance. Athletes undergo systematic training designed to enhance

their physical capabilities—specifically muscular strength, cardiovascular endurance, agility, flexibility, and neuromuscular coordination.

Anxiety stands out among the widely researched psychological variables in athletics. It represents an unfavourable emotional state often marked by feelings of nervousness, worry, dread, and physiological overactivity. Within sport settings, it manifests before or during competitions, referred to as competitive anxiety. This form can be categorised into two primary types: cognitive anxiety, characterised by negative thoughts about performance and somatic anxiety, associated with physical symptoms including elevated heart rates, sweating, and tension in the muscles.

Various theoretical models have been proposed to explain the connection between anxiety and performance, such as the Inverted-U hypothesis and Multidimensional Anxiety Theory. The Inverted-U hypothesis suggests moderate anxiety levels can enhance performance by heightening alertness, while excessive or insufficient anxiety may hinder results, indicating optimal performance requires intermediate arousal levels. Meanwhile, the Multidimensional Anxiety Theory elaborates on how cognitive anxiety demonstrates a negatively linear association with performance, whereas somatic anxiety displays an inverted-U correlation pattern.

Objective of the study

- To characterise the psychological Parameters: **Sports Competition Anxiety (SCAT) Among** physical education students from various districts of Gorakhpur, Deoria and Kushinagar, D.D.U., Gorakhpur University, Gorakhpur.
- To compare the psychological Parameters: **Sports Competition Anxiety (SCAT) Among** physical education students from various districts of Gorakhpur, Deoria and Kushinagar, D.D.U., Gorakhpur University, Gorakhpur.

Methodology

The subjects selected for this study were a total number of subjects, three hundred (N= 300) from each group, for equal subjects from hundred **(100) from Gorakhpur, one hundred (100) from Deoria and one hundred (100) Kushinagar** of physical education students from various districts of D.D.U., Gorakhpur University, Gorakhpur. The selection of the psychological Parameters: **Sports Competition Anxiety** of physical education students from various districts of D.D.U., Gorakhpur University, Gorakhpur. The criterion measure for this study was the scores derived from two questionnaires: the Psychological Variables of Sports Competition Anxiety Test (SCAT) and the Sports Achievement Motivation Test (SAMT), focusing on both male athletes and non-athletes from urban and rural regions of Uttar Pradesh. Sports Competition Anxiety Test (SCAT)

Purpose:

Developed by Rainer Martens in 1990, the Sports Competition Anxiety Test (SCAT) was initially designed for children aged 15-18. An adult version was subsequently created by adapting its instructions and items. The adult version has demonstrated a reliability coefficient of 0.85.

Description of the SCAT:

Objective:

The SCAT aims to evaluate the competitive anxiety levels of both athletes and para-athletes within the state.

Procedure:

The questionnaire comprises fifteen statements, five of which are deliberately included as spurious questions to reduce response bias towards the genuine test items. Scores from these five statements are not included in each subject's total score. Participants were instructed to indicate their feelings in typical competitive scenarios using a three-point response scale:

- a) Hardly Ever
- b) Sometimes
- c) Often

For scoring purposes, ten specific statements were selected: items 2, 3, 5, 6, 8, 9, 11, 12, 14, and 15. The five spurious items—1, 4, 7, 10, and 13—were excluded from the total score calculation as recommended by Rainer Martens. While participants completed the questionnaire, the investigator circulated among them to ensure that answers were recorded sequentially. The investigator clarified any uncertainties about question wording to ensure all statements were addressed without omissions. Each statement intended for scoring was formulated so that responses could be evaluated according to this scoring system:

Score – Response

- 1 - Hardly Ever
- 2 – Sometimes
- 3 – Often

For statements six and eleven, scoring was conducted based on an additional key not specified here.

Score Response

- Often
- Sometime

Statistical Procedure

To understand the characteristics of the subjects, descriptive statistics, including the mean and standard deviation, were employed. To compare the selected psychological parameter, Sports Competition Anxiety, among physical education students from different districts (Gorakhpur, Deoria, and Kushinagar) at D.D.U., Gorakhpur University, ANOVA with a post hoc test was conducted using SPSS-21. The significance level was established at 0.05.

Findings and Results of the Study

Table 1 - Descriptive statistics tables Mean and standard deviation scores of the Psychological Parameters **Sports Competition Anxiety Test (SCAT)** of physical education students from various districts of Gorakhpur, Deoria and Kushinagar, D.D.U., Gorakhpur University, Gorakhpur.

Groups	Mean	Std. Deviation	Minimum	Maximum
Gorakhpur	22.32	3.05	15.00	30.00
Deoria	18.87	3.33	11.00	29.00
Kushinagar	20.75	2.77	15.00	28.00

Table 1 shows the descriptive statistical analysis of the psychological parameter, namely the Sports Competition Anxiety Test results for physical education students of the Gorakhpur, Deoria, and Kushinagar districts under Deen Dayal Upadhyay Gorakhpur University. The average anxiety level of Gorakhpur district students was found to be higher than that of the other two districts, indicating comparatively greater competitive anxiety among the participants. Mean scores for Kushinagar district students ($M = 20.75$) were higher than those for Deoria district students ($M = 18.87$). The variation between mean values indicates noticeable differences in students' psychological responses to sports competition across the sampled districts. The standard deviation shows moderate variability of anxiety scores within each district group. The largest standard deviation ($SD = 3.33$) among the districts, revealed by Deoria, suggested that students in this district displayed comparatively greater dispersion in anxiety levels. The Gorakhpur district recorded a standard deviation of 3.05, while the Kushinagar district reported the lowest standard deviation ($SD = 2.77$), indicating that participants' scores for anxiety were more comparable. Overall, the results indicated that the competitive anxiety levels varied moderately among the three groups, but Gorakhpur students were more anxious than the other groups.

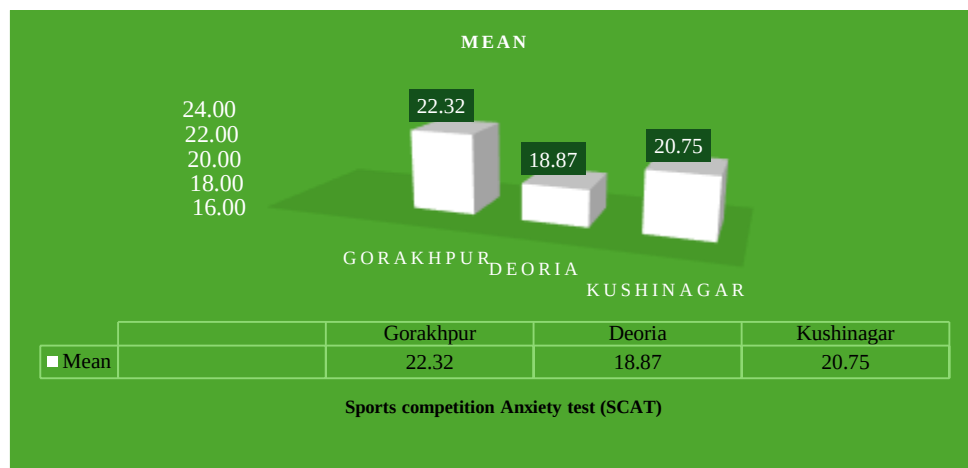


Fig. 1. Graphically represented **Descriptive statistics tables: mean and standard deviation scores** of the Psychological Parameters **Sports Competition Anxiety Test (SCAT)** of physical education students from various districts of Gorakhpur, Deoria and Kushinagar, D.D.U., Gorakhpur University, Gorakhpur.

Table 2. Analysis of variance (ANOVA) with post hoc test of Psychological Parameters **Sports competition Anxiety test (SCAT)** of physical education students from various districts of Gorakhpur, Deoria, and Kushinagar, D.D.U., Gorakhpur University, Gorakhpur.

GROUPS	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	2	297.529	31.8577	2.9E-13	0
Within Groups	297	9.33932			
Total	299				

Table 2 summarises findings of variance in the Sports Competition Anxiety Test (SCAT) performance among the physical education students in Gorakhpur, Deoria, and Kushinagar districts, D.D.U. Gorakhpur University, Gorakhpur. Results revealed significant differences in overall sports competition anxiety

scores among the study samples. It was discovered that the mean square value of between-group variation was 31.8577, which was significantly larger than the mean square value of within-group variation, 9.33932. Mean values of students differ in meaning, which indicates that the anxiety level of students depended on each district and that groups had special psychological traits regarding sports competition anxiety. The standard deviation shown via within-group variation in all of the groups is a sign of a relatively similar response in each group, but variation was observed among students throughout all groups. The greater between-group mean shows how the environmental, social, and competitive aspects contributed slightly differently to the anxiety level among the three districts. This indicates that students from distinct districts showed varying competitive anxiety levels, and that competition anxiety would have an impact on their psychological preparedness and sports performance. Statistical analyses find significant differences in the psychological parameter of sports competition anxiety among students in sports education groups.

Table 3. Multiple comparison LS0 with (Post hoc test) of Physiological Parameters, Blood pressure: (Diastolic pressure) of physical education students from various districts of Gorakhpur, Deoria and Kushinagar, D.D.U., Gorakhpur University, Gorakhpur.

Variable	Groups	Compare Groups	Mean Difference (I-J)	Std. Error	Sig.
Sports competition Anxiety test (SCAT)	Gorakhpur	Deoria	3.45323*	0.433278	.000
		Kushinagar	1.57076*	0.4322096	.000
	Deoria	Gorakhpur	-3.45323*	0.433278	.000
		Kushinagar	-1.88248*	0.4311169	.000
	Kushinagar	Gorakhpur	-1.57076*	0.4322096	.000
		Deoria	0.1379505	0.857224	.000

Table 3 shows the multiple comparison LSD post hoc analysis on Sports Competition Anxiety Test (SCAT) scores of physical education students from the districts of Gorakhpur, Deoria, and Kushinagar under D.D.U. Gorakhpur University, Gorakhpur. The results confirm a substantial difference in mean anxiety scores among the studied districts. Compared with those in Deoria, the mean difference was 3.45323 (SE = 0.433278), indicating that students from Gorakhpur had a higher sports competition anxiety level compared to those coming from Deoria. At the same time, the mean difference between Gorakhpur and Kushinagar was 1.57076, which suggests moderate differences in anxiety levels between the two groups. This is the same as the average between Deoria and Kushinagar; the mean difference was 1.88248 with a standard error of 0.4311169. The standard deviation, as shown through the standard error values, suggests that the SCAT scores in both groups remained fairly constant, with fluctuations in some small measures across individual students. Differences in mean anxiety scores found may be due to differences in competitive exposure, emotional regulation, confidence, training background, and psychological preparedness of students from diverse districts. A higher anxiety level among Gorakhpur students could be based on the additional competitive emotional involvement in sports. Overall, the results are substantial enough to show significant variability in the psychological dimension of sports competition anxiety among physical education students in the selected districts.

Discussion of Findings

The observed differences may be attributed to the factors discussed above. These variations are likely due to differences like physical fitness components, training patterns, and the prerequisites required for students. Additionally, the number and level of participation in sports activities may have influenced the results. It is also possible that physically trained students differ in their level of achievement and in their intake of various types of nutritional diets. Furthermore, the results may have been affected by the relatively small sample size and other factors such as variations in body type and body composition. Differences in dietary patterns and nutrition schedules could also have contributed to these outcomes. Moreover, psychological variables, including stress, sports competition anxiety, aggression, fear, motivation, confidence, and attention concentration, may have played a significant role in influencing the results.

CONCLUSIONS

Within the limitations and delimitations of this study, the following conclusions were drawn.

1. There was a significant difference between the mean and standard deviation scores of psychological parameters in the **Sports Competition Anxiety Test (SCAT)** of physical education students from various districts of Gorakhpur, Deoria and Kushinagar, D.D.U., Gorakhpur University, Gorakhpur.
2. There was a significant difference between the F-scores of psychological parameters in the **Sports Competition Anxiety Test (SCAT)** of physical education students from various districts of Gorakhpur, Deoria and Kushinagar, D.D.U., Gorakhpur University, Gorakhpur.

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