



ANALYSIS OF PSYCHOLOGICAL VARIABLES AMONG VARIOUS INSTITUTES OF INTER COLLEGIATE HOCKEY PLAYERS

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Abstract:

This study investigates psychological variables, specifically Sports Competition Anxiety and stress, among 144 inter-collegiate field hockey players participating in the tournament held at Bharathiar University and Maruthi College of Physical Education, Coimbatore. Utilizing a randomized group design, players were selected from eight teams, with each team consisting of 18 players. The investigator obtained prior permission and explained the test procedures before administering standardized questionnaires to assess the selected psychological variables. Data were collected, scored, and analyzed using Analysis of Variance (ANOVA) with a significance level set at 0.05. The statistical analysis was performed using SPSS version 16.0. The ANOVA results indicated significant differences in Sports Competition Anxiety and stress levels among the eight groups of players, leading to post hoc analyses for pair wise comparisons where applicable. This research provides valuable insights into the psychological profiles of inter-collegiate hockey players, emphasizing the importance of mental resilience and stress management in competitive sports performance.

Key Words: Psychology, Sports Competition Anxiety, Stress, Hockey, Field Hockey

Introduction:

In recent years, sports psychology has gained significant prominence, attracting researchers keen to explore the complex psychological factors that shape athlete performance. This is particularly evident in competitive environments, where psychological elements can profoundly influence success on the field. In high-pressure situations, aspects such as anxiety and stress play crucial roles in shaping athletes' mindsets and directly affecting their performance outcomes. The psychological landscape of university-level hockey players presents a rich interplay of emotions, determination, and mental resilience. For coaches and trainers striving to unlock their players' full potential, a deep understanding of these nuanced variables and their interactions is essential. This research project aims to investigate this psychological terrain, shedding light on the unique challenges and opportunities that collegiate athletes encounter. By examining the mental processes of inter-collegiate hockey players, we aspire to uncover valuable insights into how psychology influences athletic performance in this specific context. Through this exploration, we hope to clarify the intricate relationship between the human mind and athletic excellence, providing a deeper understanding of the mental dynamics that drive success in this demanding sport.

Methodology:

Selection of Subjects:

The study analyzed psychological variables among intercollegiate hockey players. Participants were selected from the intercollegiate hockey tournament held in Coimbatore at Bharathiar University and Maruthi College of Physical Education.

Selection of Variables:

Table 1

S.No	Variables	Test Used
1	yteixnA noititepmoC stropS	(TACS) tseT yteixnA noititepmoC stropS
2	ssertS	(QSP) eriannoitseuQ ssertS deviecreP

Research Design:

In this research, a random group design was used to select 144 hockey players from various institutes participating in the inter-collegiate tournament held in Coimbatore at Bharathiar University and Maruthi College of Physical Education. Each team consisted of 18 players, totalling 8 teams. The investigator obtained prior permission from the team authorities to assemble the subjects in the match arena and explained the test procedures. The subjects then filled out questionnaires to measure psychological variables such as Sports Competition Anxiety and stress. The filled questionnaires were collected and scored according to the author's guidelines. Statistical analysis was conducted using Analysis of Variance (ANOVA) to test for significance at the 0.05 level.

Statistical Technique:

The psychological variables among inter-collegiate hockey players were analyzed using SPSS version 16.0. eight groups of hockey players were compared using Analysis of Variance (ANOVA). If the obtained F value was greater than the required table F value then it would consider statistically significant, schefee's post hoc analysis was conducted to compare paired means of the groups.

Results of the Study:

Table 2: One way analysis of variance for sports competition anxiety among inter-collegiate field hockey players

Source of Variance	Sum of Squares	df	Means Squares	F	T.F
Between Groups	401.882	7	57.412	10.128	2.07
Within groups	770.944	136	5.669		

The table 2 shows the one way analysis of variance of sports competition anxiety levels among inter-collegiate field hockey players. From the table 2, it was very clear that the obtained F-ratio was 10.128 and table F-ratio was 2.07. As the obtained F-ratio was greater than the table F-ratio, the study was significant at 0.05 level of confidence for the degree of freedom 7 and 136.

Table 3: Scheffé's post hoc test of variance for sports competition anxiety among inter-collegiate field hockey players

PSG	TNPSEU	VidSagar	BU	SACPE	YMCA	CGAC	MCPE	Mean Difference	CI	sig
20.77	21.94							1.16	3.76	insig
20.77	-	21.61						0.83	3.76	insig
20.77			18.50					2.27	3.76	insig
20.77				19.33				1.44	3.76	insig
20.77					19.83			0.94	3.76	insig
20.77						22.27		1.5	3.76	insig
20.77							24	3.22	3.76	insig
	21.94	21.61						0.33	3.76	insig
	21.94		18.50					3.44	3.76	insig
	21.94			19.33				2.61	3.76	insig
	21.94				19.83			2.11	3.76	insig
	21.94					22.27		0.33	3.76	insig
	21.94						24	2.05	3.76	insig
		21.61	18.50					3.11	3.76	insig
		21.61		19.33				2.27	3.76	insig
		21.61			19.83			1.77	3.76	insig
		21.61				22.27		0.66	3.76	insig
		21.61					24	2.27	3.76	insig
			18.50	19.33				0.83	3.76	insig
			18.50		19.83			1.33	3.76	insig
			18.50			22.27		3.77	3.76	sig
			18.50				24	5.50	3.76	sig
				19.33	19.83			0.5	3.76	insig
				19.33		22.27		2.94	3.76	insig
				19.33			24	4.66	3.76	sig
					19.83	22.27		2.44	3.76	insig
					19.83		24	4.16	3.76	sig
						22.27	24	3.22	3.76	insig

* Significant at 0.05 level of confidence.

Table II shows the paired mean difference of sports competition anxiety inter-collegiate field hockey players.

The mean differences of sports competition anxiety between the colleges were 1.16, 0.83, 2.27, 1.44, 0.94, 1.5, 3.22, 0.33, 3.44, 2.61, 2.11, 0.33, 2.05, 3.11, 2.27, 1.77, 0.66, 2.27, 0.83, 1.33, 3.77, 5.50, 0.5, 2.94, 4.66, 2.44, 4.16 and 3.22 respectively. The required confidence interval value was 3.76.

Since the mean differences between Bharathiar University and Chikkanna government arts college, Bharathiar University and Maruthi College of Physical Education, Dr. Sivanthi Aditanar College of Physical Education and Maruthi College of Physical Education, YMCA college of Physical Education and Maruthi College of Physical Education, were greater than the required confidence interval value 3.76, it was observed that Maruthi College of Physical Education has the highest sports competition anxiety level and Bharathiar University falls very behind.

Figure 1: Bar diagram showing the mean of Sports Competition Anxiety among inter-collegiate field hockey players

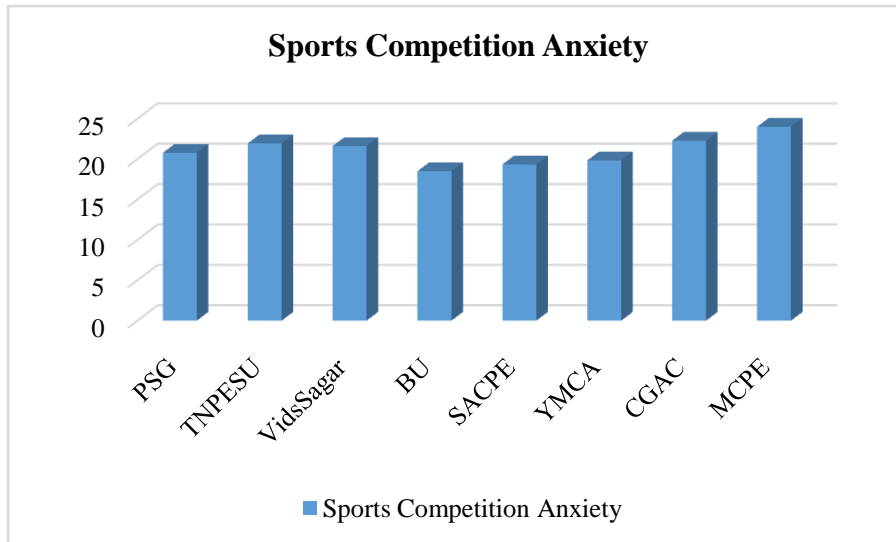


Table 4: Computation of one way analysis of variance for stress among inter-collegiate field hockey players

Source of Variance	Sum of Squares	df	Means Squares	F	T.F
Between Groups	702.49	7	100.35	11.64*	2.07
Within Groups	1171.94	136	8.61		

The table 4 shows the one way analysis of variance of stress levels among inter-collegiate field hockey players. From the table 6, it was very clear that the obtained F-ratio was 11.64 and table F-ratio was 2.07. As the obtained F-ratio was greater than the table F-ratio, the study was significant at 0.05 level of confidence for the degree of freedom 7 and 136.

Table 5: Scheffe's post hoc test of variance for stress among inter-collegiate field hockey players

PSG	TNPESU	VidSagar	BU	SCOPE	YMCA	CGAC	MCPE	Mean Difference	C.I	sig
15.77	19.94							4.16	4.65	insig
15.77		20.22						4.44	4.65	insig
15.77			15.00					0.77	4.65	insig
15.77				18.50				2.72	4.65	insig
15.77					20.88			5.11	4.65	sig
15.77						15.33		0.44	4.65	insig
15.77							18.83	3.05	4.65	insig
	19.94	20.22						0.27	4.65	insig
	19.94		15.00					4.94	4.65	sig
	19.94			18.50				1.44	4.65	insig
	19.94				20.88			0.94	4.65	insig
	19.94					15.33		4.61	4.65	insig
	19.94						18.83	1.11	4.65	insig
		20.22	15.00					5.22	4.65	sig
		20.22		18.50				1.72	4.65	insig
		20.22			20.88			0.66	4.65	insig
		20.22				15.33		4.88	4.65	sig
		20.22					18.83	1.38	4.65	insig
			15.00	18.50				3.50	4.65	insig
			15.00		20.88			5.88	4.65	sig
			15.00			15.33		0.33	4.65	insig

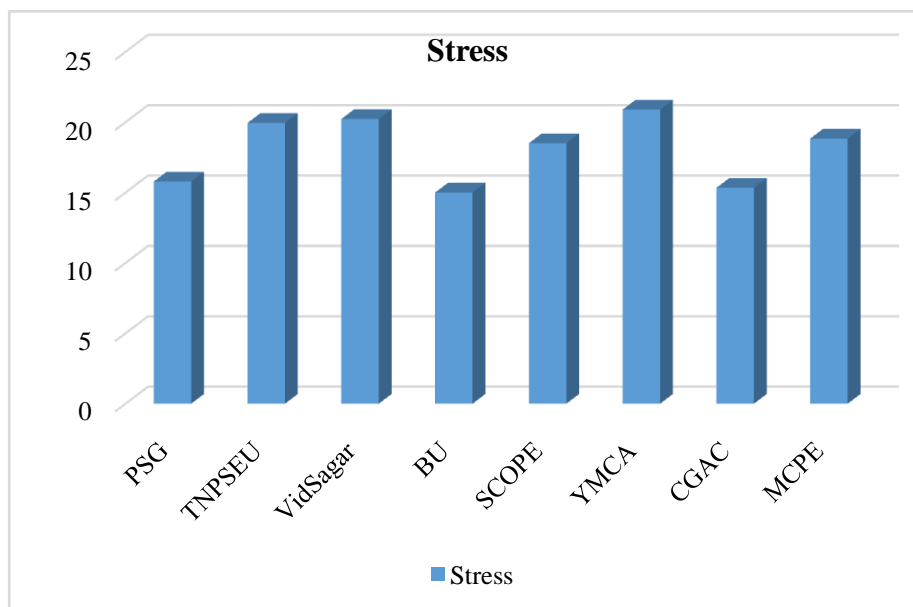
			15.00				18.83	3.83	4.65	insig
				18.50	20.88			2.38	4.65	insig
				18.50		15.33		3.16	4.65	insig
				18.50			18.83	0.33	4.65	insig
					20.88	15.33		5.55	4.65	sig
					20.88		18.83	2.05	4.65	insig
						15.33	18.83	3.50	4.65	insig

* Significant at 0.05 level of confidence.

The mean differences of stress between the colleges were 0.44, 3.33, 0.33, 1.16, 1.66, 0.05, 1.50, 3.77, 0.77, 1.61, 2.11, 0.50, 1.94, 3.00, 2.16, 1.66, 3.27, 1.83, 0.83, 1.33, 0.27, 1.16, 0.50, 1.11, 0.33, 1.61, 0.16, and 1.44 respectively. The required confidence interval value was 8.84.

Since the mean differences between PSG College of Arts and Science and YMCA College of Physical Education, Tamil Nadu Physical Education and Sports University and Bharathiar University, Vidya Sagar College of Arts and Science and Bharathiar University, Vidya Sagar College of Arts and Science and Chikkanna Government Arts College, Bharathiar University and YMCA College of Physical Education, YMCA College of Physical Education and Chikkanna Government Arts College were greater than the required confidence interval value, 4.65 it was observed that YMCA College of Physical Education players having high stress and Bharathiar University filed a low stress score.

Figure 2: Bar diagram showing the mean of stress among inter-collegiate field hockey players



Discussion on the Results:

The study revealed a significant difference in sports competition anxiety among inter-collegiate field hockey players, leading to the acceptance of the first hypothesis. Additionally, there was a notable difference in stress within this group, resulting in the acceptance of the second hypothesis as well.

Conclusion:

- The study found significant differences in sports competition anxiety among inter-collegiate field hockey players, with Maruthi College of Physical Education demonstrating the highest levels, while Bharathiar University lagged significantly behind.
- The study found significant differences in stress among inter-collegiate field hockey players, with YMCA College of Physical Education demonstrating the highest levels, while Bharathiar University lagged significantly behind.

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