



## Comparison of Psychological Characteristics of Inter College Hockey Players

Dr. K. Rajeshkumar

27/13, Giri Street, West Mambalam, Chennai, 600 033, Tamilnadu, India.

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### Abstract

The purpose of the study was to compare the psychological variables of Inter college hockey players. To execute the study, 60 field hockey players who have participated in the inter college Tournament were selected. Playing Positions identified were goal keeper, defenders, midfielders and forwards. The selected psychological characteristics were motivation, confidence, anxiety control and mental preparation. They were assessed by the psychological Skills Inventory for Sports consists of five point Likert type items. (PSIS- Questionnaire). ANOVA statistics was utilized to find out the difference if any. All 'F' values are significant at 0.05 levels. It is found that there exists difference in motivation, confidence, anxiety control, mental preparation, and concentration between goal keepers, defenders, mid-fielders and forwards, among the undertake TamilNadu Physical Education and sports University inter college hockey players. Goal keeper, defenders, mid fielders and forwards are different in psychological characteristics.

**Keywords:** Playing-position, Psychological and hockey players.

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### Introduction

When considering what kind of sports are needed to induce people to participate and to improve their physical condition, Leo Weinskin (1961) former Stanford University hockey coach cites following prerequisites. It should be of such nature as to permit constant participation by all who are playing, it should stress endurance and develop the entire body; it's rules should be simple; it should require low-cost lasting equipment; it should be a sport that can be played all year around; it should not require unusual physical height or weight.

### Motivation

The term motivation refers to the arousal or tendency to act to produce one or more effects (Atkinson, 1965).

### Confidence

Confidence is an emotion or state of mind commonly associated with athletic success.

### Anxiety Control

Anxiety, an emotional state closely related to fear occurs when a person worries about what might happen in future or when he is fearful about some vague or unknown thing which he cannot explain (Kalish, 1970).

### Correspondence

Dr.K.Rajeshkumar,  
E-mail: krajeskumars27@gmail.com, Ph. +9199448 09316

### Mental Preparation

Mental preparation includes many factors which constitute mental (or) intellectual development They are the proper use of time or development of time sense, logical questions, sense o distinguishing what is bad and what is good, ability to concentrate on object idea, think or action and plan making ability and so on.

### Objective of the Study

To find out whether the inter college level male hockey players playing in different position differ in the selected psychological variables.

### Methodology

To execute the study, 60 male hockey players who have participated in the undertake TamilNadu Physical Education and sports University inter college hockey Tournament, during the year 2016-2017 were selected. The age of the subjects ranged between 18 and 28. The subject's break-ups as per playing position are presented in Table I.

**Table I.** Distribution of subjects on the basis of playing position

Groups	Number
Goal Keepers	8
Defenders	18
Mid Fielder	16
Forwards	18
Total	60

The purposive sampling technique was utilized. Data were collected during the rest time. Dependent variables are Motivation, Confidence, Anxiety-control and Mental Preparation. Independent variables are Goal keepers, Defenders, Mid-fielders and Forwards. Informed consent was obtained individually prior to participation. Instructions were standardized, since the obtained scores may be influenced by changing test instructions (Nideffer, R.M., 1987 and Greenspen et al., 1988). To avoid socially desirable answers, subjects were told that the results were being used solely for research purpose.

Psychological variables were assessed by the psychological Skills Inventory for Sports which consists of five point Likert type items. (PSIS Questionnaire). Multivariate analysis and Scheffe's post hoc test were used to find out the significance.

#### Descriptive Statistics

Descriptive statistics of motivation, confidence, anxiety control and mental preparation of inter college male hockey players playing positions are furnished in table II.

**Table II.** Descriptive statistics on psychological characteristics of goal keeper, defenders, mid fielders and forwards of inter college hockey players

Psychological characteristics	Goal keepers	Defenders	Mid fielders	Forwards
	Mean SD	Mean SD	Mean SD	Mean SD
Motivation	31.20± 3.13	34.74±3.12	32.01 ±2.08	33.16±1.01
Confidence	30.25±3.32	32.15±1.60	32.69±2.14	32.91±1.50
Anxiety control	27.40±2.19	28.35±3.60	30.36±2.29	23.14±2.15
Mental preparation	21.06±2.68	22.42±2.16	24.19±2.13	23.73±1.07

#### Anova Results

The ANOVA results on psychological

characteristics of playing positions are presented in Table III.

**Table III.** Computation of multivariate analysis of variance (anova) psychological characteristics of "playing positions"

Effect		Value	T	Hypothesis df	Error df	Sig
Variable	Playing Positions					
Motivation	Goal Keeper	.982	18.92	18.000	693.000	.000
Confidence	Defenders	.252	22.78	18.000	648.195	.000
Anxiety Control	Mid Fielders	2.104	26.06	18.000	663.00	.000
Mental Preparation	Forwards	1.654	63.175	8.000	231.000	.000

The obtained 'F' value of psychological characteristics on independent variables namely playing positions (Goal keeper, Defenders, Mid fielders, and Forwards) are 18.92, 22.78, 26.06, and 63.175 with regard to Pillai's Trace, Wilk's Lambda, Hotelling's Trace, and Roy's Largest root model respectively. All 'F' values are significant at 0.05 level. As the obtained 'F' value is greater than this 0.05 alpha, the null hypothesis is rejected with regard to the psychological characteristics of various position of players among inter college

hockey players.

#### Between Subject Effects: Results

As significant differences are found through ANOVA and to find out on which dependent variables show difference between subjects effects were computed and the results are presented in table III. In this table between subject's effects on dependent variable (motivation, confidence anxiety control and mental preparation of playing position namely) goal keeper,

defenders, mid fielders and forwards of inter college hockey players are presented in table IV.

**Table IV.** Computation between subjects effects of playing positions on psychological characteristics

Independent variables	Dependent variables	source		F	Significance
		Between set mean square	Within set square		
Goal Keeper	Motivation	183.628	61.209	12.196	.000
Defenders	Confidence	118.062	39.354	9.999	.000
Mid Fielders	Anxiety Control	2057.373	685.791	94.886	.000
Forwards	Mental Preparation	113.898	37.966	8.514	.000

#### Motivation

As the obtained 'F' value is greater than 0.05 alphas, the null hypothesis (Ho) is rejected. It is >und that there exists a significant difference between the goal keepers, defenders, mid fielders id forwards on motivation dimension of PSIS-Youth.

#### Confidence

As the obtained 'F' value is greater than 0.05 alpha, the null hypothesis (Ho) is rejected. It is und that there exists a significant difference between goal keepers, defenders, mid fielders and forwards on confidence dimension of PSIS-Youth.

#### Anxiety Control

As the obtained 'F' value is greater than 0.05 alpha , the null hypothesis (Ho) is rejected. It is that there exists a significant difference between goal keepers, defenders, mid fielders and wards on anxiety control dimension of PSIS-Youth.

#### Mental Preparation

As the obtained 'F' value is greater than 0.05 alpha, the null hypothesis (Ho) is rejected. It is found it there exist a significant difference between goal keepers, defenders, mid fielders and forwards mental preparation dimension of PSIS-Youth.

**Table V.** Pairwise comparison test (scheffe's post hoc) of dependent variables on independent variable

s.no	Dependent Variables	Independent Variables				Means Difference	Significance
		Goal Keeper	Defenders	Mid Fielders	Forwards		
1	Motivation	31.20	34.74			1.933	0.09
		31.20		32.01		0.81	.096
		31.20			33.16	1.9	.004
			34.74	32.01		2.73	.001
			34.74		33.10	1.64	.098
				32.01	33.10	1.09	.005
2	Confidence	30.25	32.15			1.9	0.05
		30.25		32.69		1.84	0.001
		30.25			32.91	2.66	0.001
			32.15	32.69		0.06	0.09
			32.15		32.91	0.71	0.85
				32.69	32.91	0.82	0.64
3	Anxiety Control	27.40	28.35			0.95	0.28
		27.40		30.36		2.9	0.001
		27.40			23.14	4.26	0.00
			28.35	30.36		1.95	0.374
			28.35		23.14	5.31	0.00
				30.36	23.14	7.16	0.00
4	Mental Preparation	21.06	22.42			1.42	0.21
		21.06		24.19		3.19	0.00
		21.06			23.73	2.73	0.03
			22.42	24.19		1.77	0.06

			22.42		23.73	1.31	0.17
				24.19	23.73	0.46	0.548

### Pairwise Comparison

As the between subjects effects on motivation, confidence, anxiety control, mental preparation, and concentration are significant and to find out the difference among goal keepers, defenders, mid fielders, and forwards, scheffe's post hoc test was computed. To find out the significance on dependent variable team emphasis no pairwise comparison was made.

### Motivation

The difference between goal keepers and defenders, goal keepers and forwards, defenders and mid fielders, mid fielders and forwards is significant at 0.05 level, whereas insignificant differences are observed between goal keepers and mid fielders, defenders and forwards on motivation.

### Confidence

The difference between goal keepers and defenders, goal keepers and mid fielders, goal keepers and forwards is significant at 0.05 level, whereas insignificant differences are observed between defenders and mid fielders, defenders and forwards, mid fielders and forwards on confidence.

### Anxiety Control

The difference between goal keepers and defenders, goal keepers and mid fielders, goal keepers and forwards, defenders and mid fielders, defenders and forwards, mid fielders and forwards significant at 0.05 level, whereas insignificant differences are not observed on anxiety control.

### Mental Preparation

The difference between, goal keepers and mid fielders, goal keepers and forwards, defenders and mid fielders, defenders and forwards, is significant at .05 level, whereas insignificant differences; observed between goal keepers and defenders, mid fielders and forwards on Mental Preparation.

### Concentration

The difference between goal keepers and defenders, goal keepers and mid fielders, defenders and mid fielders, defenders and forwards, mid fielders and forwards are significant at 0.05 level, whereas insignificant difference is observed between goal keepers and forwards on concentration.

### Discussion on Findings

It is found that there exists a significant difference in motivation, confidence, anxiety control, mental preparation and concentration among goal keepers, defenders, mid-fielders and forwards among the inter college level hockey players.

### Conclusions

Goal keeper, defenders, mid fielders and forwards have different psychological characteristics. Every single factor however small that may be, contribute to the total performance in sports competition that too at higher level. This study will provide coaches and physical educationists to identify the importance of psychological characteristics of sports persons.

The author wishes to stress the need for further research with application of a similar study to elite athletes who are participating in international level team sports.

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