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A Comparative Study of Some Psychological Variables of High and Low performance Hockey Players Playing at Different field position in North and West Zone Universities

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Abstract

The present study is done on 512 male hockey players to find out the difference between high performers and low performers male intercollegiate hockey players and whether the difference existed between high performer and low performer forwards, half backs, full backs and goal keepers on level of Anxiety, Intelligency, Achievement Motivation and Extroversion. The study was delimited to only male hockey players and age group of 18-25 years. The subjects of the study were only those players of the tournament whose team achieve Ist and IInd position and remained on last two places in inter collegiate hockey tournament of North and west zone universities. These universities are Kurukshetra University, Kurukshetra Ch. Devi Lal University, Sirsa, M.D.U. Rohtak, Punjab University, Chandigarh, University of Rajasthan, Jaipur, Maharishi Dayanand University, Ajmer, Kota University, Kota. The findings of the study clearly indicated that the psychological factors have significant influence more or less on the performance of hockey players. This also reveals that the psychological factors influencing more or less the performance of forwards, halfbacks, fullbacks and goalkeepers. The study reveals that high performers male intercollegiate are much intelligent than low performers. On the other side findings regarding field position-wise, the result indicated that high performers forward, half back, full back and goal keepers are intelligent than low performers. So this may be due to their task during game as forward and halfbacks to make successful attack to score goal and full back to make successful defense to goal being scored in any competition. When the data were analyzed group wise by-employing analysis of variance on high performer forwards halfbacks, fullbacks and goal keepers for the level of Intelligence.

Keywords: Intelligence extroversion, Anxiety, Achievement motivation

Introduction

This oldest known sport hockey predates the ancient games of Olympia by perhaps 1200 years or more. Indeed, historians believe it existed in many of the world's early civilizations. The Arabs, Greeks, Romans, Persians and Ethiopians all played varians of the game. Several Centries before Christopher Columbus found his new world, the Aztek Indian were playing it in Central America. The araneco Indians of Argentina invented a game similar to hockey called "Cheuccia" believing it would make them better warriors. Yet the term hockey is believed to be of French origin. A 16th Century Irish document refers to "hockie" but the term probably comes from the French "hocquet" meaning a shephered's crok.

This modern game is known as hockey or filed hockey for distinguishing it from ice hockey, involved in the British Isles in the 19th Century. It was a popular English School game, possibly adopted from the Irish game at hurling.

The hockey was spread internationally by the British Army through British Empire. Its popularity, especially by the boomed in India and Pakistan. A Central Organisation to Control the game and to lay down a definite code of rules was established in Britain on

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January 1886 which marked the birth of modern hockey. In Paris Olympics the international Olympic committee decided to exclude field hockey from future Olympic games. This decision was not received too kindly by leading officials and it was a Frenchman Paul Leautey, who realized the game needed a special international organization to promote its interests through out the world. And to make sure hockey was included in the programme for the next Olympics at Amsterdam in 1928. The representatives of seven countries Austria, Belgium, Czechoslovakia, French, Hungry and Switzerland met in Parts of January 7, 1924 and decided to form "federation international the hockey surgazon" (F.I.H.) and Paul Leauatey became the first president.

The game which had earlier existed in crude form for a number of years in India, for example "Khiddo Khundi" in Punjab, capture the imagination of Indians and soon spread all over the country.

Kolkata leads in the formation of clubs in 1885 and other parts of the country followed suit. The Beighten Cup tournament, in Kolkata and the Agakhan Cup in Bombay, which later came to occupy a very important place in the hockey competition in India, were started in 1895 and 1896 respectively.

While interest in hockey all over the country, it was once again left to Kolkata to give a lead in the formation of provisional body of control the game and Bengal Hockey Association came into existence in 1908. The Sind Hockey Association was formed at Karachi in 1920. The hockey association in Bihar, Gwalior and Western India came into existence in 1923, Delhi Hockey association was formed in 1924 and Punjab Hockey Association in 1925. The army sports control board which played a leading part in the formation of the Indian Hockey Federation was established in 1919.

Psychology of sports means applying psychological theories and concepts of sports such as coaching and teaching. The sports psychologist uses psychological assessment techniques and intervention strategies in an effort to help individuals to achieve their optimal performance. While sports psychology is concerned with analyzing of human behaviour types of sports setting it also focuses on the mental aspects of performance.

According to Jasveer et al.[1] (1986) "Psychology can help in achieving sports excellence by the sports person. Role of psychology in selection, training rehabilitation, training materials would have been said on pointing out that psychology and sports coverage

at the same point and excellence in sports can maximally be obtained by developing appropriate strategies.

Thomas[2] (1974) said the sports psyche is very much affected by the sociopolitical philosophy of nation. A single or a group of values may at a given moment press upon the athlete's performance: A difference value or a group of values may at another time, prompt him to perform well.

Dickinson[3] (1976) has studied sports performance and made it clear that sports is an aspect of behaviour which can be manipulated.

Roussean considered mind the "master" and body the "servant". He believed that in the process of education and sports if we wish to cultivate mind, we must cultivate the parts which the mind governs, namely 'physique'.

Scientific inquiry into the body mind relationship has clearly revealed that man cannot be partitioned and cannot be compartmentalized.

Sherrinton[4] (1940) observes "The muscle is the cradle of recognizable mind."

Kamlesh[5] (1983) stated that motivation is a force or process which guided and individual to achieve some goal. So without this force any sportsman cannot show its performance or achieve any target.

Achievement Motivation theory was introduced by McClelland and Atkinson in 1950's. This theory attempts to determine the direction, intensity and persistence of behaviour or performance in the limited context of achievement settings.

Bettenil[6] (1978) has strongly emphasized that goal setting can be motivating force in helping athletes performance.

Statement of the Problem

The purpose of the study was to compare high and low performer forwards, half backs, full backs and goalkeepers of inter-collegiate male hockey players' on the level of Intelligency, Anxiety, Extroversion and Achievement Motivation.

Delimitations of the Study

The study wad delimited to the followings:
1. The study was delimited to those players who participated in Inter Collegiate hockey tournament 2010 of North Side and West Side Universities.
2. The study was delimited to only male hockey players and age group of 18-25 years.
3. The subjects of the study were only those players of these tournament whose team achieve Ist and IInd position and remained on last two places in intercollegiate hockey tournament of above said universities.

Limitations of the study

1. The facts discussed in this study are based on response of samples got through the questionnaire itself has some limitations therefore may be lack of some honest responses which may be considered as limitation of the study.
2. No special technique were used to motivate the subjects during the test and subjects were not directly under supervision of the scholar.

Hypothesis

On the basis of the available literature observations and consultation with experts it was hypothesized that:

1. There would be no significant difference between high performer forwards, halfbacks, fullbacks, goal keepers and low performer forwards, halfbacks, fullbacks goal keepers on the level of anxiety.
2. There would be no significant difference between high performer for wards, halfbacks, fullbacks goal keepers and lower performers forwards halfbacks, fullbacks, goal keepers on the level of extroversion.
3. There would be no significant difference between high performer forwards, halfbacks, fullbacks, goal keepers and low performer forwards, half back, fullbacks, goal keepers on the level of intelligence.
4. There would be no significant difference between high performer forwards, halfbacks, fullbacks goal keepers and low performer forwards, halfbacks, fullbacks, goal keepers on level of achievement motivation.

Definitions of terms Used

Anxiety

Levitt[7] (1985) Anxiety is a subjective feelings of apprehension and heightened psychological arousal.

Intelligency

Weschler[8] (1958) "Intelligency is the capacity to learn and adjust to relatively new and changing conditions."

Extroversion

Eysenck[9] (1960) "Individual who possesses qualities – outgoing and impulsive, inhibited, involved in group activities, sociable, friendly, craving excitement and have many social contacts. They stick their neck out and take chances of the spr of the moment, are optimistic, aggressive, lose their temper easily, laugh a great deal and are unable to keep their feelings under control."

Achievement Motivation

McClelland[10] (1953) "Achievement motivation refers to success in competition with some definite standard excellence."

Heckhausen (1953) "It defines as the striving to increase or keeps as high as possible one's own capacity in all activity in which standard of excellence of such activities can either succeed or fail".

High Performers

All 16 players of each team who achieved first two places in Intercollegiate Men Hockey Tournament of Kurukshetra University, Kurukshetra, Ch. Devi Lal University, Sirsa, M.D.U. Rohtak, Punjab University, Chandigarh, University of Rajasthan, Jaipur, Maharishi Dayanand University, Ajmer, Kota University, Kota, University of Bikaner were considered as high performers.

Low performers

All 16 players of each team remained on last two positions in Intercollegiate Men Hockey Tournament of above said universities.

Significance of the Study

In the field of sports and games where an individual has to perform a complex motor task, and integrated functioning of psychological and physical variables is of permanent importance. The ability of a sportsman to perform a task effectively and efficiently is a co-ordination between one's mental and physical capabilities.

Researchers in the world are working and experimenting to invent the test, economical and easiest methods of selection and train sports persons in term of time spent in order to get the maximum benefit from it.

Hockey requires certain basic motor skills as well as components of physical and mental fitness which affect the performance of sportsmen at all levels of competition. The fundamental skills of hockey such as dodging, receiving etc. are in fact a complex combination of various simple motor skills and psycho-motor abilities. The results of the present study seems to be worth while in the following way:-

1. The result of the study will provide a useful tool for identification, placement, selection and preparation of hockey players for competition.
2. The results of the study will highlight such variables which might have positive effect on the hockey performance.
3. The outcome of the study will be helpful to frame the schedule for psychological training for hockey players of different field position.
4. It is likely that the results of the study may be used as a screening tools in assessing the quality of hockey players at different field positions.

Fix conducted a study to observe the effect of activity intensity, defined as no activity, moderate activity (50 percent) and heave activity (80 percent) on the state anxiety adjustments of

college students. The subjects were grouped on the basis of their scores on the STAI trait Anxiety Scale in to low, middle and high anxiety groups. There were 25 subjects assigned to each group. The results showed significantly lower post-treatment.

A state scores at the Low Trait Anxiety group compared to those of the High Anxiety group. It was also found that there were significantly lower post-treatment. A state scores for moderate activity treatment when compared to the no-activity treatment. There were also significantly lower post-treatment. A state scores for the heavy activity treatment when compared to the non-activity treatment. There were no significant differences between the moderate and heavy activity treatment on post-treatment A-state scores. There were no significant differences between the sexes, nor were there any significant interactions between the variables of trait anxiety group, sex and treatment activity level.

Table I
Comparison of the High and Low Performers on Test of the Anxiety

Sr. No	Group	Number of Players	Mean	S.D.	"t" ratio	Significance
1	H.P.	256	25.52	8.104	0.4	Not Significant
2	L.P.	256	25.06	8.60		

Significant level = .05

Table I shows statistics related to the performers of high (N=256) and low (N=256) performers forward, half backs, full backs and goal keepers on Anxiety. After analyzing the data the fact came in light from the above table the mean 25.52, standard deviation 8.104 high performer and mean 25.06, standard deviation 8.60 for low performer, mean difference is .46 and obtained "t" ratio is 0.44. This resultant "t" ratio found to be insignificant indicating that there was no significant difference between High performers and Low performers male intercollegiate hockey players. Thus the hypothesis that "there is no significant difference between high performers and low performers male intercollegiate hockey players on level of Anxiety" was accepted.

The analysis reveals that both High and Low performers have no difference on level Anxiety and this psychological factor does not matter in performance of any team. A Graphical presentation also have been given in Figure-I.

Figure I
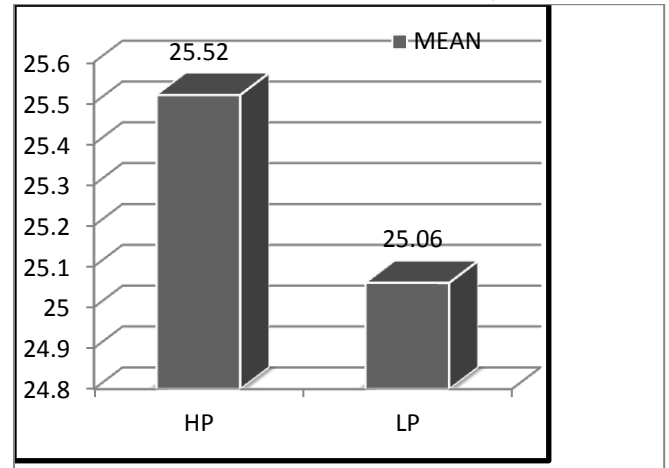**Mean Difference of the High and Low Performers on Test of the Anxiety**

TABLE II
Comparison of the high and low performers On test of the intelligency

Sr. No.	Group	Number of Players	Mean	S.D.	"t" ratio	Significance
1	H.P.	256	27.28	6.00	14.83	Highly Significant
2	L.P.	256	17.87	3.93		

Significant level = .05

Table II shows statistics relating to the performance of group of players of High performers (N=256) and Low performers (N=256) forwards, half backs, full backs and goal keepers male intercollegiate hockey players on Intelligence.

After analyzing the data the fact revealed that mean 27.28, standard deviation 6.00 for high performer and mean 17.87, standard deviation 3.93 for low performers, mean difference is 9.41 and obtained "t" ratio is 14.83. The resultant "t" ratio found to be highly significant indicated that there was significant difference between high performers and low performers male intercollegiate hockey players on Intelligence. Thus the hypothesis that "there is no significant difference between male intercollegiate hockey players on intelligence" was rejected. A Graphical presentation also have been given in Figure-II.

Figure II
Mean Difference of the High and Low
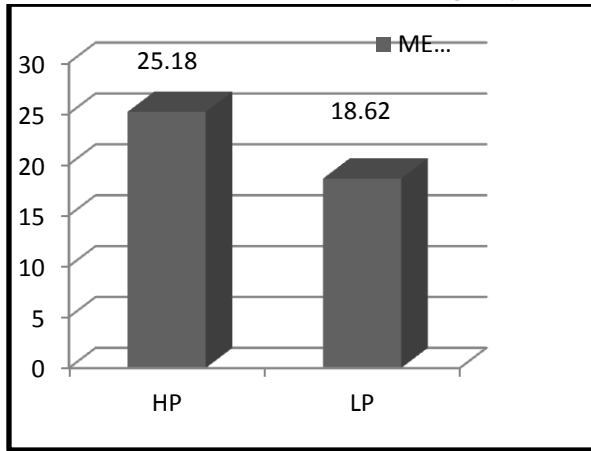**Performers on Test of the Intelligency**
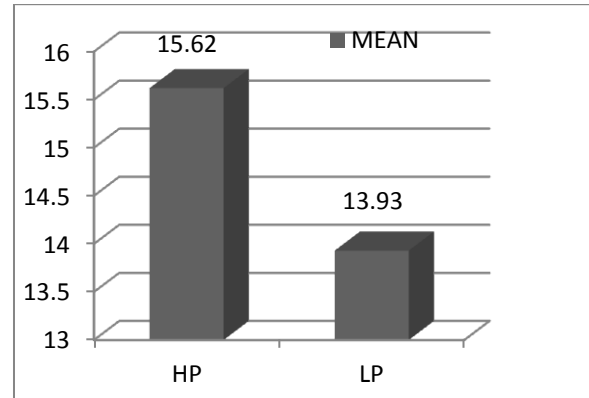

Table III
Comparison of the High and Low Performers
on Test of Achievement Motivation

Sr. No.	Group	Number of Players	Mean	S.D.	"t" ratio	Significance
1	H.P.	256	15.62	4.14		Highly
2	L.P.	256	13.93	3.39	3.56	Significant

Significant level = .05

The Table III shows analysed data of high performers (N=256) and low performers (N=256) male intercollegiate hockey players on Achievement Motivation. The mean 15.62, standard deviation 4.14 for high performer and mean 13.93, standard deviation 3.39 for low performers, mean difference is 1.69 and obtained "t" ratio is 3.56. The resultant "t" ratio found to be highly significant indicated that there was a significant difference between high performers and low performers male intercollegiate hockey players on achievement motivation. Thus the hypothesis that "there is no significant difference between high and low performers male intercollegiate hockey players on level of Achievement Motivation", was rejected. A Graphical presentation also have been given in Figure-III.

FIGURE III
Mean Difference of the High and Low
Performers on Test of Achievement Motivation

Table IV
Comparison of the High and Low Performers
on test of Extroversion

Sr No	Group	Number of Players	Mean	S.D.	"t" ratio	Significance
1	H.P.	256	13.49	2.75		Highly
2	L.P.	256	15.80	2.13	6.26	Significant

Significant level = .05

It was evident from the table VI that the mean 13.49, standard deviation 2.75 for high performer and mean 15.80, standard deviation 2.13 for low performers, mean difference is 2.31 and obtained "t" ratio of statistics of high and low performer players was 6.26. This resultant "t" ratio is found to be highly significant indicated that there was a significant difference between high performers and low performers male intercollegiate hockey players on Extroversion. Thus the hypothesis that "there is no significant difference between high and low performers male intercollegiate hockey players on level of Extroversion" was rejected. A Graphical presentation also have been given in Figure- **IV.**

Figure IV
Mean Difference of the High and Low
Performers on Test of Extroversion
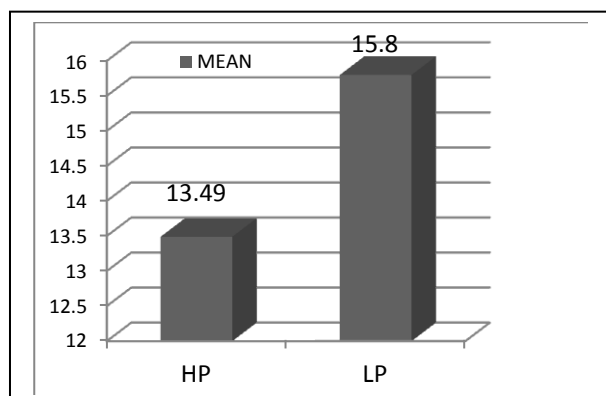
Discussions on Findings

The findings of the study clearly indicated that the psychological factors have significant influence more or less on the performance of hockey players.   This also reveals that the psychological factors influencing more or less the performance of forwards, halfbacks, fullbacks and goalkeepers.

The study reveals that high performers male intercollegiate are much intelligent than low performers. On the other side findings regarding field position-wise, the result indicated that high performers forward, half back, full back and goal keepers are intelligent than low performers. So this may be due to their task during game as forward and halfbacks to make successful attack to score goal and full back to make successful defense to goal being scored in any competition.

When the data were analyzed group wise by-employing analysis of variance on high performer forwards halfbacks, fullbacks and goal keepers for the level of Intelligence.

The difference among high performer forwards, halfbacks, fullbacks and goal keepers were found significant, but actual difference did not find among these players.

On the level of anxiety no difference found among high performer forwards, , halfbacks and goal keepers, all are equal. Similar result found on the level of anxiety among low performer forwards, halfbacks fullbacks goal keepers and combined group forwards, halfbacks, fullbacks, goal keepers.

Results also show the difference between high performers and low performers male intercollegiate hockey players on achievement motivation.   The study reveals this fact that motivation is a factor which has impact on performance. The result shows that players of high performing team in intercollegiate hockey tournament have more motivation level than low performers.

Results also does not show any difference among low performer forwards, halfbacks, fullbacks, goal keepers and combined group forwards, halfbacks, fullbacks, goal keepers on the level of Achievement Motivation.

But on the level of achievement motivation among high performer forwards, halfbacks, fullbacks and goal keepers difference found significant. Halfbacks of this group comparatively score higher than other i.e. forwards, fullbacks and goal keepers.

Discussion on Hypothesis

In the first, it was hypothesized that there would be no significant difference between high performer forwards, halfbacks, fullbacks and goal keepers on the level of anxiety. The results of the present study are in favour of this opinion i.e. no significant difference was observed between high and low performer forwards, halfbacks, fullbacks and goal keepers hence hypothesis pertaining to anxiety stands accepted.

Second hypothesis of the study stated that there would be no significant difference between high and low performer forwards, halfbacks, fullbacks and goal keepers on level of extroversion. But study has revealed significant different between high and low performer forwards, halfbacks except fullbacks and goal keepers. Hence the hypothesis has been partially accepted.

The Third hypothesis stated that there would be no significant difference between high performer forwards, halfbacks, fullbacks and goal keepers and low performer forwards halfbacks, fullbacks and goal keepers on the level of intelligence. The results of the present study are in opposite direction i.e. significant difference was observed between high and low performer forwards, halfbacks, fullbacks goal keepers on level of intelligence. Hence hypothesis pertaining to intelligence stands rejected.

The fourth hypothesis stated that there would be no significant difference between high performer forwards, halfbacks, fullbacks and goal keepers and low performer forwards, halfbacks, fullbacks and goal keepers On the level of achievement motivation. However the results indicated a significant difference between high and low performers forwards halfbacks, fullbacks on the level of achievement motivation. Hence, hypothesis pertaining to achievement motivation stands rejected.

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