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## A study of sociability, ascendant and secretiveness among different sports groups

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### Abstract

**Introduction:** Temperament characteristics of an individual play an important role in achieving high performance in different sports. This includes the dimensions of temperament and every dimensions have an important impact on every activities.

**Purpose:** Purpose of the study was to assess the development of sociability, ascendant and secretiveness among different types of sport groups.

**Materials and Methods:** In the present study thirty district level basketball players, thirty district level kabaddi players and thirty untrained female students were selected. The subjects ranged between 14-17 years. Dimensions of Temperament Scale by N.K. Chadha and S. Chandana (1984) made Standardized questionnaire was used to measure temperament. In the present study only three temperament parameter sociability, ascendant and secretiveness were selected. Mean and standard deviation were computed as descriptive statistics and one way ANOVA was used to find out the difference in temperament scale.

**Result:** Sociability and Ascendant has showed significant difference among three different groups. Sociability of untrained student (9.33) was comparatively higher than and basketball (8.00) and kabaddi players (8.43). The Ascendant of untrained student (6.47) was also comparatively higher than basketball players (6.03) and kabaddi players (5.53). Secretiveness of kabaddi players (5.90) was comparatively higher than basketball players (5.10) and untrained student (5.63). But this difference was not significant.

**Conclusion:** It can be concluded that among the sport groups sociability and secretiveness are better in kabaddi players than basketball whereas ascendant is better in Basketball players than kabaddi players.

**Keywords:** Sociability, secretiveness, ascendant, temperament, basketball, kabaddi and school children

### Introduction

Sports are very important in our life. It can make our life comfortable and happy. If we can play sports we can learn time management, responsibility and brotherhood etc. It is generally known that people who do physical exercises remain fit and healthy. Moreover taking up a sport has many psychological benefits. Firstly, it relieves the stresses of everyday life and secondly, it helps to identify individuals in a group and replace their loneliness with the security of belonging.

Temperament arises from our genetic endowment. It influences and is influenced by the experience of each individual, and one of its outcomes is the adult personality. Individual differences in temperament have implications for development in infancy and childhood, and they form the core of personality as it develops. Temperament also provides process oriented models that are often lacking in trait theories of personality, by establishing links between individual differences in behavior and their psychological and biological substrates. Temperament also can be used to relate human individual differences, through evolutionary models, to individual differences in non-human animals (Rothbart *et. all* 2000) [8]. Temperament is a key of how we are made and how we will tend to behave; it is not the most critical of all factors influencing our personality, our actions, and thus our element destiny. Many psychologists are aware different types of dimension of temperament, the nine dimensions of temperament identified by Thomas & Chess (1977) [11]. These included activity level, approach/withdrawal, intensity, threshold, adaptability, rhythmicity, mood, attention span persistence, and distractibility. More recently, psychometric studies have refined these categories (Rothbart & Bates, 2006) [9].

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Another dimensions in temperament are related to the big five personality factors of Extraversion (Extraversion/surgency), Neuroticism (Negative affectivity), and Conscientiousness (EC). The Openness and Agreeableness factors have been found to relate to the adult temperamental dimensions of perceptual sensitivity and affiliation (Evans & Rothbart 2007) [2]. Basic biological processes of temperament appear to be shared across cultures, but outcomes vary depending on cultural values and the child's experiences (Rothbart, M. K., & Ahadi, S. A. 1994) [7]. The sports specific personality is the temperament of an individual in the field of sports. This includes the dimensions of temperament such as sociability, dominance, extraversion, self-concept and conventionality, mental toughness, cooperativeness, responsibility, aggression, impulsivity and persistence.

Sociability is an important trait for athletes in that it implies being generous to team-mates and that criticism from others will be accepted in good faith. Will to win is defined as the intensity of the desire to defeat an opponent or to exceed some performance standard in a given sport. Individual high in Will to Win should be very competitive and should feel that winning is the major (If not only) reason for competing (Kumar S. K. 2016) [5].

Ascendance is a position or dominance or controlling influence: possession of power, superiority or pre-eminence. Secretiveness is characterized by a lack of openness (Especially about one's actions or purposes). Reticence and secretiveness are excellent things in their way; but this too may be overdone. The indifference of other people is a false term for the secretiveness of one self.

**Methodology**

**Selection of participants**

For the purpose of present study ninety female subjects were selected randomly from a different categories of sports personality and untrained students. Thirty district level basketball players from Chetla Rakhi Sangho, Kolkata, thirty district level kabaddi players from Hatkhola Chandernagore Kabaddi Association, Hooghly district and thirty untrained female student from Multipurpose Govt. Girls' School, Alipore were selected. The subjects ranged between 14-17 years.

**Criterion measured**

For the purpose of the study Dimensions of Temperament Scale by N.K. Chadha and S. Chandana (1984) made Standardized questionnaire was used to measure temperament. There are 152 items and fifteen dimensions like -sociability, ascendant, secretiveness, reflectiveness, impulsivity, placidness, acceptance, responsibility, vigorousness, cooperativeness, persistence, warmth, aggressiveness, tolerance, tough-mindedness. In the present study we have selected only sociability, ascendant and secretiveness.

**Statistical procedures**

For the analysis of collected data following statistics were used-

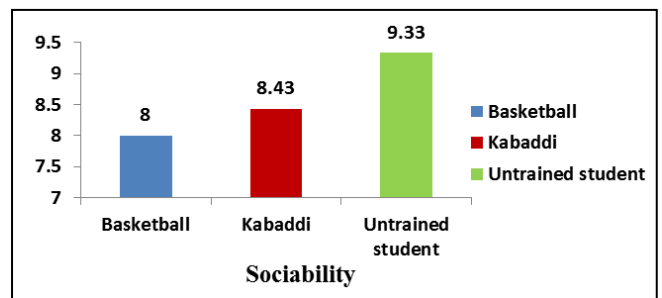
1. Mean and standard deviation of each measured criteria were calculated. The mean was the measured of variability.
2. One way ANOVA was used to find out the difference in temperament scale.

**Presentation and analysis of data**

**Table 1:** The level of sociability in basketball players

Groups	N	Sociability				
		Mean	Std. Deviation	Std. Error	Minimum	Maximum
Basketball	30	8.00	1.34	.24	5.00	10.00
abaddi	30	8.43	1.70	.31	4.00	11.00
Untrained student	30	9.33	1.22	.22	7.00	12.00
Total	90	8.59	1.52	.16	4.00	12.00

Table 1 showed, there was an equal number of subjects in each group (Basketball, kabaddi and untrained students) and total 90 subjects were taken for the study. The level of sociability in basketball players 8, 1.34, .24, 5, and 10 as mean, standard deviation, standard error, minimum and maximum scores respectively. The level of sociability in kabaddi players 8.43, 1.70, .31, 4, and 11 as mean, standard deviation, standard error, minimum and maximum scores respectively. The level of sociability in untrained students 9.33, 1.22, .22, 7, and 12 as mean, standard deviation, standard error, minimum and maximum scores respectively. In this table the minimum score is 5.00, 4.00, 7.00 of basketball, kabaddi and untrained students respectively, the maximum score is 10.00, 11.00, and 12.00 of basketball, kabaddi and untrained students.



**Fig 1:** Graphical representation of sociability percentage of trained and untrained student

Mean score of temperament among trained and untrained Students of different set-ups.

**Figure 1**

Figure 1 showed that there was significant difference among different groups (Basketball, kabaddi and untrained students). However the mean of untrained students was comparatively higher than basketball and kabaddi players.

**Table 2:** The result of ANOVA

Groups	Sum of Squares	Df	Mean Square	F	Sig.
Between Group	27.756	2	13.878	6.706	.002
Within Group	180.033	87	2.069		
Total	207.789	89			

It was found from above table that means of sociability from three categories of sports groups were found to be statistically significant. This indicates that three categories of sports groups were different from each other.

Since, the analysis of variance for sociability in different sports groups was found significant, post hoc test was conducted to compare means of group. As, the groups were of equal sample size, LSD test was used as post hoc. The results of post hoc test are shown in the following table number-3.

**Table 3:** Post hoc test (LSD) of sociability temperament

Dependent Variable (I) sport (J) Sport					95% confidence Interval	
		Mean Difference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
Basketball	Kabaddi	-.433	.371	.247	-1.172	.305
	Untrained	-1.333	.371	.001	-2.072	-.595
Kabaddi	Basketball	.433	.371	.247	-.305	1.172
	Untrained	-.900	.371	.017	-1.64	-.162
Untrained	Basketball	1.333	.371	.001	.595	2.072
	Kabaddi	.900	.371	.017	.162	1.638

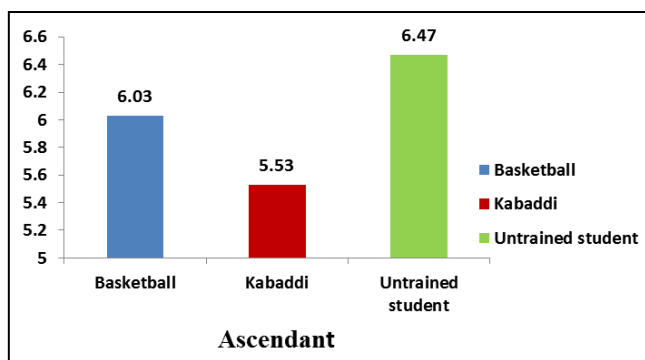
\*The mean difference is significant at the 0.05 level.

Table 3 indicate that there is insignificant difference between Kabaddi with basketball players (p=0.247), with untrained students (p=0.017) but there is significant difference untrained students with basketball players (p=.001).

**Table 4:** The level of ascendant in basketball players

Ascendant						
Groups	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Basketball	30	6.03	1.30	.24	4.00	9.00
Kabaddi	30	5.53	1.28	.23	4.00	8.00
Untrained student	30	6.47	1.25	.23	4.00	9.00
Total	90	6.01	1.32	.14	4.00	9.00

Table 4 showed, there was an equal number of subjects in each group (basketball, kabaddi and untrained students) and total 90 subjects were taken for the study. The level of ascendant in basketball players 6.03, 1.30, .24, 4, and 9 as mean, standard deviation, standard error, minimum and maximum scores respectively. The level of ascendant in kabaddi players 5.53, 1.28, .23, 4, and 8 as mean, standard deviation, standard error, minimum and maximum scores respectively. The level of ascendant in untrained students 6.47, 1.25, .23, 4, and 9 as mean, standard deviation, standard error, minimum and maximum scores respectively. In this table the minimum score is 4.00, 4.00, 4.00 of basketball, kabaddi and untrained students respectively, the maximum score is 9.00, 8.00, and 9.00 of basketball, kabaddi and untrained students.



**Fig 2:** Graphical representation of ascendent percentage of trained and untrained student

Mean score of temperament among trained and untrained students of different set-ups.

**Figure 2**

Figure 2 showed that there was significant difference among different groups (Basketball, kabaddi and untrained students).

However the mean of untrained students was comparatively higher than basketball players and kabaddi players.

**Table 5:** The result of ANOVA have been calculated and the results are presented in the following table number-5

Groups	Sum of Squares	df	Mean Square	F	Sig.
Between group	13.089	2	6.544	4.012	.022
Within group	141.900	87	1.631		
Total	154.989	89			

It was found from above table that means of ascendant among three categories of sports groups were found to be statistically significant. This indicates that three categories of sports groups were different from each other.

Since, the analysis of variance for Ascendant in different sports groups was found significant, post hoc test was conducted to compare means of group. As the groups were of equal sample size, LSD test was used as post hoc. The results of post hoc test are shown in the following table number -6.

**Table 6:** Post hoc test (LSD) of ascendant temperament

Dependent variable (I) sport (J) sport					95% confidence interval	
		Mean difference (I-J)	Std. Error	Sig.	Lower bound	Upper bound
Basketball	Kabaddi	.500	.330	.133	-.155	1.155
	Untrained	-.433	.330	.192	-1.089	.222
Kabaddi	Basketball	-.500	.330	.133	-1.155	.155
	untrained	-.933	.328	.006	-1.589	-.278
Untrained	Basketball	.433	.328	.192	-.222	1.089
	Kabaddi	.933	.328	.006	.278	1.589

\*The mean difference is significant at the 0.05 level

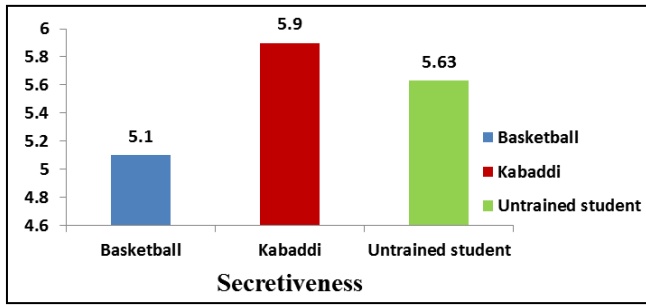
Table 6 indicate that there is insignificant difference between basketball players with untrained students (p= 0.192), with kabaddi players (p= 0.133) but there is significant difference untrained students with kabaddi players (p=.006).

**Table 7:** The level of secretiveness in basketball players

Secretiveness						
Groups	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Basketball	30	5.10	1.35	.25	2.00	7.00
Kabaddi	30	5.90	1.27	.23	3.00	9.00
Untrained student	30	5.63	1.30	.24	3.00	8.00
Total	90	5.54	1.33	.14	2.00	9.00

Table 7 show, there was an equal number of subjects in each group (Basketball, kabaddi, and untrained students) and total 90 subjects were taken for the study. The level of secretiveness in basketball players 5.10, 1.35, .25, 2, and 7 as mean, standard deviation, standard error, minimum and maximum scores respectively. The level of secretiveness in kabaddi players 5.90, 1.27, .23, 3, and 9 as mean, standard deviation, standard error, minimum and maximum scores respectively. The level of secretiveness in untrained students 5.63, 1.30, .24, 3, and 8 as mean, standard deviation, standard error, minimum and maximum scores respectively. In this table the minimum score is 2.00, 3.00, 3.00 of basketball, kabaddi and untrained students respectively, the maximum score is 7.00, 9.00, and 8.00 of basketball, kabaddi and untrained students.





**Fig 3:** Graphical representation of secretiveness percentage of trained and untrained students

Mean score of temperament among trained and untrained students of different set-ups

### Figure 3

Figure 3 showed that there was no significant difference among different groups (Basketball, kabaddi and untrained students). However the mean of kabaddi players was comparatively higher than basketball players and untrained students.

**Table 8:** The result of ANOVA have been calculated and the results are presented in the following table number-8

Groups	Sum of Squares	Df	Mean Square	F	Sig.
Between Group	9.956	2	4.978	2.919	.059
Within Group	148.367	87	1.705		
Total	158.322	89			

Table -8 showed the mean value between the groups was 4.978, f- value was 2.919 with no significant difference. It was found that the mean value within the group was 1.705 with no significant difference.

### Discussion of finding

The results of the study on sociability were demonstrated in table 1 which has showed that there was significant difference among three different groups (basketball player, kabaddi player and untrained student). The mean of untrained student (9.33) was comparatively higher than basketball (8.00) and kabaddi players (8.43). The present result was supported by Singh, A., & Singh, R. (2017) they founded the government school students had higher sociability scores (9.52) in comparison to private school students (8.67). The present result is also supported by Johnson (1972) he founded the significant differences in sociability between the four groups (Basketball, Bowling, Field Hockey, and Golf) at the .05 level. The basketball group scored significantly lower than the other three groups on personality traits, such as dominance, capacity for status, sociability, social presence, self-acceptance, responsibility, self-control, and tolerance, achievement via conformance, achievement via independence, intellectual efficiency, and psychological-mindedness. Kuravatti, & Malipatil (2017) [16] supported by their study on significant level at 0.05 level indicates that there is a significant difference of sociability nature between group and individual game. Behzadi *et al.* (2012) [1] founded the significant difference between individual (karate, shooting, badminton, cycling, and track and field) and team athletes (Basketball, football, volleyball, kabaddi, Sepak takraw, handball, and hockey) in extraversion, responsibility, and neuroticism and the team athletes have higher levels of extraversion and responsibility and individual athletes have higher neuroticism, while no significant difference Sociability and flexibility between the two groups in other components

( $P < 0.05$ ).

The result of the study on Ascendant was demonstrated in table 4 which has showed that there was significant difference among different groups (Basketball, kabaddi and untrained student level). The mean of untrained student (6.47) was comparatively higher than basketball players (6.03) and kabaddi players.

The result of the study on Secretiveness was demonstrated in table 7 which has showed that there was no significant difference among different groups (Basketball, kabaddi and untrained student level). The mean of kabaddi players (5.90) was comparatively higher than basketball players (5.10) and untrained student (5.63).

### Summary

Performance in sports is not only dependent upon various physical or physiological factors but it also depends upon various psychological parameters. The performance in competition is determined by various temperament factors. All these factors have direct link with the athletes' personality. Temperament characteristics of an individual play an important role in achieving high performance in different sports. The athletes' behaviour in the play field, both during practice and competitive situations are different. Temperament affect the performance of the sports persons in various sports. They also influence their performance with a view to bring about qualitative improvement in performance. Temperament in the field is very important in determining the performance of the players. So the aim of the present study was to find out different dimension of temperament differences existed between two team games like basketball and kabaddi. It was also aimed to compare their results with untrained school students.

On the basis of the above findings and discussion the following conclusions have been draw in this study.

- There is significant difference of Sociability among basketball, kabaddi and untrained students. The mean of untrained students was comparatively higher than and basketball and kabaddi players.
- There is significant difference of Ascendant among basketball, kabaddi and untrained students. The mean of untrained students was comparatively higher than basketball players and kabaddi players.
- There is no significant difference of Secretiveness among basketball, kabaddi and untrained students. The mean of kabaddi players was comparatively higher than basketball players and untrained students.

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