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Prashant Kumar Choudhary
Doctoral Student, Department
of Sports Management,
Lakshmibai National Institute
of Physical Education,
Gwalior, Madhya Pradesh,
India

Suchishrava Dubey
Doctoral Student, Department
of Sports Psychology,
Lakshmibai National Institute
of Physical Education,
Gwalior, Madhya Pradesh,
India

Dr. Krishna Kant Sahu
Associate professor,
Lakshmibai National Institute
of Physical Education,
Gwalior, Madhya Pradesh,
India

Corresponding Author:
Prashant Kumar Choudhary
Doctoral Student, Department
of Sports Management,
Lakshmibai National Institute
of Physical Education,
Gwalior, Madhya Pradesh,
India

Comparative evaluation of group cohesion among team sports

Prashant Kumar Choudhary, Suchishrava Dubey and Dr. Krishna Kant Sahu

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Abstract

A Comparative Analysis of the Group Cohesion among Team Sports i.e. Kabaddi, Basketball, and Handball. A total of 36 Female subjects were selected from Kabaddi, Basketball, and Handball Sports of L.N.I.P.E, Gwalior, M.P. by using the purposive sampling technique. The age of the subjects ranged from 18 to 26 years and all were regular players with a good and sound level of skill. Team sports were taken in this study as an I.V (Independent Variable) and D.V (Dependent Variable) was Group Cohesion among all three Sports. The test was measured using the GEQ (General Environment Questionnaire) by Albert V. Carron. Subjects were acknowledged about the Questionnaire beforehand the test took place. The test was administered under the supervision of two research scholars and one expert to avoid the Non- response Error and to mitigate any confounding effect.

From the evaluation of the test results on SPSS 25 by one-way analysis of variance and honest significant difference (HSD) for the post hoc test. It was found that the Kabaddi team has shown a significant difference at a 0.05 Level of significance.

Keywords: GEQ questionnaire, team sports, team relationship, indigenous sport, reversed scoring

Introduction

Around 8000 years ago, during the time of the Indus Valley Civilization, sports were practiced in India. In ancient times, the civilization of the Indians was one of the most technologically advanced and contemporary civilizations ^[1]. At this point in time, the sport has emerged as an important component of a nation's overall socioeconomic development. Participation in organized sports can boost community health and productivity, cut down on out-of-pocket medical costs, instill a sense of personal responsibility and responsibility, and strengthen social bonds. The formation of social relationships, bonds, and feelings of attraction and attachment among members of a team can be greatly facilitated by participation in sports. Here is where sport psychology begins to make its way into the sports world and provides the desperately needed insight in the industry. The application of psychological knowledge and skills to optimize the performance of athletes and ensure their well-being, as well as to examine the developmental and social implications of participating in sports and the problems that can arise in sports settings and organizations, is the field of expertise known as sport psychology. Interventions in sport psychology are designed to help athletes as well as other sports participants (such as coaches, administrators, and parents) from a wide variety of settings, levels of competition, and ages. These range from recreational youth participants all the way up to professional and Olympic athletes as well as master's level performers ^[2].

A professional baseball player in the United States of America: According to Mr. Babe Ruth, "the way in which a team plays as a whole determines the success of the team." You could have the most talented collection of individual stars in the history of the world, but if they don't play well together, the club won't be worth a dime. Therefore, having a cohesive team is an essential component to a winning formula! The researcher wanted to gain an understanding of the significance of group cohesion or team cohesion in a variety of sports because of the importance of these concepts.

This study focuses primarily on three sports: kabaddi, basketball, and handball. It discusses all of these sports in great detail. The game can be traced back all the way to prehistoric times in the country, when it was first played in a variety of different forms. This was when it was first played. Since the year 1930, the modern version of the sport of Kabaddi has been

played across the entirety of India as well as in certain other regions of South Asia. It is the official sport of the following states in India: Tamil Nadu, Andhra Pradesh, Bihar, Haryana, Karnataka, Kerala, Maharashtra, Odisha, Punjab, Telangana, and Uttar Pradesh. Other states in India that play it include: Telangana and Uttar Pradesh. The term "GAME OF THE MASSES" has been given to the sport of kabaddi because of its widespread popularity, straightforward rules, and massive appeal ^[4]. Kabaddi is a sport that has been deeply ingrained in Indian culture for hundreds of years and has even been mentioned in Hindu mythology. According to the Mahabharata, which is a Sanskrit epic, the Pandava warrior Arjuna learned the skills necessary to play kabaddi from Lord Krishna, who was very fond of playing the game. According to legend, Arjuna was able to sneakily breach enemy walls while using his kabaddi skills and then walk back to safety without taking any damage. Another story that can be found in the Mahabharata is about Abhimanyu, the son of Arjuna, who attacked the seven-tiered defense, which was an army formation, that the Kauravas had constructed. It is comparable to a single raider invading the territory of the opposing team, which typically consists of seven defenders ^[3]. Also, in 1930, basketball was introduced for the first time in India, and the country has seen consistent growth in the popularity of the sport ever since then. In the year 1891, the city of Springfield, Illinois, United States, became the birthplace of the sport of basketball. Since that time, basketball has experienced a meteoric rise in popularity, vaulting it into the top three of the world's most popular sports according to any measure of popularity developed in the 21st century.

The first ever men's Indian National Championship was held in New Delhi that year (1934), and it was the first time the competition was held overall. In 1950, the Basketball Federation of India was established as the sport's governing body (BFI). Due to the game's rapid scoring and nonstop action from the beginning to the end, it has been a traditional favorite among Indians for many years ^[6]. The majority of India's secondary schools, tertiary institutions, and higher education institutions all field basketball teams. There is a significant amount of enthusiasm for the game among the younger generation. Basketball is a well-liked sport in India among people of both sexes, regardless of their age or level of ability, and participants come from all walks of life. In 2019, the National Basketball Association (NBA) took a significant step toward bringing basketball up, close, and personal to the fans in India by organizing the very first pre-season game to ever take place in Mumbai ^[5]. In total, there were two games played between the Sacramento Kings and the Indiana Pacers at the NSCI Dome. It was hailed as a historical event in Indian basketball and assisted the NBA in further tapping the enormous potential that existed in the country.

Following that, we will move on to handball. The game was especially well-liked in Germany and Scandinavia around the turn of the twentieth century, which both contributed to its meteoric rise in popularity in northern Europe. Handball was first played in Germany in 1917, and since then, the sport has gone through a number of different iterations. Born in what is now known as Chennai, Rohtak, Haryana, Jagat Singh Lohan went on to become the founder of the Handball Federation of India after graduating from the YMCA College of Physical Education of Madras ^[7]. Handball, netball, and throwball all owe their origins to

Lohan, who was a pioneer in the development of these sports in India. The game exhibited a pattern in which players' physical abilities became increasingly dominant. But in 1976, the first Indoor Handball game rules were implemented, and in 1979, the court dimensions were altered to match those that are currently in use. The Handball Federation of India (HFI) became an affiliated member of the Asian Handball Federation in the year ^[8]. In sports played by teams, the degree of group cohesion is a significant factor in determining whether or not the team is successful. A dynamic process that is reflected in the tendency for a group to stick together and remain united in the pursuit of its instrumental objectives and/or for the satisfaction of member affective needs is what has been referred to as group cohesion ^[9]. This highlights the idea that cohesion has multiple dimensions (many factors are related to why a group stays together), that it is dynamic (cohesion in a group can change over time), that it is instrumental (groups are created for a purpose), and that it has affective components (members social interactions produce feelings among group members). The concept of multidimensionality is used to refer to the fact that cohesion is a combination of both the social and the occupational dimensions. The degree to which members of a group cooperate with one another to accomplish shared objectives is referred to as "task cohesion." A team's ability to work together or coordinate their efforts is one of the most important factors in determining whether or not they will win the championship. On the other hand, social cohesion refers to how well members of a group get along with one another and how much they take pleasure in being in each other's company. There is a lot of overlap between social cohesion and interpersonal attraction. The conceptual model that was developed by Carron ^[9] revolves around two main points: group integration, which refers to the degree to which the team functions as a whole, and attraction to the group, which refers to how the group satisfies one's personal needs and goals. Both of these points are related to the concept of group dynamics. It is possible for members' perceptions of the group as a unit and their perceptions of the group's attraction for them to center on either the activities or the social aspects of the group. The traditional method for measuring cohesion is using straightforward questionnaires. On the other hand, more recent tools like the group environment questionnaire consider the multifaceted nature of group cohesion.

The Group Environment Questionnaire (GEQ) focuses on how appealing the group is to individual members as well as how members view the group as a whole. The GEQ is recognized as a valid method for evaluating the cohesiveness of a team ^[10].

The questionnaire considers four distinct manifestations: group integration-task (GI-T), group integration-social (GI-S), individual attraction to the group-task (ATG-T), and individual attraction to the group-social (ATG-S). This survey consists of 18 questions that are evenly distributed across the four scales that make up its conceptual model (GI-T, GI-S, ATG-T, and ATG-S).

As a result of this flawless body of work and research, the researchers conducted a comparative evaluation to analyses group cohesion across a variety of team sports utilizing GEQ (Group Environment Questionnaire).

Methodology

The purpose of the research was to conduct a comparative evaluation to analyze group cohesion among team sports namely Kabaddi, Basketball, and Handball. A total of 36 female subjects were selected from all three above-mentioned sports from L.N.I.P. E, Gwalior, M.P. by using the purposive sampling technique. All the players of the three sports were participants of All India University and West Zone Inter-university.

The age of the subjects ranged from 18 to 26 years and all were regular players with a good and sound level of skill. Team sports were opted as I.V (Independent variable) for the study whereas group cohesion as D.V (Dependent Variable). The GEQ is comprised of four scales reflecting the constructs of group integration-task, group integration-social, individual attractions to group-task, and individual attractions to group-social. This instrument has 18 items, grouped into four factors (GI-T, GI-S, ATG-T, and ATG-S) along with reversed scoring. Agreement with items is rated on a 9-point Likert scale, ranging from strongly disagree (1) to strongly agree (9). All the subjects of three different sports were called for data after the Interval of 3 hour from their session of matches. The Subjects were briefed beforehand early in the day about the questionnaire.

Data Collection

The data were collected independently, away from distraction, and were not taken immediately before or after a game. The test was administered under the supervision of 2 researcher scholars and an expert to avoid the Non- response Error and to mitigate any confounding effects.



Fig 1: Initial briefing about the questionnaire in the presence of an expert and two research scholars



Fig 2: Administering and Collection of the Data post 3hrs from the match session in the presence of two research scholars and an expert.

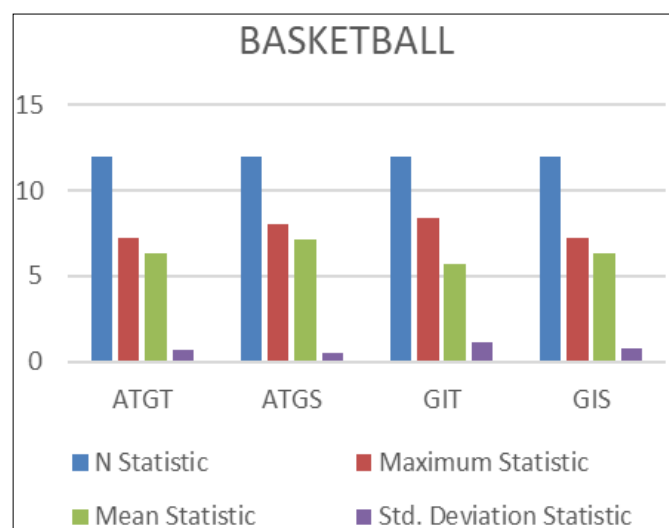
Analysis of the data

For the analysis of data, Descriptive Statistics were applied which were mean and standard deviation. Furthermore, oneway analysis of variance was used to obtain the mean difference along with the post hoc Turkey's HSD test. For analyzing if there is violation in Homoscedasticity of variance i.e., Falsely rejecting the Null Hypothesis, Levene's Test was employed on all four units in the Questionnaire. For this study, the level of significance was set at α 0.05. GEQ Questionnaire by (albert v. carron, 1995) was used to carry out the data. The questionnaire consists of 18 questions. For the analysis of the questionnaire, out of 18 items, 13 items were reversed scored which were questionno. 1,2,3,4,6,7,8,11,13,14,17 & 18. and normal items were 5 which were 5,9,12,15 & 16. The questionnaire consists of 4 unit i.e., ATGS (Individual Attraction to Group - Social), ATGT (Individual Attraction to the Group - Task), GIS (Group Integration - Social), GIT (Group Integration - Task). Initially, all the scores were converted to a standard score. The individual means were calculated, and then group means and standard deviation was calculated of each unit for all three sports.

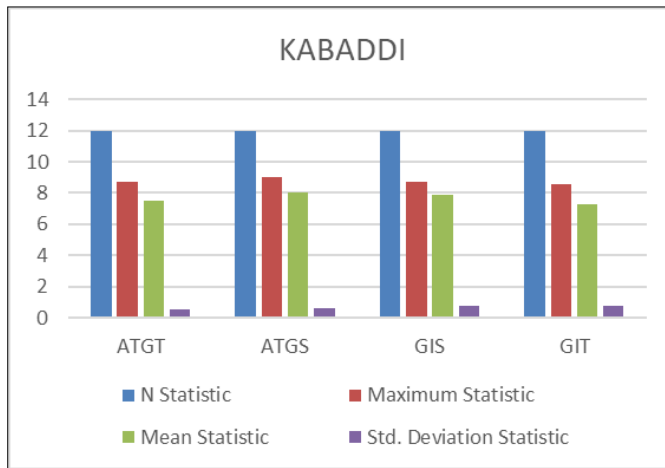
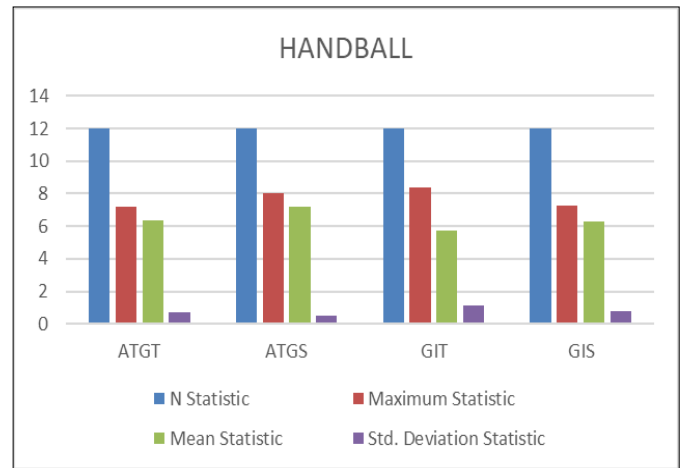
Results and Discussion

From the result of the analysis, it can be clearly identified that the female kabaddi players have better group cohesion as a team on all four units of the questionnaire i.e., T AGS (Individual Attraction to Group - Social), ATGT (Individual Attraction to the Group - Task), GIS (Group Integration - Social), GIT (Group Integration - Task) in comparison to the Basketball and Handball team sports athletes.

A departure from symmetry can be indicated if the skewness value is more than twice its standard error. The results of the descriptive statistics indicated that all the variables are symmetrically distributed, as none of the variable's skewness is greater than twice its standard error. Similarly, the value of kurtosis for the data to be normal of any of the variables is not more than twice its standard error of kurtosis hence none of the kurtosis values are significant. In other words, the distribution of all the variables is mesokurtic. Below mentioned Graph-1,2 &3 show the measurement using descriptive statistics for three sports i.e., Basketball, Kabaddi, and Handball took in this study on the four units of the General Environment Questionnaire.



Graph 1: Descriptive statistics for basketball

**Graph 2:** Descriptive statistics for kabaddi**Graph 3:** Descriptive statistics for handball**Table 2:** Multiple Comparisons

Dependent Variable: ATGT Tukey HSD						
(I) SPORTS	(J) SPORTS	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
BASKETBALL	KABADDI	-.98750*	.27389	.003	-1.6596	-.3154
	HANDBALL	.19583	.27389	.756	-.4762	.8679
KABADDI	BASKETBALL	.98750*	.27389	.003	.3154	1.6596
	HANDBALL	1.18333*	.27389	.000	.5113	1.8554
HANDBALL	BASKETBALL	-.19583	.27389	.756	-.8679	.4762
	KABADDI	-1.18333*	.27389	.000	-1.8554	-.5113

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

ANOVA was used for the multiple comparison among the groups in which the p-value was produced is less than the significance level which was set at 0.05. through the analysis of the data when compared for kabaddi for ATGT

(Individual Attraction to the Group – Task), on other two sports i.e. Basketball and Handball, Kabaddi sport showed a significant difference.

Table 3: Multiple Comparisons

Dependent Variable: ATGS Tukey HSD						
(I) SPORTS	(J) SPORTS	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
BASKETBALL	KABADDI	-.95417*	.29224	.007	-1.6713	-.2371
	HANDBALL	-.11000	.29224	.925	-.8271	.6071
KABADDI	BASKETBALL	.95417*	.29224	.007	.2371	1.6713
	HANDBALL	.84417*	.29224	.018	.1271	1.5613
HANDBALL	BASKETBALL	.11000	.29224	.925	-.6071	.8271
	KABADDI	-.84417*	.29224	.018	-1.5613	-.1271

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

In the table 3 of ANOVA the p-value was produced is less than the significance level which was set at 0.05. through the analysis of the data when compared for kabaddi for

ATGS (Individual Attraction to Group - Social), on other two sports i.e., Basketball and Handball, Kabaddi sport showed a significant difference

Table 4: Multiple Comparisons

Dependent Variable: GIS Tukey HSD						
(I) SPORTS	(J) SPORTS	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
BASKETBALL	KABADDI	-1.22917*	.34582	.003	-2.0777	-.3806
	HANDBALL	.31667	.34582	.634	-.5319	1.1652
KABADDI	BASKETBALL	1.22917*	.34582	.003	.3806	2.0777
	HANDBALL	1.54583*	.34582	.000	.6973	2.3944
HANDBALL	BASKETBALL	-.31667	.34582	.634	-1.1652	.5319
	KABADDI	-1.54583*	.34582	.000	-2.3944	-.6973

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

In the table 4 of ANOVA the p-value was produced is less than the significance level which was set at 0.05. through the analysis of the data when compared for kabaddi for GIS

(Group Integration – Social), on other two sports i.e., Basketball and Handball, Kabaddi sport showed a significant difference.

Table 5: Multiple Comparisons

Dependent Variable: GIT Tukey HSD						
(I) SPORTS	(J) SPORTS	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
BASKETBALL	KABADDI	-1.76250*	.39460	.000	-2.7308	-.7942
	HANDBALL	-.22667	.39460	.835	-1.1949	.7416
KABADDI	BASKETBALL	1.76250*	.39460	.000	.7942	2.7308
	HANDBALL	1.53583*	.39460	.001	.5676	2.5041
HANDBALL	BASKETBALL	.22667	.39460	.835	-.7416	1.1949
	KABADDI	-1.53583*	.39460	.001	-2.5041	-.5676

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

Likewise, In the table 5 of ANOVA the p-value was produced is less than the significance level which was set at 0.05. through the analysis of the data when compared for kabaddi for GIT (Group Integration – Task), on other two sports i.e., Basketball and Handball, Kabaddi sport showed a significant difference.

Conclusion

Ultimately, the results indicate that Kabaddi players spend more time mentally preparing and building their confidence to engage in tactical maneuvers in a variety of game situations and to work together as a team. One possible factor which can be ruled out is that the game Kabaddi is an Indigenous sport of the Nation, Furthermore, a player doesn't have to be an expert to play Kabaddi. Aside from a referee and the ground, it doesn't need any further equipment. This induces the game playing economical for all segment of people in society. However, it wasn't until 2014 that the sport got its due. The start of Pro Kabaddi elevated the status of the sport manifold by taking a rural pastime to primetime television nationwide. Till date, as many as seven PKL seasons have been played and as many as five different teams have lifted the title. A sport that has its roots bestowed in India has come a long way, and it is certain to make massive strides in the years to come. As per Google's 'Year in Search 2019' report, the Pro Kabaddi league generated a whopping nine per cent growth in viewership with 1.2 billion impressions. It thus became the second-most searched tournament in India after the Cricket World Cup in 2019. This comes down to show the growth this sport has made over the years.

Suggestions

From the light of evidence obtained one can understand the significance of kabaddi in India. Being an indigenous sport it needs more attention both from research point of view and as well as for promoting the game through involving more sponsorship to the promising teams for enduring the sport nationwide. There is a need of paradigm shift to keep the game kabaddi at same pedestal with that of other sports.

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