



E-ISSN: 2707-7020  
P-ISSN: 2707-7012  
JSSN 2023; 4(2): 237-239  
Received: 03-10-2023  
Accepted: 08-11-2023

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## A comparative study on sports aggression between national, inter-university, state level and inter collegiate badminton players

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**DOI:** <https://doi.org/10.33545/27077012.2023.v4.i2d.220>

### **Abstract**

This study compares players at various competitive levels in order to examine the psychological characteristics of badminton players in the context of physical education. The investigation's main goal is to comprehend the psychological makeup of badminton players at the national, interuniversity, state, and intercollegiate levels. One of the variables being examined is sports hostility. Rigid statistical techniques were used by the researchers to guarantee the validity of the results. To determine if the data satisfied the assumptions needed for parametric testing, the first step was to perform a normality test using the Shapiro-Wilk test. Once the normal distribution of all variables was established, the mean and standard deviation of the gathered data were presented using descriptive statistics. Then, inferential statistics were used to investigate significant differences between the two player groups using a One-Way ANOVA test. The disparities in aggressiveness that were seen provide insight into the varied experiences that players have at various points in their professional careers. The findings indicate that there was a noteworthy distinction found between the various level shuttlers on the Sports Aggression Inventory. As a result, at the significance level of 0.05, the null hypothesis was rejected. The results have applications for trainers, coaches, and sports psychologists who deal with badminton players in addition to adding to our knowledge of psychological aspects in sports.

**Keywords:** Badminton, sports aggression

### **1. Introduction**

The indoor racquet sport known as badminton is played using a shuttlecock, sometimes referred to as a bird or shuttle. It is played by two opposing teams, known as doubles or singles, who set up shop on the opposing ends of the rectangular court that is split by a net. The shuttle is a projectile with feathers that flies differently from the balls used in most racquet sports due to its aerodynamic qualities. By hitting the shuttlecock to the opposing court, a player can score points (Singh, 2006) <sup>[6]</sup>. India frequently conducts a number of national-level badminton competitions that are approved by the Badminton Association of India, according to the association's official website (BAI). Talented Indian badminton players may fight for the highest titles and show off their abilities in these competitions. One of India's most prominent badminton competitions is the All-India Inter-State, Inter-Zonal, and Senior National Badminton Championships. Top Indian players in a variety of age groups compete in these championships, which pit teams from different Indian states against one another in a variety of sports including men's and women's teams, men's and women's singles and doubles, and mixed doubles. These competitions' victors are hailed as national champions. As per Badminton Association of India and respective State Olympic Associations of various states, a State-level badminton tournaments in India are an integral part of the country's badminton ecosystem and serve as a platform for identifying and nurturing local talent. These tournaments are typically organized by state badminton associations or governing bodies and are conducted at various levels, including district, inter-district, and state championships. According to Association of Indian Universities the Inter-University Badminton Tournament in India is an annual sporting event organized by the Association of Indian Universities (AIU). The AIU is the apex body representing universities in India, and it conducts various sports tournaments, including badminton, to promote sportsmanship, teamwork, and healthy competition among students from different universities of respective zones (North, East, West, South).

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Universities and colleges affiliated with the AIU send their badminton teams to compete in this tournament. Inter-Collegiate Badminton Tournaments in India are popular sporting events that showcase the talent and competitive spirit of college-level badminton players from their colleges. These tournaments provide a platform for young athletes to display their skills, represent their colleges, and compete at various levels of competition. Inter-Collegiate Badminton Tournaments are organized by educational institutions, universities, or sports associations in collaboration with the respective state-level badminton associations. Sports are composed of 90% mental and 10% physical activity (Georgiou, Becchio, Glover, & Castiello, 2007; Abbas & Jasim, 2018) [3, 1]. The behaviour observed in sport is apparent, but the psychological aspect that is responsible for such behaviour may not be directly detected (Raglin, 2001) [5]. There are several psychological factors that affect motor behaviour (Stefani, Marco, & Gentilucci, 2015) [7] one such ability that influences both motor behaviour and athletic performance is information processing capability (Plessner & Haar, 2006) [4]. There are several psychological factors that affect motor behaviour (Stefani, Marco, & Gentilucci, 2015) [7] one such ability that influences both motor behaviour and athletic performance is information processing capability (Plessner & Haar, 2006) [4].

**2. Materials and Methods**

The subjects were purposively selected as per four different categories of those players who have participated at National championships, Inter-University Championships, State Championships, and Inter Collegiate Male Badminton championships. Age of the selected subjects was between 18-25 where 32 Nationals players, 31 State Players 31 Inter-University Players and 31 Inter Collegiate Players were chosen. These subjects were specifically chosen because they had not only displayed their sporting talent but had also represented their respective institution at various competitive levels. This criterion was essential to gather insights into the skills and achievements of the participants, as well as to assess their level of dedication and commitment to their chosen sports. Descriptive statistics and One-Way ANOVA was been employed to get the mean, standard deviation and analysis on any significant difference that lies was tested.

**3. Analysis of the Data**

**Table 1:** Descriptive Statistics of Aggression of National, State, Inter University and Inter Collegiate players

	N	Minimum	Maximum	Mean	Std. Deviation
National Players	32	6.00	19.00	12.21	3.09
State Players	31	11.00	19.00	15.03	2.35
Inter University	31	11.00	21.00	17.03	2.73
Inter Collegiate	31	13.00	24.00	19.19	2.89

Table 1 describes the number of samples, minimum, maximum, mean and standard deviation of aggression of national, inter university, state, and inter collegiate players

**Table 2:** One- Way ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	832.557	3	277.519	35.714	.000
Within Groups	940.243	121	7.771		
Total	1772.800	124			

Table 2 shows the inferential statistics using One-Way ANOVA of Aggression between National, Inter-University, State, and Inter Collegiate badminton players, where it rejects the null hypothesis at 0.05 level of significance

**Table 3:** Post Hoc test: Bonferroni

(I) Groups	(J) Groups	Mean Difference (I-J)	Std. Error	Sig.
National Players	Inter-University Players	2.81*	0.70	0.00
	State-Players	4.81*	0.70	0.00
	Inter-Collegiate Players	6.97*	0.70	0.00
Inter-University Players	National Players	2.81*	0.70	0.00
	State-Players	2.00*	0.70	0.03
	Inter-Collegiate Players	4.16*	0.70	0.00
State-Players	National Players	4.81*	0.70	0.00
	Inter-University Players	2.00*	0.70	0.03
	Inter-Collegiate Players	2.16*	0.70	0.01
Inter-Collegiate Players	National Players	6.97*	0.70	0.00
	Inter-University Players	4.16*	0.70	0.00
	State-Players	2.16*	0.70	0.01

Table 3 shows the post hoc tests using Bonferroni pairwise comparisons of Aggression between National, Inter-University, State, and Inter Collegiate badminton players, where it rejects the null hypothesis at 0.05 level of significance.

**3.1 Discussions and Findings**

For Aggression, among males it was been observed that in all pairwise comparison, groups have shown significant difference at 0.05 level of significance between groups for sports aggression where National players scored the least followed by Inter university then State players and highest scored by Inter Collegiate players. Research studies suggests, Lazarevic (1981) [12] indicates that senior players, in comparison to young ones, show lower degree of aggressive reactions, while argues that aggressiveness in team sport decreases as a function of age. Berkowitz (1989) [13] that the experience of provocation, frustration or aversive stimuli tends to elicit negative effects that the individual interprets as anger leading to aggression. Frustration, although it does not necessarily result in aggressive behaviour, creates a readiness for aggression through anger, hostility, or other negative feelings. In the attempt to dissipate conceptual ambiguity surrounding the constructs of anger, hostility, and aggression, Spielberger (1966) [10] defined anger as an emotional state typified by feelings varying in intensity from mild annoyance to fury and rage, with corresponding changes of arousal in the autonomic nervous system. Hostility was described as a complex set of attitudes that motivates aggressive behaviours directed towards destroying objects or injuring another human being. Hostile aggression usually involves angry feelings on the part of the aggressor. Anger has the potential to strongly affect performance by either disrupting or enhancing the focus of attention, information-processing and decision-making, execution, and control of action (Jones, 2003) [11].

**4. Conclusions**

National players scored significantly lower in sports aggression than inter university, state, and inter collegiate players. Anger is thus dysfunctional because it results in wasted energy, decreased achievements, and illegitimate

acts of violence. Alternatively, the player may use his anger instrumentally to direct more energy towards the legitimate, functional, and assertive behaviours of tackling and shoving to block the opponent's attack. Hence, anger can disorganise and impair performance or, conversely, energise and organise behaviour towards the attainment of a task.

**Conflict of Interest:** Authors declare no conflict of interest

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