

Psychological Profiles And Performance Variation Among National And State-Level Male Badminton Players: A Comparative Study

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Abstract

This study explores the psychological dimensions of badminton players within the context of physical education, focusing on the comparison between national and state-level male competitors. The research aims to profile the psychological characteristics of these athletes, specifically examining anxiety and mindful attention awareness. Rigorous statistical analyses were conducted to ensure the reliability of the results. Initially, the Shapiro-Wilk test was used to confirm the normality of the data, allowing for parametric testing. With normal distribution verified for all variables, descriptive statistics were employed to summarize the mean and standard deviation of the data. Inferential statistics, including an independent t-test, were then used to assess significant differences between the two groups of players. The findings revealed significant differences in anxiety and mindful attention awareness between national and state-level badminton players, indicating variations in their psychological experiences. Consequently, the null hypothesis was rejected at the 0.05 level of significance. These results enhance the understanding of psychological factors in sports and offer practical insights for coaches, trainers, and sports psychologists working with badminton players.

Keywords: Psychological profiles; Badminton players; Competitive levels; Anxiety; Sports psychology

Introduction

Badminton is an indoor racquet sport involving the use of a shuttlecock, also known as a shuttle or birdie. The game is played either as singles, with two opponents, or as doubles, with two teams of two players each, on a rectangular court divided by a net. The shuttlecock, distinguished by its feathered design, exhibits unique aerodynamic properties that differentiate it from the balls used in other racquet sports. Players earn points by striking the shuttlecock into the opposing side's court (Singh, 2006). The Badminton Association of India's official website states that India regularly organizes various national-level badminton tournaments sanctioned by the association. These tournaments provide a stage for Indian badminton players to demonstrate their abilities and compete for prestigious titles. Notable events include the All-India Inter-State, Inter-Zonal, and Senior National Badminton Championships, which attract top players from different age groups across the country. These championships encompass competitions in men's and women's singles, doubles, and mixed doubles, with teams representing various states vying for national titles. State-level badminton tournaments, organized by the respective state Olympic associations and badminton associations, play a pivotal role in discovering and developing local talent. These competitions, held at district, inter-district, and state levels, are essential components of India's badminton framework. In the realm of sports, mental factors are critically important,

often constituting 90% of the activity, while physical exertion makes up the remaining 10% (Georgiou, Becchio, Glover, & Castiello, 2007; Abbas & Jasim, 2018). While physical actions in sports are observable, the psychological elements driving these actions are not always visible (Raglin, 2001). Numerous psychological factors influence motor behaviour (Stefani, Marco, & Gentilucci, 2015), with information processing capability being a significant factor affecting both motor behaviour and athletic performance (Plessner & Haar, 2006).

Methodology

The participants were intentionally selected from two distinct categories: players who had competed in National Championships and those who had competed in State Championships. The selected participants, aged between 18 and 25, included 32 National-level players and 31 State-level players. These participants were specifically chosen for their demonstrated sporting talent and their representation of their respective institutions at various competitive levels, including both National and State Championships. This selection criterion was crucial for gaining insights into the participants' skills and achievements, as well as for evaluating their dedication and commitment to their sport. Descriptive statistics and an independent t-test were used to calculate the mean and standard deviation and to analyse any significant differences between the two groups.

Results

Table 1. Mean comparison of Anxiety of National and State players

	N	Min	Max	Mean	S. D	Sig
National Players	32	14.07	21.00	17.15	1.86	0.00
State Players	31	20.06	27.00	23.67	1.91	

Table 1 presents the number of samples, minimum and maximum values, mean, and standard deviation of anxiety levels for both national and state-level badminton players. Additionally, it includes the p-value for the comparison of anxiety between these two groups, indicating a rejection of the null hypothesis at the 0.05 level of significance.

Table 2 Descriptive Statistics of Attention Awareness of National and State players

	N	Min	Max	Mean	S. D	Sig
National Players	32	4.00	5.93	5.32	0.43	0.00
State Players	31	3.62	5.66	4.51	0.51	

Table 2 describes the number of samples, minimum, maximum, mean and standard deviation of attention awareness of national and state players, The p-value of attention awareness between National and State level badminton players, where it rejects the null hypothesis at 0.05 level of significance

Discussions & Conclusions

Research indicates that individuals who experience state anxiety but have low trait anxiety often perform well under pressure, consistently delivering good performances. Conversely, athletes with high levels of trait anxiety, compounded by state anxiety, tend to underperform. Morgan and Johnson (1978) found that successful athletes exhibit higher perceived ability, greater satisfaction, and lower state anxiety compared to less successful athletes. Singh (1988) compared anxiety levels in champion and non-champion male and female National-level Judo players, revealing that male champions had lower competition anxiety than non-champions. Significant differences in trait anxiety were also observed among competitors at the National, Inter-University, and Inter-Collegiate levels (Singh, N., & Sharma, R., 2014).

Studies have also demonstrated a positive correlation between mindfulness and mental imagery among athletes. Athletes utilize mental imagery to enhance both physical and psychological skills. The results of this study suggest that mindfulness can improve mental imagery skills, significantly boosting athletes' strengths and mitigating their weaknesses. This was evident in the present study, where national players achieved significantly higher scores compared to players at other levels. Athlete satisfaction, defined as "a positive affective state resulting from a complex evaluation of the structures, processes, and outcomes associated with the athletic experience" (Chelladurai & Riemer, 1997, p. 135), is crucial for performance. National players scored significantly higher in attention awareness and significantly lower in anxiety compared to state players. Therefore, it can be concluded that state-level male badminton players have significantly lower attention awareness and higher anxiety levels than national-level male badminton players.

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