

A STUDY ON PRE-COMPETITIVE ANXIETY OF BADMINTON PLAYERS OF ASSAM: AN INVESTIGATION

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ABSTRACT

Objectives: Comparing the levels of pre-competitive anxiety experienced by male and female Badminton players competing at the national level, as well as those experienced by junior and senior Badminton players in Assam, was the major objective of this study. **Methodology:** The research comprises a total of 58 Badminton players at the national level from Assam, consisting of 34 males and 24 females. There are a total of 27 junior players and 31 senior players, each categorized properly. A purposeful sampling technique was utilized to recruit subjects from various Badminton academies and training centers in Assam. During this investigation, the Sport Competition Anxiety Test (SCAT), which was initially designed by Rainer Martens in 1977, has been chosen to serve as the instrument for the collecting of data. To evaluate the acquired data, descriptive statistics mean, standard deviation and comparative statistics were used to examine the variable of anxiety across different age groups and genders. **Results:** A two-way analysis of variance (2-way ANOVA) was utilized and assessed at a significance level of 0.05. The 2-way ANOVA analysis revealed that there was no statistically significant difference in anxiety levels between male and female Badminton players ($p = 0.492$) and between different age groups of Badminton players from Assam ($p = 0.535$) in the pre-competitive conditions respectively. **Conclusions:** The results of this study are expected to offer Badminton coaches in Assam a reference framework for future psychological training of their players.

Keywords: Pre-Competitive, Anxiety, Badminton, Assam.

1. INTRODUCTION

At the highest level of competition, there is minimal variation in an athlete's proficiency in skills and technique. Further, when it comes to their activities and sports, all of the players are particularly well equipped in terms of their physical power and mesomorphic build. Some players consistently excelled during practice, never losing a match or game against a teammate. However, the situation changed during the real competition. In competitive scenarios, a distinct emotional reaction to the environment emerges. Psychological elements are not sufficient to predict the performance of great players, but they do play a crucial role in enhancing their performance (Taha et al., 2018). Athletes sometimes experience the tremendous physical demands and high psychological pressures that come with participating in sports as being difficult to manage, which can result in unfavorable outcomes (Pineda-Espejel et al., 2013).

A prominent study in sports psychology literature is competitive anxiety and its impact on performance (Besharat & Pourbohloul, 2011), and is frequently recognized as one of the most researched subjects in the field. Anxiety is one of the emotions that might occur in reaction to a competitive environment that is linked to a physiological alteration, a subjective perception, and a behavioral inclination (Cox, 2012). Anxiety is a complex mental and physiological response that begins with a feeling of risk and continues with thoughts of harm. A "fight or flight" response is exhibited in the accompanying actions (Moss, 2002). Moreover, Anxiety is often classified by sports psychologists as either "trait anxiety," which is associated with a more permanent facet of one's personality, or

“state anxiety,” which is more situational and less long-lasting. The two forms of anxiousness were inversely related to athletic performance (Kemarati et al., 2022).

Furthermore, it is widely acknowledged that pre-competitive anxiety is one of the most significant challenges facing contemporary sports psychology. The pre-competitive anxiety was an uncomfortable sense of unease and apprehension before an event (A. Kumar, 2017). The term “pre-competitive state anxiety” refers to competition-related anxiety that manifests itself before a competitive scenario takes place (Hussain et al., 2014). Pre-competitive anxiety is a social anxiety condition with symptoms. It mainly affects sportsmen and players who dread public performances. Physiological and behavioral repercussions, as well as personality changes, are some ways in which anxiety impacts overall performance. Physical manifestations of anxiety include shaking limbs, beating heart, excessive perspiration, and short respiration (Alim et al., 2017; M.-U. Rehman & Pathak, 2021).

In terms of the amount of anxiety that one has before a competition, gender differences are one of the factors that might be discussed. There have been numerous investigations into differences between genders in anxiety. Studies have demonstrated that athletes' perceptions of competitive anxiety vary according to their gender (Alim et al., 2017). While conducting their research, J Thatcher, R Thatcher, and D Dorling (2004) reported that there were gender differences in the pre-competition temporal patterning of anxiety responses (Hudson et al., 2004). Furthermore, whereas the anxiety levels of men were similar to one another, this was not the case for the anxiety levels of females, as evidenced by increases in the levels of cognitive and somatic anxiety experienced by females (Correia & Rosado, 2019; Hudson et al., 2004; Hussain et al., 2014; Martínez-Gallego et al., 2022).

Additionally, the age of racquet sports participants can be associated with anxiety. According to the findings of a prior investigation, elderly athletes exhibited greater degrees of pre-competitive anxiety than their younger counterparts (Hussain et al., 2014). This result is consistent with the research conducted by Alberto Rodriguez Cayetano et al. in 2017, and Ferreira et al. in 2021. (Cayetano et al., 2017; Ferreira et al., 2021). Moreover, the results of the study performed by Sanjay Kumar et al. (2020) showed that male and female Badminton players under the ages of 19 and 17 have low levels of competitive anxiety and average levels of self-esteem (S. Kumar et al., 2017).

1.1. Purpose of the study

The primary aim of this research is to analyze the level of precompetitive anxiety in national level male and female Badminton players in the categories of junior (age ranges from 15 to 18 years) and senior (age ranges from 19 to 24 years) with special reference to Assam.

1.2. Hypothesis

- 1.2.1. It was hypothesized that there might be a significant difference in the sports pre-competitive anxiety between male and female national level Badminton players of Assam.
- 1.2.2. It was hypothesized that there might be a significant difference in the sports pre-competitive anxiety between junior and senior-level national Badminton players of Assam.

2. MATERIALS AND METHODS

2.1. Subject of the Study

The sample for this study comprised 58 national level Badminton players from Assam, including 34 males and 24 females. There are 27 junior players (Age 16.576 ± 1.101 years) and 31 senior players (Age 21.193 ± 1.740 years) categorized accordingly. A purposive Sampling Technique was applied for selecting the subjects across the various Badminton academies and coaching centers of Assam. The average practice hours of the players were 4.620 ± 1.2114 per day and the mean duration of participation of the subjects in national level Badminton events was 2.827 ± 2.623 years.

2.2. Variables

The variable selected for this study was Sports Pre-Competitive Anxiety.

2.3. Instrument

The Sport Competition Anxiety Test (SCAT) developed by Rainer Martens in 1977 has been selected to be employed in this research. The SCAT consists of 15 items that assess an athlete's reactions to a set of statements regarding their emotions in a competitive environment to gauge their anxiety levels. Each statement is assessed using a three-point rating scale consisting of "rarely," "sometimes," or "often." (Brand et al., 1988)

2.4. Scoring

There is a scale from 1 (rarely), 2 (sometimes), and 3 (often) for questions 2, 3, 5, 8, 9, 12, 14, and 15. The reverse coding for questions 6 and 11 is as follows: rarely = 3, sometimes = 2, and often = 1. To reduce internal response-set bias, questions 1, 4, 7, 10, and 13 on the self-report questionnaire are scored as zero as suggested by Rainer Marten. This is done to limit the likelihood of erroneous or false replies. The total scores of the 10 statements are combined to provide an overall measure, where a high score indicates a stronger inclination towards experiencing competitive anxiety. Anxiety levels are categorized as low if the score is below 17, moderate if it falls between 17 and 24, and severe if it exceeds 24 (Bamaniya, 2016; Laishram Santosh Singh et al., 2022).

2.5. Statistical Analysis

To find out the sports pre-competitive anxiety level of national level male Badminton players and female Badminton players of Assam in the categories of junior (age 16.576 ± 1.101 years) and senior (age 21.193 ± 1.740 years)) descriptive statistics such as mean and standard deviation were adopted. Comparative statistics to analyze the variable of anxiety among the different age groups and genders two-way analysis of variance (2-way ANOVA) was employed and was tested at 0.05 level of significance. The SPSS 20 version software was utilized for data analysis.

3. RESULTS

The findings of Table 1, the descriptive study illustrated that all the Badminton players of Assam irrespective of gender and age, they are having moderate levels of pre-competitive anxiety. Junior category national level males and females having the mean value of pre-competitive anxiety are 20.667 ± 1.193 and 20.417 ± 1.334 respectively. Further, the senior category national level male and female Badminton players have the mean value of pre-competitive anxiety is 18.789 ± 1.060 and 20.750 ± 1.334 . Most note worthing that the mean value of females at the senior level is higher in comparison to their counterparts and the junior level male and female national level Badminton players.

Table 1 Descriptive Statistics of Pre-Competitive Anxiety among the different gender and age groups of national level Badminton players from Assam

SHUTTLERS	Gender	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
15-18 years	Male	20.667	1.193	18.274	23.059
	Female	20.417	1.334	17.742	23.092
19-24 years	Male	18.789	1.060	16.664	20.915
	Female	20.750	1.334	18.075	23.425

The graphical presentation of the table 1 is presented below-

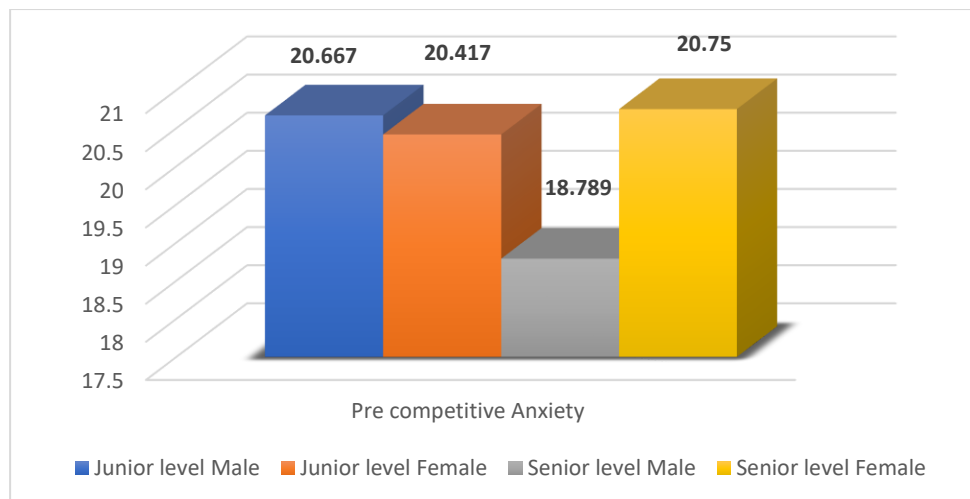


Figure 1 Descriptive Statistics of Pre-Competitive Anxiety among the different gender and age groups of national level Badminton players from Assam

Table 2 Comparative Statistics of Pre-Competitive Anxiety between the male and female national level Badminton players of Assam

Pairwise Comparisons						
Dependent Variable: PRE-COMPETITIVE ANXIETY						
(I) Gender	(J) Gender	Mean Difference (I-J)	Std. Error	Sig. ^a	95% Confidence Interval for Difference	
					Lower Bound	Upper Bound
Male	Female	-.855	1.236	.492	-3.333	1.622
Female	Male	.855	1.236	.492	-1.622	3.333

To test the research question of whether there was a significant difference in the sports pre-competitive anxiety between male and female national-level Badminton players of Assam, two-way ANOVA was applied. The comparisons between the male and female national level Badminton players of Assam (Table 2) revealed that there was no significant difference between genders ($p = .492 > 0.05$) concerning *Pre-Competitive Anxiety*.

The comparative statistics of Table 3 revealed that there were no significant differences between the national level junior and senior Badminton players of Assam concerning Pre-Competitive Anxiety ($p = 0.535$). Since the p-values of two-way ANOVA for the Pre-Competitive Anxiety of two different age groups (junior level and senior level) showed higher than the significance value of 0.05 ($p = .535 > 0.05$), so null hypothesis is failed to reject.

Table 3 Comparative Statistics of Pre-Competitive Anxiety between the junior and senior level national Badminton players of Assam

Pairwise Comparisons						
Dependent Variable: PRE-COMPETITIVE ANXIETY						
(I) SHUTTLERS	(J) SHUTTLERS	Mean Difference (I-J)	Std. Error	Sig. ^a	95% Confidence Interval for Difference	
					Lower Bound	Upper Bound
15-18 years	19-24 years	.772	1.236	.535	-1.706	3.250
19-24 years	15-18 years	-.772	1.236	.535	-3.250	1.706

As the results of the 2-way ANOVA were determined to be not statistically significant, no additional analysis was conducted. The negligible significance of the 2-way ANOVA analysis indicated that the anxiety

experienced by national-level Badminton players in the pre-competitive condition was identical, regardless of their gender and age.

4. DISCUSSION ON FINDINGS

The results previously exposed in this study, revealed the existence of no statistically significant difference in anxiety levels among male and female Badminton players from Assam in the pre-competitive condition (Table 2). The observed findings were not statistically significant at a significance level of 0.05 ($p = 0.492$). The findings above are corroborated by the research done by Alberto Rodríguez Cayetano and his colleagues in 2017. Their study focused on pre-competitive anxiety among paddle tennis players in the age groups of U12, U14, and U16. The study found no statistically significant differences in cognitive anxiety, somatic anxiety, and self-confidence between male and female athletes (Cayetano et al., 2017). These findings are consistent with those obtained by Basanti Bamaniya, who found that the psychological variable of Sports Competitive Anxiety did not show any significant differences between male and female Badminton players from the Indore District (Bamaniya, 2016). Within the context of another study, it became apparent that the difference in Sports Competitive Anxiety Scores between male and female football players was not statistically significant at a significance level of $p \leq 0.05$ (Singh & Singh, 2015).

Further, the two-way ANOVA analysis (Table 3) also indicated that there was no statistically significant difference in anxiety levels between junior and senior national Badminton players from Assam, during the pre-competitive phase. In a study conducted by Klavora (1975), the researcher aimed to investigate the ideal degree of pre-competitive state anxiety among football players throughout four levels of football competition: Junior High School, Senior High School, Alberta Junior, and University. This study also observed no statistically significant differences in pre-competitive state anxiety across participants at different competitive levels, consistent with the findings of this investigation (Arya et al., 2023). Another study conducted by Aeja Hassan et al observed that there was no significant difference in mean scores of sports competition anxiety between male and female netball players. Additionally, insignificant differences were observed among senior and junior players regarding sports competition anxiety (Aejaz Hassan et al., 2016).

5. CONCLUSION

Badminton is a widely practiced sport in India. Indian Badminton has reached its pinnacle with three straight Olympic medals, the Thomas Cup victory, and the recent historic win by the Indian women's Badminton team in the Badminton Asia Team Championships 2024. Assam has also produced great Badminton players. The state is most known for producing its first Badminton Olympian and other national and international winners. Through centuries, the State has produced national winners, notably in age-group championships. Despite advances in sports in Assam, latent potential remains underutilized at the senior level. Handful professional Badminton players from Assam, particularly at the senior level, are currently competing in the world circuit. In an interview, former Assam international shuttler Krishna Hazarika stated that Assam has to establish a basis of excellent players to form a pyramid with many Assam players at the top of India. It will help the state dominate national Badminton. In several studies, the findings suggest that a decline in performance can be attributed to the presence of competitive anxiety (Esfahani & Soflu, 2010). Based on the findings of this study, the Badminton players of Assam exhibited an average degree of competitive anxiety before their respective competitions. There is a possibility that in Assam, every player advances with the same learning approach, regardless of whether they are at the junior level or the senior level. A lack of psychological training or a sense of necessity for all of the players to keep their mental equilibrium is another factor that is likely to be present. thereby, regardless of age or gender, every single player experiences the same level of anxiety. Thus, coaches and sports psychologists can introduce personalized interventions both on and off the court to effectively address anxiety. Additionally, Self-talk, Guide Imagery, Yoga, Relaxation, and Mindfulness reduce competitive anxiety in athletes, especially when used in parallel, such as relaxation and imagery or self-talk, imagery, and relaxation. Hence, Assam Badminton players must integrate pre-competitive anxiety therapies in their training sessions (Hasanah & Refanthira, 2020).

6. RECOMMENDATIONS

The objective of this study is to increase knowledge among athletes, coaches, trainers, and Badminton players in the state of Assam regarding the impact of pre-competitive anxiety levels on sports performances and the current condition of pre-competitive anxiety among those in this group. The outcomes of this study will help coaches find ways to reduce pre-competitive anxiety. In the future, it is possible to perform further research with greater sample sizes in any sport in search of a solution to the problem. The results of this study are expected to offer Badminton coaches in Assam a reference framework for future psychological training of their players.

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