

Conducting a comparative examination of anxiety levels of male badminton participants and exploring potential interventions

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Abstract

Researchers have been studying the psychological characteristics of athletes from numerous sports. The objectives of this study were to analyze and compare the levels of anxiety experienced by male badminton players during competition and pre competition. A total of 30 players were selected from Sri Krishna Sagar Sports Pvt Ltd. The athletes' ages ranged from 17 to 24. The study was hypothesized that during competition badminton players have higher levels of anxiety than pre competition. This study used a quantitative research design. The Questionnaire of Sports Competition Anxiety Test (SCAT) was used to collect data from badminton players in order to measure their anxiety levels. To analyze the data acquired, statistics such as mean and standard deviation were computed. An independent t-test was performed in Microsoft excel, and the statistically significant level (p) was calculated to compare male badminton players during competition and pre competition. The results indicated that during competition players had higher levels of anxiety than pre competition players, as the p-value between them is 0.00763, which is less than 0.05, indicating a significant difference. This demonstrated that the initial hypothesis was valid.

Keywords: Anxiety, Sports Competition Anxiety Test (SCAT), Significant

1. INTRODUCTION

Badminton is a strong, energetic sport that is a popular and competitive sport around the world. It is known for its speed, agility and agility. It offers a unique combination of physical conditioning and mental acuity. Badminton is a highly competitive game that requires a combination of physical skills, mental strength and strategic intelligence. It is known for the importance of hand-eye coordination, quick reaction and good playing. Players use a shuttlecock to return to the net and aim to score a goal by landing in their opponent's court. Anxiety is a distressing and multifaceted emotion resulting from feelings of fear, discomfort and worry. The symptoms of anxiety include tense sensations, racing thoughts, and bodily changes including elevated blood pressure (Bamaniya, 2016). It is a response to stress or threat and causes physical and psychological effects on the body. Although some stress is normal and healthy and helps people stay calm and focused during difficult times, excessive or sustained stress can interfere with and affect daily life and overall health. The experience of stress varies greatly between individuals. While some people experience occasional stress in response to certain stressors, others may suffer from chronic stress that can affect their quality of life. Symptoms of stress can be physical, such as heart palpitations, sweating, tremors, and

digestive problems, or psychological, such as emotional turmoil, depression, high anger, and sleepiness. Understanding the underlying causes and triggers of stress is critical for effective management and treatment, which may include therapy, medications, lifestyle changes, and stress-reducing medications.

According to the human psychology of emotion, sports competition anxiety is a significant psychological factor. It is believed to be one of the important psychological aspects that frequently create negative effect upon performance of athlete (Tyagi, 2023). Understanding the factors that cause stress in badminton players, is important for the development of effective interventions and strategies. Research shows that stress may differ between athletes, during competition and pre competition, in various sports , where factors such as social expectations, physical concerns and hormonal influences also play a role. By understanding and addressing the unique challenges faced by male athletes, we can create an inclusive and supportive environment for all of them. (Bamaniya, 2017). At the start of a major sporting event, a person may be feeling unwell, out of shape, or even paralyzed. These are all symptoms of work-related stress. In order to cope with these emotions, one must learn how to manage stress, thus understanding that sports and stress, not work, are important for a successful athlete. Therefore, athletes need everything (physical, physical and social). From one perspective, it is very difficult to be successful in the game, so the coach must not only have sports and technical knowledge, but also have sufficient mental equipment. It is the problems experienced in participating in sports that cause stress. How an athlete manages stress determines their level of success. Stress can be a great motivator or factor associated with success in sports. (Bamaniya, 2017). Similar to participants in many other competitive sports, badminton players can suffer from varied degrees of anxiety, which can have a negative effect on both their general well-being and performance. For the purpose of managing and reducing anxiety, it is imperative to comprehend the elements that lead to anxiety in badminton players, with a focus on investigating possible gender disparities. Studies show that anxiety levels in male athletes during competition and pre competition across a range of sports might vary depending on social expectations, health issues, and hormonal changes. A comprehensive grasp of the psychological aspects that affect athletes' performance is necessary to establish a welcoming and inclusive atmosphere for them. Anxiety can strike athletes during training, before contests, or in reaction to pressure to perform well. Athletes might experience anxiety in a wide range of ways, depending on their unique personalities, past experiences, and the demands of their particular activity. Anxiety can take many different forms in badminton players, and can hinder their ability to concentrate, make sound judgements, and play at their best. It is essential to comprehend the distinct obstacles encountered by male players in order to create focused therapies that promote their mental health and overall wellbeing. However, there is a distinct absence of studies that particularly investigate anxiety levels in badminton players that compare anxiety levels between male athletes during competition and pre competition participating in the sport. This study attempts to fill this research gap by conducting a comparative examination of anxiety levels amongst male badminton players during competition and pre competition. It aims to offer important insights into the particular difficulties faced by athletes by examining the variations in anxiety levels between male badminton players during competition and pre competition. The results of this study could guide the creation of focused interventions and support plans meant to lower anxiety and improve badminton players' general performance and well-being, inspite the stage of the competition.

1.1 OBJECTIVES

- To study the levels of anxiety experienced by male badminton players during competition and pre competition.
- To compare the levels of anxiety experienced by male badminton players during competition and pre competition.

1.2 HYPOTHESIS

- The anxiety level of male badminton player is higher during competition.

2. METHODOLOGY

2.1 Method of Study

This study utilized a quantitative research design to compare anxiety levels between male badminton players during competition and pre competition. A cross-sectional approach was employed to collect data at a single point in time, providing a snapshot of anxiety levels among participants. The participants consisted of male badminton players, aged 17-23, who were actively involved in competitive badminton at the local, regional, or national level. Efforts were made to recruit a diverse sample of participants to ensure the generalizability of the findings.

2.2 Data Collection Techniques and Tool Used

A purposive sampling technique was used to select participants based on their availability and willingness to participate in the study. Sample size calculations were conducted to determine the minimum number of participants required to detect meaningful differences in anxiety levels between male badminton players, during competition and pre competition.

The Sport Competition Anxiety (SCAT) is used as an anxiety tool for this research. The SCAT, created by Martens and colleagues in 1977. It basically is a questionnaire that measures level of anxiety in athletes in competition or performance situations. It is also known as competitive trait anxiety. The SCAT consists of 15 questions, and each athlete indicates that they feel this way “rarely,” “sometimes,” or “often” when competing in their sport. Ten of the items measure anxiety-related symptoms. The other five items are intended to reduce false or incorrect answers to self-report questions, known as intrinsic response bias. This information will be used to describe the characteristics of the sample and to explore potential factors that may influence anxiety levels.

3.3 Procedure of data collection

Participants were recruited through badminton clubs, tournaments, and social media channels. They were informed about the purpose of the study and asked to provide informed consent before participating. Participants completed the SCAT questionnaire either online in the form of Google form or offline in a hard

copy questionnaire, depending on their preference. Data was collected anonymously to ensure confidentiality. Each participant was assigned a unique identifier to link their responses across the questionnaires.

3.4 Data Analysis:

Descriptive statistics, including means, standard deviations, and frequencies, were used to analyze demographic data. These statistics provided an overview of the characteristics of the sample. Independent samples t-tests were used to compare levels of state and trait anxiety between male participants, during competition and pre competition, depending on the normality of the data.

3.5 Statistical Procedure

The data of anxiety level was collected with the help of The Sport Competition Anxiety (SCAT) and scoring of anxiety level was done according to the following table :

SCORE	ANXIETY LEVEL
Less than 17	You have a low level of anxiety
17 to 24	You have an average level of anxiety
More than 24	You have a high level of anxiety

Table 1: Scoring of The Sport Competition Anxiety (SCAT)

3.6 Ethical Considerations

The study adhered to ethical guidelines regarding informed consent, confidentiality, and data protection. Participants were informed that their participation is voluntary and that they have the right to withdraw from the study at any time without penalty. Data will be stored securely and only accessible to the research team. Any personal information collected will be kept confidential and anonymized in any reports or publications resulting from the study.

RESULT

N - Denotes the number of players i.e. male players during competition and pre competition respectively

SD - Denotes Standard Deviation

Sig - Denotes Significant Difference

Table 1: General Characteristics of the subjects

Game	Gender	N	Age (Mean \pm SD)
Badminton	Male	15	20 \pm 1.82

Table 1 represents the general characteristics of the subjects and this table revealed the mean and standard deviation of age.

Table 2: Mean Comparison of Anxiety of male athletes during competition and pre competition (independent t-test)

Game	Stage	N	Mean	SD	Sig
Badminton	During Competition	30	19.8	4.05674	0.00763
	Pre Competition		23.6	3.996427	

Table 2 represents the mean difference of anxiety between male players in badminton and this table revealed that there was significant difference between, during and pre competition as the p-value is less than 0.05.

From the above table we conclude that the anxiety level of male players during competition is more than male players pre competition as the value of p between them is 0.00763 i.e. is less than 0.05. So, there is a significant difference between them. This proves that the original hypothesis is correct.

CONCLUSION

It is clear from the study's findings that male badminton players during competition and pre competition have significantly different anxiety levels. Gender influences badminton players' anxiety levels. According to a statistically significant finding ($p < 0.05$) from the independent t-test used to compare the mean anxiety scores between the male players during competition and pre competition. Compared to male badminton players ($M = 19.8, SD = 4.05674$), male players during competition reported a higher mean anxiety level ($M = 23.6, SD = 3.996427$). This research implies that, in comparison to their male counterparts pre competition, male badminton players during competition can feel more anxious about how they perform. The findings of this study are consistent with other research showing that anxiety levels among athletes vary by competition stages. These variations may be influenced by elements including coping strategies, societal pressure, and self-confidence. Targeted interventions and methods must be used in order to alleviate the increased levels of anxiety seen in male badminton players during competition. These could include stress reduction methods, mental skill development, and cognitive behavioral therapies designed with male players' unique demands in mind. Furthermore, fostering a welcoming and inclusive environment in the activity can reduce anxiety and enhance performance in general.

DISCUSSION

The aim of the study is to compare the levels of anxiety between male badminton players, during competition and pre competition, and to explore potential solutions to mitigate any disparities found. The results of the independent t-test revealed a significant difference in anxiety levels between male players, with male players during competition exhibiting higher levels of anxiety ($M = 23.6, SD = 3.996$) compared to male players, pre competition ($M = 19.8, SD = 4.057$), $t(28) = -4.463, p < 0.05$. These findings are consistent with some previous research indicating that male athletes during competition generally experience higher anxiety levels, compared to their male counterparts during pre competition (Edward, 2012). One possible explanation for this difference could be the influence of increased stress, peer pressure, performance anxiety, etc which may place additional pressure on male athletes to perform well. One the potential solution could be the incorporation of mindfulness-based practices, such as meditation and yoga, which have been shown to reduce anxiety and improve performance in athletes (Brown, 2003), (D. Birrer, 2010).

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