# **Analysis of The Relationship Between Pre-Match Anxiety Levels And The** Performance of 12-18-Year-Old Court Tennis Players

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#### **ABSTRACT**

The abstract contains a brief description of the purpose: To find out the relationship between pre-match anxiety levels and the performance of court tennis players aged 12-18 years. This research uses a qualitative approach with a qualitative descriptive type. The population in this study is field tennis players aged 12-18 years in the Pekalongan Regency area, Central Java, who actively participate in competitions. Pre-match anxiety levels in the tennis players in this sample were mostly in the medium category, with a small percentage in the high and low categories. This study found interesting findings on how anxiety at this level interacts with perceived performance. The majority of players who experience "moderate" anxiety are still able to achieve "high" to "very high" performance. This indicates that for most of the athletes in this sample, anxiety, while significant, can serve as a trigger for arousal and alertness that supports optimal performance. The instrument used in this study was a questionnaire. The questionnaire distributed is the SCAT (Sport Competitive Anxiety Test) questionnaire. The instruments used to measure skills are service accuracy, forehand and backhand stroke tests, volley stroke tests, and rally tests.

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#### **KEYWORDS**

Anxiety; Court Tennis; Match; Performance.

### **AUTHORS' CONTRIBUTION**

- A. Conception and design of the study;
- B. Acquisition of data;
- C. Analysis and interpretation of data:
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# INTRODUCTION

Sports are one of the activities aimed at improving the quality of human resources by instilling the values contained in sports, such as character development, sportsmanship, and discipline. Exercise not only trains physically, but exercise can also shape a person's character. Sports have become a huge industry that involves various parties, ranging from coaches, athletes, and the media. Sport has an important role in human life, both in terms of education, health, and social development. Sports activities include a variety of sports that can be chosen according to individual interests, abilities, and goals. According to (Akhir & Wulandari, 2021) the oldest sport and the basis of other sports is athletics, in addition to athletics.

Court tennis is a sport played between two players (one against one), commonly known as singles. Or between two pairs (two versus two), which can be called doubles, in



which doubles can be played by same-sex or mixed couples. Field tennis is very popular with the community; this sport is also beneficial for body fitness and a significant health contribution (Raibowo et al., 2020). In addition to achievements, court tennis is also beneficial for the community to improve physical fitness. Court tennis is so popular around the world that it can be played by all ages, from adults to children.

As an individual sport, court tennis players are in dire need of high concentration, a strong mentality, and the ability to manage emotions well. One of the psychological aspects that court tennis players often experience before a match is anxiety. This anxiety can arise due to various factors, such as being pressured to win, match experience, mental toughness, high expectations from coaches and spectators, lack of confidence, and environmental factors. The mental condition of the player in undergoing sports activities is the main factor that can determine the achievement of achievements and success when competing (Sholeh & Hakim, 2019). According to (Rendriyana & Ismalasari, 2017), intrinsic factors are caused by players who have a fear of failure, lack of competition experience, and have a high sense of anxiety. Meanwhile, anxiety of extrinsic factors can be caused such as the presence of spectators, opponents, facilities, demands from coaches and people around them.

According to Putri et al. (2023), to achieve peak performance, athletes need to undergo regular and consistent training. Through a continuous training process, athletes can show maximum performance in every match. The source of anxiety can come from various things, for example, social pressure that is too high and cannot be met by individuals, standards of achievement that are not balanced with their abilities, such as perfectionist traits. In addition, feelings of lack of confidence, lack of preparation in dealing with situations (Firmansyah, 2007).

# **METHODS**

This research uses a qualitative approach with a qualitative descriptive type. The purpose of the descriptive research is to understand and know in depth the subjective experiences of athletes in dealing with anxiety before the match, and how these feelings affect their performance on the field. This research was conducted in the field tennis community in the Pekalongan Regency area at the HW Pekajangan court tennis court. The estimated research is 7 days. The criteria for the sample in this study are: 1. An active court tennis player in the last 12 months. 2. Aged 12-18 years old 3. Be prepared to fill out the questionnaire.

The instrument used in this study was a questionnaire. The questionnaire distributed was the SCAT (Sport Competitive Anxiety Test) questionnaire, which had been translated into Indonesian. SCAT is an instrument to measure competitive anxiety in athletes. The instruments used to measure skills are service accuracy, forehand and backhand punch tests, volley punch tests, and rally tests (Hewitt, 1968). This instrument aims to assess the performance of court tennis players. The assessment is carried out by means of observation using an observation sheet based on tennis playing skill indicators.

This type of qualitative descriptive research was used to describe how court tennis players aged 12-18 years experience levels of anxiety before a match, describe perceptions of actual performance during matches and the factors that influence them, explain the association and relationship between the experience of anxiety and athlete performance. Data was obtained through a questionnaire with questions distributed to court tennis players aged 12-18 years. This study struggles to find out the level of anxiety experienced by players before the match.

## **RESULTS AND DISCUSSION**

### Result

This study aimed to analyze the anxiety and performance of tennis players before 16 tennis players with varying levels of experience and characteristics. Data was collected from sixteen (16) tennis player respondents. The main data analyzed were anxiety scores (with a maximum score of 40) and performance scores (with a maximum score of 55), which were then categorized to facilitate qualitative analysis.

**Table 1.**Research Results Data

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	Mean ± SD	Min	Max	
Age (years)	16,25 ± 1,65	13	18	
Anxiety Levels	25,88 ± 3,61	18	31	
Performance	42,75 ± 7,28	28	53	

Source: Researchers, 2025

Based on Table 1, the average age of respondents was  $16.25 \pm 1.65$  years. The youngest age is 13 years old, and the oldest is 18 years old. The anxiety level of tennis players before the match has an average score of  $25.88 \pm 3.61$ , with the lowest score being 18 and the highest score being 31. Meanwhile, the results of tennis performance showed the largest average of  $42.75 \pm 7.28$ , with a minimum score of 28 and a maximum of 53. The raw numeric score of Anxiety level and performance is converted into qualitative categories. The method used to determine the boundaries of this category is equal interval division, based on the range of potential scores of the measurement instrument used.

**Table 2.** Anxiety Level Categories

Interval	Category
0 – 10	Very Low
10 – 20	Low
20 - 30	Medium
30 - 40	High

Source: Researchers, 2025

Based on Table 2. Anxiety Level Categories: The range of anxiety scores of tennis players is divided into four categories. A score of 0-10 is categorized as very low, which shows that players almost do not experience anxiety before the match. Scores of 10-20

fall into the low category, which means players experience little nervousness or tension. Scores of 20-30 are in the high category, where players show significant signs of anxiety, which can affect concentration and confidence. Meanwhile, the score of 30-40 is categorized as dominant and has the potential to interfere with performance during matches.

**Table 3.**Performance Level Categories

Interval	Category
0 – 11	Very Low
12 – 22	Low
23 - 33	Medium
34 - 44	High
45 – 55	Very High

Source: Researchers, 2025

Table 3. Performance Level Category, tennis performance scores are classified into five categories. A score of 0-11 shows very low performance, where the ability of the Technique is still very lacking. Scores of 12-22 belong to the low category, which illustrates that pain still needs a lot of improvement in the game's technique. The score of 23-33 is in the medium category, which means that the player's performance is sufficient but not consistent. The score of 34-44, which is a high category, indicates good and stable performance. Meanwhile, scores of 45-55 fall into the very high category, which shows mastery of the technique of playing tennis.

**Table 4.**Tennis Athlete Anxiety and Performance Data

Sample	Anxiety	Performance	
S1	24	49	
S2	25	44	
S3	29	50	
S4	28	49	
S5	22	50	
S6	24	53	
S7	31	28	
S8	26	35	
S9	22	45	
S10	29	32	
S11	30	46	
S12	28	44	
S13	24	44	
S14	30	37	
S15	18	35	
<u>S16</u>	24	43	

Source: Researchers, 2025

Based on Table 4, the distribution of respondents based on anxiety and performance categories can be seen: 1) Anxiety Category: The majority of respondents (14 out of 16) showed moderate levels of anxiety. There were 1 respondent in the high category, and 1 respondent in the low category. This indicates that most of the samples experienced anxiety at a fairly manageable level, albeit with significant signs. 2)

Performance Category: The performance distribution shows that 7 respondents are in the Very High category and the other 7 respondents are in the High category. Only 2 respondents were in the Medium category, and none of the respondents were in the Low or Very Low category. This indicates that the performance felt by players tends to be good to very good.

### **Discussion**

Athletes' anxiety levels were measured using 10 questions with a score range of 1-4 per question. Question 1 about feeling nervous ahead of the match; Question 2 regarding the feeling of difficulty concentrating when thinking about the match; question 3 about feeling confident in one's abilities; question 4 about feeling tension before the match; question 5 calm feelings of insecurity with abilities; question 6 about feeling confident in abilities; Question 7 about feeling having trouble sleeping before the game; question 8 about feeling a significant increase in heart rate before a match; Question 9 about feeling doubtful about decisions made while in the field; and 10 questions about feeling physically and mentally exhausted before the game.

Based on the recorded scores and new categorizations, the manifestations of anxiety experienced by the players can be interpreted as follows:

- Low Anxiety (1 respondent): This respondent (S15) experienced only a slight sense of nervousness or tension. Qualitatively, this suggests that the player has a baseline arousal level that may serve as a motivational trigger without causing significant distractions. They may feel prepared, but without high emotional intensity.
- 2. Moderate Anxiety (14 respondents): This category includes the majority of respondents (S1, S2, S3, S4, S5, S6, S8, S9, S10, S11, S12, S13, S14, S16). Players in this group show significant signs of anxiety, which can affect concentration and confidence.
- 3. High Anxiety (1 respondent): One respondent (S7) was in this category, indicating the presence of a dominant level of anxiety. Qualitatively, their physical manifestations can be very pronounced, such as tremors, nausea or severe muscle tension.
- 4. The prevalence of anxiety at moderate to high levels suggests that the tennis players in this sample face substantial stress, but their impact varies. Key triggering factors may include: 1) Pressure of Results and Expectations: The importance of the match, the pressure to win from oneself or others, and the perceived consequences of defeat; 2) Evaluation and Assessment: Concerns about judgments from coaches, teammates, spectators, or family, which can increase anxiety levels; 3) Uncertainty and Control: The feeling of not being able to control all aspects of the match or the opponent's performance, which triggers uncertainty and anxiety; 4) Threat Perception: For some players, competitive situations may be perceived as a threat, not a challenge, especially when facing opponents who are perceived to be stronger, which increases

anxiety (Annisa Safitri & Alficandra Alficandra, 2023; Fatimah & Aprianty, 2022; Safitri & Masykur, 2017).

Performance analysis showed that most respondents were able to show good to very good performance, with the dominance of the high and very high categories. This indicates that despite varying levels of anxiety, many players still manage to put on solid performances.

- 1. Medium Performance (2 respondents): Respondents in this category (S7, S10) showed quite good performance but were not consistent. Qualitatively, this means that they can perform the basics of the game quite well, but often make unforced errors or experience fluctuations in concentration.
- 2. High Performance (7 respondents): This category is the second largest group (S2, S8, S12, S13, S14, S15, S16). Players in this group indicate good and stable performance. They demonstrate a solid mastery of basic and advanced techniques, can maintain the consistency of punches, and make sound tactical decisions most of the time.
- 3. Very High Performance (7 respondents): This category is the largest group, along with the High category (S1, S3, S4, S5, S6, S9, S11). This player showed excellent mastery of tennis techniques. Qualitatively, this means that they perform close to their maximum potential, with highly accurate, powerful, and strategic punches.
- 4. This score data implies that, in general, players can maintain or even improve various aspects of their performance, even in the presence of significant levels of anxiety: 1) Quality of Technique: The majority of players show good to excellent technical ability, which indicates adequate training and natural talent; 2) Tactical Decision-Making: The ability to make quick and precise decisions under pressure is the key to high performance, which is seen as dominant in this sample; 3) Consistency: A high and very high level of performance indicates the ability to maintain the quality of play throughout the match; 4) Resilience: Athletes demonstrate the ability to cope with pressure and strive to achieve their best performance, despite experiencing anxiety (Fitri et al., 2025; Kardiawan et al., 2023; Tumaloto et al., 2024)

The relationship between anxiety and the performance of the tennis players in this sample showed an interesting pattern, where moderate levels of anxiety could correlate with high to very high performance. Even at high levels of anxiety, some individuals are still able to perform very well, but others are declining. It provides complex insights related to the Inverted-U Hypothesis with a more accurate interpretation of categories.

- 1. Low Anxiety with High Performance: One respondent (S15) showed low anxiety but achieved high performance. This indicates that for a particular individual, a little nervousness or tension is enough to trigger a good and stable performance.
- 2. Moderate to Very High Performance Anxiety: The majority of respondents (14 people) were in the category of moderate anxiety (S1, S2, S3, S4, S5, S6, S8, S9, S10, S11, S12, S13, S14, S16). Of this group, 7 respondents showed very high performance (S1, S3, S4, S5, S6, S9, S11) and 6 respondents showed high performance (S2, S8, S12,

- S13, S14, S16). Only 1 respondent (S10) with moderate anxiety showed moderate performance. This is a crucial finding that implies that for most of the players in this sample, significant yet manageable anxiety (by definition "Moderate") is a condition that greatly facilitates excellent performance.
- 3. High Anxiety with Moderate Performance: One respondent (S7) was in the category of high anxiety and showed Moderate performance. This case of S7 strongly supports the Inverted-U Hypothesis, where the dominant anxiety has the potential to interfere with performance.

The study showed that the pre-match anxiety levels in the tennis players in this sample were mostly in the moderate category, with a small percentage in the high and low categories. This study found interesting findings on how anxiety at this level interacts with perceived performance. The majority of players who experience "moderate" anxiety are still able to achieve "high" to "very high" performance. This indicates that for most of the athletes in this sample, anxiety, while significant, can serve as a trigger for arousal and alertness that supports optimal performance. This shows their ability to manage pressure and utilise it as competitive energy. However, the existence of cases of high anxiety that correlate with moderate performance also confirms that optimal thresholds exist, and when exceeded, anxiety can be counterproductive.

### CONCLUSION

The study analyzed pre-match anxiety levels and performance in 16 tennis players, showing that most players (14 out of 16) experienced moderate anxiety but surprisingly, also achieved high to very high performance. These findings indicate that for the majority of athletes in this sample, significant anxiety can serve as an optimal arousal trigger, aiding them in managing stress and harnessing it as competitive energy. However, the existence of cases where high anxiety correlates with moderate performance also confirms that there is an optimal threshold that, if exceeded, can interfere with performance. These results reinforce the Inverted-U Hypothesis with an emphasis on the concept of Individual Zones of Optimal Functioning (IZOF), suggesting that optimal arousal zones are individual for each athlete.

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