NERVES OR NIRVAANA? UNDERSTANDING THE COMPETITIVE ANXIETY-FLOW RELATIONSHIP IN YOUTH FOOTBALL PLAYERS

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Abstract
Competitive Anxiety and Flow State are two key psychological factors influencing athletic performance in Youth Football Players. Competitive Anxiety can hinder performance by increasing psychological arousal and cognitive distress whereas achieving a flow state enhances focus, confidence and optimal performance. This study aims to compare levels of Competitive anxiety and Flow state among youth footballer players aged 13-24 years and find out their correlation. A total of 60 football players; 30 Male and 30 Female will participate in this study. Standardized Psychological Scales are used to measure Competitive Anxiety and Flow state; Competitive State Anxiety Inventory (CSAI-2) by Martens, Burton, Vaeley, Bump and Smith and other tests Flow State Scale by Susan A. Jackson, Herbert W. Marsh tests were used. To analyse the data, Correlation and T-test were used. Most studies on flow and anxiety focus on elite athletes and individual sports, with limited research in team sports like football. This study addresses this gap by providing a sport-specific analysis of Competitive Anxiety and Flow State in youth football, contributing to a broader understanding of psychological performance factors in team sports. Results showed no significant correlation between male and female youth football players in relation to Competitive State Anxiety and Flow State. However, t-test analysis revealed a significant difference between the two groups in both Competitive State Anxiety and Flow State.

Keywords: anxiety, competitive Anxiety, flow State, youth football, psychological performance, team Sports

Introduction:

Sports play a crucial role in fostering community and helping individuals, whether amateurs or professionals, achieve their personal best. They serve as vital sources of recreation, offering comfort and relaxation amidst life's challenges. Engaging in sports instills a sportive spirit, enabling individuals to cope with life's burdens more easily. For students, incorporating sports into their lives is essential for maintaining an active lifestyle, channeling their energy productively, and enhancing their overall well-being. Tuback (2010) noted that teachers must provide exposure to a variety of physical activities, equipping youngsters with cognitive skills and a foundation for lifelong movement. A well-rounded sports curriculum should include individual, dual, and team sports, each with specific goals and focuses to maximize student engagement and development.

Sports activities instil a competitive mentality. Competitive anxiety is one of the factors that athletes may have before competitions or may have after competition. Competitive anxiety and its effects on athletes' performance, highlighting that anxiety can significantly influence an athlete's ability to achieve their goals. By recognizing the factors contributing to anxiety, coaches can enhance their knowledge and implement strategies to reduce athletes' anxiety levels. This reduction in anxiety is expected to lead to improved performance, ultimately benefiting the athletes in their competitive endeavors.

Athletic coping skills are essential for athletes to manage daily stressors, which can help reduce anxiety and enhance overall well-being, as noted by Ferrante and Etzel (2009). During their developmental years, athletes face increasing pressures from their sport, including longer hours of training and more competitions, as highlighted by Baker (2003) and Fraser-Thomas et al. (2008). Without adequate support, such pressures could negatively impact on the development of athletes, particularly on their well-being (Wylleman and Lavallee, 2004, D'Angelo et al., 2017)

In sports literature, the concept of flow is frequently associated with peak or enhanced performance, as highlighted by various researchers including Jackson et al. (2001) and Swann (2017). Flow is characterized by feelings of focus, motivation, and confidence, making it an appealing factor in performance enhancement (Landhäußer & Keller, 2012). Swann and colleagues have identified flow as one of two key pathways to achieving superior athletic performance, often referred to as 'clutch' performance. This mental state allows athletes to concentrate by diverting attention from distractions or negative thoughts, thereby optimizing their performance during

training and competition. Overall, flow is recognized as a crucial functional state that can facilitate peak performance in sports (Jackson & Csikszentmihalyi, 1999; Kimiecik & Jackson, 2002).

Football is an incredibly dynamic sport and is highly dependent on multiple factors where social, psychological, and technical-tactical elements seamlessly connects. This research is supported by various authors, including Castro-Sanchez and D'Hooghe, which underscores the importance of considering these diverse influences in the analysis and development of football strategies and player performance. The game presents inherent challenges such as the need for rapid decision-making, significant physical demands, and the pressure of representing teams on a global platform. These challenges contribute to heightened emotional states among players, making them more susceptible to anxiety, especially in competitive environments.

Competitive anxiety, particularly Pre Competitive Anxiety (PCA), significantly impacts athletes' performance, often leading to decreased output when anxiety levels are high. Research indicates a negative correlation between anxiety and athletic performance, with studies by Mir Manssori (1994), Maessomi (2008), and Mossavi (2011) supporting this conclusion. Pre competition anxiety can be a cause of decrease in level of performance particularly during the competition as highlighted by Sanatkaran, 2007.

Boyd (2018) found that athletes participating in team sports tend to experience a higher state of flow compared to those in individual sports. Flow is characterized as an emotional state that individuals can encounter during various activities, including sports, art, and business. It is defined by a sense of immersion in the task, feelings of cognitive competence and control, and a deep sense of enjoyment and pleasure derived from active engagement in the activity highlighting its significance in enhancing performance and satisfaction in different domains (Kivikangas, 2006; Moneta, 2004; Can et al., 2009; Bingol and Bayansalduz, 2016).

In the context of football, Flow is achieved when a player's skills align perfectly with the challenges of the game, a flow state can be activated. In this state, football players become fully absorbed in the game, lose track of time, and perform tasks easily and automatically, often leading to peak performance. The findings indicate that flow not only improves decision-making speed, coordination, and awareness among football players but it significantly enhances their on-field effectiveness. Moreover, Flow in sports is linked to internal motivation, self-efficacy, and clear goal-setting. Football players with high achievement needs, strong confidence in their abilities, and a clear purpose are more likely to experience flow during training and matches—resulting in improved performance, teamwork, and tactical execution.

Achievement and performance are linked with each other, with high performance being essential for high achievement. The relationship between anxiety and achievement is notable; increased achievement typically results in reduced anxiety, while heightened anxiety can impede performance. Anxiety refers to that emotional state of mind where we have a fear of danger or suffering and it is a common experience among athletes, often triggered by stress, which negatively affects their performance on the field. Research shows that a moderate level of arousal can improve performance in simpler tasks, such as finger tapping and verbal memory tasks. However, when anxiety escalates to extreme levels, it can disrupt the connection between psychological and physiological factors, leading to decreased performance, especially in more complex tasks.

Review of Literature

Castillo-Rodríguez et al., (2020) did research on how and why do young soccer players change the flow state? The aim of this study is to evaluate the variation in flow-state dimensions between the moment training time begins(baseline) and the moment of competition time as a function of playing position. Moreover, To determine the flow-state dimensions profile and explore the relationships between flow-state dimensions, physical characteristics, and academic performance. The subjects of this study were 147 Spanish males in U16 category. The Flow State Scale was administered and the questionnaire consists of 36 items. The main finding of this study was that U16 soccer players showed lower flow-state values during competition time in all the dimensions. So, adding psychological training tasks in Training time sessions can help prepare the soccer players completely, while avoiding the effect of competition time.

Yanar et al., (2017) did research on Investigation of the correlation between athletes' training continuity and flow experience. The aim of this study is to investigate the relationship between athletes' training continuity and optimal performance flow experience. The sample comprised 138 football players from Muglaspor amateur league participated in the study. The study used 1 Questionnaire "Dispositional Flow State Scale-2" developed by Jackson and Eklund (2004). Additionally, the study assessed whether variables such as age groups,

league status, and levels of sports experience significantly influenced athletes' training continuity and flow experience. Around 60% of the participants were aged 15-24. More than half were amateur football players, about one-third aimed were Professional Football Players, and remaining had 1-10 years of playing experience. The study found that athletes experience better emotional and flow states when they have the freedom to choose their training. A positive correlation was established between training continuity and optimal performance flow experience, suggesting that increased participation and consistency in training are associated with higher levels of flow states. Thus, Consistent training is shown to directly improve an athlete's capacity to achieve optimal performance.

Singh and Punia (2017) did research on Measurement of pre-competition anxiety in women football players among universities of central zone of India. The aim of this study is to measure pre-competition anxiety (PCA) level in inter-university women football team of central zone. The sample comprised of 55 female football Players from different level of central zone, 19 from LNIPE Gwalior, 17 from Barkatullah University, Bhopal and 18 from RTM Nagpur. Age of the subjects ranged between 18-25 years. Sports Competition Anxiety Test (SCAT Martens, 1990) was used to measures the trait anxiety of athletes (Marten et al. 1990). The study found that a decrease in Pre-competition Anxiety levels is associated with an improvement in performance among national-level inter-university football teams.

González et al., (2024) did research on analysis of the sports psychological profile, competitive anxiety, self-confidence, and flow state in young football players. The objective of this study was to analyse the relationships among the sports psychological profile, competitive anxiety, self-confidence, and the flow state in young football players and explore potential distinctions based on age category, competitive level and position on the field. The sample consisted of 328 participants divided into two groups: Group 1, 14–15 years old and Group 2, 16–18 years old. Group 1 consisted of 172 players and Group 2 consisted of 156 players. Psychological Inventory of Sport Performance (IPED) questionnaire, which consists of 42 items. Competitive State Anxiety Inventory-2 (CSAI-2) by Martens et al consists of 17 items. The Flow State Scale (FSS) consists of 36 items. The results revealed that athletes with higher scores in psychological skills tend to exhibit more favourable scores in variables favourable to adapting to the competitive environment, such as lower competitive anxiety and heightened self-confidence.

Singh et al., (2016) did research on a comparative study of flow state between handball and football players. The present study is an attempt to find out the significance of Flow State of Handball and Football players. The subjects for the study were 50 male Handball and 50 Football players from different schools of Chandigarh. To assess the flow state of subject Jackson & Eklund Flow State Scale- 2 (FSS-2) 2004 which consist of 31 Questions were used. The results of present study will assist the coaches and players to modify their training program and will also help them to understand the concept of flow and its effect on sports performance.

Yarayan et al., (2025) did research on the role of athletic mental energy in the occurrence of flow state in male football(soccer) players. The aim of the present study was to determine The role of athletic mental energy in the occurrence of flow state in male football (soccer) players. The study consisted of 254 male participants who continued their sportive careers as licensed in the football branch with a professional sportsmanship level in 2022 with an average age of 23 years. Athletic mental energy scale developed by Lu et al. which consists of 18 items and the other scale Dispositional flow Scale-2 developed by Jackson and Eklund consists of 36 items. The results show that athletes with higher mental energy levels have a higher optimal performance mood. These findings support that mental energy is an important factor in sport performance.

Garit et.al, (2024) did research on competitive anxiety and mood states in high-performance Cuban student athletes. The aim of this research is to assess competitive anxiety and mood states in a sample of high-performance Cuban University athletes across different sports and genders. The study comprised 46 university student-athletes, evenly divided between 23 males and 23 females, all of whom were pursuing degrees in Physical Education and represented national teams across 16 different sports, including soccer. The sample included 25 athletes participating in team sports and 21 in individual sports, with an average age of 20 to 21 years and approximately 7 years of experience in high-performance athletics. In soccer, there were 9 athletes (7 male, 2 female). The Study used 2 Questionnaires; Competitive State Anxiety Inventory (CSAI) by Martens et al., 1990 and Marquez 1992 which consist of 27 items and Brunel mood scale Mcnair et al., 1971 Canadas et al., 2017 consist of 24 items. The findings highlight the importance of managing emotions in sports. Female athletes showed slightly higher anxiety levels and more intense emotions overall. Competitive anxiety was linked to increased

tension, depression, and vigor, which could impact sports performance. Team sports showed slightly higher emotional intensity, possibly due to greater interaction among players. Mood states were closely linked, with anxiety mainly influencing negative emotions.

Adhikari et al., (2024) did research on beyond the scoreboard: a sectional study on competitive sports anxiety in football players. This study assesses how different factors—like age, experience, perceived match importance, and self-confidence—affect competitive anxiety in football players. Older players tend to have lower anxiety which also helps them in handling stress and pressure. Additionally, it also assesses the prevalence of competitive sports anxiety in football players thereby establishing a foundational understanding how common competitive anxiety is and its impact in the Indian footballing community, as well as facilitating the development of targeted interventions for specific subgroups within the sport. Twenty-four elite male Indian Football players affiliated with Bengaluru Football Club for the 2022- 2023 season. The players had around 7 years of club football experience on average. The study used two questionnaires: the Sports Competition Anxiety Test (SCAT; Martens, 1977) consist of 15-items and Competitive State Anxiety Inventory (CSAI) by Martens et al., 1990 and Marquez 1992 which consist of 27 items. The results indicate that High-pressure situations can lead to nervousness, thereby negatively impacting performance. Furthermore, Players with higher self-confidence experience less anxiety and perform better under pressure.

Boyd et al., (2018) did research on an examination of the differences in flow between individual and team athletes. The purpose of this study was to assess if there was a difference in the experience of flow within athletes participating in individual sports and those participating in team sports. consisting of 37 males (36%) and 67 females (64%), with ages ranging from 18 to 23 years. The sample included 37 athletes participating in Individual sports; Cross country, Golf, Tennis, and Track and Field and 67 athletes in Team Sports; Basketball, Baseball, Soccer, and Volleyball. The Study used Flow State Scale (FSS; Jackson & Marsh 1996) Questionnaire consisting of 36-items. The findings suggest that team athletes experience flow more intensely than individual athletes, particularly in areas like action-awareness merging, concentration, sense of control, challenge-skill balance, unambiguous feedback.

Objectives:

The main objectives of the present research are as under:

1. To study and compare Competitive Anxiety between Male and Female Football Players.
2. To study and compare Flow state between Male and Female Football Players.
3. To find out the coorelation coefficient between Competitive Anxiety and Flow State among male football players.
4. To find out the coorelation coefficient between Competitive Anxiety and Flow State among female football players.

Hypothesis

1. There is no significant difference between Male and Female Football Players with regards to Competitive State Anxiety.
2. There is no significant difference between Male and Female Football Players with regards to Flow State.
3. There is no significant coorelation between Anxiety and Flow state among Male Football Players.
4. There is no significant coorelation between Anxiety and Flow state among Female Football Players.

Method

Sample

In Present research, 60 Male and Female Football Players were randomly selected from various Sports Academies, football clubs, Sport Organisations and NGO's. Among them, the age range of participants is 13-24 years.

Inclusion Criteria

- Athletes who are actively playing, School and State level Football Players are included in the present research.
- Players with at least 1 year experience are included in the present research.
- Athletes under the age group pf 13-24 years are included.

Exclusion Criteria.

- Para Football Athletes are not included in the present research.
- Irregular in training are not included in the present research.
- Players having injury are not included in the present research.

Variables

In Present research, Gender of the Football Players is taken as independent variable and the scores of Competitive State Anxiety and Flow state are taken as Dependent Variable.

Data Collection Tools

1. Flow State Scale

The Flow State Scale (FSS-2) is a psychological measurement tool used to assess an individual's experience of flow during activities such as sports, music, or work. Flow is a mental state where a person is fully immersed in an activity, feeling energized, focused, and performing at their best. It is developed by Jackson & Marsh (1996) to measure flow in sports and performance settings. It consists of 36 items that assess nine dimensions of flow (e.g., challenge-skill balance, concentration, sense of control, and loss of self-consciousness). It uses a Likert scale
(e.g., 1 = strongly disagree to 5 = strongly agree).

Dimensions

1. Challenge-Skill Balance – The balance between perceived challenges and personal skill level. Flow occurs when challenges are neither too easy nor too difficult.
2. Action-Awareness Merging – A sense of automatic and effortless movement, where the person becomes fully absorbed in the activity.
3. Clear Goals – Having well-defined and achievable goals that provide direction and focus.
4. Unambiguous Feedback – Receiving immediate and clear feedback on performance, helping to adjust actions in real-time.
5. Concentration on the Task at Hand – Deep focus on the present moment, with full attention on the activity.
6. Sense of Control – Feeling in control of actions and outcomes without anxiety or fear of failure.
7. Loss of Self-Consciousness – Reduced self-awareness and concern for external judgment, leading to greater immersion.
8. Transformation of Time – A distorted perception of time, where moments may feel slowed down or pass quickly.
9. Autotelic Experience – Engaging in the activity for intrinsic enjoyment, rather than for external rewards or pressures.

Reliability and Validity

1. Reliability of the Flow State Scale

Reliability refers to the consistency and stability of the scale in measuring flow experiences across different conditions and time points.

Internal Consistency

The FSS-2 has high internal consistency, with Cronbach's alpha values typically above 0.80 for most of its nine dimensions. This means that the questions measuring each dimension are highly related and provide consistent results.

Test-Retest Reliability

- Studies show that the FSS-2 produces stable results when used repeatedly over time in similar conditions, with test-retest correlations often above 0.70. However, since flow is a dynamic state, some variability is expected.

Inter-Rater Reliability

- In structured assessments where multiple observers rate an individual's flow experience, there is strong agreement between raters.

2. Validity of the Flow State Scale

Validity determines whether the scale accurately measures flow state rather than unrelated psychological constructs.

Construct Validity

- The FSS-2 aligns with Csikszentmihalyi's nine-dimensional model of flow, confirming that it measures the intended psychological state. Factor analysis supports the nine-factor structure.

Convergent Validity

- The FSS-2 correlates well with other psychological measures related to flow, such as intrinsic motivation, task engagement, and peak performance scales. This confirms that it measures aspects of flow rather than unrelated concepts.

Discriminant Validity

- The FSS-2 does not strongly correlate with unrelated constructs, such as anxiety or depression, proving that it measures flow as a distinct experience.

Criterion Validity

- High FSS-2 scores are linked with enhanced performance, creativity, and enjoyment, supporting its real-world applicability.

High Scores → Strong flow state, peak performance, and intrinsic motivation.
Low Scores → Struggles with focus, motivation, or anxiety, leading to poor performance.

2. Competitive State Anxiety Inventory -2

The Competitive State Anxiety Inventory-2 (CSAI-2) is a psychological tool developed by Rainer Martens, Robin S. Vealey, and Damon Burton in 1990. It was designed as a revised version of the original CSAI (1977) to provide a more refined measurement of competitive anxiety in athletes. It was designed to measure competitive anxiety in athletes before or during competition. It assesses anxiety across three key dimensions: Cognitive Anxiety, Somatic Anxiety, and Self-Confidence. The scale consists of 27 items, divided into three subscales (9 items each) that measure different aspects of competitive anxiety: Cognitive Anxiety (Worry & Negative Thoughts), Somatic Anxiety

(Physical Symptoms) and Self-Confidence (Belief in Ability).

Reliability and Validity

Reliability

Reliability refers to how consistently the CSAI-2 measures competitive anxiety.

Internal Consistency (Cronbach's Alpha)

- The subscales show high reliability, with Cronbach's alpha typically ranging from 0.79 to 0.91.
- This indicates that the items within each subscale are highly related and consistently measure the intended factors.

Test-Retest Reliability

- Studies report moderate to high test-retest reliability (above 0.75), meaning results remain stable when athletes take the test at different times under similar conditions.

Validity

Validity determines whether the CSAI-2 accurately measures competitive anxiety and its effects on performance.

Construct Validity

- The three-factor structure (Cognitive Anxiety, Somatic Anxiety, and Self-Confidence) aligns with theoretical models of anxiety and performance.

Convergent Validity

CSAI-2 correlates well with other anxiety-related scales, such as Spielberger's State-Trait Anxiety Inventory (STAI), confirming it measures competitive anxiety effectively.

Discriminant Validity

CSAI-2 does not strongly correlate with unrelated constructs, such as general stress or personality traits, proving it measures competitive-specific anxiety.

Predictive Validity

High cognitive and somatic anxiety scores often predict poorer performance, while high self-confidence scores predict better performance in competitive settings.

Procedure

Permission was obtained from different Sports Academies, Football clubs, Sport Organisations and NGOs to collect the data and the objectives of the research were explained to the authority. Consent was also taken from the authority before approaching the participants. Each participant was informed about the confidentiality of the research. During the data collection, every aspect of the study was explained in detail. After establishing the repo with each participant. Competitive State Anxiety Inventory and Flow State Scale were administered in small manageable group and via online through google forms. After completion of the data collection, scoring was done by using scoring key as per the manual of each test. The data was arranged in appropriate tabulated form for analysis.

Statistical Analysis

To examine the relationship between flow state and competitive anxiety, appropriate statistical methods were employed. Descriptive statistics (mean, standard deviation) were calculated to summarize the data. To determine significant differences between groups, Independent Samples t-test was used. This test helped identify whether there was a statistically significant difference on the level of flow state experienced by the participants. Additionally, the Pearson Correlation Coefficient was applied to assess separately for male and female football players whether there was any significant correlation between flow state and competitive anxiety. A positive correlation between Flow State and Competitive State Anxiety would indicate that as football players experience more flow, their competitive anxiety also tends to increase. All statistical analyses were conducted using R, and GraphPad with a significance level (α) set at 0.05.

Results and Discussion

Table 1

Showing results of Mean, SD and t of Competitive Anxiety of Male and Female Football Players

Group	N	Mean	SD	t	Level of Significance
Male	**30**	**66.93**	**12.73**	**2.26**	**0.05**
Female	**30**	**73.10**	**7.77**		

Discussion:

The t-value of Male and Female Football Players in relation to Competitive State Anxiety is 2.26 which is significant at 0.05 Level. Therefore, the null hypothesis, "There is no significant difference between Male and Female Football players with regards to Competitive State Anxiety, is rejected. This indicates that Significant difference was found between Male and Female Football Players with regards to Competitive State Anxiety. The mean scores of anxiety of Male and Female Football Players are 66.93 and 73.10 with SD 12.73 and 7.77 respectively. Here, Female Football Players have more Competitive Anxiety than male football players.

Table 2
Showing results of Mean, SD and t of Flow State of Male and Female Football Players

Group	N	Mean	SD	t	Level of Significance
Male	30	120.37	20.31	2.23	0.05
Female	30	130.70	15.115		

Discussion:

The t-value of Male and Female Football Players in relation to Flow State is 2.23 which is significant at 0.05 Level. Therefore, the null hypothesis, "There is no significant difference between Male and Female Football players with regards to Flow State, is rejected. It indicates that Significant difference was found between Male and Female Football Players with regards to Flow State. The mean scores of flow state of Male and Female Football Players are 120.37 and 130.70 with SD 20.31 and 15.115 respectively. Here, Female Football Players have better Flow state than male football players.

The correlation of Coefficient between Competitive Anxiety and Flow State among Male Football Players is -0.07, which is negative and not significant so the null hypothesis "There is no significant correlation between Competitive Anxiety and Flow state among Male Football Players", is accepted. This indicates that Significant correlation was not found between Flow state and Competitive Anxiety among Male Football Players.

The correlation of Coefficient between Competitive Anxiety and Flow State among Female Football Players is -0.21 which is negative and not significant so the null hypothesis "There is no significant correlation between Anxiety and Flow state among Female Football Players", is accepted. This indicates that Significant correlation was not found between Flow state and Competitive Anxiety among Female Football Players.

Recommendations:

- Given the current study, Recommendations include athletes from diverse sports, skill levels, and different cultural backgrounds across competitive levels. Longitudinal studies are recommended to track anxiety and flow over time. Incorporate mixed-methods approaches (qualitative & quantitative). Use longitudinal studies with multiple time points and combine self-reports with objective physiological measures for more accurate insights.

Future Research Scope

Gender-specific analyses should be further explored to understand underlying psychological or social factors contributing to these differences. Furthermore, Intervention-based studies should be conducted to evaluate the effectiveness of psychological strategies such as mindfulness training, cognitive-behavioral techniques, and goal-setting interventions for anxiety reduction and flow enhancement. Additionally, the integration of technology, such as wearable devices and neurofeedback, is proposed to measure real-time anxiety and flow during training and competitions. And finally explore how flow and anxiety differ between team-based and solo athletes. Assess if mindfulness, visualization, or biofeedback techniques can help athletes transition from anxiety to flow. Track athletes over multiple seasons to assess how anxiety and flow patterns evolve with experience.

There can be use of EEG, fMRI, to identify biological signatures of anxiety and flow. Examine cortisol and other stress biomarkers in relation to performance outcomes across genders. Study how different football cultures (e.g., European academies vs. South American street football) influence anxiety and flow. Detect anxiety triggers and flow-enhancing conditions in athletes. Develop real-time monitoring systems that track momentary anxiety changes during matches and identify physiological triggers of flow state transitions. This can help understand when and how athletes shift into or out of flow and what factors influence these changes. Examine whether certain game situations—like penalty kicks or last-minute plays—consistently trigger specific patterns of anxiety and flow. Compare anxiety levels across cultures, focusing on players trained in football academies versus those developed through street football. It should also explore how anxiety differs by playing position, such as goalkeepers versus forwards. Use game footage to identify the situations and conditions where players are most likely to enter a flow state. Development of AI coaching assistants for real-time psychological state monitoring. Explore how teams experience flow together (collective flow), how different leadership styles affect team anxiety, and how anxiety or flow can spread among teammates through social influence. These ways aim to deepen theoretical understanding while providing practical tools for athletes, coaches, and sports psychologists to optimize performance. Lastly, Future Research should compare team-based versus individual athletes and explore how the dynamics of group interaction, shared pressure, and collaborative performance impact flow experiences and competitive anxiety differently across sport types.

Limitations

The study was limited to football players; findings may not generalize to other sports. Anxiety and flow were measured through self-reported questionnaires, which may be influenced by personal bias. No physiological measures (e.g., heart rate variability, cortisol levels) to validate psychological responses. Data was collected at only one point in time, limiting the ability to capture changes in anxiety and flow throughout a season or match. Important factors such as playing position, years of experience, and competitive level were not controlled, which may have influenced the results. Cultural influences on anxiety and flow were not examined. Team dynamics and coaching styles were not accounted for. The study did not explore how other variables might mediate or moderate the relationship between anxiety and flow. The study lacked in-game performance data or real-time monitoring to support findings with observable outcomes. The setting may not fully reflect the actual pressure and intensity of real competitive matches. There was no follow-up to assess whether anxiety and flow patterns had lasting effects on performance or well-being.

Managerial Implications

Introduce anxiety management programs that include pre-competition relaxation techniques like deep breathing and visualization to reduce anxiety, particularly for female athletes who reported higher levels. Conduct pressure simulation drills in training to help players adapt to high-stress match situations. Design training sessions that balance challenge and skill level to facilitate flow. Use small-sided games and scenario-based drills to promote immersion and automaticity in decision-making. Help male athletes improve focus and emotional control to achieve deeper flow states. Use wearable tech (HRV monitors, EEG headsets) to track anxiety and flow during matches. Introduce biofeedback training to teach athletes self-regulation techniques. Integrate sports psychologists into coaching staff for continuous mental conditioning. Organize workshops on resilience, goal-setting, and mindfulness to foster a flow-conducive environment. Assess psychological traits (anxiety resilience, flow proneness) alongside physical skills in youth academies. Monitor players' long-term mental adaptation to competitive pressures. Include mental skills training in coaching certification programs. Promote research on anxiety-flow dynamics to refine player development frameworks.

By implementing these strategies, football organizations can reduce performance-hindering anxiety, maximize flow states, and ultimately improve both individual and team success. Future integration of technology, psychology, and coaching science will be key to advancing athlete performance

Conclusion:

1. Significant difference was found between Male and Female Football Players with regards to Competitive State Anxiety. Here, Female Football Players have more Competitive Anxiety than male football players.
2. Significant difference was found between Male and Female Football Players with regards to Flow State. Here, Female Football Players have better Flow State than male football players.
3. Significant correlation was not found between Flow state and Competitive Anxiety among Male Football Players.
4. Significant correlation was not found between Flow state and Competitive Anxiety among Female Football Players.

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