

Competitive anxiety in soccer: differences across playing roles and sport participation levels

Murad Sultanov^{1ABCD}, Tukezban Rustamova^{2CDE}, Jamila Aliyeva^{3CDE}, Tamilla Karimova^{3CDE}

¹*Academician A. Garayev Institute of Physiology, Ministry of Science and Education of the Republic of Azerbaijan, Azerbaijan*

²*Department of Anatomy, Physiology and Zoology, Ganja State University, Azerbaijan*

³*Faculty of the Department of Biology and Ecology, Odlar Yurdu University, Azerbaijan*

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Abstract

Background and Study Aim Competitive anxiety is associated with psychological responses during sports performance in soccer. Players with different roles on the pitch may experience different psychological demands during competition. Despite the use of various approaches to psychological preparation in soccer, the relationship between competitive anxiety, playing roles, and sport participation level remains a subject of practical interest. This study aimed to examine competitive anxiety in relation to playing roles and the level of sports participation in soccer.

Material and Methods The study involved 78 male participants, including professional soccer players (N = 39) aged 17 to 21 from four clubs and amateur soccer players (N = 39) aged 17 to 22, who were physical education students recruited from Sport University. The roles of professional soccer players were categorized into two main groups: offensive (creative) and defensive (destructive), based on their primary functions on the pitch. To evaluate the competitive anxiety of all participants, the Sport Competition Anxiety Test (SCAT) was used.

Results Professional soccer players demonstrated significantly lower levels of competitive anxiety compared to students ($p = 0.028$). No significant differences in competitive anxiety were found between offensive and defensive players ($p > 0.05$). However, a moderate effect size ($d = 0.57$) suggested potential role-related variation.

Conclusions Competitive anxiety appears to be more strongly associated with sport participation level than with playing role. These findings support the idea of relative psychological similarity across playing roles. Coaches working with less experienced athletes should gradually increase competitive demands and use match-like training to support adaptive anxiety regulation.

Keywords: anxiety, personality traits, playing position, soccer, students.

Introduction

Soccer performance is influenced by the interaction of physical, technical, tactical, and psychological factors during competition. Among psychological factors, competitive anxiety is associated with emotional and behavioral responses that may affect decision-making, concentration, and execution of game actions under pressure. The manifestation of competitive anxiety in soccer can vary depending on the athlete's competitive experience and the specific demands associated with playing roles on the pitch. Differences in tactical responsibilities and match situations may contribute to variations in psychological responses among players during competition. At the same time, the interaction between competitive anxiety, playing roles, and sport participation level remains a relevant area for further investigation in soccer.

Elite-level soccer performance is influenced not

only by physical and technical abilities but also by psychological factors, including competitive anxiety [1]. The relationship between athletes' personality traits and their playing roles is an important issue in high-performance sports. The roles of soccer players differ in the tasks performed during a game and in their playing positions on the field. These differences also extend to specific game rules applied to certain players, such as goalkeepers. Previous studies in team sports have shown that players in different positions differ in body composition [2], as well as in skills and abilities [3].

Such differences suggest that players in different positions may also differ in several personality characteristics. For instance, the hypothesis that central midfielders in a soccer team may be more extroverted than players in roles requiring more independent and autonomous actions, such as goalkeepers, is theoretically sound. One of the key functions of central midfielders is to coordinate and lead the team during gameplay [4]. Current literature indicates that the relationship between personality traits, including psychoticism,

neuroticism, and anxiety, and athletes' playing positions remains an important issue in team sports.

Several studies in team sports have examined the relationship between playing roles and psychological characteristics of athletes. Research involving American football players showed that athletes in offensive positions demonstrated more effective anxiety management than players performing defensive roles [5]. In hockey, self-reported personality traits were not associated with playing position; however, forwards were perceived as more extroverted, less disciplined, and more open to new experiences than goalkeepers and defensemen [6]. Another study involving soccer players reported higher anxiety levels among attackers from mature teams and goalkeepers from youth teams compared to players in other roles. Differences in anxiety levels were also observed between First League players and players under 21 years of age [7]. These findings suggest that psychological characteristics in team sports may vary depending on tactical functions, competitive experience, and playing roles on the field. Additional evidence also indicates possible psychological differences between offensive and defensive players [9].

Analysis of research findings has shown that competitive anxiety in team sports may be associated with playing roles, tactical responsibilities, and the level of sport participation. Researchers emphasize that psychological responses during competition are influenced by both individual characteristics and the functional demands imposed on athletes during gameplay. At the same time, previous studies have typically examined competitive anxiety either in relation to sport participation level or to playing position separately, while findings regarding psychological differences between playing roles remain inconsistent. Existing studies have also mainly relied on traditional positional classifications, which may not fully reflect the functional roles of players in modern soccer. This situation continues to complicate the interpretation of the relationship between competitive anxiety, playing roles, and competitive experience within a unified analytical framework.

Based on previous findings and theoretical considerations regarding psychological demands in team sports, this study aimed to examine competitive anxiety in relation to playing roles and the level of sport participation in soccer. It was assumed that professional soccer players would demonstrate lower levels of competitive anxiety than physically active students. It was also hypothesized that competitive anxiety would differ between players performing offensive (creative) and defensive (destructive) roles.

Materials and Methods

Participants

This study involved 39 professional male soccer players from four soccer clubs. The ages of these participants ranged from 17 to 21 years, with a mean age of 18.27 (SD = 0.95). The control group consisted of 39 amateur sport students enrolled in undergraduate programs (years 1-4) at the Sports University. Their ages ranged from 17 to 22 years, with a mean age of 18.41 (SD = 1.10). The group of professional soccer players trained 9 hours per week, whereas the group of students trained 4.5 hours per week. Participants were recruited using a convenience sampling approach.

The inclusion criteria for both groups were as follows: a) age between 17 and 22 years; b) active engagement in regular physical or sport activity; and c) absence of self-reported neurological, psychiatric, or cardiovascular disorders. The exclusion criteria included incomplete questionnaire data and failure to meet the inclusion criteria. Recruitment was conducted through direct contact with soccer clubs for the professional group and through the Sports University for the student group.

All participants voluntarily agreed to participate in the study. Permission to conduct the study was obtained from the management of the soccer clubs and the university administration. Verbal informed consent was obtained from all participants before data collection. The study was conducted in accordance with the principles of the Declaration of Helsinki and was approved by the Local Ethics Committee of the Institute (Protocol No. 2).

Research Design

Measures

Competitive anxiety assessment

The level of competitive anxiety in both groups (experimental and control) was assessed using the Sport Competition Anxiety Test (SCAT) developed by Martens [10]. A translated and adapted version of the questionnaire was used for the assessment [11]. The questionnaire consists of 15 items, each with a corresponding response scored in points. It uses a three-point Likert scale with the following response options: A (rarely), B (sometimes), and C (often).

The total score ranges from 10 to 30 points, where 10 indicates very low competitive anxiety and 30 indicates very high competitive anxiety. Scores from 10 to 16 indicate a low level of anxiety, scores from 17 to 24 indicate an average level, and scores from 25 to 30 indicate a high level of anxiety. Ten items on the scale are used in the final scoring procedure, whereas the remaining five are buffer items and are not included in the calculation of the final score.

Personality assessment

At the second stage of the study, the personality

traits of the professional soccer players were assessed using Eysenck's Personality Questionnaire (EPQ), which consists of 101 items [12]. This instrument was designed to assess several dimensions of personality structure, specifically Psychoticism, Extraversion, and Neuroticism [13]. The questionnaire was translated into Azerbaijani and adapted by the Department of Psychology at the State University. Although the internal consistency coefficients for several translated scales were relatively low, similar variability in reliability has been reported in previous studies using adapted sport-related personality measures in non-English-speaking samples. Therefore, the findings should be interpreted with caution and considered exploratory.

Descriptive statistics and Cronbach's alpha coefficients for personality traits among professional players and physical education students are presented in Table 1.

Table 1. Descriptive statistics and Cronbach's alpha coefficients for personality traits among professional players and physical education students.

Parameters	Soccer players			Students		
	Mean	SD	α	Mean	SD	α
Psychoticism	5.13	3.27	0.34	5.23	3.55	0.34
Extraversion	15.36	3.30	0.46	15.56	3.53	0.49
Neuroticism	12.26	4.99	0.86	12.36	4.66	0.73
SCAT	15.54	3.05	0.43	17.23	3.59	0.44

Note. SCAT = Sport Competition Anxiety Test.

Procedures and Data Collection

The present study employed a cross-sectional comparative design. Data collection was conducted in controlled settings, either within club facilities for professional players or in university classrooms for students. All participants completed the questionnaires under standardized conditions and received identical instructions. The assessment was administered in a non-competitive context to minimize situational influences on anxiety responses.

To assess competitive anxiety and personality traits, participants completed the Sport Competition Anxiety Test (SCAT) and the Eysenck Personality Questionnaire (EPQ). The questionnaires were administered in paper-based format after training sessions, and the completed forms were returned directly to the researcher. Participants first completed the EPQ, followed by the SCAT, to reduce the potential influence of sport-specific anxiety questions on general personality responses. Participants were given several days to complete the questionnaires in order to minimize time pressure and improve response accuracy.

Data collection and analysis were completed over a period of approximately six months. Before participant recruitment, the researcher

communicated with coaches, club representatives, and university staff to facilitate access to both groups. Professional soccer players were recruited from four clubs based on their active participation in organized training and competition. The professional players participated in the study between the first and second phases of the competitive season. The control group consisted of physically active university students specializing in soccer at the Sports University.

The respondents completed the questionnaires independently and submitted them to the researcher for further analysis. The playing roles of the professional soccer players were identified using a designated section in the questionnaire form and were additionally verified through observational assessment. For the purposes of functional analysis, playing roles were categorized into two main types: creative and destructive.

The classification of players into functional roles was based on their primary playing position as reported by the participants and verified according to their typical tactical role within the team. Players were assigned to a role based on their dominant functional contribution during matches (offensive vs. defensive). Although the classification procedure relied on a single-rater assessment, predefined functional criteria were applied to reduce subjectivity. The absence of inter-rater reliability assessment is acknowledged as a limitation of the study.

The creative type included attacking midfielders, wingers, and forwards, whose primary function was to create and convert scoring opportunities. The destructive type included defenders and defensive midfielders, whose primary function was to disrupt the opponent's buildup and maintain defensive organization. Modern central midfielders may perform hybrid functions, which could contribute to psychological similarity across playing roles (Table 2). Although goalkeepers and other defensive-oriented players were classified as defensive due to their goal-protection responsibilities, modern tactical approaches may also involve them in offensive buildup and attacking situations, such as set pieces and long-range ball distribution.

The classification of playing roles into creative (offensive) and destructive (defensive) categories was applied as a functional approach based on the dominant task demands during gameplay. Creative roles included players primarily involved in the creation and conversion of scoring opportunities, whereas destructive roles included players whose primary functions were to disrupt opponent actions and maintain defensive stability. During the classification procedure, recommendations outlined in [5, 6] were taken into account.

At the same time, it was recognized that modern soccer includes hybrid and dynamic playing roles.

Therefore, the present classification was used to provide a controlled comparison of dominant functional demands and did not aim to fully represent the complexity of contemporary tactical systems. According to the final classification, 17 players were assigned to the creative group and 22 players to the destructive group (Table 3).

Midfielders with mixed or hybrid functions, such as box-to-box midfielders, were not included in the sample in order to maintain a clear functional distinction between players primarily focused on offensive buildup and those primarily focused on defensive disruption. Recommendations outlined in [15, 16] were also considered during the classification process. Hybrid midfielders were operationally defined as players regularly performing both offensive and defensive transitional functions. These players were excluded from the final role-based comparison because their tactical responsibilities did not allow clear assignment to either predominantly creative or predominantly destructive categories.

The identification process was based on players' self-reported primary playing position and the researcher's tactical evaluation of their dominant functional role within the team structure. Data collection and analysis were completed over a period of approximately six months.

Statistical Analysis

Initial data processing was performed using MS Excel. Statistical analysis was subsequently performed using IBM SPSS Statistics 23.0.

To test H-1 (differences between professional players and students), the Student's t-test and one-way ANOVA for effect size estimation were conducted, with group as the independent variable and competitive anxiety as the dependent variable. To test H-2 (differences between playing roles), the Student's t-test and one-way ANOVA for effect size estimation were conducted within the professional group, with playing role as the independent variable.

Assumptions of normality and homogeneity of variance were evaluated using the Shapiro–Wilk and Levene's tests, respectively. Parametric tests were

Table 2. Functional classification of soccer playing roles.

Field line	Traditional position	Primary functional orientation	Primary psychological demands
Goalkeeping	Goalkeeper	Destructive	High accountability for errors; ability to maintain concentration during prolonged periods of limited involvement
Defenders	Center-back / Full-back (wide)	Destructive	Sustained focus on interceptions and one-on-one defensive situations; responsibility for defensive organization [14]
Defensive midfield	Holding midfielder ("anchor")	Destructive	Continuous spatial awareness; disciplined positioning; frequent tactical disruptions
Central midfield	Central midfielder (box-to-box)	Mixed (creative + destructive)	High physical and cognitive workload; rapid transition between defensive and offensive actions
Attacking midfield	Attacking midfielder (playmaker)	Creative	Decision-making under pressure; creative problem-solving in limited space
Wings	Winger / Wide forward	Creative	High speed of execution; frequent one-on-one situations; responsibility for creating scoring opportunities
Attackers	Center-forward (striker)	Creative	Pressure associated with scoring opportunities; resilience following unsuccessful attempts

Table 3. Distribution of professional soccer players according to functional playing roles

Playing position	Field zone	Number of players	Primary functional orientation
Goalkeeper	Central	1	Destructive
Defender	Central	8	Destructive
Defender	Wide	7	Destructive
Defensive midfielder	Central	6	Destructive
Midfielder	Central	0	Mixed/Hybrid
Attacking midfielder	Central	11	Creative
Forward	Wide	2	Creative
Forward	Central	4	Creative

applied when the assumptions were met; otherwise, nonparametric alternatives were used. Effect sizes were reported using Cohen’s d and eta-squared (η^2).

When the data met the assumptions of normal distribution, the Student’s t-test was used to compare personality traits according to the Eysenck questionnaire. In other cases, the nonparametric Mann–Whitney U test was applied. In addition, the χ^2 test with Yates’s correction for continuity was used to analyze differences between low and average anxiety levels among professional soccer players. The level of statistical significance was set at $p < 0.05$.

Results

Professional soccer players demonstrated significantly lower levels of competitive anxiety compared to physically active students. ANOVA revealed a significant effect of group, $F(1, 76) = 5.04$, $p = 0.028$, $\eta^2 = 0.062$, indicating a moderate effect size. The corresponding standardized mean difference was Cohen’s $d = 0.51$ (Figure 1). The descriptive statistics and results of the group comparison are presented in Table 4.

Figure 1 presents the distribution of competitive anxiety scores among professional soccer players and physically active students, demonstrating generally higher anxiety scores in the student group.

Within the group of professional soccer players,

competitive anxiety did not differ significantly between players performing creative (offensive) and destructive (defensive) roles. ANOVA did not reveal a statistically significant effect of playing role, $F(1, 37) = 2.96$, $p = 0.09$ (Table 5). However, the corresponding effect size indicated a moderate difference between groups (Cohen’s $d = 0.57$). A post hoc power analysis ($\alpha = 0.05$, $d = 0.57$, $n_1 = 17$, $n_2 = 22$) indicated limited statistical power ($1 - \beta = 0.43$) for detecting moderate subgroup differences.

Descriptive analysis showed that professional soccer players predominantly demonstrated low to moderate levels of competitive anxiety, with no cases of high anxiety observed in the sample. In the group of physically active students, one participant demonstrated a high level of competitive anxiety (SCAT score = 25), whereas the remaining participants demonstrated low or moderate anxiety levels (Figure 1).

The χ^2 test with Yates’s correction for continuity did not reveal statistically significant differences between low and moderate anxiety levels among professional soccer players ($p > 0.57$). The distribution of anxiety levels across playing roles is presented in Figure 2. The results indicated no statistically significant differences in the distribution of low and moderate anxiety levels between players performing creative and destructive roles.

SCAT scores

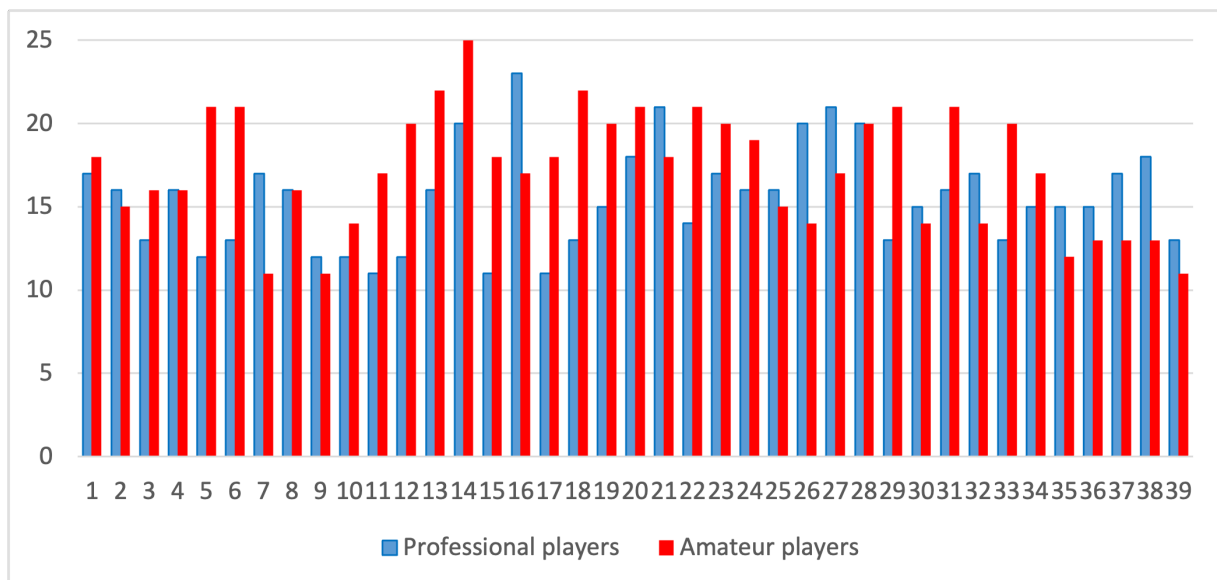


Figure 1. Distribution of competitive anxiety scores among professional soccer players and physically active students.

Table 4. Differences in competitive anxiety between professional soccer players and physical education students.

Participants	N	Mean	SD	SE	95% CI		t	p
					Lower Bound	Upper Bound		
Soccer players	39	15.54	3.05	0.49	-3.19	-0.19	-2.24	0.028
Students	39	17.23	3.59	0.57	-3.19	-0.19		

Table 5. Differences in competitive anxiety between creative and destructive playing roles among professional soccer players.

Playing role	N	Mean	SD	SE	95% CI		t	p
					Lower Bound	Upper Bound		
Creative	17	16.47	3.20	0.78	-0.29	3.60	1.72	0.094
Destructive	22	14.82	2.79	0.59	-0.34	3.65		

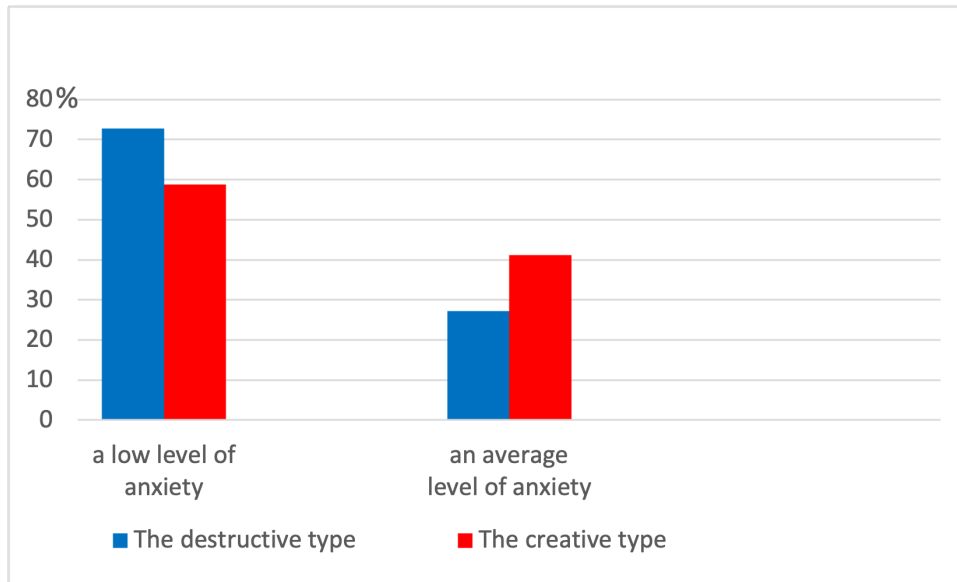


Figure 2. Distribution of competitive anxiety levels across playing roles among professional soccer players.

Further analysis of personality traits based on Eysenck’s Personality Questionnaire (EPQ) revealed no statistically significant differences between players performing creative and destructive roles across all measured dimensions (all $p > 0.05$), including Psychoticism, Extraversion, and Neuroticism. The descriptive statistics for personality traits according to playing role are presented in Table 6.

Table 6. Differences in personality traits between creative and destructive playing roles among professional soccer players

Scale	Creative		Destructive	
	Mean	SD	Mean	SD
Psychoticism	5.88	3.26	4.55	3.23
Extraversion	15.18	2.90	15.50	3.64
Neuroticism	13.88	5.59	11.00	4.19

Discussion

The present study examined competitive anxiety in relation to the level of sport participation and functional playing roles in soccer. The results demonstrated that professional soccer players exhibited significantly lower levels of competitive anxiety compared to physically active students. This finding supports the assumption that regular participation in organized competitive sport may contribute to the development of more adaptive

emotional regulation and anxiety management mechanisms. Continuous exposure to training routines, competitive situations, and performance-related demands may facilitate greater psychological stability in athletes. These findings are consistent with previous studies reporting lower anxiety levels among individuals regularly engaged in sport participation [17, 18].

In contrast, no statistically significant differences were found between players performing creative and destructive roles. These findings suggest that competitive anxiety may not be strongly differentiated according to functional playing role in soccer. From a theoretical perspective, this may reflect the high level of functional integration characteristic of team sports, where psychological demands are distributed across players rather than being limited to specific positions. Modern soccer requires athletes in different roles to perform under similar cognitive and emotional demands, including rapid decision-making, sustained attention, and adaptation to dynamic game situations.

At the same time, the absence of statistically significant differences should be interpreted with caution. Although the role-related effect was not statistically significant, the observed effect size was moderate ($\eta^2 = 0.074$; Cohen’s $d = 0.57$) [19]. This finding suggests that potential role-related differences cannot be completely excluded and may not have been detected due to the limited

statistical power of the study and the broad functional classification applied. It is also possible that subtle variations in competitive anxiety exist across playing roles but require more differentiated positional categories for detection.

The present findings are also consistent with previous studies reporting limited differences in personality traits across playing positions in team sports. Overall, the results support the perspective that psychological characteristics in team sports may be influenced more by shared performance demands than by positional specialization.

Furthermore, the personality trait findings observed in the present study are generally consistent with results reported in other team sports. Cameron and colleagues reported that neuroticism scores in hockey players did not differ substantially between goalkeepers, defenders, and attacking players [6]. Although those authors identified differences in stereotypical personality profiles across playing roles, no significant differences were found in self-reported personality traits. Similarly, a study involving female basketball players did not reveal differences in anxiety or neuroticism across playing positions [20]. These findings are consistent with the present results and support the assumption that anxiety may be associated with relatively stable temperamental characteristics linked to neuroticism [21].

The absence of differences in personality traits between creative and destructive playing roles provides additional support for the findings related to competitive anxiety (Table 6). In addition, the EPQ results were generally similar between professional soccer players and physical education students across the measured personality dimensions (Table 1).

The absence of differences in both competitive anxiety and personality traits across playing roles suggests that functional roles in soccer may not be strongly differentiated at the level of stable psychological characteristics. This finding supports the interpretation that shared performance demands in team sports may have a greater influence on psychological profiles than positional specialization.

At the same time, some previous studies have reported role-related differences in anxiety among soccer players [7]. However, that study focused on anxiety as a situational or pathological condition rather than as a relatively stable personality-related characteristic. In contrast, a study involving African soccer players aged 14–18 years reported no differences in anxiety levels or worry management between goalkeepers, defenders, midfielders, and forwards [22].

Additional evidence from a large-scale study involving more than 2,000 participants from 16 team sports showed differences between offensive and defensive players only in the trait of extraversion. The subgroup analysis conducted specifically on

soccer players did not reveal statistically significant differences in neuroticism or extraversion [4]. Similarly, research involving American football players demonstrated differences between offensive and defensive players only in the ability to control anxiety [5].

In interpreting the present findings within established theoretical frameworks, it is relevant to consider the developmental hypothesis and the selection (or gravitational) hypothesis commonly discussed in sports psychology [18, 23]. The developmental hypothesis proposes that long-term engagement in a specific sport or playing role may influence psychological characteristics, whereas the selection hypothesis suggests that individuals with certain predispositions are more likely to select or be assigned to particular roles. In the present study, no significant differences in competitive anxiety were observed between players performing different playing roles. This finding does not support the assumption that role-specific demands in soccer are associated with clearly differentiated levels of competitive anxiety.

From a theoretical perspective, the present findings may be considered within both developmental and selection frameworks; however, the cross-sectional design of the study does not allow direct differentiation between these mechanisms. Although the absence of role-related differences may be consistent with the selection hypothesis, such an interpretation remains tentative. Longitudinal studies are required to determine whether competitive anxiety develops through sport participation or reflects relatively stable pre-existing individual characteristics.

From an ecological and functional perspective, modern soccer may impose similar cognitive and emotional demands on players regardless of tactical role. These demands include time pressure, decision-making under uncertainty, and continuous interaction with teammates and opponents. As a result, positional differences may become less pronounced at the psychological level, particularly with respect to competitive anxiety. A similar interpretation was proposed by Terwiel and Kritzler [4], who suggested that commonly assumed psychological differences between playing roles may reflect stereotypes rather than empirically established patterns. Nevertheless, this interpretation should be treated with caution because the present data do not permit direct testing of these theoretical mechanisms.

In summary, previous studies have examined anxiety and personality traits across different playing positions in team sports; however, the present study applied a functional approach based on offensive (creative) and defensive (destructive) playing roles rather than relying exclusively on traditional positional categories. In addition, the

study examined both role-related differences and differences associated with sport participation level within a single analytical design. The study also focused specifically on competitive trait anxiety in young soccer players. This approach made it possible to examine whether psychological characteristics in soccer are more closely associated with functional tactical demands or with the overall level of sport participation.

Practical implications for coaches

The present findings suggest that competitive anxiety in soccer may be more strongly associated with the level of sport participation than with specific playing roles. From a practical perspective, these findings indicate that coaches may prioritize the development of general psychological skills related to anxiety regulation across all players rather than limiting psychological interventions to particular playing positions. Psychological preparation strategies, including stress management, attentional control, and pre-performance routines, may therefore be implemented at the team level.

At the same time, the observed moderate effect size suggests that subtle role-related differences may still exist. Consequently, coaches should remain attentive to individual differences and situational demands when applying psychological strategies in practice. In addition, the lower levels of competitive anxiety observed among professional players may reflect the influence of regular exposure to competitive environments. Coaches working with less experienced athletes may therefore consider the gradual increase of competitive demands and the inclusion of match-like training conditions to facilitate adaptive anxiety regulation. Overall, the findings support the use of both team-based psychological preparation and flexible individual adjustments according to athletes' responses and performance contexts [24].

Limitations

Several limitations of the present study should be acknowledged. The relatively small sample size, particularly in subgroup comparisons between creative and destructive playing roles, may have limited the statistical power to detect moderate effects. Given the observed moderate effect size, larger samples may provide greater sensitivity for identifying potential role-related differences in competitive anxiety. In addition, the use of self-report questionnaires may have increased the risk of response bias.

The classification of playing roles was based on a simplified functional dichotomy and may not fully reflect the complexity of tactical functions in modern soccer. In addition, the study did not include an assessment of inter-rater reliability, which may limit the precision of role assignment. Future studies should consider the use of multi-rater classification

procedures and more differentiated role categories.

Several translated scales also demonstrated relatively low internal consistency coefficients, particularly the Psychoticism scale and SCAT [25]. Therefore, findings involving these measures should be interpreted with caution. Future research should include larger samples, multidimensional role classifications, and performance-related variables to further examine the relationship between psychological characteristics and functional playing roles in soccer.

Future directions

The present findings indicate several directions for future research. Future studies may examine whether similar patterns of competitive anxiety are observed across different sports, including both team and individual disciplines. It may also be useful to investigate whether differences in functional roles or performance styles within a specific sport are associated with variations in competitive anxiety. Such approaches may contribute to a broader understanding of the relationship between task demands and psychological characteristics in sport.

Longitudinal research designs may help clarify whether competitive anxiety is influenced by long-term sport participation or reflects relatively stable individual predispositions. In addition, future studies should examine competitive anxiety in more ecologically valid settings, including real-time competitive situations, in order to better capture the interaction between psychological states and performance demands.

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Conclusions

Professional soccer players demonstrated lower levels of competitive anxiety than physically active students of a similar age. At the same time, no statistically significant differences in competitive anxiety were observed between players performing creative (offensive) and destructive (defensive) roles. These findings suggest that competitive anxiety in soccer may be more strongly associated with the level of sport participation than with functional playing role.

The results also indicate that players with different tactical responsibilities may experience similar levels of competitive anxiety despite differences in their on-field functions. However, the observed moderate effect size suggests that subtle role-related variations may still exist. Therefore, psychological preparation strategies may be applied broadly across players while remaining flexible to individual responses and situational demands.

Overall, the present study provides additional

evidence regarding competitive anxiety in soccer within a functional framework based on creative and destructive playing roles.

Conflict of Interest

The author declares no conflict of interest.

AI Tools Usage

The authors acknowledge the use of AI tools, including ChatGPT and Google Gemini, for language refinement and general editorial feedback. All scientific content, interpretations, and conclusions remain the responsibility of the authors.

References

- Sultanov M. Psychological Characteristics of Professional Soccer Players and their Comparison with Amateur Players. *Momona Ethiopian Journal of Science*, 2023;15(1): 105–115. <https://doi.org/10.4314/mejs.v15i1.8>
- Fields JB, Merrigan JJ, White JB, Jones MT. Body Composition Variables by Sport and Sport-Position in Elite Collegiate Athletes. *Journal of Strength and Conditioning Research*, 2018;32(11): 3153–3159. <https://doi.org/10.1519/JSC.0000000000002865>
- Karcher C, Buchheit M. On-Court Demands of Elite Handball, with Special Reference to Playing Positions. *Sports Medicine*, 2014;44(6): 797–814. <https://doi.org/10.1007/s40279-014-0164-z>
- Terwiel S, Kritzler S. *Introverted goalie versus extraverted center? Comprehensive investigation of Big Five personality traits within and between team sports*. 2021;9:1–38. <https://doi.org/10.31234/osf.io/h28ct>
- Cox RH, Yoo HS. Playing position and psychological skill in American football. *Journal of Sport Behavior*, 1995; 18(3): 183–194.
- Cameron JE, Cameron JM, Dithurbide L, Lalonde RN. Personality traits and stereotypes associated with ice hockey positions. *Journal of Sport Behavior*, 2012;35(2): 109–124.
- Junge A, Feddermann-Demont N. Prevalence of depression and anxiety in top-level male and female football players. *BMJ Open Sport & Exercise Medicine*, 2016;2(1): e000087. <https://doi.org/10.1136/bmjsem-2015-000087>
- Allen MS, Greenlees I, Jones M. Personality in sport: a comprehensive review. *International Review of Sport and Exercise Psychology*, 2013;6(1): 184–208. <https://doi.org/10.1080/1750984X.2013.769614>
- Kritzler S, Best AL, Terwiel S. Forwards or backwards—regulatory focus orientation of offense and defense players in team sports. *International Journal of Sport and Exercise Psychology*, 2023;21(5): 837–856. <https://doi.org/10.1080/1612197X.2022.2084766>
- Martens R. *Sport Competition Anxiety Test*. 2014. <https://doi.org/10.1037/t27556-000>
- Feltz DL, Fujita A, Gould DR, Halbert J, Hanin Y, Lefebvre LM, et al. Sport Psychologist's Digest. *Journal of Sport Psychology*, 1982;4(4): 307–316. <https://doi.org/10.1123/jsp.4.4.307>
- Rustamova TV, Jafarova ShB, Heydarli LA, Alshanli US. Dynamics of changes in the level of personal excitement caused by the effect of emotional stress of the exam process in 21-year-old students of different temperament types. *World of Medicine and Biology*, 2024;20(87): 162. <https://doi.org/10.26724/2079-8334-2024-1-87-162-165>
- Rustamova TV, Kazimov AKh. Dynamics of EEG amplitude and frequency changes in the left and right parts of the brain in 17-year-old students with sanguine temperament. *World of Medicine and Biology*, 2024;20(88): 134. <https://doi.org/10.26724/2079-8334-2024-2-88-134-138>
- Szwarc A, Kromke C, Stula A, Dolański B, Sitek M. Efficiency of one-on-one play situations of Polish football players and their opponents during European Championships in relation to the playing area, current result and match. *Physical Education of Students*, 2020;24(3): 174–185. <https://doi.org/10.15561/20755279.2020.0308>
- Bauer P, Anzer G, Shaw L. Putting team formations in association football into context. *Journal of Sports Analytics*, 2023;9(1): 39–59. <https://doi.org/10.3233/JSA-220620>
- Barracough S, Piggott D, Till K, Kerr A, Emmonds S. Creating a shared mental model of performance: Coaches' perspectives of key position-specific soccer actions. *International Journal of Sports Science & Coaching*, 2024;19(2): 586–603. <https://doi.org/10.1177/17479541231205473>
- McKelvie SJ, Lemieux P, Stout D. Extraversion and neuroticism in contact athletes, no contact athletes and non-athletes: A research note. *Athletic insight*, 2003;5(3): 19–27.
- Eagleton JR, McKelvie SJ, De Man A. Extra Version and Neuroticism in Team Sport Participants, Individual Sport Participants, and Nonparticipants. *Perceptual and Motor Skills*, 2007;105(1): 265–275. <https://doi.org/10.2466/pms.105.1.265-275>
- Lochbaum M, Stoner E, Hefner T, Cooper S, Lane AM, Terry PC. Sport psychology and performance meta-analyses: A systematic review of the literature. Imperatori C (ed.) *PLOS ONE*, 2022;17(2): e0263408. <https://doi.org/10.1371/journal.pone.0263408>
- Tayari F, Kamkary K, Roohi GS, Shokrzade S, Branch I. The relationship between the professional female basketball players' personality profiles and their position in a play. *Journal of Basic and Applied Scientific Research*, 2012;2(6): 6098–6107.
- Smoller JW, Block SR, Young MM. Genetics of anxiety disorders: the complex road from DSM to DNA. *Depression and Anxiety*, 2009;26(11): 965–975. <https://doi.org/10.1002/da.20623>
- Jooste J, Van den Berg L, Steyn BJM. Psychological skills, playing positions and performance of African youth soccer teams. *South African Journal for Research in Sport, Physical Education and Recreation*, 2014;36(1): 85–100.
- Cox RH. *Sport psychology: Concepts and*

- applications. (5th Ed.). Boston: WCB/McGraw-Hill. 2002.
24. Sultanov M, Rustamova T, Huseynova A, Mammadova G, Ismailova K. Toward a dual-pathway model of neuroplastic adaptation in sport: neural efficiency and neural optimization. *Frontiers in Neuroscience*, 2026;20: 1777591. <https://doi.org/10.3389/fnins.2026.1777591>
25. Amaro AS, Barreira J, Fernandes PT. Validity and reliability of the Sport Motivation Scale-II (SMS-II): a systematic review. *Estudos de Psicologia (Campinas)*, 2025;42: e220001. <https://doi.org/10.1590/1982-0275202542e220001>
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Information about the authors:

Murad Sultanov; (Corresponding author); <https://orcid.org/0000-0003-3573-0495>; murad.sultan.81@gmail.com; Academician A. Garayev Institute of Physiology, Ministry of Science and Education of the Republic of Azerbaijan; Baku, Azerbaijan.

Tukezban Rustamova; <https://orcid.org/0000-0002-6828-7904>; tukazban.rustamova@gdu.edu.az; Department of Anatomy, Physiology and Zoology, Ganja State University; Ganja, Azerbaijan.

Jamila Aliyeva; <https://orcid.org/0009-0001-3152-1349>; tamillahafiz1968@gmail.com; Faculty of the Department of Biology and Ecology, Odlar Yurdu University; Baku, Azerbaijan.

Tamilla Karimova; <https://orcid.org/0009-0001-3926-7875>; tamillahafiz1968@gmail.com; Faculty of the Department of Biology and Ecology, Odlar Yurdu University; Baku, Azerbaijan.

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