

COMPETITIVE ANXIETY AND MATCH-BASED VOLLEYBALL SKILL PERFORMANCE AMONG CLUB ATHLETES: EVIDENCE FROM A LOCAL COMPETITIVE SETTING

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Article Info	ABSTRACT
Article History Submitted: 12-12-2025 Revised: 20-01-2026 Accepted: 01-02-2026 Published: 26-02-2026 Keywords: Competitive anxiety; Volleyball; Match performance; Technical skill; Sport psychology	Competitive anxiety is a psychological factor that may accompany athletes' responses to competitive demands, but its relationship with technical performance may vary across athletes and competitive contexts. This study examined the association between competitive anxiety and match-based volleyball skill performance among senior athletes of the Mutiara Galuh Volleyball Club. We employed a quantitative exploratory correlational design. We assessed competitive anxiety using the Sport Competition Anxiety Test (SCAT), and evaluated match-based performance through structured observation of four fundamental volleyball skills: service, passing/receiving, spiking/smashing, and blocking. Fourteen senior athletes included in the match line-up completed the anxiety assessment, while seven athletes who participated in the observed match provided complete paired observations for the inferential analysis. Data were analyzed using descriptive statistics, the Shapiro-Wilk test, and Spearman's rank-order correlation at a significance level of .05. Competitive anxiety was predominantly moderate ($M = 17.93$, $SD = 1.98$), whereas match-based skill performance was relatively low ($M = 33.73\%$, $SD = 19.31\%$). The analysis showed a negligible and non-significant association between competitive anxiety and skill performance ($r_s = -.030$, $p = .949$, $N = 7$). Thus, no statistically detectable linear association was observed between pre-competition competitive anxiety and aggregated technical performance in the paired sample. Given the very small analytical sample and single-match observation, interpret the finding as preliminary and context-specific evidence, rather than evidence that competitive anxiety is unrelated to volleyball performance generally. Future research should employ larger samples, repeated match observations, and more temporally sensitive psychological and performance measures to better examine the dynamic relationship between psychological responses and technical execution during competition.

INTRODUCTION

Competitive sport is not only a context for demonstrating physical and technical ability but also an environment in which athletes learn to regulate attention, emotions, decision-making, and performance under pressure. Technical execution during competition requires athletes to adapt their movements and decisions to continuously changing task and environmental demands rather than simply reproduce skills acquired during training (Davids

et al., 2013). In this sense, sport participation has an important developmental dimension because psychological resources such as confidence, coping capacity, and resilience can shape how athletes respond to competitive demands (Coudeville et al., 2011; Nicholls et al., 2010; Sarkar & Fletcher, 2014). For athletes in local club settings, these psychological and performance processes are particularly relevant because competition simultaneously functions as a context for skill application, learning, and athlete development. Thus, understanding performance under competitive pressure requires attention to both technical execution and the psychological conditions accompanying competition.

One psychological condition that has received sustained attention in sport psychology is competitive anxiety. Competitive anxiety concerns athletes' psychological responses to competitive demands and may be related to how they perceive threats to performance, self-evaluation, and achievement goals (Coudeville et al., 2011). Previous research has documented relationships between competitive anxiety and sport-related outcomes, including among volleyball athletes. Algani et al. (2018) reported an association between mental toughness and competitive anxiety among volleyball players, while Erdiyanti and Maulana (2019) identified a relationship between anxiety and volleyball performance in a local competitive context. Evidence from competitive performance situations also indicates that anxiety and volleyball performance can be examined under conditions that more closely resemble actual competition (Englert & Seiler, 2020). However, these findings should not be interpreted as establishing a universal or necessarily linear relationship between anxiety and technical performance. Athletes differ in their psychological resources, competitive experiences, and responses to performance demands, while technical execution itself is influenced by multiple interacting factors.

The theoretical relationship between anxiety and performance is therefore more complex than the assumption that greater anxiety inevitably produces poorer performance. Perspectives associated with optimal activation propose that psychological activation may relate to performance in a nonlinear manner, with both insufficient and excessive activation potentially associated with suboptimal functioning (Montani et al., 2020). At the same time, psychological responses may operate together with self-confidence, coping processes, resilience, and characteristics of the performance task (Coudeville et al., 2011; Nicholls et al., 2010; Sarkar & Fletcher, 2014). Importantly, the present study does not directly test an inverted-U relationship because its analysis is based on a bivariate Spearman correlation. Instead, the theoretical perspective is used to establish why a simple linear association between competitive anxiety and technical performance should not be assumed. This distinction is important because a non-significant linear association cannot, by itself, demonstrate that psychological factors are irrelevant to performance or confirm a nonlinear relationship.

A further issue concerns the level and timing of measurement. Competitive anxiety measured before competition represents a psychological tendency or pre-competition condition, whereas technical performance during a match represents behavior occurring at specific moments within a continuously changing competitive environment. These measurements therefore capture related but not identical dimensions of the competitive experience. Match-based performance may vary according to the athlete's playing role,

opportunities to perform particular skills, tactical demands, decision-making requirements, and interactions with opponents and teammates (Davids et al., 2013). Research on athlete development likewise suggests that performance should be understood within broader developmental processes rather than through a single psychological characteristic (Sarmiento et al., 2018). Consequently, examining competitive anxiety against directly observed match-based performance may produce different findings from studies relying on standardized skill tests or controlled performance tasks. This distinction provides an important basis for interpreting inconsistent evidence across previous studies.

Despite growing interest in psychological factors in sport performance, evidence remains limited regarding whether competitive anxiety is detectably associated with technical performance observed during an actual volleyball match among local club athletes. Previous volleyball studies have provided useful evidence, but differences in athlete characteristics, measurement procedures, competitive environments, and performance indicators make direct comparison difficult (Algani et al., 2018; Erdiyanti & Maulana, 2019; Englert & Seiler, 2020). Moreover, studies of athlete development emphasize the importance of considering performance within authentic developmental environments rather than treating technical outcomes as isolated products of a single psychological variable (Reardon et al., 2019; Sarmiento et al., 2018). The present study therefore addresses a more specific empirical question: is competitive anxiety associated with match-based volleyball skill performance among club athletes when anxiety is assessed through SCAT and technical execution is observed during actual competition? By examining this relationship in a local club setting, the study provides preliminary evidence concerning the alignment between a pre-competition psychological measure and performance observed under authentic competitive conditions.

Accordingly, this study aims to examine the association between competitive anxiety and match-based volleyball skill performance among athletes of the Mutiara Galuh Volleyball Club. The study does not assume that higher anxiety necessarily produces poorer performance or attempt to establish a causal or nonlinear effect. Rather, it examines whether a measurable association can be detected between competitive anxiety and observed technical execution in an actual competitive setting. This approach positions the study not only as an investigation of sport performance but also as an examination of psychological readiness within a developmental sport environment, where athletes must learn to regulate themselves and execute technical skills under changing competitive demands.

METHOD

Research Design and Setting

This study employed a quantitative, exploratory correlational design to examine whether competitive anxiety was statistically associated with match-based volleyball skill performance. No experimental treatment or intervention was introduced. The analysis examined an association between a pre-competition psychological measure and technical performance observed during an actual competitive match. The study was conducted at the BNR Kuningan volleyball court between July 21 and August 4, 2026. The competitive setting was retained because the study aimed to examine technical execution under authentic match

conditions rather than under isolated or controlled skill-testing conditions. The inferential analysis was therefore treated as context-specific, with the athlete as the unit of analysis.

Participants and Sampling

The study population comprised 135 active athletes registered with the Mutiara Galuh Volleyball Club, consisting of 25 senior athletes aged 20–28 years and 110 junior athletes aged 13–19 years. The senior athletes constituted the target group because the present study focused on athletes participating in the competitive setting examined. Among the senior athletes, 14 athletes included in the match line-up completed the competitive anxiety assessment. However, only 7 of these athletes participated in the observed match and had corresponding match-performance observations. Consequently, the descriptive analysis of competitive anxiety was based on 14 athletes, whereas the inferential analysis was restricted to 7 complete paired observations ($N = 7$). The seven-athlete analytical group was therefore defined as the performance-exposed paired sample, consisting only of athletes for whom both competitive anxiety and match-based performance data were available. This distinction was maintained throughout the analysis to avoid treating the 14 anxiety assessments as equivalent to the seven observations available for testing the association. Given the small paired sample and the single match observation, the inferential findings are interpreted as exploratory and context-specific, rather than as evidence that can be generalized to the wider club population or volleyball athletes more broadly.

Measures and Data Collection

Competitive Anxiety

Competitive anxiety was assessed using the Sport Competition Anxiety Test (SCAT). The instrument consists of 15 statements with three response options: *rarely*, *sometimes*, and *often*. Ten items (2, 3, 5, 6, 8, 9, 11, 12, 14, and 15) contribute to the anxiety score, whereas five items (1, 4, 7, 10, and 13) function as filler items and are excluded from scoring. The resulting score ranges from 10 to 30. For descriptive purposes, scores were classified as low (<17), moderate (17–24), and high (>24). These categories were used only to describe the distribution of anxiety in the assessment group and were not used to define the inferential relationship between anxiety and performance. To assess the instrument's suitability in the study context, empirical item validity was evaluated using Pearson product-moment correlations with 30 respondents. The scale's reliability was evaluated using Cronbach's alpha. The 30 respondents used for this measurement assessment were separate from the seven athletes included in the final paired analysis. The distinction between instrument assessment and substantive analysis was maintained so that the psychometric assessment sample was not confused with the analytical sample used to examine the anxiety–performance association.

Match-Based Volleyball Skill Performance

Volleyball skill performance was assessed through structured observation during an actual competitive match using a volleyball match-statistics sheet. Four fundamental technical skills were recorded:

1. service;
2. passing/receive;
3. spike/smash; and

4. block.

For each skill, performance was recorded relative to the relevant opportunities observed during the match. The performance score was expressed as the percentage of successful executions relative to the total relevant opportunities for that athlete. Because the four skills differ in tactical function and frequency of occurrence, the resulting overall performance score was treated as an aggregate indicator of observed technical execution across the recorded skills, rather than as a direct measure of general volleyball ability. The calculation was based only on opportunities actually observed during the match. This procedure also means that the performance score represents match-specific technical execution, whereas SCAT represents a pre-competition psychological condition. The two measures were therefore linked at the athlete level but captured different aspects and time points of the competitive experience.

Validity and Reliability of the Observation Instrument

Two experts evaluated the content validity of the match-observation instrument using Aiken's V. Aiken's coefficient quantified the degree of agreement among expert ratings regarding the relevance of the observation components to the intended construct (Aiken, 1985). The manuscript should report the actual Aiken's V coefficient(s) obtained for each relevant component rather than reporting only the acceptance criterion. The decision regarding item retention should be based on the obtained coefficient and the predetermined criterion. Inter-rater reliability was examined using the Intraclass Correlation Coefficient (ICC), Two-Way Mixed-Effects, Single-Measure model, because the observation involved ratings of the same performance events by the designated observers. The level of agreement was interpreted according to the classification adopted in the study (Landis & Koch, 1977). The observation procedure was conducted during the actual match. Observers recorded the same predefined technical categories using the same operational criteria. Observers resolved any disagreement according to the established observation protocol rather than through post hoc adjustment of performance scores. Important revision requirement: the manuscript must report the actual ICC value, not merely state that the ICC exceeded an acceptance threshold. This is necessary for readers to evaluate the reliability of the match-observation procedure.

Data Analysis

Data analysis was conducted in two stages. First, descriptive statistics were used to characterize the competitive anxiety assessment and match-based skill performance. These included the mean, standard deviation, minimum and maximum values, and frequency distributions where applicable. The descriptive analysis of competitive anxiety was based on 14 athletes, whereas performance descriptions were based on the athletes who participated in the observed match. Second, the relationship between competitive anxiety and match-based volleyball skill performance was examined using Spearman's rank-order correlation. The inferential analysis included only the seven athletes with complete paired observations ($N = 7$). Spearman's correlation was selected as a non-parametric measure appropriate for the small paired analytical sample and the ordinal characteristics of the anxiety measure. The analysis used a two-tailed significance level of $\alpha = .05$. The correlation coefficient was interpreted in terms of the direction and magnitude of the observed association. Because the paired sample consisted of only seven athletes, the correlation result was treated as exploratory evidence and

was not interpreted as evidence of the absence of a relationship in the broader athlete population. The analysis did not attempt to test a nonlinear or inverted-U relationship. Instead, it examined whether a statistically detectable monotonic association could be observed between the competitive anxiety measure and aggregated match-based technical performance.

RESULT

Descriptive Results

The competitive anxiety assessment was completed by 14 senior athletes included in the match line-up. SCAT scores ranged from 15 to 23, with a mean of 17.93 (SD = 1.98). Based on the predetermined classification, competitive anxiety was predominantly within the moderate range. As shown in Table 1, 10 athletes (71.43%) were classified as having moderate competitive anxiety, whereas 4 athletes (28.57%) were classified as having low competitive anxiety. No athlete was classified in the high-anxiety category.

Table 1. Distribution of Competitive Anxiety Categories (X)

Category	Score Range	Frequency (f)	Percentage (%)
Low	< 17	4	28.57
Moderate	17–24	10	71.43
High	> 24	0	0.00
Total		14	100.00

These descriptive findings indicate that competitive anxiety among the assessed athletes was concentrated in the low-to-moderate range. This distribution provides contextual information for interpreting the subsequent association analysis but does not, by itself, indicate a relationship between anxiety and performance.

Match-based volleyball skill performance was assessed among the seven athletes who participated in the observed match and had corresponding performance observations. Performance scores ranged from 12.5% to 66.6%, with a mean of 33.73% (SD = 19.31). Based on the predetermined classification, six athletes (85.71%) were categorized as having low performance and one athlete (14.29%) as having moderate performance. No observed athlete reached the good or very good performance categories.

Table 2. Distribution of Volleyball Skill Performance Categories (Y)

Category	Performance Range	Frequency (f)	Percentage (%)
Low	< 65%	6	85.71
Moderate	65–74%	1	14.29
Good	75–84%	0	0.00
Very Good	85–100%	0	0.00

Category	Performance Range	Frequency (f)	Percentage (%)
Total		7	100.00

The descriptive results therefore show two distinct distributions: competitive anxiety was predominantly moderate among the 14 assessed athletes, whereas match-based skill performance was predominantly low among the 7 athletes with observed performance data. The difference in sample size reflects the study design and competitive exposure: only athletes who completed both the anxiety assessment and the observed match contributed to the paired analysis. Accordingly, the descriptive distributions should not be interpreted as a direct comparison between the two variables.

Distributional Assessment and Correlation Analysis

The distributional assessment was conducted on the seven complete paired observations used for the inferential analysis. The Shapiro–Wilk test indicated a significant deviation from normality for competitive anxiety scores ($p = .010$), whereas volleyball skill-performance scores did not significantly deviate from normality ($p = .108$). Given the very small paired sample ($N = 7$) and the distributional characteristics of the variables, a Spearman rank-order correlation was used to examine the association between competitive anxiety and match-based volleyball skill performance.

Table 3. Spearman’s Rank-Order Correlation between Competitive Anxiety and Volleyball Skill Performance ($N = 7$)

Variables	Spearman’s ($r_{s/s}$)	Correlation Sig. (2-tailed)
Competitive Anxiety (X) – Skill Performance (Y)	–0.030	0.949

The analysis yielded a near-zero negative association between competitive anxiety and match-based volleyball skill performance ($r_{s/s} = -.030$, $p = .949$). Because the p -value was substantially greater than the predetermined significance level of .05, the hypothesized association was not supported. The magnitude of the coefficient indicates that the observed relationship was practically negligible within the seven-athlete paired sample. The squared correlation coefficient, r^2 , corresponds to approximately 0.09%. In this study, this value is reported only as a descriptive indication of the extremely small shared variation between the two measured variables. It should not be interpreted as evidence that competitive anxiety explains 0.09% of volleyball performance, nor should the remaining variation be attributed to specific external factors, because such factors were not measured in the present study. Overall, the findings indicate that no statistically detectable association was observed between the pre-competition competitive anxiety scores and the aggregated match-based volleyball skill-performance scores among the seven athletes with complete paired observations. Given the very small analytical sample and the single-match observation, this result should be interpreted as preliminary and context-specific evidence, rather than evidence that competitive anxiety is unrelated to volleyball performance more generally.

DISCUSSION

The present study found no statistically detectable association between competitive anxiety and match-based volleyball skill performance among the seven athletes with complete paired observations ($r_s = -.030$, $p = .949$). The correlation was essentially zero, indicating that differences in pre-competition competitive anxiety were not accompanied by systematic differences in the aggregated technical performance observed during the match. This finding should, however, be interpreted as context-specific evidence rather than evidence that competitive anxiety is unrelated to sport performance in general, particularly because the inferential analysis was based on only seven athletes and one observed match.

The finding is consistent with the broader literature showing that the relationship between anxiety and performance is not necessarily uniform across athletes or performance settings. Meta-analytic evidence has demonstrated that cognitive anxiety and self-confidence can have different relationships with sport performance, indicating that anxiety should not be interpreted independently from other psychological characteristics (Woodman & Hardy, 2003). Similarly, Kleine (1990) reported variability in the anxiety–performance relationship across sport-performance studies, suggesting that the effect of anxiety cannot be reduced to a simple assumption that higher anxiety inevitably produces poorer performance. More recent evidence also shows that competitive anxiety may relate to performance differently across specific sport contexts, including volleyball (Englert & Seiler, 2020). Thus, the near-zero association observed in the present study is plausible within a literature characterized by heterogeneous findings rather than being inherently contradictory to previous research.

One possible explanation for the present finding concerns the context-dependent nature of the anxiety–performance relationship. McCann et al. (1992) demonstrated that performance setting and individual differences can influence the relationship between anxiety and athletic performance. This perspective is particularly relevant to the present study because match performance does not occur under uniform conditions. Athletes must respond to changing opponents, tactical situations, playing responsibilities, and opportunities to execute specific technical skills. Consequently, the same level of pre-competition anxiety may not produce the same performance response across athletes.

Evidence concerning competitive anxiety also suggests that athletes' psychological responses are not determined solely by the intensity of anxiety. Neil et al. (2012), for example, distinguished between the **intensity and interpretation** of competitive anxiety, demonstrating the importance of how athletes interpret their psychological responses in relation to performance. Likewise, Nicholls et al. (2010) showed that coping self-efficacy is relevant to the relationship between pre-competitive anxiety and perceived performance. These findings provide an important interpretive framework for the present result: athletes may experience a similar level of reported anxiety differently and may therefore not translate it into a uniform pattern of technical execution.

The absence of a detectable association in the present study may also be considered in relation to athletes' **psychological skills and coping processes**. Fletcher and Hanton (2001) reported a relationship between psychological skills use and competitive anxiety responses, while Hagan et al. (2017) demonstrated that elite athletes' in-event competitive anxiety

responses and psychological skills use can vary under different competitive conditions. These findings suggest that anxiety is embedded within a broader psychological process rather than functioning as an isolated determinant of performance.

This interpretation is important because the present study measured competitive anxiety but did not assess coping strategies, psychological skills, self-confidence, or anxiety interpretation. Therefore, the near-zero correlation should not be interpreted as evidence that psychological factors were unimportant during the match. Instead, it indicates that the specific pre-competition anxiety measure used in this study did not show a detectable linear association with the aggregated technical performance score. Future research could therefore examine whether coping self-efficacy, psychological skills, self-confidence, or anxiety interpretation moderate the relationship between competitive anxiety and actual match performance.

Another important consideration concerns the **timing of measurement**. SCAT was administered before the competition, whereas technical performance was recorded during the actual match. These measures therefore capture different temporal dimensions of the competitive experience. Pre-competition anxiety represents an athlete's psychological condition before performance, whereas technical execution during competition may fluctuate as the match develops. This distinction is supported by research emphasizing the dynamic nature of competitive anxiety. Hagan et al. (2017) specifically examined **in-event competitive anxiety responses**, demonstrating that anxiety-related experiences can vary under different competitive conditions. Similarly, Hanin and Hanina (2009) proposed an action-focused coping perspective in which athletes' performance optimization involves responding to situational demands rather than simply maintaining a fixed psychological state. From this perspective, a single pre-competition anxiety assessment may not fully capture the psychological processes occurring at the specific moments when technical actions are executed.

This issue is particularly relevant to the present study because the performance variable was derived from actual match actions. Thus, the absence of a detectable association may partly indicate that pre-competition anxiety and moment-to-moment technical execution should not be assumed to operate at the same temporal level. Future studies could strengthen this approach by combining pre-competition measures with repeated assessments of anxiety, perceived control, or psychological state during different phases of competition. The present finding should also be interpreted cautiously in relation to theories proposing that anxiety or activation may have a nonlinear relationship with performance. A near-zero Spearman correlation evaluates the presence of a monotonic association; it does not determine whether performance may increase at moderate levels of anxiety and decline at higher or lower levels. Previous work has challenged the assumption of a simple linear relationship. Annesi (1998), drawing on the Individual Zones of Optimal Functioning perspective, emphasized that optimal psychological functioning may differ between athletes. Hanin and Hanina (2009) similarly emphasized individualized regulation of performance states.

More recent evidence has directly examined inverted-U patterns between stress and performance in elite shooting, demonstrating the continued relevance of nonlinear approaches

to performance psychology (Zhao & Zhang, 2025). Therefore, the present $r_s = -.030$ should not be interpreted as evidence against nonlinear anxiety–performance relationships. Importantly, the present study did not test an inverted-U relationship because only a Spearman correlation was conducted and the analytical sample consisted of seven athletes. The finding therefore supports only the conclusion that no detectable monotonic association was observed in this specific sample. Testing nonlinear relationships would require a substantially larger sample and an analytical design capable of estimating curvature or individual optimal zones.

The findings also support a broader interpretation of competitive performance as a multidimensional process. Recent research has shown that the relationship between competitive anxiety and athletic performance may interact with other psychological and interpersonal factors. Yue et al. (2025), for example, examined competitive anxiety together with coach leadership, coping strategies, and emotional intelligence, highlighting the importance of considering anxiety within a broader psychological and social context. Similarly, Wu et al. (2025) examined competitive state anxiety together with goal orientation in relation to sports performance, reinforcing the importance of examining psychological variables in combination rather than treating anxiety as an isolated predictor. This perspective is particularly relevant to volleyball because technical performance during a match involves continuous interaction between individual psychological readiness, tactical decision-making, teammates, opponents, and situational demands. The present study did not measure these additional variables; therefore, they cannot be claimed as explanations for the observed result. They should instead be regarded as potential directions for subsequent research. The appropriate conclusion is that competitive anxiety alone did not demonstrate a detectable linear association with the observed performance measure in this sample.

From an athlete-development perspective, the findings suggest that psychological preparation should not be reduced to simply attempting to minimize competitive anxiety. Research on psychological skills, coping, and anxiety interpretation indicates that athletes may benefit from learning how to recognize, interpret, and regulate competitive psychological **responses** rather than treating anxiety itself as an inherently negative condition (Fletcher & Hanton, 2001; Hagan et al., 2017; Neil et al., 2012). In a sport-learning environment, psychological preparation can therefore be integrated with technical practice, decision-making, self-regulation, and coping with changing competitive demands. This implication is particularly relevant for local club sport, where training supports not only the development of technical competence but also athletes' capacity to respond to pressure and adapt their behavior during competition. However, the present study does not test the effectiveness of any psychological intervention. Accordingly, the practical implication should remain cautious: coaches and sport educators may consider integrating psychological-skills development with technical and tactical preparation, while future intervention studies are needed to establish whether such approaches improve actual match performance.

Several limitations should be considered when interpreting the findings. First, the inferential analysis included only seven athletes with complete paired observations, substantially limiting statistical power and generalizability. Second, competitive anxiety was assessed before competition, whereas performance was observed during a single match; this

temporal difference limits conclusions about moment-to-moment psychological processes. Third, the aggregated technical-performance score combined several volleyball skills that may occur with different frequencies and tactical demands. Finally, variables such as coping self-efficacy, psychological skills, anxiety interpretation, self-confidence, goal orientation, and coaching conditions were not measured. Future research should therefore employ larger samples, repeated match observations, skill-specific performance indicators, and repeated psychological assessments across different stages of competition. It would also be valuable to examine moderating or mediating variables such as coping strategies, self-confidence, psychological skills, goal orientation, and emotional intelligence. Such designs would provide a more comprehensive understanding of when and under what conditions competitive anxiety is associated with actual sport performance.

CONCLUSION

This study examined the association between competitive anxiety and match-based volleyball skill performance among senior athletes of the Mutiara Galuh Volleyball Club. Competitive anxiety among the 14 assessed athletes was predominantly moderate ($M = 17.93$, $SD = 1.98$), while the seven athletes with complete match-performance observations demonstrated relatively low technical performance ($M = 33.73\%$, $SD = 19.31\%$). The Spearman analysis showed a negligible and non-significant association between competitive anxiety and match-based skill performance ($r_s = -.030$, $p = .949$), indicating that no statistically detectable linear association was observed in the paired sample. This finding should not be interpreted as evidence that competitive anxiety is unrelated to volleyball performance generally, nor does it establish a causal or nonlinear relationship. Rather, the result provides preliminary, context-specific evidence that a pre-competition anxiety measure may not correspond directly to aggregated technical execution during an actual match. The interpretation is constrained by the small analytical sample ($N = 7$), single-match observation, and the different temporal characteristics of the psychological and performance measures. Future research should therefore employ larger samples and repeated match observations while incorporating more temporally sensitive psychological measures, including state anxiety, anxiety interpretation, self-confidence, and coping responses, alongside position-specific and skill-specific performance indicators. From an applied perspective, the findings suggest that psychological preparation should be integrated with technical and tactical development and viewed as part of athlete self-regulation and broader developmental learning, rather than treated as an isolated attempt to reduce competitive anxiety.

ADDITIONAL INFORMATION

Authors should provide the following information where applicable. Statements that are not relevant to the manuscript may be omitted.

Statement	Description
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Data Availability Statement	The datasets generated and analyzed during the current study are available from the corresponding author upon reasonable request. The data are not publicly available because the dataset contains individual-level information from a small group of athletes, and unrestricted disclosure could potentially compromise participant confidentiality.

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