INSPIREE: Indonesian Sport Innovation Review
ISSN. 2746-6965 (Online), 2774-2520 (Print) | Volume 08 Issue 01 (2027)
DOI: 10.53905/inspire.v8i01.196
TYPE: Original Research Articles



OPEN ACCESS

EDITED BY
Assoc. Prof. Dr. Herli Pardilla
Universitas Muhammadiyah Sumatera Uatara, Indonesia.

# Multidimensional Competitive Psychological Profile of Indonesian Women's National Football Team Athletes Following Competition

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RECEIVED: July 16, 2026
ACCEPTED: September 12, 2026
PUBLISHED: January 27, 2027



## ABSTRACT

**Background & objective:** Competitive psychological functioning in elite football is multidimensional, involving cognitive and somatic anxiety, self-confidence, and concentration. Evidence integrating these dimensions among elite female national-team football athletes remains limited, particularly in Southeast Asia. This study aimed to characterize the post-competition psychological profile of Indonesian Women's National Football Team athletes and explore differences according to playing position.

**Materials & Methods:** A quantitative descriptive observational study involved 22 athletes selected through total sampling. Psychological responses were assessed immediately after competition using the 20-item Athlete Anxiety Questionnaire (AAQ), measuring cognitive anxiety, somatic anxiety, self-confidence, and concentration. Descriptive statistics characterized the psychological profile. Positional differences among goalkeepers, defenders, midfielders, and forwards were explored using the Kruskal–Wallis H test, with epsilon-squared ($\varepsilon^2$) as the omnibus effect size. Holm-adjusted pairwise comparisons were conducted where appropriate.

**Results:** Cognitive anxiety averaged 16.55 ± 2.79, with 81.8% of athletes classified as moderate, while somatic anxiety averaged 7.68 ± 1.13, also with 81.8% classified as moderate. Self-confidence was relatively high (22.23 ± 2.22), with 81.8% classified as high, whereas concentration averaged 14.14 ± 2.12, with 63.6% classified as moderate. The descriptive anxiety composite averaged 24.23 ± 3.57. No significant positional differences were found for cognitive anxiety, somatic anxiety, or the anxiety composite. Significant omnibus differences were observed for self-confidence, $H(3) = 8.208$, $p = .042$, $\varepsilon^2 = .289$, and concentration, $H(3) = 10.752$, $p = .013$, $\varepsilon^2 = .431$; however, no pairwise differences remained significant after Holm adjustment.

**Conclusions:** The athletes demonstrated moderate cognitive and somatic anxiety, high self-confidence, and predominantly moderate concentration following competition. These findings support multidimensional psychological assessment in elite football. Positional findings should be considered exploratory given the small, unequal subgroups and absence of significant adjusted pairwise differences.

**Keywords**
competitive psychology; competitive anxiety; self-confidence; concentration; women's football; national team; athlete anxiety questionnaire.

CITATION APA STYLE 7:
Furyzcha, S. I., Binathara, M. B., Adityatama, M. N. A., & Pambayu, S. H. (2027). Multidimensional Competitive Psychological Profile of Indonesian Women's National Football Team Athletes Following Competition. INSPIREE: Indonesian Sport Innovation Review. https://doi.org/10.53905/inspiree.v8i01.196



## INTRODUCTION



## MATERIALS AND METHODS



Self-confidence and concentration were not included in this composite because they represent conceptually distinct psychological dimensions rather than anxiety symptoms. The resulting score was used only as a descriptive index and was not

treated as an independently validated AAQ subscale.

# RESULTS

## Participant Characteristics

## Multidimensional Psychological Profile

Table 5. Descriptive statistics of AAQ dimensions

| AAQ dimension | N | Min | Max | Mean | SD | Median | Q1 | Q3 |
|---|---|---|---|---|---|---|---|---|
| Cognitive anxiety | 22 | 12 | 23 | 16.55 | 2.79 | 16.50 | 15.00 | 17.00 |
| Somatic anxiety | 22 | 6 | 9 | 7.68 | 1.13 | 8.00 | 7.00 | 9.00 |
| Self-confidence | 22 | 18 | 24 | 22.23 | 2.22 | 22.50 | 22.00 | 24.00 |
| Concentration | 22 | 10 | 17 | 14.14 | 2.12 | 14.50 | 13.00 | 15.75 |

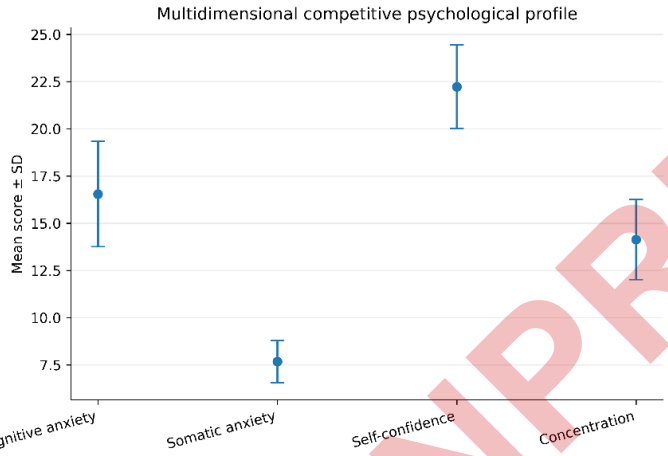


Figure 1. Multidimensional Competitive Psychological Profile of Indonesian Women's National Football Team Athletes Following Competition

Figure 1 illustrates the multidimensional competitive psychological profile of the 22 Indonesian Women's National Football Team athletes following competition. Cognitive anxiety demonstrated a mean score of 16.55 ± 2.79, whereas somatic anxiety showed a lower mean score of 7.68 ± 1.13. In contrast, self-confidence recorded the highest mean score (22.23 ± 2.22), while concentration averaged 14.14 ± 2.12. Overall, the pattern indicates the coexistence of moderate anxiety-related responses with relatively high self-confidence and predominantly moderate concentration. This multidimensional pattern suggests that competitive psychological functioning cannot be adequately characterized by anxiety alone.

## Distribution of Psychological Categories

## Descriptive Anxiety Composite

Table 7. Descriptive statistics of the anxiety composite

| Outcome | N | Min | Max | Mean | SD | Median | Q1 | Q3 | 95% CI |
|---|---|---|---|---|---|---|---|---|---|
| Descriptive anxiety composite | 22 | 18 | 32 | 24.23 | 3.57 | 24.00 | 22.25 | 26.00 | 22.64–25.81 |

Note. Descriptive anxiety composite = cognitive anxiety + somatic anxiety.

## Exploratory Positional Analysis

## Normality Assessment

# DISCUSSION

## Principal Findings

## Moderate Anxiety Does Not Necessarily Indicate Maladaptive Functioning

## Anxiety and Self-Confidence Can Coexist

## Concentration Represents a Distinct Psychological Dimension

## Comparison with Previous Football Research

## Positional Variation: Exploratory Evidence Rather Than Definitive Differences

## Why the Present Findings May Differ from Position-Based Studies

## Theoretical Implications

## Methodological Implications

## Practical Implications for Elite Women's Football

## Implications for Team-Level Psychological Support

## Strengths and Limitations

## Future Research

# CONCLUSION

This study characterized the multidimensional competitive psychological profile of athletes from the Indonesian Women's National Football Team using the Athlete Anxiety Questionnaire. The findings indicate a psychological profile characterized by moderate cognitive anxiety, moderate somatic anxiety, high self-confidence, and predominantly moderate concentration following

competition. The coexistence of moderate anxiety-related responses and high self-confidence demonstrates the value of conceptualizing competitive psychological functioning as multidimensional rather than reducing it to a single anxiety score. The exploratory positional analysis found no statistical evidence of differences in cognitive anxiety, somatic anxiety, or the descriptive anxiety composite across playing positions. Although omnibus differences were observed for self-confidence and concentration, no pairwise comparisons remained statistically significant following Holm adjustment. These findings should therefore be regarded as exploratory signals rather than definitive evidence of position-specific psychological differences. The principal contribution of the study is the extension of multidimensional competitive sport-psychology research to an elite female national-team football population in Indonesia, a population that remains comparatively underrepresented in the international literature.

The findings suggest that psychological preparation in elite women's football may benefit from individualized monitoring of anxiety-related responses, self-confidence, and concentration rather than an exclusive focus on anxiety reduction. However, the small cross-sectional sample and reliance on post-match self-report limit generalizability and causal interpretation. Future multicentre, longitudinal, and intervention-based studies are required to determine how these psychological dimensions develop over time and how they relate to competitive performance and psychological recovery.

## DECLARATIONS

**Ethical Approval**
**Consent to Participate**
**Consent for Publication**
**Author Contributions**
**Funding**
**Conflict of Interest**
**Data Availability**
**Acknowledgements**
**Generative AI Disclosure**

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