



Anxiety Levels Analysis Based on Confidence and Emotion Regulation in Basketball Athletes

Rizka Fitriani Rimadani^{1✉}, Yusuf Hidayat^{2✉}, Tri Martini^{3✉}

Physical Education, Health and Recreation Study Program FPOK Universitas Pendidikan Indonesia, Bandung, Indonesia¹²³

History Article

Received Desember 2025
Approved Desember 2025
Published vol 12 no 2 2025

Keywords

Self-Confidence; Emotion Regulation; Anxiety

Abstract

This study aimed to examine the relationship between self-confidence and emotion regulation and competitive anxiety among female basketball athletes. A quantitative correlation research design was used by involving 53 female athletes participating in the Bandung Student League, who were selected through purposive sampling. Data were collected using questionnaires of confidence, emotion regulation, and competitive anxiety and analyzed using multiple linear regression. The results showed that confidence and emotion regulation were significantly and negatively associated with competitive anxiety ($R^2 = 0.54$ $p < 0.05$), suggesting that both variables contributed substantially to explaining the variation in athletes' anxiety levels. The R^2 value in this study was 0.540 or 54%, suggesting that anxiety variance can be explained by confidence and emotion regulation. This means that there are 46% of other factors that affect anxiety besides self-confidence and emotion regulation. Athletes with higher levels of confidence and better emotion regulation tend to experience lower levels of anxiety during competitive situations. These findings suggest that psychological factors, especially confidence and emotion regulation, play an important role in reducing competitive anxiety among female basketball athletes.

How to Cite

Rimadani, R. F., Hidayat, Y., & Martini, T. (2025). Anxiety Levels Analysis Based on Confidence and Emotion Regulation in Basketball Athletes. *Journal of Physical Education, Health and Sport*, 12 (2), 451-455.

✉ Correspondence Author:
E-mail: rizkafitriani@gmail.com
yusuf_h@upi.edu
trimartini@upi.edu

INTRODUCTION

Basketball is a popular team sport that requires a combination of technical, tactical, physical, and mental readiness to achieve optimal performance (Petway et al., 2020). In sports psychology, athletes' performance is influenced by four important aspects, namely technical, physical, tactical, and psychological, which must develop simultaneously (Marsha & Wijaya, 2021). Martens et al., (1990) in Maulana & Khairani, (2017) Competitive anxiety is a psychological aspect that often arises ahead of competitions. Demands for achievement, fear of failure, and pre- and post-match pressures can lead to negative emotional responses.

Competitive anxiety is a condition when a person feels anxious or threatened due to feelings of insecurity about their ability to deal with competitive situations (Khoirunnisa, 2025). Anxiety due to a lack of confidence can interfere with an athlete's focus and concentration, which ultimately negatively impacts performance (Aqobah & Rhamadian, 2022). This is in line with Previous research has stated that athletes who have high levels of competitive anxiety tend to have low self-confidence and have an impact on their performance during competitions (Widyachandra & Satiadarma, 2024).

Confidence and emotion regulation are two psychological factors associated with competitive anxiety. Hermanto (2021) in Grova (2024) Confidence is a psychological aspect that athletes must have to overcome various pressures and challenges faced, especially when faced with competitive matches. High confidence can make athletes able to manage stress and have lower anxiety (Lochbaum et al., 2022). Emotion regulation is the ability to overcome exercise anxiety by preparing or choosing the right response, being confident in one's abilities and focusing on the effort made so as not to get attached to negative emotions (Safitri & Jannah, 2020). Athletes who have good emotional regulation will remain stable and calm when facing the stress of competition (Jannah et al., 2023).

Previous research supports the importance of psychological factors in athlete performance. Female futsal athletes experience anxiety at various levels before major competitions, with most being in the medium to high category (Ridwan & Indriarsa, 2021). Competitive anxiety is a common psychological problem experienced by athletes before or during a game. This often arises when athletes face new situations or

important competitions and feelings of fear of failure (Fazari et al., 2017). Previous research has shown that confidence and emotion regulation significantly predict competitive anxiety across a variety of sports (Lochbaum et al., 2022). Meanwhile, re emotions play a role in lowering competitive pressure and stress (Tamminen et al., 2021).

Research conducted by Putri et al. (2015) In archery athletes at the national level, it was proven that confidence and emotion regulation together have a significant relationship with anxiety. The results of the study show that self-confidence is a more dominant psychological factor in reducing competitive anxiety in athletes than emotional regulation. This is in line with the research conducted Octavianingrum & Savira (2022) Confidence has a significant effect on the regulation of emotions in pencak silat athletes, athletes with good confidence can manage their emotions when facing competitive situations.

Although various studies have examined the relationship between confidence, emotion regulation, and competitive anxiety, there have not been many studies that explicitly examine the contribution of these two psychological variables simultaneously to competitive anxiety, especially in female basketball athletes in the context of college league competitions. Therefore, this study is focused on examining the relationship between confidence and competitive anxiety, the relationship between emotion regulation and competitive anxiety, and the contribution of both together to the level of competitive anxiety in basketball athletes.

In line with the research objectives, self-confidence and emotion regulation have a negative relationship with competitive anxiety. In addition, both variables simultaneously contribute to competitive anxiety levels in basketball athletes.

METHOD

This study is a correlational quantitative research with a cross-sectional approach. The method used is a survey and uses a correlational approach. A correlational approach is used in the study to determine the relationship between variables (Kristanto, 2018). The aim was to find out the relationship between confidence and emotional regulation and anxiety levels of student league women's basketball athletes. Quantitative research was chosen because it allows the measurement of the relationships between variables objectively and measurably through numerical data processing.

Data collection begins after permission is obtained from the coach of the university's women's basketball team participating in the Student League, along with official permission from the faculty. After obtaining approval, the researcher took data during the Bandung series of student leagues, namely on November 15-22, 2025 at Gor Padjajaran, Bandung.

Three questionnaires were used as instruments in this study. First, using a self-confidence instrument that measures self-confidence. This questionnaire consists of 39 questions that cover 5 dimensions, namely optimism, independence, sportsmanship, courage, and adaptation. The instrument has good resistance, with Cronbach alpha with values of 0.829 to 0.869. Second, The Emotion Regulation Questionnaires on Indonesian Sport Setting (IERQ4S) which measures emotion regulation consists of 10 items with 2 dimensions, namely reappraisal and suppression. The instrument has good reliability with a Cronbach alpha yield of 0.0671 to 0.824. Third, the Sport Competitive Anxiety Test (SCAT) which consists of 15 questions, this SCAT is basically unidimensional, which only measures one main construct, namely competitive anxiety, with Cronbach Alpha ranging from 0.82 to 0.88, The scoring scale used is a 4-point likert scale.

A total of 53 female basketball players who participated in the Bandung Series Student League were included in this study. Subjects were selected using purposive techniques based on specific criteria set by the researcher to be associated with the research objectives. The criteria for participants in this study include 1. active athletes of the Student League in the Bandung series for the 2024-2025 competition season and 2. athletes in basketball.

Data analysis was carried out sequentially. First, the raw data from the questionnaire is summarized. Next, a classical assumption test is carried out, namely a normality test is carried out using Kolmogorov-Smirnov to ensure that the data is distributed normally, then a linearity test to find out whether the two variables have a linear relationship or not, the third is to conduct a multicollinearity test to test whether the regression model has a correlation between independent variables, the fourth is a heteroscedasticity test with a glajser test to find out whether the data spread normally, and finally perform a correlation test to find out if there is a correlation between one variable and another. The data were then analyzed using multiple linear regression to test the relationship between self-confidence and emotion regulation and competitive anxiety. Multiple li-

near regression aims to learn more about the relationship between multiple independent variables (predictors) and dependent variables (outcomes) (Abdulhafedh, 2022). The significance criteria used were ($p < 0.05$) which showed a significant effect. All data analysis uses SPSS (Statistical Package for Social Science) statistical software version 25.

During the study, the researcher applied the principles of ethical research by maintaining the confidentiality of the participant's identity and ensuring that the data retrieved was only intended for academic purposes, participants participated voluntarily without any coercion from the researcher.

RESULTS AND DISCUSSION

Descriptive analysis is an initial description of the results of the analysis presented in a study. Descriptive analysis is used as the first step to analyze the data before further analysis is carried out (Deva et al., 2021).

Table 1. Descriptive Statistics

	N	Means	Std Deviation
Anxiety	53	36.06	4.521
Confidence	53	129.26	9.313
Emotion Regulation	53	31.43	2.791

The findings of the analysis showed that the average competitive anxiety score of female basketball athletes was 36.06 with a standard deviation of 4.52, which indicates that the anxiety level was in the medium category. The confidence variable had an average score of 129.26 with a standard deviation of 9.31, while the emotion regulation variable had an average score of 31.43 with a standard deviation of 2.79. These results show that there are variations in confidence levels and emotion regulation in the athletes studied.

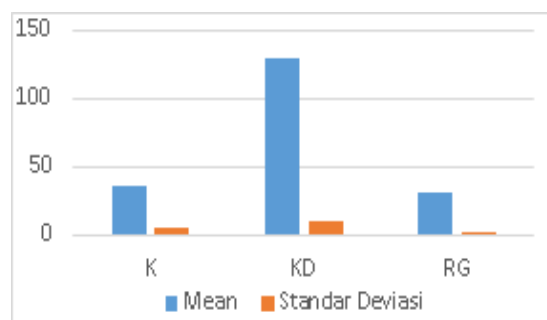


Figure 1. Descriptive Statistical Analysis Results
Note :

K = Anxiety; KD = Confidence; RG = Emotion Regulation

Table 2. Kolmogorov-Smirnov Test One Sample

N	Sig. (2 tails)	Description
53	.200	Normally distributed data ($p < 0.05$)

The normality of residues was assessed using the Kolmogorov-Smirnov One Sample test. The test results showed a significance value of 0.200 ($p > 0.05$), which indicates that the residual data is distributed normally. Thus, the assumption of normality is fulfilled so that the multiple linear regression analysis can be continued.

Table 3. Multiple regression analysis Model Summary

M	R	R Square	Adj R Square	Std. Error	Description
1.	.735	.540	.521	3.128	Confidence and emotion regulation explain 54% of competitive anxiety variations
Non-Standard Coefficients					
	B	Std. Error	t	Signs	Description
(Cons)	81.245	6.100	13.318	.000	
KD	-.193	.066	-2.930	.005	Higher confidence significantly reduces competitive anxiety
RE	-.643	.220	-2.921	.005	Better emotion regulation is associated with lower competitive anxiety

Note : Confidence and emotion regulation significantly predicted competitive anxiety ($p < 0.05$). Negative regression coefficients suggest that higher levels of confidence and emotion regulation are associated with lower competitive anxiety. This model explains 54% of the competitive anxiety variance.

Findings from multiple linear regression analysis showed a correlation coefficient value (R) of 0.735 indicating a strong relationship between confidence, emotion regulation, and competitive anxiety.

A determination coefficient value (R^2) of 0.540 suggests that confidence and emotion regulation together explain 54% of the variation in competitive anxiety in female basketball athletes.

Partial test analysis showed that higher confidence was associated with lower competitive anxiety ($B = -0.193$; $t = -2.930$; $p = 0.005$). This suggests that the higher the athlete's confidence level, the lower the perceived anxiety level. In addition, emotion regulation also had a negative and significant effect on competitive anxiety ($B = -0.643$; $t = -2.921$; $p = 0.005$), suggesting that athletes with good emotion regulation abilities tended to have lower levels of anxiety.

The results of the study showed that higher confidence contributed significantly to the reduction of competitive anxiety in female basketball athletes. Athletes with high levels of confidence tend to be calmer in competitive situations, so they can better manage anxiety. These results support previous research that addressed the role of confidence in improving athletes' psychological readiness during competitions (Lochbaum et al., 2022).

In addition to self-confidence, emotion regulation has also been shown to have an effect on lowering competitive anxiety. Athletes who are able to manage emotions well tend to be calmer and more stable in the face of stressful competitive situations. These results are in line with research Jannah et al. (2023) and Tamminen et al. (2021) which states that good emotional regulation can help athletes reduce stress and anxiety during games.

The combined contribution between self-confidence and emotion regulation accounted for 54% of competitive anxiety variance. These results underscore the importance of psychological factors in athletes' mental readiness. These results suggest that the development of psychological skills, especially self-confidence and emotional regulation, should be structurally applied into the training program along with physical and tactical preparation.

CONCLUSION

Based on the findings of this study, it can be concluded that confidence and emotion regulation play an important role in competitive anxiety among female basketball athletes. The results showed that athletes with higher levels of confidence tended to experience lower competitive anxiety. Confidence helps athletes stay calm and focused when facing competitive pressure, allowing them to perform more effectively during matches.

In addition, emotion regulation also has a significant negative relationship with competitive anxiety. Athletes who are able to manage emotions well are more stable when faced with stressful situations in competition and are less likely to experience excessive anxiety. These findings suggest that emotional control is an important psychological skill for athletes, especially in high-pressure competitive environments.

Confidence and emotion regulation together explain a substantial proportion of competitive anxiety in female basketball athletes. It highlights the importance of psychological pre-

paration in addition to physical, technical, and tactical training. Therefore, developing athletes' confidence and emotional regulation skills should be considered an integral part of the training program. By reinforcing this psychological aspect, athletes may be better equipped to manage competitive anxiety and perform more consistently in competitions.

REFERENCES

- Abdulhafedh. (2022). Combining Multiple Linear Regression in Predicting Home Prices Using Large Real Estate Datasets with 80 Independent Var. *Odysseus*, 9(1), 1–21.
- Aqobah, Q. J., & Rhamadian, D. (2022). Dampak Kecemasan (Anxiety) Dalam Olahraga Terhadap Atlet The Impact Of Anxiety In Sports On Athletes. *Journal of Sports Science and Tourism Activities*, 1(1), 31–36. <https://jurnal.un-tirta.ac.id/index.php/JOSITA>
- Deva, L., Study Program, M., Library, I., Adab, F., Culture, I., Sunan, U., & Yogyakarta, K. (2021). Descriptive statistics as a collection of information. *Fihris: Journal of Library and Information Science*, 16(1), 40–59. <https://doi.org/10.14421/FHRS.2021.161.40-59>
- Fazari, M., Damayanti, I., & Rahayu, N. I. (2017). The relationship between intellectual intelligence (IQ) and emotional intelligence (Eq) with playing skills in the sport of badminton. *Journal of Applied Sports Science*, 2(1), 33. <https://doi.org/10.17509/jtikor.v2i1.5350>
- Grova. (2024). Correlation between Confidence and Peak Performance in Professional Futsal Athletes. *Indonesian Journal of Sports and Health (JOKI)*, 4(2). <https://jurnal.stokbinaguna.ac.id/index.php/JOK/article/view/2671/1388>
- Jannah, M., Sholichah, I. F., & Widohardhono, R. (2023). Confirmation Factor Analysis: Emotion Regulation Scale in Sports Settings in Indonesia (IERQ4S). *Journal of Theoretical and Applied Psychology*, 14(1), 153–160. <https://doi.org/10.26740/JPTT.V14N1.P153-160>
- Khoirunnisa. (2025). View of the Relationship of Group Cohesiveness with Competitive Anxiety in Students Joining Sports Organizations in Jakarta. *Journal of Humanist Students*, 5(1). <https://www.ojs.pseb.or.id/index.php/jmh/article/view/1160/873>
- Kristanto. (2018). *Research Methodology for Scientific Writing Guidelines (KTI) - Vigih Hery Kristanto* - Google Books.
- Lochbaum, M., Sherburn, M., Sisneros, C., Cooper, S., Lane, A.M., & Terry, P.C. (2022). Revisiting the Relationship between Confidence and Sports Performance: A Systematic Review with Meta-Analysis. *International Journal of Environmental and Public Health Research*, 19(11). <https://doi.org/10.3390/ijerph19116381>
- Marsha, A., & Wijaya, F. J. M. (2021). Analysis of the level of anxiety training during the Covid 19 pandemic in East Kalimantan rugby athletes. *Journal of Sports Achievement*, 4(5), 113–118.
- Martens, R., Vealey, R.S., & Burton, D. (1990). Competitive anxiety in sports. 277.
- Maulana, Z., & Khairani, M. (2017). The difference in competition anxiety in PON Aceh athletes is reviewed from the type of sports activity. *J.D.*, 05(01), 97–106. <https://ejournal.umm.ac.id/index.php/jipt/article/view/3814/4337>
- Octavianingrum, W., & Savira, S. I. (2022). The Relationship between Confidence and Emotion Regulation in Pencak Silat Athletes at the East Java Center. *Journal of Psychological Research*, 9(6), 1–6.
- Petway, A.J., Freitas, T.T., Calleja-González, J., Leal, D.M., & Alcaraz, P.E. (2020). Practice load and match-play demands in basketball by competition level: A systematic review. *PLOS SATU*, 15(3), e0229212. <https://doi.org/10.1371/JOURNAL.PONE.0229212>
- Putri, F., Wardani, K., Karini, S. M., & Karyanta, N. A. (2015). The relationship between confidence and emotion regulation and anxiety facing matches in national-level archery athletes. *Candrajiwa*, 4, 133–147.
- Ridwan, M., & Indriarsa, N. (2021). Anxiety of female futsal athletes in the national student league Anxiety of female futsal athletes in the national student league. 10(1), 1–7. <https://doi.org/10.36706/altius.v10i1.12886>
- Safitri, A., & Jannah, M. (2020). The Relationship between Emotion Regulation and Sports Anxiety in Judo Athletes. *Character Journal of Psychological Research*, 7(3). <https://doi.org/10.26740/CJPP.V7I3.34497>
- Tamminen, K.A., Kim, J., Danyluck, C., McEwen, C.E., Wagstaff, C.R., & Wolf, S.A. (2021). The effect of self-regulation and interpersonal emotions on athletes' anxiety and goal achievement in competition. *Sports and Sports Psychology*, 57, 102034. <https://doi.org/10.1016/j.psychsport.2021.102034>
- Widyachandra, C.E., & Satiadarma, M.P. (2024). An overview of sports anxiety of male and female chess athletes is related to the Elo rating. *Journal of Muara Social Sciences, Humanities, and Arts*, 8(1), 26–35. <https://doi.org/10.24912/JMISHUMSEN.V8I1.27537.2024>