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## Regression Analysis: Psychological Factors as Predictors of East Java Kabaddi Athletes' Performance in Competition

Ela Nur Fadilah<sup>1</sup>, Anggara Cahya Nugraha<sup>2</sup>, Erta<sup>3</sup>, Hapsari Shinta Puspita Dewi<sup>4</sup>, Ghulam Zaky Ismail<sup>5</sup>

<sup>1</sup>Surabaya State University, Surabaya, Indonesia, [fadilahela@unesa.ac.id](mailto:fadilahela@unesa.ac.id)

<sup>2</sup>Surabaya State University, Surabaya, Indonesia, [anggaranugraha@unesa.ac.id](mailto:anggaranugraha@unesa.ac.id)

<sup>3</sup>Surabaya State University, Surabaya, Indonesia, [ertaerta@unesa.ac.id](mailto:ertaerta@unesa.ac.id)

<sup>4</sup>Surabaya State University, Surabaya, Indonesia, [hapsaridewi@unesa.ac.id](mailto:hapsaridewi@unesa.ac.id)

<sup>5</sup>Surabaya State University, Surabaya, Indonesia, [ghulamismail@unesa.ac.id](mailto:ghulamismail@unesa.ac.id)

Corresponding Author: [fadilahela@unesa.ac.id](mailto:fadilahela@unesa.ac.id)<sup>1</sup>

**Abstract:** Athlete performance is determined not only by physical and technical abilities, but also by psychological factors that influence mental readiness during competition. This study aims to analyze the influence of anxiety, self-confidence, and motivation on the performance of East Java Kabaddi athletes in the 2025 Provincial Sports Week (Porprov). The study used a quantitative approach with a survey method. The sample consisted of 96 athletes selected using a total sampling technique. The instruments used included the Sport Anxiety Scale-2, Self-Confidence Scale, Sport Motivation Scale-6, and Sport Performance Perceptions Scale. Data analysis was performed using multiple linear regression using SPSS. The results showed that anxiety, self-confidence, and motivation simultaneously had a significant effect on athlete performance ( $F = 8.062$ ;  $p < 0.05$ ) with a coefficient of determination ( $R^2$ ) of 0.208. However, partial anxiety ( $p = 0.189$ ) and motivation ( $p = 0.136$ ) did not have a significant effect, while self-confidence had the most dominant positive effect ( $\beta = 0.503$ ;  $p = 0.076$ ). These findings confirm that self-confidence is a key psychological factor supporting emotional stability and effective decision-making during competition. In conclusion, strengthening self-confidence through mental conditioning programs such as visualisation and positive self-talk should be a priority in the development of Kabaddi athletes. A psychological approach integrated with physical and tactical training is expected to improve optimal performance at higher levels of competition.

**Keywords:** Anxiety, Self Confidence, Motivation, Athlete Performance, Kabaddi.

### INTRODUCTION

In this era of increasingly competitive modern sports, athletes' peak performance is no longer solely dependent on physical and technical abilities, but also on optimal mental preparedness. Sports, as physical activities that have a positive impact on health (Brad, FACSM & Hight-Intensity, 2013), have diversified into various disciplines, including Kabaddi, which is growing in popularity in Indonesia. Kabaddi, a traditional sport now recognized in 65

countries (Ebrahimi & Gholami, 2018), demands physical agility, quick changes in direction, and high alertness in every match. Sports are one of the physical activities that enhance physical stamina and have a positive impact on health. Therefore, sports are recommended to be performed regularly according to an individual's condition (Brad, FACSM & Hight-Intensity 2013).

One of the sports that is growing in Indonesia is kabaddi. Kabaddi is a sport that relies on physical agility and quick changes of direction. The sport of kabaddi is known in 65 countries, especially in Asian countries, which has increased awareness of this sport (Ebrahimi & Gholami, 2018). Kabaddi is played by two teams that take turns attacking to score points. This team sport requires rapid changes in the direction of the entire body (COD) in defense or to avoid opponents (Rouissi et al., 2018). The uniqueness of Kabaddi as a team sport that relies on alternating attack and defence strategies (Rouissi et al., 2018) makes it one of the sports competed in the National Sports Week (PON). However, in the context of increasingly fierce competition, psychological factors often determine the success of athletes in achieving their goals.

Three critical psychological aspects that are the focus of this study are anxiety, self-confidence, and motivation. Competitive anxiety, manifested through somatic and cognitive symptoms, can be a double-edged sword; on the one hand, it can interfere with concentration, but on the other, it can trigger the necessary alertness. Meanwhile, self-confidence plays a crucial role in shaping athletes' mental resilience in the face of match pressure. Motivation, both intrinsic and extrinsic, is the main driver in maintaining athletes' commitment and effort during training and competition. Although various studies have examined the influence of psychological factors on athlete performance, the findings still show varying results depending on the type of sport and cultural context. Especially for the sport of Kabaddi in Indonesia, there is still a lack of research that comprehensively examines the interaction between anxiety, self-confidence, and motivation on athlete performance.

In kabaddi, an athlete's performance is influenced not only by physical factors, but also by psychological factors. An athlete's performance is one of the key factors that determine success in competition. Various factors influence this performance, including anxiety, self-confidence, and motivation. Anxiety is an emotional response commonly experienced by athletes before and during competition. Anxiety can manifest in various forms, such as fear of failure, pressure to meet expectations, or concern about the judgment of others. Research shows that excessive anxiety can interfere with an athlete's concentration and focus, thereby negatively impacting their performance. However, on the other hand, anxiety at a certain level can also serve as a motivator to improve performance.

Self-confidence is another important factor that affects an athlete's performance. Athletes who have high self-confidence tend to be better able to cope with the pressure and challenges that arise during competition. They believe in their abilities and skills, allowing them to perform better. Conversely, athletes who lack confidence may experience doubt and uncertainty, which can hinder their performance. Therefore, it is important to explore how confidence can be built and maintained in the context of competition.

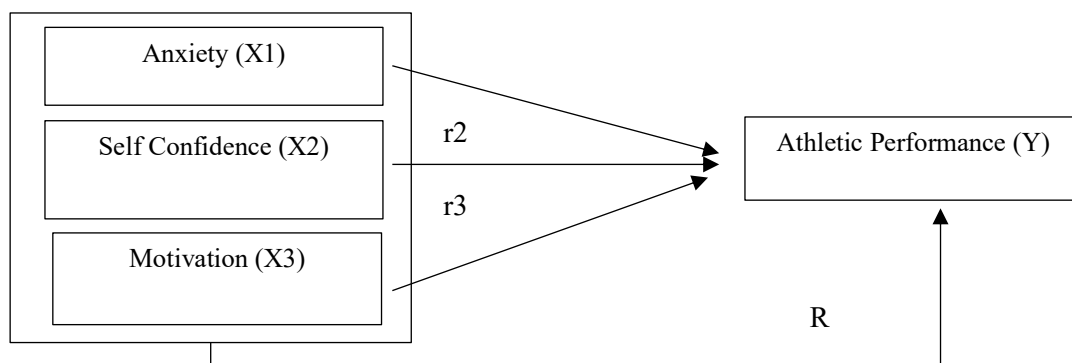
Previous studies have shown that there is a significant relationship between anxiety and athletic performance. However, the results often vary depending on the type of sport, level of competition, and individual characteristics of the athletes. Therefore, this study aims to further explore this relationship by involving various types of athletes from different sports. Thus, it is hoped that a more comprehensive picture of the influence of anxiety on performance can be obtained. Self-confidence has also been the focus of many studies, with numerous studies showing that confident athletes tend to perform better. However, there are still many unanswered questions about how self-confidence can be influenced by other factors, such as anxiety and motivation. This study will attempt to fill this gap by analysing the relationship between these three factors simultaneously. Motivation, as a factor that is often overlooked,

also needs more attention in this study. Many athletes may have the same skills and abilities, but differences in motivation can be a major determinant of their performance. Therefore, this study will explore how motivation can affect anxiety and self-confidence, as well as its impact on athlete performance.

In the context of increasingly competitive sports, a better understanding of the psychological factors that influence athlete performance is very important. Coaches and sports managers need to have in-depth insight into how to manage anxiety, build confidence, and increase athlete motivation. Thus, they can create a supportive environment for athletes to achieve their best performance. This research is expected to contribute significantly to the development of knowledge in the field of sports psychology. By understanding the influence of anxiety, self-confidence, and motivation on athlete performance, it is hoped that effective strategies can be found to improve athlete performance in competition. This research is also expected to serve as a reference for further research related to psychological factors in sports. With this background, this study will be conducted with the aim of identifying and analyzing the influence of anxiety, self-confidence, and motivation on athletes' performance in facing competition. Through a systematic and methodological approach, it is hoped that the results of this study can provide useful insights for athletes, coaches, and sports managers in their efforts to improve overall athlete performance.

## METHOD

This study uses a quantitative research approach with a correlational design and an explanatory design type. An explanatory correlation aims to determine the extent of the influence between two or more variables, where changes in one variable can reflect changes in another variable (Baskerville & Pries-Heje, 2010). Therefore, this study aims to determine the influence of anxiety (X1), self-confidence (X2), and motivation (X3) on the performance of kabaddi athletes (Y). The following is the research design that will be used:



**Figure 1. Research Design**

## Population and Sample

The target population of the study was the entire contingent of East Java Kabaddi athletes for PORPROV 2025. The sampling method chosen was a census, in which all members of the population who met the criteria were sought to be included. Based on the available data, 96 athletes meet the inclusion criteria (as core athletes and willing to participate) and are willing to respond. Therefore, the sample in this study consists of 96 athletes, which covers almost the entire target population, so the level of representation is very high and can provide a comprehensive picture of the population's condition.

## Data Collection Techniques

Data was collected using a closed questionnaire consisting of four standard instruments: the Sport Anxiety Scale-2 (15 items) to measure anxiety, the Self-Confidence Scale (39 items)

for self-confidence, the Sport Motivation Scale-6 (24 items) for motivation, and the Sport Performance Perceptions Scale (32 items) for athlete performance. All instruments used a 4-point Likert scale for 96 East Java Kabaddi athletes who will participate in the 2025 East Java Provincial Sports Week.

**RESULTS AND DISCUSSION**

**Table 1. Descriptive Analysis Results**

		Descriptive Statistics			
	N	Minimum	Maximum	Mean	Std. Deviation
X1	96	15	45	29.06	6.485
X2	96	96	125	113.40	7.202
X3	96	59	83	71.61	5.192
Y	96	64	128	105.46	15.645
Valid N (listwise)	96				

A descriptive analysis of 96 kabaddi athletes in East Java shows that the average anxiety score (X<sub>1</sub>) is 29.06, self-confidence (X<sub>2</sub>) is 113.40, motivation (X<sub>3</sub>) is 71.61, and athletic performance (Y) is 105.46. In general, athletes have high levels of self-confidence and motivation with moderate anxiety.

**Simultaneous Regression Test (F-test)**

**Table 2. Results of ANOVA Test for Multiple Regression Model**

		ANOVA <sup>a</sup>				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4840.156	3	1613.385	8.062	.000 <sup>b</sup>
	Residual	18411.677	92	200.127		
	Total	23251.833	95			

a. Dependent Variable: Y

b. Predictors: (Constant), X<sub>3</sub>, X<sub>1</sub>, X<sub>2</sub>

**Table 3. Results of the Coefficient of Determination Test (Model Summary)**

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted Square	Std. Error of the Estimate
1	.456 <sup>a</sup>	.208	.182	14.147

a. Predictors: (Constant), X<sub>3</sub>, X<sub>1</sub>, X<sub>2</sub>

b. Dependent Variable: Y

The results of the simultaneous regression test (F test) show an F value of 8.062 with a significance level of 0.000 < 0.05, which means that anxiety, self-confidence, and motivation together have a significant effect on athletic performance. The R<sup>2</sup> value of 0.208 indicates that these three psychological variables explain 20.8% of the variation in athlete performance, while 79.2% is influenced by other factors outside the model.

Partially, anxiety (p = 0.189) had a negative but insignificant effect on performance, self-confidence (p = 0.076) showed a positive effect that was close to significant, and motivation (p = 0.136) had a positive but insignificant effect. Self-confidence has the highest beta coefficient (β = 0.232), indicating a dominant role in determining performance compared to the other two

variables. These findings indicate that psychological factors contribute to athlete performance, especially self-confidence, but are not yet the main determinants. Therefore, improving athlete performance requires a comprehensive approach that includes strengthening psychological, physical, and training environment aspects.

#### Discussion

The results show that psychological factors play an important role in the performance of East Java Kabaddi athletes. The regression model shows a significant simultaneous effect, with the three variables anxiety, self-confidence, and motivation explaining 20.8% of the variation in athlete performance ( $R^2 = 0.208$ ). This means that psychological aspects contribute significantly to performance, although they are not the only determinants of athletes' success. Partially, anxiety does not have a significant effect on athletes' performance ( $\beta = -0.353$ ;  $p = 0.189$ ). These results indicate that although anxiety can theoretically decrease performance (choking under pressure) (Mesagno & Beckmann, 2017), East Java Kabaddi athletes seem to have been able to manage pressure through competition experience and effective coping strategies. Anxiety at an adaptive level can actually increase alertness and preparedness (Wijaya, 2018).

Self-confidence emerged as the most dominant psychological factor ( $\beta = 0.503$ ;  $p = 0.076$ ). These results reinforce Bandura's (1997) self-efficacy theory that belief in one's abilities is the main foundation of optimal performance. Confident athletes are more daring in making decisions, maintaining focus, and remaining emotionally stable when facing the pressure of competition. These findings are also in line with the research by Ahadin et al. (2022), which shows that aspects of optimism, courage, and adaptability are positively correlated with athletic performance. Meanwhile, motivation did not have a statistically significant effect ( $\beta = 0.524$ ;  $p = 0.136$ ). Although the direction is positive, this shows that motivation alone is not enough to drive performance improvement without the support of a supportive training environment. Self-Determination Theory (Deci & Ryan, 2000) asserts that intrinsic motivation internal drive is more effective than extrinsic motivation based on rewards. Therefore, the development of athletes' motivation needs to be directed towards fostering a love for the game and pride in competing, rather than simply achieving medals.

Conceptually, the results of this study confirm that self-confidence is a key element in the mental preparedness of Kabaddi athletes. High self-confidence enables athletes to manage anxiety and channel motivation more effectively. Thus, mental conditioning programs need to focus on strengthening self-efficacy through mental exercises such as visualisation and positive self-talk. Integrating mental training with technical and tactical aspects will strengthen the winning mentality that is the foundation of superior performance in the competitive arena.

#### CONCLUSION

This study shows that psychological factors have a significant contribution to the performance of East Java Kabaddi athletes, albeit at a moderate level. Simultaneously, the variables of anxiety, self-confidence, and motivation are able to explain 20.8% of the variation in athlete performance. However, partially, only self-confidence shows the most dominant positive influence, although it is not yet statistically significant. Anxiety was found to have no significant effect on performance, indicating that athletes have developed the ability to manage competitive pressure effectively. Motivation also had no significant effect, suggesting that the drive to achieve needs to be supported by a supportive training environment and strong intrinsic factors. Practically, these results confirm that increasing self-confidence should be the main focus in the psychological coaching of Kabaddi athletes. A mental conditioning program integrated with physical and tactical training through visualisation techniques, positive self-talk, and anxiety management training can strengthen athletes' mental readiness and competitive performance.

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