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## **Anxiety And Short Distance Running Performance In Female Athletes** **Ikina Rizki Kahiji<sup>1\*</sup>, Komarudin Komarudin<sup>2</sup>, Mochamad Yamin Saputra<sup>3</sup>, Gerald** **Novian<sup>4</sup>**

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### **Abstract**

**Studi purpose.** There are many cases in athletics where performance declines, especially in women, due to excessive anxiety. Often, they think this is a normal thing, but this can have fatal consequences and interfere with the performance of female athletes in short-distance running events. Thus, this study aims to examine the relationship between anxiety and short-distance running performance in female athletes.

**Materials and methods.** The method used in this research is a descriptive method with a quantitative approach involving 12 female athletes aged 12-15 years. This research uses a total sampling technique. The instrument in this research is the Competitive Sport Anxiety Inventory-2 (CSAI-2) which also takes the results of the 100m sprint data in the Portue 2023 competition to determine the performance of short-distance running athletes. Data analysis was carried out using SPSS version 25 using the Pearson correlation test.

**Results.** The results of the study show that there is a significant relationship between anxiety and the short distance running performance of female athletes.

**Conclusions.** The author can conclude that the anxiety experienced by female track and field athletes, especially in the 100m sprint event, must be managed as well as possible because if not, it can cause female track and field athletes to experience a decline in performance.

**Keywords:** Performance, Female Athlete, Short Distance Running, Anxiety

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### **Introduction**

Psychological factors have a very important role in sports, this has been proven in various previous research and studies regarding sports psychology (Sarkar and Fletcher 2014). An athlete who has high psychological well-being will be able to perform with his best performance in a match (Purnamasari et al., 2019). Therefore, both from a physical and

technical perspective. Studies also reveal that mental and physical aspects are closely related so that mental disorders can affect a person's physical performance (Prasetya, Supriyono, and Ramli 2016). This is often experienced by athletes who participate in a match and have different levels of anxiety in various sports (Effendi 2016). Therefore, anxiety can have a detrimental effect on an athlete's performance (Kumbara, Metra, and Ilham 2018).

Anxiety is a common emotional reaction, characterized by worry, fear, and discomfort. Physical symptoms can include excessive sweating, restlessness, and rapid heartbeat (Patel et al. 2023). Anxiety is also a psychological disorder that can have characteristics such as excessive fear, concern about the future, prolonged worry, and nervousness (Azka, Firdaus, and Kurniadewi 2018). This was explained in previous studies which revealed that anxiety disorders in teenagers ranged from 6% to 20%, and this figure was much higher if the anxiety symptoms did not meet the criteria for certain anxiety disorders, the population was also higher in women. If anxiety is not managed well, it will have a huge impact on an athlete's performance (Kumbara et al. 2018). Anxiety can result in chaotic movements, body shaking, and a fear of losing so that players cannot apply techniques they have previously mastered (Chodijah et al. 2020).

For this, sports psychology is applied to produce athletes who can show peak performance, this is not determined by just one factor but by other factors. And provides several benefits that athletes will gain by applying sports psychology, such as increasing self-confidence, increasing focus or concentration, increasing team cohesion, increasing motivation to achieve, and controlling emotions (Ilsya and Komarudin 2019). Thus, applying sports psychology to support athlete performance in the field needs to be done so that optimal performance can be achieved (Permana and Prasetyo 2021). Therefore, to become an athlete you must have good performance. This is in line with previous research which revealed that psychological aspects in sports can help improve athlete performance (Brown and Fletcher 2017).

Athletes who can control feelings of anxiety when competing will have optimal performance (Wismanadi 2017). If the level of anxiety is high it will result in the athlete's performance accuracy or appearance being low (S et al. 2023). Anxiety during a match will cause excessive emotional stress, so that the athlete's concentration in facing the opponent will decrease. This means that the athlete's performance decreases, so accuracy will also decrease and cause the athlete's performance to decrease. Because when competing, the most determining aspect is the athlete's mental or psychological state.

## **Materials and Methods**

### ***Study participants.***

This research involved 12 female track and field athletes who had competed in the Portue 2023 Competition and focused on the 100m sprint.

### ***Study organization.***

The research method used in this research is descriptive with a quantitative approach. The author used this method because he wanted to collect data that could then be described and looked for correlations between variables, so the design used in this research was correlational.

### ***Statistical analysis.***

The data obtained is then processed and analyzed. The sequence of data analysis carried out in this research is a statistical description, normality test, homogeneity test, hypothesis test, and percentage of individual and overall results. Data analysis used the t-test with the help of SPSS 25.

**Results**

**Table 1.** Statistical Description

Variable	Min.	Max.	Sum	Mean	Std. Deviation
Anxiety	36	51	526	43.83	4.407
Performance	14.41	18.50	195.57	16.298	1.621

Based on [Table 1](#), it can be seen that for anxiety, the average score was 43.83, the standard deviation was 4.407, the lowest score was 36, the highest score was 51, and the total score was 526. Meanwhile, for performance, the average score was 16.298, the standard deviation is 1.621, the lowest value is 14.41, the highest value is 18.50, and the total value is 192.57. Next, the author carried out a normality test, which can be seen in [Table 2](#).

**Table 2.** Normality test

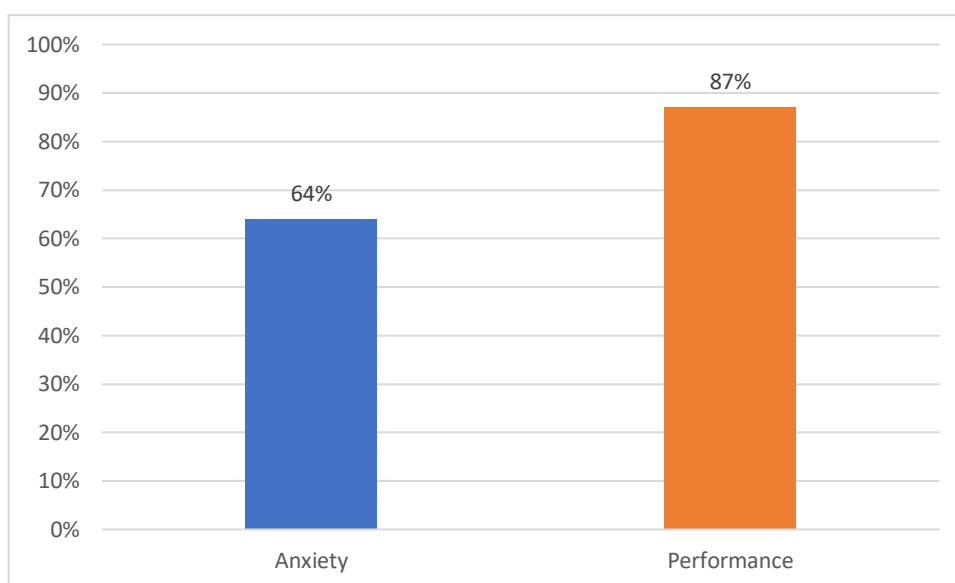
Variable	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Anxiety	0.093	12	0.200	0.979	12	0.978
Performance	0.200	12	0.198	0.865	12	0.057

[Table 2](#) shows the results of the normality test which can use Kolmogorov-Smirnov and Shapiro-Wilk data, but in this study, the author used the Shapiro-Wilk Test. Based on [Table 2](#), it can be seen that anxiety has a statistical value of 0.979, df 12, and Sig. of 0.978. Meanwhile, the performance obtained a statistical value of 0.865, df 12, and Sig. of 0.057. Based on the test results, both data obtained a Sig value.  $> 0.05$  so that both data are declared "Normal Distribution". Therefore, the author uses a parametric approach in conducting hypotheses. The results of the hypothesis test can be seen in [Table 3](#).

**Table 3.** Correlation Test Between Anxiety and Short Distance Running Performance of Female Athletes

Variable	N	Pearson Correlation	Sig. (2-tailed)
Anxiety - Performance	12	0.610	0.035

[Table 3](#) shows the results of hypothesis testing using Pearson correlation because the data was previously stated to be normally distributed. Based on [Table 3](#), it can be seen that N or the number of samples is 12 with a Pearson correlation value of 0.610 and a Sig. (2-tailed) is  $0.035 < 0.05$  which means  $H_0$  is rejected. Therefore, it can be stated that there is a significant relationship between anxiety and the short-distance running performance of female athletes. Next, the author presents the average percentage of anxiety and short-distance running performance of female athletes, which can be seen in [Figure 1](#).



**Figure 1.** Average Percentage of Anxiety and Short Distance Running Performance for Female Athletes

In [Figure 1](#) there is an average percentage of anxiety of 64% and performance of 87%. This shows that anxiety and short-distance running performance have not yet reached maximum conditions.

## Discussion

One of the main factors that causes anxiety in athletes before competing is often experiencing problems with focus and concentration, which results in the emergence of other psychological symptoms ([Prasetya et al. 2016](#); [Saputra et al. 2022](#)). This disorder has an impact on the mind and causes negative things to emerge, such as uncontrolled emotions, which can hinder focus and optimal performance when competing, thus causing anxiety in an athlete ([Maulana and Khairani 2017](#)). And it also causes mental problems, therefore, psychiatrists agree that anxiety is one of the biggest human problems ([Firmansyah, Kusmaedi, and Komarudin 2019](#)).

Anxiety often interferes with the performance of athletes or athletes. This causes athletes to experience a lack of focus and leads to poor performance. Anxiety often arises when athletes feel doubtful or afraid to do something related to their performance ([Purnamasari & Novian, 2021](#)). Often, we find this at the time and end of matches in sports, which has an impact on the anxiety level of sports players, whether athletes, coaches, referees, or spectators. Feelings of anxiety are caused by thoughts before the match and during the match ([Aqobah and Rhamadian 2022](#)). This happens because of the psychological pressures during play and the nature of sports competitions which involve changes in game conditions or natural conditions which cause a decrease in the athlete's self-confidence in their performance.

The failure of short-distance running athletes is often influenced by anxiety, and this anxiety results in disruption of the individual's ability to use all their physical abilities. This results in a decline in the performance of short-distance running athletes, especially female athletes. Because, anxiety between male and female athletes is also known to be different, with female athletes having significantly higher levels of somatic anxiety and concentration disorders ([Correia and Rosado 2019](#)). The research results state that stress and mood disorders are more often experienced by female athletes compared to male athletes. This is because women tend to ruminate when faced with negative moods, while men are more likely to divert their attention. This rumination increases the risk of mood disorders in women ([di Fronso et al. 2022](#)). The short-distance running performance of female athletes when they experience failure

in a sports competition is often influenced by psychological factors, one of which is their own anxiety.

To achieve high performance, athletes must be able to minimize the anxiety that comes to them. So that anxiety can be managed with good mental preparation, this allows athletes to achieve the desired performance, because optimal calm and concentration when competing are very important for the best performance (Handayani 2019). Therefore, there needs to be awareness from coaches and sports players regarding athlete anxiety, because the decline in athlete performance is not only due to training factors but can be seen from anxiety factors. The lower the athlete's anxiety, the better their performance will be.

### **Conclusions**

This research concludes that the anxiety experienced by female track and field athletes, especially in the 100m sprint event, must be handled as best as possible because it causes female track and field athletes to experience a decline in performance. This can hurt the athlete's survival during the competition and can disturb the athlete. Based on the explanation above regarding the results of research that has been carried out and the discussion that has been presented, it can be concluded that the anxiety experienced by athletes has a significant relationship with the performance of female 100m track and field athletes. Therefore, athletes who have a low level of anxiety can improve the athlete's performance, but conversely, athletes with a high level of anxiety will have a low level of performance. It can be concluded that athlete anxiety and performance, especially female athletes, are closely related to each other. The author also advises coaches to pay more attention to the anxiety their athletes have because athletes' performance can decrease due to high anxiety.

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### **Conflict of interest**

The author has no conflict of interest.

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