

Anxiety Levels of Fencing Athletes in Kudus Regency In Facing the 2026 Central Java Provincial Sports Week

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ABSTRACT

This study aims to determine the level of anxiety experienced by fencing athletes from Kudus Regency in facing the 2026 Central Java Provincial Sports Week (PORPROV). This study uses a descriptive quantitative approach with a sample of 24 athletes selected through a purposive sampling technique. Data collection was carried out through the distribution of the Sport Anxiety Scale (SAS) questionnaire, which has been tested for validity and reliability. Prerequisite tests include a normality test using the Kolmogorov-Smirnov method, which produces a significance value of 0.200 and a homogeneity test using Levene's Test with a significance value of 0.696, indicating that the data are normally distributed and homogeneous. Data analysis was carried out using descriptive statistical techniques and the One-Way ANOVA test. The results of the study showed that the anxiety level of fencing athletes was generally in the "Somewhat Low" category, with an average value of 38.96, the lowest score being 26 and the highest being 57 out of a maximum score of 88. The ANOVA test showed a significance value of 0.093, which indicated there was no significant difference in anxiety between the Cadet, Junior, and Senior athlete categories. These findings revealed that most athletes could manage psychological stress fairly stably. This study provides implications for coaches and sports trainers to integrate mental training into athlete development programs.

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- A. Conception and design of the study;
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INTRODUCTION

Sport is a structured physical activity designed to develop physical, spiritual, and social potential. Over time, sport's role has evolved into a competitive arena that demands meticulous training to achieve optimal performance. To compete at a competitive level, athletes undergo systematic training to develop their maximum potential. One of the physical factors that supports an athlete's performance is agility (Fernando, 2022).

Fencing is a sport that demands high agility and has its roots in the martial arts of ancient nobility. Over time, fencing has focused on technical skills using weapons, using thrusting, parrying, and cutting movements that require coordination and manual dexterity (Rohmah et al., 2023). Fencing began to be competitive with the decline of the

feudal knight era and the rise of the bourgeoisie, until it was officially recognized as an international sport at the 1896 Athens Olympics (Zahara et al., 2022). Fencing involves competing with three weapons: the Floret (foil), Degen (epee), and Sable (Saber) (Dessy & Soenyoto, 2021).

In Central Java, fencing has not yet achieved the same level of popularity as more popular sports, such as soccer, volleyball, or basketball. One of the main reasons is the high cost of equipment and facilities, resulting in suboptimal performance. Performance is a tangible indicator of success influenced by various factors, including the availability of facilities, the athlete's physical condition, and psychological aspects (Ilham, 2021).

Psychological aspects have a significant influence on athlete performance, which is generally studied within the realm of sport psychology. Sport psychology is a scientific discipline that studies how psychological variables influence athletes' behaviour, experiences, and performance outcomes (Manalu et al., 2024). Among the various challenges in sport psychology, anxiety is considered one of the most crucial. Anxiety often arises before or during a match, as a result of the psychological pressure that arises when competition begins. Uncertain competition situations can affect an athlete's confidence and even impair their performance on the field. Anxiety in athletes is a common response to competitive situations. In every competition, this condition is almost always present as part of the mental stress experienced. Generally, anxiety is related to fear of failure, loss, guilt, worry about disappointing others, and other emotional discomfort. These reactions often lead to tension, which can ultimately hinder optimal athlete performance (Darmanto et al., 2020).

According to Prapavessis et al. (1996, citing Martens' (1990) book "Competitive Anxiety in Sport," the Multidimensional Anxiety Theory explains that factors consist of several interrelated components:

1. Trait Anxiety

An individual's tendency to experience anxiety in various situations. Athletes with high trait anxiety tend to experience greater anxiety during competitions.

2. Situational Factors

The importance of the match, the difficulty of the opponent, expectations from coaches and parents, and the competitive environment are the main triggers for increased mental stress.

3. Individual Perception of Threat

This factor describes how an athlete interprets or assesses a competitive situation, which will influence the athlete's level of anxiety.

In Martens' book (1990), he also describes several characteristics that can appear when an athlete experiences anxiety when facing a competition, such as the following:

1. Individuals tend to worry constantly about their situation.
2. Tend to be impatient, easily irritated, complain frequently, have difficulty concentrating, and have difficulty sleeping.
3. Physiological conditions such as excessive sweating, a racing heartbeat, cold hands and feet, digestive problems, a dry mouth, a pale appearance, and trembling.

4. Behaviorally, there may be a sudden decline in performance, repetitive habits such as nail biting, or a decreased motivation to train and compete.

From this explanation, the impact of anxiety significantly impacts an athlete's performance, which in turn impacts their achievements. Understanding anxiety factors allows athletes to focus more on the competition. However, excessive anxiety can disrupt concentration and reduce the quality of their performance.

Kudus Regency is one of the regions in Central Java with a fencing team with considerable athletic potential. Based on observations, the Kudus Regency fencing team coach stated that the team's performance has declined. This is due to the selection and replacement of existing athletes with new ones, resulting in the athletes' technical and mental development not being well-developed for competition. Fencing competitions are divided into categories based on athlete age. These categories are: beginner cadet (6-15 years old), cadet (16-18 years old), junior (18-21 years old), and senior (21 years old and above) (Azizah & Jannah, 2020).

According to the coach, the Kudus Regency fencing team has experienced a decline in performance, as explained below:

Table 1.

Review of Age Category Achievements at the 2018 and 2023 Central Java PORPROV

Age Category	Number of Athletes	2018	2023
Rookie Cadet	7	-	-
Cadet	8	1 Silver, 1 Bronze	1 Bronze
Juniors	7	1 Gold, 1 Bronze	1 Bronze
Senior	9	2 Gold, 1 Bronze	2 Bronze
Amount		3 Gold, 1 Silver, 3 Bronze	4 Bronze

Source: IKASI Kudus Regency 2025

From Table 1, it can be concluded that the comparison of medals won by fencing athletes from Kudus Regency in the last two championships, namely the 2018 PORPROV and the 2023 PORPROV, is based on age category. In general, there was a decline in achievement from 2018 to 2023, both in terms of the number and quality of medals. This is a phenomenon that indicates that the decline in achievement is caused by many factors, including circumstances, physical, environmental, and psychological aspects (Rhamadian, 2022), but psychological aspects are often hidden and therefore require special attention. The purpose of this study was to descriptively determine the level of anxiety of fencing athletes in facing the 2026 Central Java PORPROV by analyzing the questionnaire score data distributed to athletes comprehensively.

A review of previous research has been conducted by researchers. Research by (Hindiari & Wismanadi, 2022) entitled "Anxiety Levels of Karate Athletes Before the Match Among Cakra Koarmatim Members". The results of the study showed that the level of anxiety of athletes before the match was in the very low category of 13% (2 athletes), low category of 7% (1 athlete), medium category of 13% (2 athletes), high category of 27% (4 athletes) and very high category of 40% (6 athletes). There is a difference with the previous study, namely in the research object that focuses on karate athletes. While this study focuses on fencing athletes who are prepared to face the 2026 Central Java

PORPROV. The next study is a study by Kumbara et al. (2018) entitled "Analysis of Anxiety Levels in Facing the Match of Banyuasin Regency Football Athletes at the 2017 PORPROV". The results of this study indicate that 63%, or 13, of the Banyuasin Regency soccer athletes experienced anxiety before competing, while 37%, or 7, did not. This anxiety encompassed competitive, cognitive, and somatic aspects. This study differs from previous studies in its mixed methods approach (qualitative and quantitative). This study, however, employed a quantitative approach, which is comprehensively explained descriptively through data processing using software.

METHODS

This research is a survey study using a descriptive quantitative approach and data collection techniques using questionnaires supplemented by documentation. According to Sugiyono (2019), survey methods are used to obtain data in a natural, non-engineered environment. However, data collection still involves specific procedures by the researcher, such as distributing questionnaires, administering tests, or conducting structured interviews. According to Sugiyono (2018), in a study by Asri & Julisman (2022), a descriptive approach is a type of research that aims to describe a variable independently, whether one or more, without comparing or examining the relationships between variables.

This research was conducted over three months, from April to June 2025. This research coincided with the Kudus Regency fencing team's intensive training camp (TC) for the 2026 Central Java Provincial Sports Week (PORPROV).

This study focused on the level of anxiety among athletes before competitions in Kudus Regency, using a purposive sampling technique to select 24 athletes from a total population of 30 athletes. According to Sugiyono (2019), in a study (Ani et al., 2021), purposive sampling is a sampling technique based on specific considerations. This means that sampling is based on specific considerations or criteria that have been formulated in advance by the researcher. In line with this statement, this technique was chosen by the researcher because it can capture subjects who are considered the most relevant and meet certain criteria, namely athletes who actively participate in training programs and are targeted to represent Kudus Regency in the 2026 Central Java PORPROV event.

This study uses primary data as the primary source. According to Sugiyono (2019:225), primary data is data collected directly by researchers from primary sources in the field. The primary data in question is information regarding the anxiety levels experienced by fencing athletes in Kudus Regency in preparation for the 2026 Central Java PORPROV. The data source used is a primary data source obtained through the distribution of questionnaires to athletes selected as correspondents. Therefore, it can be concluded that the primary data in this study consists of information regarding the anxiety levels of fencing athletes in Kudus Regency in preparation for the 2026 Central Java PORPROV, which was obtained directly through the distribution of questionnaires to athletes selected as research correspondents.

The researcher used a questionnaire as a data collection technique. According to Sugiyono (2019:199), a questionnaire is a data collection technique that involves providing a set of written questions or statements to respondents for answering. Data collection took place in the afternoon during athletes' training sessions on Mondays, Wednesdays, and Fridays each week in Kudus Regency. The questionnaires were provided in printed form for completion. Respondents were asked to provide answers based on their experiences and feelings, with answer choices on a Likert scale ranging from 1 to 4: Not Appropriate (DS), Somewhat Appropriate (AS), Appropriate (S), and Very Appropriate (SS). In addition to the questionnaire, documentation techniques were also used to supplement the data. This documentation helped researchers strengthen the analysis and discussion of the research results.

Furthermore, this study used the Sport Anxiety Scale (SAS) questionnaire instrument, originally developed by Smith, Smoll, and Schutz (1990), then modified and adapted to the Indonesian research context by Nyak Amir (2012). Overall, this instrument contains 22 items, where participant responses are measured using a four-level Likert scale format: Not Appropriate (DS), Somewhat Appropriate (AS), Appropriate (S), and Very Appropriate (SS). TS is scored 1, AS is scored 2, S is scored 3, and SS is scored 4. This instrument was taken from the journal "Pengembangan Alat Ukur Kecemasan Olahraga" (Development of a Sports Anxiety Measurement Tool) by Amir (2013).

Table 2.
Sports Anxiety Scale

No.	Question Items	TS	AS	S	SS
1.	My heart races during matches.				
2.	My body stiffens during matches.				
3.	Negative thoughts interfere with my concentration during matches.				
4.	I have trouble sleeping during matches.				
5.	My legs feel heavy during matches.				
6.	I tremble during matches.				
7.	I worry about not being able to concentrate during matches.				
8.	I become reckless during matches.				
9.	I experience tension during matches.				
10.	I break out in a cold sweat during matches.				
11.	I quickly become discouraged during matches, especially when under pressure.				
12.	I constantly need to urinate during matches.				
13.	I experience muscle tension (cramps) during matches.				
14.	I experience self-doubt during matches.				
15.	My breathing becomes irregular during matches.				
16.	I often pace during matches.				
17.	I often scratch my head during matches.				
18.	I feel lethargic during matches.				
19.	My muscles ache during matches.				
20.	I often drink water during matches.				
21.	I find myself thinking about unrelated things during matches.				
22.	My facial expressions and forehead wrinkles during matches.				

Source: Nyak Amir 2012

Table 3.
 Classification of Sports Anxiety Scale Scores

Instrument Table	Anxiety Level Scale			
	Low	Moderately Low	Moderately High	High
Anxiety Scale	1-22	23-44	45-66	67-88

Source: Nyak Amir 2012

The instrument used in this study has undergone validity and reliability testing. Validity refers to the extent to which an instrument can measure what it is supposed to measure. The validity test results show that the calculated *r* value is in the range of 0.215 to 0.825, while the reference table *r* value is 0.041 (with *df* = 98 degrees of freedom and a significance level of 5%). Based on these results, the instrument is declared valid with a moderate level of validity. Meanwhile, reliability indicates the level of consistency of measurement results when the instrument is used repeatedly on the same object. Reliability testing is conducted to ensure that the instrument can provide stable results. The test results show that the calculated *r* value ranges from 0.631 to 0.823, exceeding the minimum limit of *r* table value of 0.041 and the threshold of reliability feasibility of 0.500. Thus, this exercise anxiety measuring instrument is declared reliable with a high reliability category (Darmanto et al., 2020). The homogeneity test was conducted using One-Way ANOVA to ensure that the variance between age groups is uniform. The test results show a significance value > 0.05, which means the data comes from a homogeneous population and is worthy of further analysis.

RESULTS AND DISCUSSION

Result

This study involved 24 fencing athletes from Kudus Regency, consisting of various competition categories: Floret, Degen, and Sabel. The target age categories for the PORPROV were Cadet, Junior, and Senior. The data were then analyzed using SPSS (Statistical Package for the Social Sciences) version 30.

Table 4.
 Research Score Results

No.	Name	Date of birth	Gender	Match Number	Score
1.	AY	06/07/2000	L	Floret Senior	37
2.	DL	18/12/2009	L	Cadet Floret	35
3.	AD	27/06/2002	L	Floret Senior	35
4.	GA	20/03/2005	L	Floret Junior	46
5.	HL	24/06/2006	P	Floret Junior	48
6.	AA	27/12/2011	P	Cadet Floret	51
7.	AU	15/02/2006	P	Floret Junior	28
8.	HS	23/07/2000	P	Floret Senior	27
9.	FM	25/08/2000	L	Senior Degen	33
10.	IB	19/07/2003	L	Senior Degen	36
11.	HM	01/04/2008	L	Degen Cadet	29
12.	FA	25/05/2005	L	Degen Junior	57
13.	HN	30/09/2002	P	Senior Degen	47
14.	IC	29/04/2008	P	Degen Cadet	42
15.	IN	15/05/2009	P	Degen Cadet	45
16.	NV	09/01/2005	P	Degen Junior	37

No.	Name	Date of birth	Gender	Match Number	Score
17.	PW	31/05/2000	L	Sabel Senior	44
18.	DD	14/10/2008	L	Cadet Sable	35
19.	YD	30/07/2002	L	Sabel Senior	26
20.	MI	02/02/2000	L	Sabel Senior	26
21.	AK	17/08/2009	P	Cadet Sable	47
22.	VC	05/12/2005	P	Sabel Junior	54
23.	WN	11/06/2006	P	Sabel Junior	42
24.	NA	29/11/2008	P	Cadet Sable	28

Source: Research Data 2025

Based on Table 4, 24 athletes were the subjects of this study. The distribution of three types of weapons in fencing is grouped by gender and competition number, namely:

1. Floret, consisting of 4 men and 4 women
2. Degen, consisting of 4 men and 4 women
3. Sabel, consisting of 4 men and 4 women

If viewed based on the age category of the competition, there are 8 athletes in the cadet category, 7 athletes in the junior category, and 9 athletes in the senior category.

Table 5.
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Anxiety Score	24	26	57	38.96	9.219
Valid N (listwise)	24				

Source: Research Data 2025

Based on Table 5, of the 24 athletes analyzed, anxiety scores ranged from 26 to 57, with a mean of 38.96 and a standard deviation of 9.219. This indicates a relatively even distribution of anxiety, with the majority of athletes falling into the "Somewhat Low" category according to the instrument classification used..

Table 6.
Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Anxiety Score	.126	24	.200*	.949	24	.256

Source: Research Data 2025

Table 6 shows that the normality test using the Kolmogorov-Smirnov method shows a significance value (Sig.) of 0.200. This value is greater than 0.05, thus concluding that the data are normally distributed. This result is further supported by the Shapiro-Wilk test, which shows a significance value of 0.256, also greater than 0.05. Therefore, it can be concluded that the athlete anxiety score data in this study is normally distributed.

Table 7.
Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Skor	Based on the Mean	.369	2	21	.696
	Based on the Median	.306	2	21	.739
	Based on Median and with adjusted df	.306	2	17.565	.740
	Based on the trimmed mean	.348	2	21	.710

Source: Research Data 2025

Based on Table 7, it is known that the significance value (Sig.) of the Levene test based on the mean is 0.696, and all other approaches also show significance values above 0.05. Since the Sig. Value is > 0.05 , it can be concluded that the data variance between groups (Cadets, Juniors, and Seniors) can be said to be homogeneous.

Table 8.
One-Way ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	395.022	2	197.511	2.659	.093
Within Groups	1559.937	21	74.283		
Total	1954.958	23			

Source: Research Data 2025

Based on Table 8, the significance value (Sig.) in the Between Groups column is 0.093. This value is greater than 0.05, so it can be concluded that there is no significant difference between the average anxiety scores of athletes based on the Cadet, Junior, and Senior levels. Thus, although there is a difference in the average anxiety scores between groups, the difference is not statistically strong enough to be declared significant. This means that athlete level does not significantly influence anxiety levels in the context of this study.

Discussion

The descriptive analysis results showed that the average anxiety score of fencing athletes in Kudus Regency was 38.96, with a minimum score of 26 and a maximum score of 57 out of a total maximum score of 88. Based on the instrument classification used, the majority of athletes fell into the "Somewhat Low" anxiety category. Before further analysis, the data were tested for normality using the Kolmogorov-Smirnov method, and a significance value of 0.200 was obtained. Because this value is greater than 0.05, the data are considered normally distributed. Furthermore, the homogeneity test using Levene's Test yielded a significance value of 0.696, which also exceeds 0.05, indicating that the variances between the Cadet, Junior, and Senior groups are homogeneous. These two results indicate that the requirements for descriptive analysis are met, so the analysis was continued using a One-Way ANOVA test. The ANOVA test results showed a significance value of 0.093, which is greater than 0.05, concluding that there are no statistically significant differences in anxiety levels between athlete groups based on age level.

These findings align with the research objectives, which were to determine the anxiety levels of fencing athletes in Kudus Regency ahead of the 2026 Central Java PORPROV (Provincial Sports Week) and to identify differences in anxiety based on athlete level. The One-Way ANOVA test showed a significance value of 0.093, indicating that there were no significant differences in anxiety levels between athletes in the Cadet, Junior, and Senior categories. This reinforces the hypothesis that anxiety levels in facing major competitions such as PORPROV are not solely influenced by the age or level of the athlete group. In line with the Multidimensional Anxiety Theory concept of competitive

anxiety, which states that anxiety in sports is influenced by an individual's perception of the competition situation, not only by the level of ability or competition experience. These findings indirectly indicate that age or competition level are not the dominant factors influencing athlete anxiety levels in the context of competition preparation. All levels of athletes, whether still in the development stage (Cadet), intermediate competitive stage (Junior), or mature stage (Senior), have the same possibility of responding to competitive pressure, depending on mental readiness, previous experience, and environmental support.

CONCLUSION

Based on the results of a study conducted on 24 fencing athletes from Kudus Regency, it was found that anxiety levels in preparation for the 2026 Central Java Provincial Sports Week (PORPROV) were generally in the "Somewhat Low" category, with an average score of 38.96. The lowest score was 26, while the highest was 57 out of a maximum total score of 88. A normality test using the Kolmogorov-Smirnov method yielded a significance value of 0.200, and Levene's homogeneity test yielded a significance value of 0.696, indicating that the data were normally distributed and had homogeneous variance across groups.

Furthermore, the results of the One-Way ANOVA test showed a significance value of 0.093, indicating no significant differences in anxiety levels between Cadet, Junior, and Senior athletes. These findings indicate that the majority of athletes have developed the ability to manage psychological stress leading up to competitions, thus their emotional state can be considered quite stable during preparation. Although there was variation in individual scores, no specific pattern was observed, indicating a relationship between anxiety levels and age or competition experience.

A limitation of this study lies in the use of a closed-ended questionnaire as the sole data collection tool, which did not allow researchers to delve deeper into the overall causes of anxiety. Furthermore, the limited timeframe for data collection during training may have influenced the results, as it did not fully reflect the athletes' psychological state, particularly during competition.

Based on the research findings, the authors recommend that coaches continue to pay attention to athletes' psychological aspects, particularly those related to pre-match anxiety. Although anxiety levels are considered "rather low," mental support is still necessary, both through open communication and training that simulates competitive pressure. Athletes are also expected to be able to recognize and manage their emotions independently and participate in mental training to maintain focus and confidence during matches.

The results of this study can also serve as a reference for other sports to pay more attention to mental readiness as a crucial aspect supporting athlete performance, rather than solely focusing on technical and physical factors. Proper anxiety management has

been shown to contribute to stable performance in various competitive situations. Furthermore, future researchers are advised to explore more broadly the factors influencing anxiety, expand the sample size, and delve deeper into other aspects that may contribute to anxiety, such as competition experience, social support, and environmental pressure. This will provide a more comprehensive and contextual understanding of athletes' psychological states.

REFERENCES

- Amir, N. (2013). Pengembangan Alat Ukur Kecemasan Olahraga. *Jurnal Penelitian Dan Evaluasi Pendidikan*, 16(1), 325–347. <https://doi.org/10.21831/pep.v16i1.1120>
- Ani, J., Lumanauw, B., & Tampenawas, J. L. A. (2021). Pengaruh Citra Merek, Promosi Dan Kualitas Layanan Terhadap Keputusan Pembelian Konsumen Pada E-Commerce Tokopedia Di Kota Manado. The Influence of Brand Image, Promotion and Service Quality on Consumer Purchase Decisions on Tokopedia E-Commerce in Manado. 663 *Jurnal EMBA*, 9(2), 663–674.
- Asri, S. K., & Julisman, I. (2022). Pengaruh Citra Merek dan Kualitas Produk Philips terhadap Minat Beli Konsumen pada Yogya Garnd Majalengka. *Jurnal Impresi Indonesia*, 1(3), 282–287. <https://doi.org/10.36418/jii.v1i3.40>
- Azizah, F. F., & Jannah, M. (2020). The effect of autogenic meditation on emotion regulation in fencing athletes. *Jurnal Penelitian Psikologi*, 07(02), 62–67.
- Darmanto, F., Khuddus, L. A., Irawan, S. I., & Sari, L. N. E. (2020). Profil Kecemasan Atlet Putra UKM Hockey UNNES di Kejuaraan Internasional Antar Mahasiswa Piala Rektor UPI Tahun 2018. *Satya Widya*, 36(1), 9–16. <https://ejournal.unibabwi.ac.id/index.php/semnassenalog/article/download/196/146>
- Dessy, M., & Soenyoto, T. (2021). Dukungan Orang Tua Terhadap Motivasi Berprestasi Atlet Anggar di Kabupaten Batang. *Indonesian Journal for Physical Education and Sport*, 1(Edisi Khusus 3), 88–93.
- Fernando, J. (2022). Jurnal Olahraga dan Kesehatan Indonesia (JOKI) is available online at <https://jurnal.stokbinaguna.ac.id/index.php/jok> MEDIA PEMBELAJARAN BOLA VOLI INTERAKTIF. *Jurnal Olahraga Dan Kesehatan Indonesia (JOKI)*, 2, 94–99.
- Hindiari, Y., & Wismanadi, H. (2022). Tingkat Kecemasan Atlet Karate Menjelang Pertandingan Pada Anggota Cakra Koarmatim. *Jurnal Kesehatan Olahraga*, 10(01), 179–186.
- Ilham, Z. (2021). Peranan Psikologi Olahraga Terhadap Atlet. *Prosiding Seminar Nasional Pendidikan Kepelatihan Olahraga*, 1(2), 274–282.
- Kumbara, H., Metra, Y., & Ilham, Z. (2018). Analisis tingkat kecemasan. *Jurnal Ilmu Keolahragaan*, 17(2), 28–35. <https://jurnal.unimed.ac.id/2012/index.php/JIK/article/view/12299/10616>
- Manalu, N. C., Ramadhini, S. D., Yolanda, N., Hulu, M. F., & Gea, F. S. (2024). Pengembangan Mental Atlet Wushu Sanda melalui Pendekatan Kepelatihan berbasis Psikologi Olahraga. 14(6), 412–418.

- Prapavessis, H., Cox, H., & Brooks, L. (1996). A test of Martens, Vealey and Burton's theory of competitive anxiety. *Australian Journal of Science and Medicine in Sport*, 28, 24–29.
- Rhamadian, D. (2022). Dampak Kecemasan (Anxiety) Dalam Olahraga Terhadap Atlet. *Journal of Sport Science and Tourism Activity (JOSITA)*, 1(1), 31. <https://doi.org/10.52742/josita.v1i1.15433>
- Rohmah, S., Afifah, N., & Ismalasari, R. (2023). Analisis Tingkat Pemahaman Olahraga Anggar SMK Negeri 1 Jetis Mojokerto. *JPO : Jurnal Prestasi Olahraga*, 6(1), 36–40.
- Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Alfabeta.
- Zahara, Abdurrahman, & Dhimas Mahendra, M. (2022). Standarisasi Sarana Dan Prasarana Olahraga Anggar Di Banda Aceh. *Jurnal Penjaskesrek*, 9(1), 38–51. <https://doi.org/10.46244/penjaskesrek.v9i1.1764>