CROSS-SECTIONAL RESEARCH ABOUT THE PSYCHOLOGICAL ASPECT OF ATHLETES 15-25 YEARS OLD IN JAKARTA REGION

Rizky Nurulfa[1] Yuliasih Yuliasih[2] Ramdan Pelana[3] Oktavian Serka Yudha Pratama[4] Fadli Pelana[5] Chandra Chandra[6]

[1] *Department of Sport Science, Faculty of Medical and Health Science, Universitas Riga Stadins, Riga, Latvia*
[2,3,6] *Department of Sport Science, Faculty of Sport Science, Universitas negeri Jakarta, Jakarta, Indonesia*
[4]*Department of Physical Education, Faculty of Teacher Training and Education, Universitas Mangku Wiyata, Cilegon, Indonesia*
[5] *Department of Physical Education, Faculty of Physical Education and Recreation, Universitas Islam 45, Bekasi, Indonesia*

Email Co-Author: rizkynurulfa31@gmail.com

Abstract. This research aims to analyze the psychological aspect especially anxiety of athletes 15-25 years old in the DKI Jakarta region. The method used in this study is cross-sectional research a type of research design in which you collect data from many different individuals at a single point in time. In cross-sectional research, you observe variables without influencing them. The population of this study was 135 people and 101 samples were obtained using accidental sampling techniques. The sample categories that have participated in this study are aged between 15-25 years consisting of 4 sports categories, namely the categories of martial arts, accuracy, games, and measurable The results of this study found that based on gender, the level of anxiety of athletes when training was at a moderate level, namely 42.57% in men and 26.74% in women. Meanwhile, the athlete's anxiety during training is at moderate and high levels. At these two levels, most are in the age range of 18-20 years. for a medium level of 43.56% and a high level of 17.82%. When viewed from the sports category, the most anxiety level is found at a moderate level, namely in the martial category at as much as 21%, the accuracy sports category at 26%, the game sports category at 17%, and the measured sports category at as much as 26%. Based on the results of the research above, it can be concluded that the level of anxiety of athletes when training is at a high and moderate level, which moderate levels which means that during training athletes do not feel excessive anxiety.

Keywords: Anxiety, Martial Sport, Accuracy Sport, Game Sport, Measured Sport

N. Fitranto et al. (eds.), *Proceedings of the 2nd International Conference on Sport Science, Physical Education and Health (ICSSPEH 2024)*, Advances in Social Science, Education and Humanities Research 881,
https://doi.org/10.2991/978-2-38476-354-2_10

1. INTRODUCTION

The definition of psychology may be best given in the words of Professor Ladd, as the description and explanation of states of consciousness as such. States of consciousness meant such things as sensations, desires, emotions, cognitions, reasonings, decisions, volitions, and the like. The word Psychology comes from Ancient Greek: *psyche* (meaning breath, soul, or mind) and *logos* (meaning word, discourse, and science), so literally, psychology means the that studies [2]. The mention of "psychological science" is a fallacy that often arises because the word "psychology" itself means "science of the soul". The history of the development of psychology, in general, is divided into 3 periods, namely pre-systematic psychology, systematic psychology, and scientific psychology. Pre-systematic psychology begins when the human being begins to contemplate his existence. This devotional is irregular in nature and is generally associated with mythological and religious thought. Systematic psychology began to develop in 400 SM through the thoughts of Plato. Psychology began to be given rationally organized contemplations. Meanwhile, scientific psychology began to develop at the end of the 19th century AD. Psychology has become a science that has various factual conclusions with clear definition [1].

As part of science, psychology went through a long journey. The concept of psychology can be traced deep into the times of ancient Greece. Psychology has its roots in the field of philosophical sciences initiated since the time of Aristotle as the science of the soul, that is, the science for the life force (*Levens begins*). Aristotle viewed the science of the psyche as a science that studies the symptoms of life. The soul is the element of life (Anima), therefore every living being has a soul [22]. A substantial number of research in the field of sports psychology indicated the athlete’s reliance on numerous psychological and psych-functional qualities. Mental tension, pre-start conditions, emotional stability, temperament features, and moral and willpower qualities of the competitors are all important aspects [3].

In the realm of sports, athletes often dread the onset of anxiety [8], This is because it is believed that anxiety can hinder an athlete's optimal performance. As a result, the topic of anxiety is frequently addressed in the literature on sports psychology [21]. This highlights the significant impact that anxiety can have on athletes' performance. [6] It indicates that anxiety is a natural human condition that everyone

experiences at some point [18]. Not much different, [9] It explains that anxiety is a typical response to perceived threats, which is a normal part of human experience. [5] It was mentioned that anxiety is a psychological aspect experienced by individuals, and it is a common occurrence. A certain level of anxiety is an active individual's natural and obligatory feature. Every person, particularly athletes, has an individual optimal level of arousal where their psycho-physical capabilities are at their peak. This "Zone of Optimal Functioning" is unique to each athlete. Their performance will be most effective when their level of arousal falls within this zone. [13].

Athletes at all performance levels commonly experience anxiety as an emotional state. Generally, anxiety includes both cognitive elements, such as worrying thoughts and concerns, and somatic elements, like the degree of physical arousal. It can appear as a stable characteristic of an individual’s personality, referred to as trait anxiety, or as a temporary, more flexible response to specific situations, known as state anxiety [22].

Feelings of anxiety occur because individuals are worried that their security will be disturbed; therefore, the individual concerned will show symptoms of anxiety, which include fear. Symptoms of anxiety vary in shape and complexity but are usually fairly easy to identify. There are many sources of anxiety, such as excessive social demands that are not able to be fulfilled by the individual concerned, individual achievement standards that are too high compared with their abilities, such as perfectionist tendencies, feelings of inferiority in the individual [7] concerned, the individual’s unpreparedness to deal with existing situations, negative thinking patterns, and perceptions of existing situations or towards oneself. A person who experiences anxiety tends to be constantly worried about the bad things that will happen to him or to other people he knows well. By knowing the source of anxiety, competent parties need to try as early as possible to minimize anxiety in athletes. It has been determined that athletes who are tense show a lower level of or inappropriate appearance.

A certain degree of anxiety is a natural and necessary trait for any active individual. Each person, particularly athletes, has an optimal level of arousal at which their psycho-physical abilities reach their peak. This "zone of optimal functioning" is unique to every athlete, and their performance will be most efficient when their arousal level falls within this zone [14]. Sidney Crosby, a two-time Olympic gold

medalist, a World, and Junior World champion, a two-time National Hockey League Most Valuable Player, a three-time Stanley Cup Champion, and a six-time National Hockey League all-star is certainly not the only athlete who reports experiencing nerves when performing in his sport. Nor is he the only athlete who has developed routines to combat such nerves. This is unsurprising, as sport psychology researchers have somewhat unanimously agreed that competitive sport has the potential for high levels of stress and anxiety. Equally, practicing and employing a range of psychological strategies to combat potential negative emotional states such as sport-related anxiety has become an integral part of a competitive athlete's performance preparation [4] [22].

Cognitive anxiety stems from psychological factors, such as fear of the environment, fear of failure, and lack of confidence. On the other hand, somatic anxiety is a physiological response that includes changes in heart rate, difficulty breathing, and increased muscle tension. These physical symptoms, however, are triggered by psychological influences. Interestingly, the level of competitive anxiety varies greatly between individual and team sports. Individual sports like archery, darts, rifle shooting, running, gymnastics, judo, and golf demand a high degree of self-concentration, confidence, and strong technical skills specific to the sport [8]. The findings on reactive and trait anxiety are consistent with the work of foundational studies in anxiety research.

2. METHOD

The population of this study was 135 people and 101 samples were obtained using accidental sampling techniques. Questionnaires were distributed to athletes online. From the distribution of this questionnaire, 101 respondents were obtained. The instrument used in this study was a questionnaire in which there were questions about their name, place, date of birth, age, perceived physical condition, psychological condition, the role of the trainer during training, as well as the facilities and infrastructure for training. Anxiety was measured by the Likert scale [16]. This consists of 24 statements, which are divided into three dimensions, namely physical, behavioral, and cognitive symptoms. Each item is scored on a scale ranging from 1 to 5 with the division of positive and negative statements. The survey data collected was entered into the SPSS tool for analysis. Then, we obtained the mean (M), range (R), minimum value, maximum value,

standard deviation, and variance. The presentation of data is shown in three categories, namely gender, age, and categories of sports.

3. RESULTS AND DISCUSSION

3.1 Result

After analyzing the results of the validity and reliability of the questionnaire, we found that the 24 statements, which were derived from the anxiety aspect, were valid. Because the data were valid, the researcher then distributed the questionnaire to the participants in this study. After they were analyzed, the results are provided below.

1. Descriptive Statistics

Table 1. Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
Total	101	41	62	103	79.49	8.064	65.032
Valid N (listwise)				101			

After the questionnaire results were analyzed, the average score (mean) from the data obtained was 79.49, the standard deviation was 8.064, the median was 79.49, the minimum score was 62, and the maximum score was 103.

2. Athletes' Anxiety Level based on Gender

Interval	Level	Percentage	
		Male	Female
>= 108	Very high	0%	0%
84–107	High	20.79%	9.90%
60–83	Moderate	42.57%	26.74%
36–59	Low	0%	0%
<= 35	Very low	0%	0%

Table 2. Athletes' Anxiety Level Based on Gender

Table 2 presented the result of the athletes' anxiety levels by gender. There were 101 samples in this study consisting of 64 males and 37 females. There were 42,57% of males who reported moderate anxiety and only 26,74% of females in this category. Meanwhile, in the high category, there were 20,79% males but only 9,90 females. although some studies stated that gender does not affect the anxiety of athletes. Research (Nurdiansyah & Jannah, 2021) shows that there is no significant difference in anxiety levels between male and female atlhetes. However, anxiety is influenced by several factors. one of them is gender. Usually, women have a higher level of anxiety than men. Because women are more sensitive to emotions which in turn are sensitive too to their feelings of anxiety. Women tend to see life or the

events they experience in terms of details while men tend to be global or not detailed [19].

3. Athletes' Anxiety Level based on Ages

Table 3. Athletes' Anxiety Level based on Ages

Interval	Level	15 - 17	18 - 20	21 - 23	24 - 26
> 108	Very High	0	0	0	0
84–107	High	5,94%	17,82%	5,94%	0,99%
60–83	Moderate	6,93%	43,56%	10,89%	6,93%
36–59	Low	0	0	0	0
< 35	Very Low	0	0	0	0

Based on Table 3, the athlete's anxiety during training is at moderate and high levels. At these two levels, most are in the age range of 18-20 years. for a medium level of 43.56% and a high level of 17.82%. 18-20 years old is the age to enter college. a period when the duties and responsibilities of a student college are very large. In addition, these students college must share their time between studying and training as athletes.

College athlete students have a higher level of anxiety than student-athletes. Because the demands of studying at tertiary institutions are higher, there is a higher level (6) where they can utilize science and technology in their area of expertise, and they can adapt to situations encountered in solving anxiety problems, mastering theoretical concepts, and being able to make decisions strategically and responsible for their own work. According to previous research [22], state anxiety is anxiety that occurs temporarily and is observed as a person's response to certain circumstances.

4. Athletes' Anxiety Level based on Sport Categories

Table 4. Athletes' Anxiety Level based on Sport Categories

Interval	Level	Martial	Accuracy	Game Sports	Measured
> 108	Very High	0%	0%	0%	0%
84 – 107	High	8%	10%	8%	5%
60 – 83	Moderate	21%	26%	17%	26%
35 – 59	Low	0%	0%	0%	0%
< 35	Very Low	0%	0%	0%	0%

Based on table 4 above, the athletes' anxiety level was viewed based on the category of sports, and two showed athletes' anxiety levels namely the high category and the moderate category. The highest category for martial arts was 8%; for accuracy sports, it was 10%; for

game sports, it was 8%; and for measured sports, it was 5%. For the moderate category, the greatest impact occurred in accurate sports and measured sports, namely at 26%. In accuracy sports, it was 21%, and in measured sports, it was 17% at the moderate level.

Although this study found no differences in anxiety levels between athletes, the anxiety experienced by athletes, particularly at moderate and high levels, requires attention from coaches. Anxiety, whether high or low, is believed to negatively impact an athlete's performance on the field [17].

3.2 Discussion

Based on the results of calculations and presentation of data, it was found that athletes' anxiety during practicing was at high and moderate levels. like previous research [10] which states that there is There are no differences in anxiety levels among different sports, including games, martial arts, and precision sports. These research findings align with the study conducted by [17] that there is no significant difference in anxiety levels among athletes. Similar findings were noted by [15] in his research, which found no differences in anxiety levels among athletes based on the type of sport (individual versus team). [11] reported in their study that there was no difference in anxiety levels among Aceh PON athletes based on the type of sport. While this finding is supported by results from other similar studies, there are also research outcomes that contradict these findings.

4. CONCLUSION

This study has limitations regarding four sports categories from many categories in sports. This study only discusses the anxiety level of athletes during practice and does not discuss other variables that affect anxiety.

ACKNOWLEDGEMENTS

We gratefully acknowledge the participants in the study. We also thank the Faculty of Sports Science, University State of Jakarta.

REFERENCES

[1] Asrori. (2020). *Psikologi Pendidikan: Pendekatan Multidisipliner*. CV. Pena Persada.

[2] Colman, A. (2016). *What is psychology?* Routledge.

[3] Granero-Gallegos, A., Gómez-López, M., Rodríguez-Suárez, N., Abraldes, J. A., Alesi, M., & Bianco, A. (2017). Importance of the motivational climate in goal, enjoyment, and the causes of success in handball players. *Frontiers in Psychology*, *8*, 2081.

[4] Hanton, S., Mellalieu, S., & Williams, J. M. (2015). Understanding and managing stress in sport. *Applied Sport Psychology: Personal Growth to Peak Performance. 7th Ed. New York, NY: McGraw-Hill*, 207–239.

[5] Jannah, M. (2016). *Kecemasan Olahraga: teori, pengukuran, dan latihan mental*. Surabaya: Unesa University Press.

[6] Karageorghis, C. I., & Terry, P. C. (2011). *Inside sport psychology*. Human Kinetics Champaign, IL.

[7] Kusumajati, D. A., Psikologi, J., & Psikologi, F. (2011). *Hubungan Antara Kecemasan Menghadapi Pertandingan dengan Motivasi Berprestasi pada Atlet Anggar DKI Jakarta* (Vol. 2, Issue 1).

[8] Loh, W. P., & Chong, Y. Y. (2018). Classifying the Archery Performance with Conditional Effects on Angular and Linear Shooting Techniques. *Journal of Telecommunication, Electronic and Computer Engineering (JTEC)*, *10*(3–2), 95–99.

[9] Maksum, A., Nasution, Y., Rustiana, E., Sudarwati, L., Rusmi, T., Ambarukmi, D., Garincha, G., Bustiana, B., & Raharjo, S. (2011). Pedoman dan materi pelatihan mental bagi olahragawan. *Kementerian Pemuda Dan Olahraga Republik Indonesia*.

[10] Mangolo, E. M., Guntoro, T. S., & Putra, M. F. P. (2021). The differences in Papuan elite athletes in the anxiety perspective. *Journal Sport Area*, *6*(3), 296–303.

[11] Maulana, Z., & Khairani, M. (2017). Kecemasan bertanding pada atlet pon acehberdasarkan jenis aktivitas olahraga. *Jurnal Ilmiah Psikologi Terapan*, *5*(1), 97–106.

[12] Nurdiansyah, E. W., & Jannah, M. (2021). Perbedaan kecemasan atlet laki-laki dan perempuan pada mahasiswa unit kegiatan mahasiswa universitas negeri Surabaya. *Character: Jurnal Penelitian Psikologi*, *8*(9), 60–65.

[13] Popovych, I., Kurova, A., Koval, I., Kazibekova, V., Maksymov, M., & Huzar, V. (2022a). Interdependence of emotionality, anxiety, aggressiveness and subjective control in handball referees before the beginning of a game: a comparative analysis. *Journal of Physical Education and Sport*, *22*(3), 680–689.

[14] Popovych, I., Kurova, A., Koval, I., Kazibekova, V., Maksymov, M., & Huzar, V. (2022b). Interdependence of emotionality, anxiety, aggressiveness and subjective control in handball referees before the beginning of a game: a comparative analysis. *Journal of Physical Education and Sport*, *22*(3), 680–689. https://doi.org/10.7752/jpes.2022.03085

[15] Prastiwa, L. G. G., & Nuqul, F. L. (2018). Gambaran kecemasan atlet mahasiswa: studi pada unit kegiatan mahasiswa (UKM) olah raga Universitas Islam Maulana Malik Ibrahim Malang. *Jurnal Psikologi Integratif*, *6*(1), 50–61.

[16] Rahayu, W. I., Saputra, M. H. K., Awangga, R. M., & Habibi, R. (2020). *Penerapan Metode Naive Bayes dan Skala Likert Pada Aplikasi Prediksi Kelulusan Mahasiswa*. Kreatif. https://books.google.co.id/books?id=CZv9DwAAQBAJ

[17] Supriyatna, Y., Kusmaedi, N., Hidayat, Y., & Hambali, B. (2019). Regression Equation Model of Motivation, Self-Confidence, and Anxiety Variables in Mastering Badminton Games Learning Outcome Test. *Jurnal Pendidikan Jasmani Dan Olahraga*, *4*(2), 111–117.

[18] Tangkudung, J., & Mylsidayu, A. (2017). Mental training aspek-aspek psikologi dalam olahraga. *Bekasi: Cakrawala Cendekia*.

[19] Untari, I. Rohmawati. (2014). Faktor-Faktor yang Mempengaruhi Kecemasan pada Usia Pertengahan dalam Menghadapi Proses Menua. *Jurnal Keperawatan. AKPER*, *17*, 83–90.

[20] Walgito, B. (2010). *Pengantar Psikologi Umum*. Andi.

[21] Weinberg, R., & Gould, D. (2015). *Foundations of sport and exercise psychology.* (Issue Ed. 2). Human Kinetics Publishers (UK) Ltd.

[22] Weinberg, R. S., & Gould, D. (2019). *Foundations of sport and exercise psychology, 7E*. Human kinetics.