



JNK

JURNAL NERS DAN KEBIDANAN
(JOURNAL OF NERS AND MIDWIFERY)
<http://ojs.phb.ac.id/index.php/jnk>



Exploring The Correlation between Motivation, Anxiety, Stress, and Hockey Athletes' Confidence Before Competition



CrossMark

Nafiatus Sa'adah, ^{CA}Wiwik Widiyawati 
University of Muhammadiyah Gresik, Indonesia
^{CA}Corresponding Author

Article Information

Abstract

History Article:

Received, 30/09/2024

Accepted, 06/05/2025

Published, 04/08/2025

Keyword:

Motivation, Anxiety, Stress,
Confidence

Confidence is a key aspect of an athlete's performance, affecting motivation, performance, and stress management while competing. This study aimed to analyze the correlation between motivation, anxiety, and stress with the confidence of East Java hockey athletes before competition. The design of the study was cross-sectional. The population was 2024 PON hockey athletes aged 18-25 years totaling 60 athletes, namely 30 male athletes and 30 female athletes using the total sampling method. A quantitative descriptive research method was conducted with the DASS-42 questionnaire to measure anxiety and stress levels, as well as a questionnaire adopted for motivation and confidence. Of the 60 respondents, 73.3% of the athletes showed excellent motivation, while anxiety and stress ranged from normal to severe. Analysis using Spearman rank showed a significant correlation between motivation ($p=0.001$), anxiety ($p=0.006$), and stress ($p=0.005$) and self-confidence. Emphasize the importance of athletes' mental readiness in facing competition and the need for support and education regarding the management of psychological factors. Advice is given for coaches to strengthen mental support programs to increase athletes' confidence.

©2025 Journal of Ners and Midwifery

✉ Correspondence Address:

University of Muhammadiyah Gresik, Indonesia

Email: wiwikwidiyawati@umg.ac.id

DOI: <https://doi.org/10.26699/jnk.v12i2.ART.p142-149>

 This is an Open Access article under the CC BY-SA license (<https://creativecommons.org/licenses/by-sa/4.0/>)

P-ISSN : 2355-052X

E-ISSN : 2548-3811

INTRODUCTION

Self-confidence is an individual's positive attitude that enables him to develop a positive assessment, both towards himself and the environment or situation he is facing, confidence can improve athletes' motivation and performance, as well as reduce anxiety and stress that arise before competition. Before competing, an athlete must have strong confidence or mental readiness to be able to face the match well ([Falaahudin et al., 2024](#)). Confidence also has a great influence on the final result of the match.

Hockey is a sport that originated in Ancient Persia and Ancient Egypt. Hockey is a game that uses a bent or curved stick called a stick and uses a ball, sport not only provides physical benefits, but also has a significant psychological impact on athletes ([Latifah et al., 2019](#)). One of the important aspects that affects an athlete's performance is self-confidence, therefore, the mental readiness of an athlete is needed when facing a match, this mental readiness can be in the form of confidence ([Falaahudin et al., 2024](#)), the things that make confidence increase are the presence of motivation or support from the surroundings ([Dunan & Sulistiandari, 2023](#)).

Athlete motivation is the desire, desire, will, and drive to be able to outperform the achievements that he has achieved himself or the achievements achieved by other athletes, the motivation you get can come from words of encouragement from your family, encouragement from coaches, and support from the team, the motivation given can make the performance of the athletes more optimal, however, there are several factors that cause a decrease or increase in an athlete's confidence ([Dunan & Sulistiandari, 2023](#)). One of them is anxiety.

Anxiety is the right reaction to something that is considered threatening, but anxiety becomes unnatural if the reaction and appearance are not appropriate, both in intensity and level of symptoms ([Nugraha, 2020](#)). Anxiety is an emotional state that can cause feelings of fear, dread, and uneasiness ([Zundel et al., 2022](#)). Anxiety is an unpleasant condition experienced by individuals that affects their physical state ([Savitri et al., 2023](#)). Anxiety is

a negative emotion that is characterized by feelings of worry, anxiety and is accompanied by increased changes in network systems ([Mufidah & Widiyawati, 2022](#)). Match anxiety is a state of stress experienced by an athlete, which is a negative emotional condition that increases in line with how an athlete interprets and assesses the match situation ([Setiawati et al., 2024](#)). A person who is experiencing anxiety can experience loss of concentration and less than optimal in doing something ([Nugraha, 2020](#)). However, excessive anxiety will cause a reaction that pushes towards negativity, namely stress that can further disturb the athletes' ongoing psyche.

Self-confidence is a person's mental attitude in assessing himself and the surrounding objects so that the person has confidence or his ability to be able to do something according to his ability ([Azmi et al., 2021](#)). Self-confidence is a positive belief and awareness of one's own abilities and worth ([Rahayu, 2023](#)). Stress is an individual's state of mind when the individual responds physiologically and psychologically to conflict with the state and system of individual biological, psychological, and social resources, as well as to changes that demand self-adaptation that make physical and mental disorders appear ([Adelia et al., 2023](#)). Stress is negative stress, which gives the effect of pressing feeling burdened, uncomfortable, and so on discomfort, and so on ([Marsidi, 2021](#)). The level of anxiety and stress of each athlete is different because everyone is different in coping with it. This results in athletes having a higher risk of experiencing both physical and mental problems ([Putra, 2023](#)).

METHODS

The type of study used in this study was descriptive quantitative. this study aimed to provide an overview of the level of motivation, anxiety, and stress that affect the confidence of East Java hockey athletes before competition. The sampling technique uses a total sampling technique from the total population and analysis using Spearman rank. The population and sample in this study were East Java hockey athletes who will compete in PON 2024 with a total of 60 athletes, namely 30 male

athletes and 30 female athletes. Data collection using the DASS-42 questionnaire to assess anxiety and stress levels. Motivation and self-confidence using a questionnaire adopted from (Arifin et al., 2023), which has been tested for validity and reliability. This study was conducted on 27-28 August 2024 and was held at Gor Nisrina Surabaya, data collection using a questionnaire. The inclusion criteria in this study were East Java hockey athletes

aged 18-25 years, the exclusion criteria were athletes who were not willing to be respondents. The independent variables were motivation, anxiety, and stress and the dependent variable was self-confidence. The data analysis used the Spearman rank. The data collection obtained permission and in accordance with ethics with number 063 / KET / II.3.UMG / KEP / A / 2024, which was validated on August 26, 2024.

RESULTS

Table 1. The Frequency distribution of East Java Hockey Athletes by gender and age

Respondents' Characteristics	Frequency	%
Gender		
Man	30	50%
Woman	30	50%
Total	60	100%
Age		
18-21	43	72%
22-25	17	28%
Total	60	100%

Obtained from Table 1, the frequency distribution of hockey athletes in East Java shows that there are 30 male athletes (50%) and 30 female athletes (50%). In addition, the table also noted that

43 athletes were between the ages of 18-21 (72%), while 17 athletes were in the age range of 22-25 years (28%).

Table 2. The Incidence of anxiety and stress in East Java Hockey Athletes

Classification	Frequency		Presented	
	Anxiety	Stress	Anxiety	Stress
Normal	19	17	31.7%	28.3%
Light	25	36	41.7%	60.0%
Keep	11	4	18.3%	6.7%
Severe	3	2	5.0%	3.3%
Very severe	2	1	3.3%	1.7%
Total	60	60	100%	100%

Obtained from Table 2. The level of anxiety and stress in East Java hockey athletes, there were 19 (31.7%) and 17 (28.3%) athletes with normal anxiety and stress, 25 (41.7%) and 36 (60.0%) athletes with mild anxiety and stress, 11 (18.3%)

and 4 (6.7%) athletes with moderate anxiety and stress, 3 (5.0%) and 2 (3.3%) athletes with severe anxiety and stress, 2 (3.3%) and 1 (1.7%) athletes with very severe anxiety and stress.

Table 3. The Incidents of motivation and confidence in East Java Hockey Athletes

Classification	Frequency		Presented	
	Motivation	Self-Confidence	Motivation	Self-Confidence
Excellent	44	38	73,3%	63.7%
Good	16	22	26.7%	36.7%
Enough	0	0	0%	0%
Less	0	0	0%	0%
Very Less	0	0	0%	0%
Total	60	60	100%	100%

Obtained from [Table 3](#). The level of motivation and confidence in East Java hockey athletes, there are 44 (73.3%) and 38 (63.7) athletes have very good motivation and confidence, 16 (26.7%) and 22 (36.7%) athletes with good motivation and confidence 0 (0%) and 0 (0%) athletes with sufficient motivation and confidence, 0 (0%) and 0 (0%) athletes with less motivation and confidence, 0 (0%) and 0 (0%) athletes with very little motivation and confidence.

Table 4. The Correlation of motivation, anxiety, stress and confidence

		Confidence										Statistic Test: Sperm rank			
		Excellent		Good		Enough		Less		Very less		Total	<i>p</i> -value	Correlation Coefficient (r)	
		F	%	F	%	F	%	F	%	F	%				
Motivation	Excellent	33	75.0	11	25.0	0	0	0	0	0	0	44	73.3	0,001	0,401
	Good	5	31.3	11	68.8	0	0	0	0	0	0	16	26.7		
	Enough	0	0	0	0	0	0	0	0	0	0	0	0		
	Less	0	0	0	0	0	0	0	0	0	0	0	0		
	Very Less	0	0	0	0	0	0	0	0	0	0	0	0		
	Total	38	63.3	22	36.7	0	0	0	0	0	0	60	100		
Anxiety	Normal	6	31.6	13	68.4	0	0	0	0	0	0	19	31.7	0,006	0,354
	Low	20	80.0	5	20.0	0	0	0	0	0	0	25	41.7		
	Keep	9	81.8	2	18.2	0	0	0	0	0	0	11	18.3		
	Severe	1	33.3	2	66.7	0	0	0	0	0	0	3	5.0		
	Very severe	2	100.0	0	0	0	0	0	0	0	0	2	3.3		
	Total	38	63.3	31	36.7	0	0	0	0	0	0	60	100		
Stress	Normal	6	35.3	11	64.7	0	0	0	0	0	0	17	28.3	0,005	0,359
	Low	26	72.2	10	27.8	0	0	0	0	0	0	36	60.0		
	Keep	4	100.0	0	0	0	0	0	0	0	0	4	6.7		
	Severe	2	100.0	0	0	0	0	0	0	0	0	2	3.3		
	Very severe	0	0	1	100.0	0	0	0	0	0	0	1	1.7		
	Total	29	63.3	31	36.7	0	0	0	0	0	0	60	100		

In [Table 4](#). From the results of the analysis of the motivation correlation test, a significance value of 0.001 ($p\text{-value} < 0.05$) was obtained and a correlation coefficient of 0.401 was obtained, anxiety was obtained a significance value of 0.006 ($p\text{-value} < 0.05$) and a correlation coefficient of 0.354 was obtained, and stress was 0.005 ($p\text{-value} < 0.05$) and a correlation coefficient of 0.359 was obtained, the three variables were interpreted as moderate correlation. This proves that there is a significant correlation between stress and the confidence of hockey athletes before competition.

DISCUSSION

The Correlation of motivation and confidence

In general, motivation is an important psychological factor and is often associated with athletes' involvement in sports. Motivation can provide encouragement to do something, whether it is intrinsic (from within) or extrinsic (from outside) motivation. Intrinsic motivation is from within the individual himself to carry out activities that are permanent, independent, and stable because the impulse comes from within, the person's is from outside the individual to carry out sports activities. It is temporary, dependent, and unstable in nature ([Komarudin, 2019](#)). Obtained from [Table 4](#). Motivation events in hockey athletes before the competition, there were 44 (73.3%) athletes who experienced very good motivation and 16 (26.7%) athletes with good motivation levels. Motivation has a significant correlation with self-confidence as evidenced by the results of the study in [table 6](#) obtained a correlation test result of 0.001 ($p\text{-value} < 0.05$). This proves that there is a significant correlation between motivation and confidence of hockey athletes before competition. This study is in line with ([Irfandi & Rahmat, 2022](#)) who said that motivation is very influential on athletes.

The Correlation of anxiety and confidence

Anxiety is a feeling of unease, confusion, tension and worry in certain circumstances. Anxiety is an unpleasant emotion, such as feeling uncomfortable, chaotic, anxious and characterized by worry, concern, and fear that is sometimes

experienced in different levels and situations ([Zekha et al., 2023](#)). Anxiety is a subjective feeling that is difficult to understand caused by sufferers "The term Anxiety is a subjective feeling in the form of worry and increases psychological tension ([Hardiyono, 2020](#)). Obtained from [Table 4](#). The incidence of anxiety in hockey athletes before competition was 19 (31.7%) athletes who experienced normal level of anxiety, 25 (41.7%) athletes with mild level of anxiety, 11 (18.3%) athletes with moderate level of anxiety, 3 (5%) athletes with severe level of anxiety, and 2 (3.3%) athletes with very severe level of anxiety. Anxiety showed a significant correlation with self-confidence, as evidenced by [table 7](#), where the correlation test showed a value of 0.006 ($p\text{-value} < 0.05$). This proves that there is a significant correlation between anxiety and confidence of hockey athletes before competition. In a match, anxiety before competition is a natural thing experienced by athletes.

This statement is in line with research which states that there is a significant correlation between anxiety levels and athlete confidence ([Purnamasari & Novian, 2021](#)). Therefore, the higher the athlete's confidence level, the lower the level of anxiety the athlete will have, and vice versa. Therefore, it is very necessary to pay special attention in the form of analyzing these conditions in athletes, especially Western athletes so that they can be handled and regulated properly. Because we all know that athletes' achievements are the cumulative result of various aspects, especially the psychological aspect ([Novian & Noors, 2020](#)). In this study, the results of the significance value were obtained showing the results of the data correlation test using the Pearson Correlation Bivariate technique. Based on the test results, a value of $\text{Sig.}(2\text{-tailed}) 0.001 < 0.05$ H_0 was accepted, so it can be concluded that there is a significant correlation between anxiety and self-confidence. The results of the significance value were obtained showing the results of the data correlation test using the Pearson Correlation Bivariate technique. Based on the test results, a value of $\text{Sig.}(2\text{-tailed}) 0.001 < 0.05$ H_0 was accepted, so it can be concluded that there is a

significant correlation between anxiety and self-confidence ([Marbun et al., 2023](#)).

The Correlation of stress and confidence

Stress is a person's response to a dangerous change in a situation ([Musfarah, 2024](#)). Therefore, the heavier the physical activity, the more it will affect the level of stress due to fatigue, especially for athletes ([Juwariyah et al., 2024](#)). Stress is an active coping disorder, and seeking social-emotional support ([Purnama et al., 2023](#)). Stress is something that feels pressing in the individual ([Umjani, 2024](#)). In this context, there are individuals, namely athletes who strive to reach the peak of achievement. With effective stress and confidence, athletes can achieve maximum achievement and reach the top of their careers. Obtained from Table 4. The incidence of stress in hockey athletes before competition was 17 (28.3%) athletes who experienced normal levels of stress, 36 (60%) athletes with mild levels of stress, 4 (6.7%) athletes with moderate stress levels, 2 (3.3%) athletes with severe stress levels, and 1 (1.7%) athletes with very severe stress levels. Stress has a significant correlation with self-confidence, as shown in table 8, where the correlation test shows a value of 0.005 (p-value < 0.05). This proves that there is a significant correlation between stress and confidence of hockey athletes before competition.

This study also explains that stress and self-confidence have an important role and have a positive impact on improving sports performance in athletes. The results showed a significance value of stress and self-confidence of 0.002 (p-value < 0.05). so it can be concluded that stress and self-confidence together do have a positive effect ([Noerfitri & Oktantia, 2023](#)).

CONCLUSION

Based on the results of the study, it can be concluded that motivation, anxiety, and stress have a close correlation with the confidence of hockey athletes before the match. Psychological disorders that cause discomfort for athletes greatly affect their confidence. Therefore, it is important to address this issue, given the link between motivation, anxiety,

stress, and confidence of hockey athletes before competition.

SUGGESTION

Based on the findings of the study, it is recommended that coaches provide education to hockey athletes about motivation, anxiety, stress, and confidence before competition. This education can be carried out by nurses as promoters or by other experts to provide support and motivation. The goal is to protect athletes from the risk of lack of confidence due to lack of motivation as well as anxiety and stress problems before competition.

ACKNOWLEDGEMENT

Thank you to the East Java hockey athletes for the opportunity given to the researcher to carry out this research and for their willingness to be a respondent.

FUNDING

This research was carried out without financial support from any party, and all necessary costs were fully borne by the researcher's personal funds.

CONFLICTS OF INTEREST

The authors revealed that as long as this study no conflicts occurred, the study was also free of plagiarism, and the results had never been published anywhere else before.

AUTHOR CONTRIBUTIONS

Nafiatus Sa'adah as the lead author in this study, is responsible for overseeing the research process and designing the design used. He was assisted by a second researcher, Wiwik Widiyawati, in distributing the questionnaire that had been approved based on the ethics test permit with the number 063/KET/IL.3.UMG/KEP/A/2024. After that, researchers collect and analyze the data obtained before publishing it.

REFERENCES

Adelia, I., Mutmainnah, M., & Mulyani, S. (2023). Hubungan Antara Beban Kerja dengan

- Tingkat Stress Kerja pada Perawat Wanita di Rumah Sakit Dr. Bratanata Kota Jambi. *Jurnal Ners*, 7(2), 1534–1542. <https://doi.org/10.31004/jn.v7i2.16631>
- Arifin, Z., Dharmadi, made agus, & Kusuma, ketut chandra adinata. (2023). Tingkat Kepercayaan diri atlet Terhadap Peningkatan Prestasi Atlet Futsal Akademi Semarang United. *Jurnal Kejaora (Kesehatan Jasmani Dan Olah Raga)*, 8(1), 48–54. <https://doi.org/10.36526/kejaora.v8i1.2374>
- Azmi, I. U., Nafi'ah, N., Thamrin, M., & Akhwani, A. (2021). Studi Komparasi Kepercayaan Diri (Self Confidence) Siswa yang Mengalami Verbal Bullying dan Yang Tidak Mengalami Verbal Bullying di Sekolah Dasar. *Jurnal Basicedu*, 5(5), 3551–3558. <https://doi.org/10.31004/basicedu.v5i5.1389>
- Dunan, H., & Sulistiandari, A. (2023). Pengaruh Kepercayaan Diri dan Motivasi Terhadap Performance Pertandingan Atlit Karate di Forki Lampung. *Jurnal EMT KITA*, 7(3), 625–629. <https://doi.org/10.35870/emt.v7i3.1134>
- Falaahudin, A., Saleh, R. A. P., Triprayogo, R., & Nadzalan, A. M. (2024). *Interaksi : Jurnal Pengabdian Kepada Masyarakat Interaksi : Jurnal Pengabdian Kepada Masyarakat*. 1, 20–26. <https://doi.org/10.55081/jbpkm.v4i2.1891>
- Hardiyono, B. (2020). Tingkat Kecemasan Sebelum Bertanding Dan Percaya Diri Pada Saat Bertanding Atlet Pelatda Pengprov Fpti Sumatera Selatan. *Kinestetik*, 4(1), 47–54. <https://doi.org/10.33369/jk.v4i1.10399>
- Irfandi, I., & Rahmat, Z. (2022). Motivasi Atlet Dalam Peningkatan Teknik Dasar Bola Voli. *Jurnal Olahraga Dan Kesehatan Indonesia*, 2(2), 100–108. <https://doi.org/10.55081/joki.v2i2.591>
- Juwariyah, S., Hulvi, A., & Riduan, N. (2024). *Komputika : Jurnal Sistem Komputer Mengukur Faktor Demografi Psikologis : Memprediksi Depresi , Kecemasan , dan Stres dengan menggunakan Machine Learning Measuring Psychological Demographic Factors : Predicting Depression , Anxiety , and Stress using Mach*. 13. <https://doi.org/10.34010/komputika.v13i2.11793>
- Komarudin, K. (2019). Pengaruh Pelatihan Dan Motivasi Terhadap Produktivitas Kerja Karyawan Pt Lion Mentari Airlines Bandara Soekarno Hatta Cengkareng. *Jimf (Jurnal Ilmiah Manajemen Forkamma)*, 1(2), 128–145. <https://doi.org/10.32493/frkm.v1i2.2544>
- Latifah, N. N., Margawati, A., & Rahadiyanti, A. (2019). Hubungan komposisi tubuh dengan kesegaran jasmani pada atlet hockey. *Jurnal Keolahragaan*, 7(2), 146–154. <https://doi.org/10.21831/jk.v7i2.28085>
- Marbun, K. A. F., Siagian, I. O., & Sinaga, H. (2023). Kepercayaan Diri dengan Tingkat Kecemasan pada Mahasiswa Tingkat Akhir dalam Mengerjakan Skripsi di Institut Kesehatan Immanuel Bandung. *Jurnal Kesehatan*, 12(2), 321–332. <https://doi.org/10.46815/jk.v12i2.159>
- Marsidi, S. R. (2021). Identification of Stress, Anxiety, and Depression Levels of Students in Preparation for the Exit Exam Competency Test. *Journal of Vocational Health Studies*, 5(2), 87. <https://doi.org/10.20473/jvhs.V5.I2.2021.87-93>
- Mufidah, A., & Widiyawati, W. (2022). Perbedaan Tingkat Kecemasan Mahasiswa Di Era Pandemi Covid-19 di Universitas Muhammadiyah Gresik. *Indonesian Journal of Professional Nursing*, 3(1), 13. <http://dx.doi.org/10.30587/ijpn.v3i1.4027>
- Musfarah, D. D. (2024). *Depression, Anxiety, Stress Correlated with Suicide Idea on Students of The Faculty of Health*. 49–56. <https://doi.org/10.26699/jnk.v11i1.ART.p049-056>
- Noerfitri, N., & Oktantia, D. E. N. (2023). Hubungan antara Tingkat Stres dan Ketidakpercayaan Diri dengan Pola Hidup

- Sehat Mahasiswa Gizi STIKes Mitra Keluarga. *Jurnal Ilmiah Kesehatan Masyarakat : Media Komunikasi Komunitas Kesehatan Masyarakat*, 15(1), 6–12. <https://doi.org/10.52022/jikm.v15i1.441>
- Novian, G., & Noors, I. P. M. (2020). Hubungan Gaya Kepemimpinan Pelatih dengan Prestasi Atlet Taekwondo. *Gladi : Jurnal Ilmu Keolahragaan*, 11(02), 151–164. <https://doi.org/10.21009/GJK.112.07>
- Nugraha, A. D. (2020). Memahami Kecemasan: Perspektif Psikologi Islam. *IJIP : Indonesian Journal of Islamic Psychology*, 2(1), 1–22. <https://doi.org/10.18326/ijip.v2i1.1-22>
- Purnama, N. L. A., Widayanti, M. R., Yuliati, I., & Kurniawaty, Y. (2023). Pengaruh Mekanisme Coping Terhadap Stres Remaja. *Jurnal Riset Kesehatan Poltekkes Depkes Bandung*, 16(1), 10–20. <https://doi.org/10.34011/juriskesbdg.v16i1.2448>
- Purnamasari, I., & Novian, G. (2021). Tingkat Kepercayaan Diri dan Kecemasan Atlet PPLP Jawa Barat selama Menjalani Training From Home (TFH) pada Masa Adaptasi Kebiasaan Baru (AKB). *Jurnal Patriot*, 3(2), 203–213. <https://doi.org/10.24036/patriot.v3i2.784>
- Putra, B. D. M. (2023). Life Stress Sebagai Prediktor Performance Satisfaction Pada Atlet Liga Mahasiswa. *Berajah Journal*, 3(1), 239–248. <https://doi.org/10.47353/bj.v3i1.221>
- Rahayu, F. R. (2023). Strategi Komunikasi Efektif Guru dalam Membentuk Kepercayaan Diri Siswa di MTs YPK Cijulang. *Jurnal Pelita Nusantara*, 1(1), 116–123. <https://doi.org/10.59996/jurnalpelitanusantar.a.v1i1.128>
- Savitri, A. C., Putu, & Luh Indah Desira Swandi, N. (2023). Intervensi Kecemasan Pada Mahasiswa : Literature Review. *Psikobuletin: Buletin Ilmiah Psikologi*, 4(1), 43. <http://dx.doi.org/10.24014/pib.v4i1.20628>
- Setiawati, N. A., Ramadhita, S. U., Zanwar, A., & Noviandina, N. (2024). Teknik Relaksasi untuk Kecemasan dan Stres Pada Remaja: Kajian Sistemik. *Jurnal Psikologi*, 1(4), 14. <https://doi.org/10.47134/pjp.v1i4.2581>
- Umjani, S. U. (2024). Dampak Positif Coping Stress terhadap Kesehatan Mental Remaja. *ISTISYFA: Journal of Islamic Guidance and Counseling*, 1(2), 115–127. <http://dx.doi.org/10.29300/istisyfa.v1i2.2420>
- Zekha, N. M., Novita, Amin, N., Aristiyanto, A., & Nilawati, I. (2023). Tingkat Kecemasan Atlet Pencak Silat PSHT Wida Menghadapi Pertandingan Kota Wali Championship Tahun 2023. *Journal of Physical Activity and Sports (JPAS)*, 4(2), 61–70. <https://doi.org/10.53869/jpas.v4i2.194>
- Zundel, C. G., Ryan, P., Brokamp, C., Heeter, A., Huang, Y., Strawn, J. R., & Marusak, H. A. (2022). Air pollution, depressive and anxiety disorders, and brain effects: A systematic review. *NeuroToxicology*, 93(October), 272–300. <https://doi.org/10.1016/j.neuro.2022.10.011>