

The Effect of Physical Education Lessons on Reducing Learning Stress Levels in Class VIII Students of SMP Negeri 4 Kunto Darussalam

Kartika Sari Dewi^{1A-E*}, Aluwis^{2B-D}, Lolia Manurizal^{3B-D}

^{1,2,3} Universitas Pasir Pengaraian, Riau, Indonesia

kartikasariidewi1404@gmail.com¹, aluwis@upp.ac.id², loliamanurizal@upp.ac.id³

ABSTRACT

Stress in learning is a feeling faced by someone when there is pressure on them. The purpose of this study was to determine whether there is an influence of PJOK lessons in reducing the level of learning stress in class VIII students of SMP N 4 Kunto Darussalam. This study used a survey method with a quantitative descriptive approach; the target population was all class VIII students of SMP N 4 Kunto Darussalam. The number of research participants was 113 students. The sample in this study was 88 students who were determined using the technique of nonprobability sampling with the Slovin formula. The instrument used is a questionnaire. Contains 4 alternative answers taken through a Likert scale. The results of the research that has been carried out show that The Effect of Physical Education Lessons in Reducing the Level of Learning Stress in Class VIII Students of SMP N 4 Kunto Darussalam in the category of "very high" 24% of samples The Effect of Physical Education Lessons in Reducing the Level of Learning Stress in Students (21 students), in the category of "very high" 36% of samples The Effect of Physical Education Lessons in Reducing the Level of Learning Stress in Students (32 students), in the category of "High" 7% of samples The Effect of Physical Education Lessons in Reducing the Level of Learning Stress in Students (6 students), in the category of "moderate" 14% of samples The Effect of Physical Education Lessons in Reducing the Level of Learning Stress in Students (12 students), in the category of "sufficient" 13% of samples The Effect of Physical Education Lessons in Reducing the Level of Learning Stress in Students (11 students), in the category of "low" 6% of samples The Effect of Physical Education Lessons in Reducing the Level of Learning Stress in Students (5 students) and in the category of "very low" 1% of samples The Effect of Physical Education Lessons in Reducing the Level of Learning Stress in Students (1 student). Based on the description above, it can be concluded that from the 7 categories to determine how the influence of PJOK lessons in reducing the level of learning stress in students of SMP N 4 Kunto Darussalam, the highest results were obtained, namely around 36% (32 students) of respondents who had a "very high" influence of PJOK lessons in reducing the level of student learning stress.

ARTICLE HISTORY

Received: 2025/07/15

Accepted: 2025/07/31

Published: 2025/10/08

KEYWORDS

Physical Education
Lessons;

Stress Levels

Learning

Junior High School
Students.

AUTHORS' CONTRIBUTION

- A. Conception and design of the study;
- B. Acquisition of data;
- C. Analysis and interpretation of data;
- D. Manuscript preparation;
- E. Obtaining funding

Cites this Article : Dewi, Kartika Sari; Aluwis, Aluwis; Manurizal, Lolia. (2025). The Effect of Physical Education Lessons on Reducing Learning Stress Levels in Class VIII Students of SMP Negeri 4 Kunto Darussalam. **Competitor: Jurnal Pendidikan Kepeleatihan Olahraga**. 17 (3), p.2267-2274

INTRODUCTION

According to the Ministry of National Education (2006: 131), Physical Education, Sports, and Health is a subject taught at a specific school level and is part of the overall education system that prioritizes physical activity and fostering a healthy lifestyle for harmonious, consistent, and balanced physical, mental, social, and emotional growth and development. According to the Big Indonesian Dictionary (KBBI), stress is a mental and emotional disturbance or disturbance caused by external factors such as tension. Kurniawan (2015: 7) explains that stress in learning is the feeling a person experiences when under pressure.

Based on observations conducted by researchers in early February 2024, a significant number of eighth-grade students were less enthusiastic when academic learning began. Students found classical and monotonous learning, such as lectures, very boring, so they tended to be reluctant to participate effectively. It was not uncommon for some students to feel burdened by all the assignments at school. Demands from both assignments and daily routines often led to stress.

Stress in learning is a common problem experienced by students in schools. The demands of numerous assignments, such as memorization and homework, can sometimes burden them. Furthermore, the extracurricular activities they participate in often cause stress. Many students tend to be unenthusiastic during classroom-based lessons. Many feel sleepy, daydream, and even fall asleep while the teacher is explaining.

Physical Education (PJOK) lessons are a way for them to relieve boredom because, in addition to classroom lessons, Physical Education, Sports, and Health also take place outside the classroom or on the field, such as volleyball, gymnastics, soccer, swimming, and so on. Students tend to enjoy activities outside the classroom and involve lots of movement. It's not uncommon for some students to eagerly await PJOK lessons. Students are also seen engaging in physical activities while waiting for class, such as playing soccer, volleyball, or simply running around chasing friends.

Exercise is one way many people manage feelings of boredom, pressure, and stress. Stress experienced by students, both internal and external, arising from various demands during the learning process, can be reduced by Physical Education, Sports, and Health lessons.

METHODS

This study used a survey method with a quantitative descriptive approach. According to Sugiyono (2016:30), quantitative descriptive research aims to provide an overview of the object being studied through sample or population data expressed in numerical form. This study was conducted using a quantitative descriptive research method. This study is called descriptive because it will provide a realistic overview of the effect of physical education lessons on reducing learning stress levels. This study is analytical in nature because, in addition to providing an accurate overview, it also provides inferential conclusions using a survey and questionnaire technique.

Table 1.
Details of Research Subjects

Class	Amount
VIII A	28
VIII B	28
VIII C	29
VIII D	28
Amount	113

Source: TU SMP Negeri 4 Kunto Darussalam

The total population of students at SMP Negeri 4 Kunto Darussalam is 113 students. The selected error tolerance is 5% using the SLOVIN formula, and then the number of samples used in this study can be determined. The sampling technique used in this study is non-probability sampling with the Purposive Sampling Technique. The sample taken in the study was 88 students. However, for more clarity and efficiency, sampling was taken per class with a sample of 22 students.

Table 2.
Number of Samples of Class VIII Students of SMP N 4 Kunto Darussalam

No	Class	Population	Gender		Calculation	Number of samples
			L	P		
1.	VIII A	28	14	14	(28:118) x 100	22
2.	VIII B	28	15	13	(28:118) x 100	22
3.	VIII C	29	16	13	(29:118) x 100	22
4.	VIII D	28	12	16	(28:118) x 100	22
Total Sample Size						88

To obtain research data, a tool in the form of an instrument is needed, in this case Suharsimi Arikunto (2010: 192) states that a research instrument is a tool or facility used by researchers in collecting data so that their work is easier and the results are better, in the sense of being more accurate, complete and systematic so that it is easier to process. According to Suharsimi Arikunto (2010:194), a questionnaire is a number of written questions used to obtain information from respondents in the sense of reports about their personality or things they know. According to Sugiyono (2016:142), a questionnaire is a data collection technique carried out by giving a set of written questions or statements to respondents to answer. So the first data collection technique used in this study is observation, which is carried out before making the proposal and during the research. The second data collection technique is using a direct and closed questionnaire, because respondents directly answer their own conditions, and the answers are provided in the form of a checklist.

Table 3.
Questionnaire Assessment Scale

No	Jawaban	Skor Pernyataan	
		+	-
1	Strongly agree	4	1
2	Agree	3	2
3	Disagree	2	3
4	Strongly disagree	1	4

Nunung dalam Andriani, R., & Rasto, R. (2019:26)

Table 4.
Learning Stress Instrument Grid

No	Indicator	Item		Amount
		Positive	Negative	
1.	Physical Aspects	1,3,5,7,9,11	2,4,6,8,10,12	12
2.	Emotional Aspects	13,15,17,19,21,23	14,16,18,20,22,24	12
3.	Mental Aspects	25,27,29,31,33,35	26,28,30,32,34,36	12
4.	Behavioral Aspects	37,39,41,43,45,47,49	38,40,42,44,46,48,50	14
Total				50

Source: Saa, N. (2020)

Researchers use a technique to process data using a percentage formula. Sudibjo (1991: 40-41) states that if a study aims to describe or discover something as it is, then the analysis technique required is simply a percentage calculation.

$$P = \frac{F}{N} \times 100\%$$

This research also uses the interval class formula with the following formula:

$$R = N_{max} - N_{min}$$

$$K = 1 + 3,3 \log_n$$

$$P = \frac{R}{K}$$

RESULTS AND DISCUSSION

Result

The data in this study were collected through a survey method by distributing questionnaires to students of SMP N 4 Kunto Darussalam, Rokan Hulu Regency. The subjects in this study were students of SMP N 4 Kunto Darussalam, Rokan Hulu Regency. The results of this study intend to determine how influential PJOK lessons are in reducing learning stress levels in class VIII students of SMP N 4 Kunto Darussalam, which was expressed using a questionnaire consisting of 30 statements.

Table 5.
Descriptive Statistics

Descriptive Statistics	
N	88
Mean	96,023
Median	101
Mode	107
Standard Deviation	12,89
Sample Variance	166,16
Range	52
Minimum	60
Maximum	112

Source: Data Processing, 20 November 2024

Results of Physical Education Lesson Analysis in Reducing Learning Stress Levels

The results of the analysis of the data on the Effect of Physical Education Lessons in Reducing the Level of Learning Stress at SMP N 4 Kunto Darussalam, with a sample of 88 respondents, obtained an average value (mean) of 96.023, a median of 101, a mode of 107,

and a standard deviation value of 12.89. In addition, the results of the analysis also obtained a variance sample value of 166.16, a range of 52, a minimum value of 60, and a maximum value of 112. The results obtained in this study can be seen in the descriptive frequency table of the Effect of Physical Education Lessons in Reducing the Level of Learning Stress in Students of SMP N 4 Kunto Darussalam, below:

Table 6.
 Descriptive Frequency of the Effect of Physical Education Lessons on Reducing Student Stress Levels

Class	Category	Interval	Frequency	%
1	Very Low	60-66	1	1%
2	Low	67-74	5	6%
3	Fair	75-82	11	13%
4	Moderate	83-90	12	14%
5	High	91-98	6	7%
6	Very High	99-106	32	36%
7	Very High	107-114	21	24%
Total			88	100%

Source: Data Processing, 20 November 2024

Based on the descriptive frequency table of the Influence of Physical Education Lessons in Reducing the Level of Learning Stress in Class VIII Students of SMP N 4 Kunto Darussalam, it is known that there are 30 questionnaire statements from 88 respondents, and 7 categories were obtained. The number of answers for each category is, 1 person (1%) sample of the Effect of Physical Education Lessons in Reducing Learning Stress Levels in 8th Grade Students of SMP N 4 Kunto Darussalam is in the "Very Low" category, then 5 people (6%) sample of the Effect of Physical Education Lessons in Reducing Learning Stress Levels in 8th Grade Students of SMP N 4 Kunto Darussalam are in the "Low" category, 11 people (13%) sample of the Effect of Physical Education Lessons in Reducing Learning Stress Levels in 8th Grade Students of SMP N 4 Kunto Darussalam are in the "Enough" category, 12 people (14%) sample of the Effect of Physical Education Lessons in Reducing Learning Stress Levels in 8th Grade Students of SMP N 4 Kunto Darussalam are in the "Medium" category, 6 people (7%) sample of the Effect of Physical Education Lessons in Reducing Learning Stress Levels in 8th Grade Students of SMP N 4 Kunto Darussalam are in the "High" category, 32 people (36%) sample of the Effect of Physical Education Lessons in Reducing Learning Stress Levels in 8th Grade Students of SMP N 4 Kunto Darussalam are in the "High" category. Darussalam is in the "Very High" category, and 21 (24%) of the sample are in the "Very High" category.

Discussion

This study aims to determine the extent to which physical education (PJOK) lessons can reduce learning stress levels among eighth-grade students at SMP N 4 Kunto Darussalam. Data collection in this study used a questionnaire that had been tested for validity and reliability, totalling 30 statements distributed to 88 respondents. The effect of PJOK lessons on reducing learning stress levels in students includes four indicators: physical, behavioural, mental, and emotional. The effect of PJOK lessons on reducing learning stress levels in students is also influenced by endorphins (hormones that trigger

feelings of happiness), which are released by the body when experiencing pain or stress. They are released during enjoyable activities such as exercise, massage, eating, and also sex. According to Siloam Hospital (2023), endorphins themselves help relieve stress and anxiety, boost the immune system, and help reduce pain.

The results of the research that has been conducted show that the Effect of Physical Education Lessons in Reducing the Level of Learning Stress in Class VIII Students of SMP N 4 Kunto Darussalam in the category of "very high" 24% of samples The Effect of Physical Education Lessons in Reducing the Level of Learning Stress in Students (21 students), in the category of "very high" 36% of samples The Effect of Physical Education Lessons in Reducing the Level of Learning Stress in Students (32 students), in the category of "High" 7% of samples The Effect of Physical Education Lessons in Reducing the Level of Learning Stress in Students (6 students), in the category of "moderate" 14% of samples The Effect of Physical Education Lessons in Reducing the Level of Learning Stress in Students (12 students), in the category of "sufficient" 13% of samples The Effect of Physical Education Lessons in Reducing the Level of Learning Stress in Students (11 students), in the category of "low" 6% of samples The Effect of Physical Education Lessons in Reducing the Level of Learning Stress in Students (5 students) and in the category of "very low" 1% of samples The Effect of Physical Education Lessons in Reducing the Level of Learning Stress in Students (1 student). Based on the description above, it can be concluded that from the 7 categories to determine how the influence of PJOK lessons in reducing the level of learning stress in students of SMP N 4 Kunto Darussalam, the highest results were obtained, namely around 36% (32 students) of respondents who had a "very high" influence of PJOK lessons in reducing the level of student learning stress.

This research aligns with research by Rony Wahyudi, Eka Bebasari, and Elda Nazriati entitled "The Relationship Between Exercise Habits and Stress Levels in First-Year Medical Students at the Faculty of Medicine, Riau University."

This study aimed to determine the relationship between exercise habits and stress levels in first-year medical students at the Faculty of Medicine, Riau University. This study used an analytical design with a cross-sectional approach. The study sample consisted of 166 students using a total sampling technique. Data were collected using the Medical Student Stressor Questionnaire (MSSQ), modified to measure stress levels and exercise habits. The data were analysed using the chi-square test, resulting in a p-value of 0.045 ($p < 0.05$), indicating a significant relationship between exercise habits and stress levels.

This research aligns with research by Rahayu Dwi Astuti, Rahmawati Surmantika, and Muhammad Rubai entitled "Narrative Review: The Effect of Exercise on Stress Reduction." The findings of this study indicate that exercise has a significant relationship and can be an effective way to manage individual stress. Exercise not only reduces stress but also improves mental health.

Research by Qory Jumrotul Aqobah, Dwi Rahmawati, Farhans Youdistira, and Awaludin Rizki Kurnia entitled "Analysis of the Effect of Exercise on Stress Reduction."

The method used in this article is a Systematic Literature Review, a mathematical and statistical method used for specific literature from several journals. The results of this study indicate that exercise has a significant relationship and can be an effective way to manage individual stress.

Based on the descriptions above, it can be concluded that physical education (PJOK) lessons have a significant impact on reducing student stress levels.

CONCLUSION

Based on the data analysis and discussion, it can be concluded that physical education, sports, and health (PJOK) lessons have an impact on reducing learning stress levels among eighth-grade students at SMP Negeri 4 Kunto Darussalam. The percentage of students in the class is 36% (32 students) and falls into the "very high" category. Physical activity in PJOK lessons helps students relieve mental tension and improve mood. Physical activity in PJOK, such as sports, games, and fitness training, can provide a physical and emotional relaxation effect. This indicates that PJOK lessons contribute not only to physical health but also to mental health.

Students who are actively involved in PJOK lessons tend to show lower levels of learning stress than students who are less active. This demonstrates the importance of full participation in PJOK lessons to achieve maximum benefits.

REFERENCES

- Agustina, R. (2014). Bimbingan Belajar Untuk Mereduksi stres Akademik Siswa. (Doctoral dissertation, Universitas Pendidikan Indonesia).
- Astuti, R. D., Surmantika, R., & Rubai, M. (2020). Narrative Review: Pengaruh Olahraga Dalam Penurunan Tingkat Stress. In Proceedings National Conference PKM Centre (Vol. 1, No. 1).
- Aqobah, Q. J., Rahmawati, D., Youdistira, F., & Kurnia, A. R. (2023). Analisis Pengaruh Olahraga Dalam Penurunan Tingkat Stres. *Journal of Sport Science and Tourism Activity (JOSITA)*, 2(1), 45-51
- Barseli, M., Ahmad, R., & Ifdil, I (2018). Hubungan Stres Akademik Siswa dengan Hasil Belajar. *Jurnal EDUCATIO: Jurnal Pendidikan Indonesia*, 4(1), 40-47
- Depdiknas (2006). Kurikulum Tingkat Satuan Pendidikan (KTSP). Jakarta Department of Pendidikan Nasional.
- Goldstein, D. S. (1987). Stress-induced activation of the sympathetic nervous system. *Bailliere's clinical endocrinology and metabolism*, 1(2), 253-278.
- Idris, I. & Pandang, A. (2018). Efektivitas Problem Focused Coping Dalam Mengatasi Stres Belajar Siswa Pada Pelajaran Matematika. *Jurnal Kajian Psikologi Pendidikan dan Konseling*, 4(1), 63-68.
- Kurniawan F (2015). Perbedaan Stres Belajar Siswa Dengan Pembelajaran Kurikulum 2006 Dan Kurikulum 2013 Di SMA Kabupaten Klaten. Skripsi

- Kurniawan, A., & Cahyanti, I. Y. (2013). Hubungan Antara Academic Stres Dengan Smartphone Addiction Pada Mahasiswa Pengguna Smartphone. Di jurnal psikologi klinis dan kesehatan mental, 2(1), 16-21.
- Mulyanto, Respati. (2014). Belajar dan Pembelajaran Penjas. Bandung UPI.
- Nasidah (1992). Pengembangan Kurikulum Pendidikan Jasmani dan Kesehatan. Bandung Departemen Pendidikan dan Kebudayaan.
- Nurcahyani, I., & Fauzan, L. (2016). Efektivitas Teknik Relaksasi dalam Konseling Kelompok Behavioral Untuk Menurunkan Stres Belajar Siswa SMA. Jurnal Kajian Bimbingan Konseling 1(1), 1-6.
- Pemenkes nomor 25 (2014) Upaya Kesehatan Anak BN.2014/NO 825, kemkes.go.id:24 hlm.
- Rahmawati, W. K. (2016). Efektivitas Teknik Restrukturisasi Kognitif Untuk Menangani Stres. Akademik siswa. JKI (Jurnak Konseling Indonesia),2(1), 15-21.
- Ruhmadi, E., Suwartika, I. & Nurdin, A. (2014). Analisis Faktor Yang Berhubungan dengan Tingkat Stres Akademik Mahasiswa Reguler Program Studi D III Keperawatan Cirebon Poltekkes Kemenkes Tasikmalaya. Jurnal Keperawatan Soedirman, 9(3), 173-178.
- Rusliani, Dini (2013). Model Pembelajaran Langsung dalam Pendidikan Jasmani dan Kesehatan. Bandung. Alfabeta.
- Saa, N. (2020). Analisis Validasi Pengembangan Angket Minat Terhadap Proses Pembelajaran Matematika. Formatif : Jurnal Ilmiah Pendidikan MIPA,2(2)
- Sandra, R. & Ildil. I. (2015). Konsep Stres kerja Guru Bimbingan dan konseling. Jurnal EDUCATIO: Jurnal Pendidikan Indonesia, 1(1), 80-85.
- Siolam Hospital (2023). Mengenal hormon endorfin sebagai pemicu rasa bahagia. Rumah sakit dengan pelayanan berkualitas-Sialom Hospital. Retrieved August,23,2023.
- Sukintaka (2000). Teori Pendidikan jasmani. Solo esagrapika.
- Syarifudin & Muhadi (2006). Pendidikan Jasmani dan Kesehatan. Dirjendiktif. Dekdikbud. Jakarta.
- Sugiyono. (2019). Metode penelitian kuantitatif, kualitatif, dan R&D. Bandung: CV Alfabeta.
- Suharsimi Arikunto. (2014). Prosedur penelitian. Jakarta: PT Rineka Cipta.
- Taufik, T., Ildil. I., & Ardi. Z. (2013). Kondisi Stres Akademik Siswa SMA Negeri 1 Kota Padang. Jurnal Konseling dan Pendidikan 1(2). 143-150.
- Wahyudi, R., Bebasari, E., & Nazriati, E. (2015). Hubungan kebiasaan berolahraga dengan tingkat stres pada mahasiswa Fakultas Kedokteran Universitas Riau tahun pertama (Doctoral dissertation, Riau University).