



Survey of Non-Sports Students' Understanding of Physical Fitness

Survei Tingkat Pemahaman Mahasiswa Non-Olahraga Terhadap Kebugaran Jasmani

Original Article

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Abstract

- Background** In the modern era, student activities are largely dominated by the use of technology, which reduces physical activity and consequently affects the decline of physical fitness. Unlike students in sports study programmes, non-sports students have more limited opportunities to gain academic understanding of physical fitness.
- Objectives** This study aims to describe the level of understanding of physical fitness among non-sports students, examined from the aspects of exercise frequency, exercise intensity, and the benefits of physical fitness.
- Methods** This study used a quantitative method with a survey approach involving 45 non-sports student respondents at Yogyakarta State University.
- Results** Based on the results of the study of 45 non-sports students, the majority of respondents had a very good level of understanding of physical fitness, as indicated by 68.9% of respondents in the strongly agree category and 31.1% in the agree category, with the highest understanding found in the aspect of exercise intensity (75.6% strongly agree). Nevertheless, the respondents' exercise habits were still not optimal, because most of them exercised only occasionally (86.67%), which indicates a gap between a high level of knowledge and the routine application of physical activity in daily life. Therefore, efforts are needed to increase motivation and regular exercise habits, so that a good understanding of physical fitness can be realised in behaviour that supports health and fitness on a sustainable basis.
- Conclusion** In general, non-sports students have a high level of understanding of physical fitness in terms of exercise frequency, intensity, and benefits, although this has not yet been accompanied by consistent exercise habits.

Keywords: Physical Fitness, Level of Understanding, Non-sports Students

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INTRODUCTION

Physical fitness is a person's ability to carry out daily activities effectively and efficiently without experiencing excessive fatigue, while still retaining energy reserves for other activities. Physical fitness is one of the important aspects of student life, because it influences health, productivity, learning concentration, and the ability to carry out various academic and non-academic activities. According to Ivan Miftahul Aziz and Sahrul Jahrir (2024), students with a good level of physical fitness tend to be more capable of following the learning process optimally and of maintaining prime physical condition throughout their studies.

In the present modern era, student activities are dominated by the use of technology, which reduces physical activity. Many students spend their time in prolonged sitting positions, for example to study, complete assignments, and use social media. Such conditions can lead to a decline in the level of physical activity, which ultimately affects physical fitness. Research conducted by Vinna et al. (2025) shows that physical activity has a significant relationship with a person's level of physical fitness. The more actively a person engages in physical activity, the better their level of physical fitness.

Students in sports study programmes generally acquire knowledge of health, physical activity, and physical fitness through the courses they take. Conversely, non-sports students have more limited opportunities to acquire such understanding academically. As a result, the level of understanding of the concept, benefits, components, and importance of maintaining physical fitness may differ between sports and non-sports students. In fact, the need for physical fitness is important not only for sports students, but also for all students, in order to support academic activities and daily life. A good understanding of physical fitness can encourage a person to adopt a healthy lifestyle, exercise regularly, and maintain their physical condition. Conversely, a low level of understanding can lead to a lack of awareness of the importance of physical activity and bodily health. Therefore, the level of understanding of physical fitness among non-sports students needs to be established, so that it can serve as a basis for developing more effective health education programmes within the higher education environment.

A number of studies in Indonesia have extensively discussed the level of physical fitness among students, both in sports education programmes and in other study programmes. The research results show that physical fitness plays an important role in supporting students' learning activities and performance. However, research that specifically examines the level of understanding of physical fitness among non-sports students remains relatively limited, so that further study of this aspect is required. This study was conducted in order to determine the extent to which non-sports students understand the concept of physical fitness, its benefits, and the importance of maintaining fitness in daily life. The results of this study are expected to serve as material for evaluation and as input for higher education institutions in improving health literacy and student awareness of the importance of physical fitness.

This study aims to determine the level of understanding of physical fitness among non-sports students, examined from three aspects, namely exercise frequency, exercise intensity, and the benefits of physical fitness. More specifically, this study aims to: (1) describe the level of understanding of non-sports students regarding the exercise frequency recommended for health; (2) describe the level of understanding of non-sports students regarding appropriate exercise intensity; (3) describe the level of understanding of non-sports students regarding the benefits of physical fitness for physical and mental health; and (4) determine the overall picture of the level of understanding of physical fitness among non-sports students. The results of this study are expected to serve as a basis for evaluation and recommendation for the university in designing more effective physical fitness education programmes for students outside sports study programmes.

METHOD

Research Design

This study used a quantitative approach with a survey method. The quantitative method was selected because this study aims to describe and portray a phenomenon occurring within a particular population, without manipulating the research variables, namely the level of understanding of physical fitness among non-sports students.

Participant

The population in this study consisted of active students from study programmes outside the field of Sports Science at Yogyakarta State University. The research sample comprised 45 respondents, who were selected using a purposive sampling technique, that is, sampling based on certain criteria established by the researcher. The inclusion criteria in this study were: (1) active students registered in the current semester; (2) students from non-sports study programmes; and (3) willingness to become research respondents.

Instrument

The instrument used in this study was a closed questionnaire with a 1-4 Likert scale, consisting of four alternative answers, namely Strongly Agree (4), Agree (3), Disagree (2), and Strongly Disagree (1). The questionnaire consisted of 30 statement items covering three aspects, namely exercise frequency (10 items), exercise intensity (10 items), and the benefits of physical fitness (10 items). Each aspect consisted of positive and negative statements, in order to avoid bias in respondents' answers.

Procedures and if relevant, the time frame

Data collection was carried out by distributing the questionnaire directly to respondents who met the research criteria. Respondents were given a brief explanation of the purpose of the research before completing the questionnaire, and were then asked to complete the questionnaire in accordance with their actual understanding, without pressure from any party.

RESULTS AND DISCUSSION

Gender	Frequency	Percentage
Male	38	84,44%
Female	7	15,56%
Total	45	100%

Based on the results of the data processing that was carried out, the number of respondents used in this study was 45 people. By gender, the respondents were dominated by female respondents, numbering 38 people or 84.44%, whereas male respondents numbered 7 people or 15.56%. These data show that the majority of participants in this study were female, so that the research results largely represent the views and experiences of female students in relation to physical activity and physical fitness.

Exercise Habits

Category	Frequency	Percentage
Occasionally	39	86,67%
Yes, regularly	4	8,89%
Never	2	4,44%
Total	45	100%

Based on the results of the study of 45 respondents, it was found that the majority of respondents (86.67%) exercised only occasionally, whereas 8.89% exercised regularly and 4.44% never exercised. These results show that although the majority of students had engaged in physical activity, the frequency was still irregular. Overall, the respondents had a very good level of understanding of the importance of physical activity and physical fitness. However, this high level of understanding had not been fully accompanied by regular exercise habits. This indicates a gap between knowledge and practice in daily life. The low frequency of regular exercise may be influenced by various factors, such as academic commitments, lack of time, motivation, and a less active lifestyle. Therefore, efforts are needed to improve regular exercise habits, so that the health benefits of physical activity can be obtained optimally.

When related to the overall research results, an interesting fact was found, namely that the majority of respondents had a very good level of understanding of the importance of physical activity and physical fitness. However, this high level of understanding was not yet fully reflected in actual behaviour. This can be seen from the high number of respondents who exercised only occasionally and the low number of respondents who exercised regularly. This finding indicates a knowledge-behaviour gap, that is, a condition in which a person understands the importance of a health behaviour but is not yet able to apply it consistently in daily life.

Distribution of the Level of Understanding in the Exercise Frequency Category

Category	Frequency	Percentage
Strongly Agree	31	68,9%
Agree	14	31,1%
Disagree	0	0%

Strongly Disagree	0	0%
Total	45	100%

The results of the category distribution for the exercise frequency aspect show that, of the 45 respondents, 31 respondents (68.9%) were in the Strongly Agree category and 14 respondents (31.1%) were in the Agree category. There were no respondents in the Disagree or Strongly Disagree categories. This shows that the majority of non-sports students already had a very good understanding of the importance of regular exercise frequency, including an understanding of the ideal number of exercise sessions per week and the importance of rest periods between training sessions.

Distribution of the Level of Understanding in the Exercise Intensity Category

Category	Frequency	Percentage
Strongly Agree	34	75,6%
Agree	11	14,4%
Disagree	0	0%
Strongly Disagree	0	0%
Total	45	100%

In the exercise intensity aspect, 34 respondents (75.6%) were in the Strongly Agree category and 11 respondents (24.4%) were in the Agree category, with no respondents in the Disagree or Strongly Disagree categories. This aspect had the highest percentage in the Very Good category compared with the other aspects, which indicates that non-sports students had the strongest understanding of the concept of exercise intensity, such as pulse rate measurement, the adjustment of training load, and bodily signs during exercise.

Distribution of the Level of Understanding in the Physical Fitness Category

Category	Frequency	Percentage
Strongly Agree	23	51,1%
Agree	22	48,9%
Disagree	0	0%
Strongly Disagree	0	0%
Total	45	100%

The aspect of the benefits of physical fitness shows slightly different results compared with the two preceding aspects, with 23 respondents (51.1%) in the Strongly Agree category and 22 respondents (48.9%) in the Agree category. There were no respondents in the Disagree or Strongly Disagree categories. Although the Strongly Agree category remained dominant, the proportion in the Agree category was the highest for this aspect compared with the other aspects, which indicates that students' understanding of the benefits of physical fitness - particularly those related to mental health and academic productivity - was relatively more varied than their understanding of the exercise frequency and intensity aspects.

Distribution of the Level of Understanding in the Overall Category

Category	Frequency	Percentage
Strongly Agree	31	68,9%
Agree	14	31,1%
Disagree	0	0%

Strongly Disagree	0	0%
Total	45	100%

Overall, the level of understanding of physical fitness among non-sports students shows that 31 respondents (68.9%) were in the Strongly Agree category and 14 respondents (31.1%) were in the Agree category, with no respondents in the Disagree or Strongly Disagree categories. These results show that, in general, the non-sports students in this study had a high level of understanding of physical fitness, in terms of the frequency, intensity, and benefits of exercise for physical and mental health.

CONCLUSION

Based on the results of the research conducted on 45 non-sports students at Yogyakarta State University, it can be concluded that the level of understanding of physical fitness among non-sports students is in the moderate category. The majority of respondents already had a basic understanding of the definition, benefits, exercise frequency, and exercise intensity related to physical fitness. However, this understanding was not yet fully in depth, particularly with regard to the application of the principles of physical fitness in daily life. The research results show that the understanding of physical fitness is influenced by various factors, such as health literacy, the level of physical activity, access to health information, and a campus environment that supports an active lifestyle. A good understanding of physical fitness has the potential to increase students' awareness of adopting a healthy lifestyle and engaging in regular physical activity. Accordingly, improving the understanding of physical fitness among non-sports students needs to become a concern for higher education institutions, as an effort to support students' health, productivity, and quality of life, both during their studies and in daily life.

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AUTHOR CONTRIBUTION STATEMENT

All authors contributed to this study. SSHH, as the corresponding author, was responsible for the manuscript. AHAJ assisted with data collection and presentation, and AKTH assisted with data analysis and manuscript finalization.

CONFLICT OF INTEREST AND FUNDING

There is no conflict of interest

REFERENCES

- [1] Apriliyanto, & Sulaiman. (2023). Understanding Physical Literacy of Physical Education Teachers Jurnal Mahasiswa Pendidikan Olahraga, 7(1), 37. [10.33503/jp.jok.v7i1.2443](https://doi.org/10.33503/jp.jok.v7i1.2443)
- [2] Hidayat, A. S., & Hartati, S. C. Y. (2015). Hubungan tingkat kebugaran jasmani terhadap prestasi akademik (Siswa Kelas XI Perawat 2 SMK 10 November Sidoarjo). Jurnal Pendidikan Olahraga dan Kesehatan, 3(1). <http://ejournal.ust.ac.id/index.php/Aquinas/index>
- [3] Ivan Miftahul Aziz, M., & Sahrul Jahrir, A. (2024). Analisis Peningkatan Kebugaran Jasmani Melalui Mata Kuliah Fitness Pada Mahasiswa Fakultas Ilmu Keolahragaan, Universitas Negeri Makassar. In SPORT EDUCATION JOURNAL (Vol. 2). <https://journal.unm.ac.id/index.php/sej/index>
- [4] Jiang, S., Ng, J. Y. Y., Choi, S. M., & Ha, A. S. (2024). Relationships among eHealth literacy, physical literacy, and physical activity in Chinese university students: Cross-sectional study. Journal of Medical Internet Research, 26, e56386. <https://doi.org/10.2196/56386>
- [5] Kan, W., Huang, F., Xu, M., & Shi, X. (2024). Exploring the mediating roles of physical literacy and mindfulness on psychological distress and life satisfaction among college

- <https://doi.org/10.7717/peerj.17741> students. *PeerJ*, 12, e17741.
- [6] Liu, Y., Liu, S. X., Sum, R. K. W., Duncan, M. J., Gu, Y. D., & Li, M. H. (2024). Associations between levels of physical literacy and adherence to the 24-h movement guidelines among university students: A cross-sectional study. *Journal of Exercise Science* <https://doi.org/10.1016/j.jesf.2024.03.006> & *Fitness*, 22(3), 221–226.
- [7] Long, B., Liu, Y., Chen, S., Yang, Y., Tang, S., Yang, J., & Wang, Y. (2024). Fitness promotion in college: The relationships among students' perceived physical literacy, knowledge, and physical fitness. *Frontiers in Psychology*, 15, 1305121. <https://doi.org/10.3389/fpsyg.2024.1305121>
- [8] Ma, C., Ren, Z., Chen, Z., & Li, C. (2024). The association between interactive health literacy and dietary behaviors among Chinese college students: A large-scale cross-sectional study. *Frontiers in Psychology*, 15, 1363885. <https://doi.org/10.3389/fpsyg.2024.1363885>
- [9] Panggraita, G. N., Tresnowati, I., & Putri, M. W. (2020). Profil tingkat kebugaran jasmani mahasiswa program studi pendidikan jasmani. *Jendela Olahraga*, 5(2), 27–33. <https://doi.org/10.26877/jo.v5i2.5924>
- [10] Prayadi, H. Y., Sumaryanto, Rismayanti, C., Pambudi, A. F., Sari, I. P. T. P., & Dwihandaka, R. (2024). Korelasi pengetahuan literasi fisik (physical literacy) dengan aktivitas fisik (physical activity) pada mahasiswa UNY di masa new normal. *Majalah Ilmiah Olahraga* <https://doi.org/10.21831/majora.v30i1.72182> (MAJORA), 30(1), 17–22.
- [11] Sinuraya, J. F., & Barus, J. B. N. B. (2020). Tingkat kebugaran jasmani mahasiswa pendidikan olahraga tahun akademik 2019/2020 Universitas Quality Berastagi. *Kinestetik: Jurnal Ilmiah Pendidikan* <https://doi.org/10.33369/jk.v4i1.10359> Jasmani, 4(1), 23–32.
- [12] Vinna, M. B. P., Parningotan, J. P., & Astuti, T. W. T. (2025). Hubungan Aktivitas Fisik Harian dengan Tingkat Kebugaran Mahasiswa Pendidikan Jasmani. *Jurnal Ilmiah Aquinas*, 8(1). <https://ejournal.ust.ac.id/index.php/Aquinas/article/view/4965>
- [13] Yan, W., Nie, M., Ma, R., Guo, Q., & Li, H. (2024). The influence of physical literacy of students with different obesity levels on physical fitness: The mediating effect of MVPA. *Frontiers in Public Health*, 12, 1463108. <https://doi.org/10.3389/fpubh.2024.1463108>
- [14] Yang, X., Wang, M., Wang, J., Zhang, S., Yang, X., & Zhao, L. (2024). Physical literacy and health of Chinese medical students: The chain mediating role of physical activity and subjective well-being. *Frontiers in Public Health*, 12, 1348743. <https://doi.org/10.3389/fpubh.2024.1348743>
- [15] Zhang, S., Zhao, L., & Zhang, Y. (2024). Prospective association of eHealth literacy and health literacy with physical activity among Chinese college students: A multiple mediation analysis. *Frontiers in Public Health*, 12, 1275691. <https://doi.org/10.3389/fpubh.2024.1275691>