# The Relationship

*by* Muhamad Oktapian

**Submission date:** 12-Oct-2026 02:09PM (UTC+0700)
**Submission ID:** 3057575331
**File name:** document.pdf (355.86K)
**Word count:** 3630
**Character count:** 21931

Physical Activity Journal (PAJU)
Volume 7, Number 2, October 2025
e-ISSN : 2686-5807 | p-ISSN : 2686-5793

# Relationship Between Physical Activity and Students' Psychological Well-Being: A Narrative Literature Review

**Muhammad Oktapian Nur Rajab[1], Amung Ma'mun[2], Syarifatunnisa[3]**

[1,2,3] Faculty of Sport Health and Education, Indonesia University of Education, Indonesia
email: oktapiannurrajab510@upi.edu[1], amung@upi.edu[2], syarifa@upi.edu[3]

: https://doi.org/10.20884/1.paju.2025.7.2.14567

***Abstract***

*Students' psychological well-being plays an important role in supporting their cognitive, social and emotional development. Physical activity is known to have a positive impact on mental health through physiological and psychological mechanisms, such as the release of endorphins and increased self-confidence. This article uses a narrative literature review approach to explore the relationship between physical activity and students' psychological well-being, by summarizing the results of previous research. Results show that physical activity can reduce symptoms of stress, anxiety and depression, and improve overall quality of life. The article also discusses the challenges of implementing physical activity programs in school settings and provides recommendations for effective interventions.*

***Keywords:*** *physical activity, psychological well-being, student*

## INTRODUCTION

One of the main aspects of students' lives that affects their learning, social skills and self-development is their psychological well-being. Better self-control, more harmonious social interactions and an increased drive to learn are characteristics of psychologically healthy students. Despite this, many children today face various stressors that can interfere with their mental development, including social difficulties, anxiety and academic stress.

Psychological well-being is one of the important aspects of students' lives that affect their learning, social skills and self-development. Nonetheless, various factors such as academic pressure, lack of social interaction, and sedentary lifestyle can interfere with students' psychological well-being. In this context, physical activity emerges as a strategy that can support overall mental health.

Alamat Koresponden : Faculty of Sport Health and Education, Indonesia University of Education, Indonesia
Email : oktapiannurrajab510@upi.edu

Jurnal Physical Activity Journal (PAJU) This work is licensed under a Creative Commons Attribution 4.0 International License.

One of the best strategies to improve mental health is through physical activity. Exercise has positive effects on mood, reduces anxiety, and increases self-confidence in addition to improving physical health. The release of endorphins, which contribute to mood enhancement and relaxation, can be triggered by physical exercise (Lubans et al., 2016).

Previous research has shown a strong correlation between physical exercise and reduced feelings of anxiety and depression. For example, Biddle & Asare (2011) found that students who exercised frequently experienced less stress than less active students. Engaging in physical exercise has also been shown to improve students' focus during the learning process.

Unfortunately, as technology advances, children spend more time doing sedentary activities such as watching television or playing electronic devices. Physical activity levels have drastically decreased, increasing the risk of mental and physical health problems. Since a sedentary lifestyle can lead to psychological illnesses such as anxiety and depression, this trend is of great concern.

Through physical education programs, schools can strategically encourage children to be more active. Besides offering an engaging physical experience, structured physical education classes can aid in the development of children's social skills. Besides improving students' physical health, physical education improves their self-esteem and fosters better interpersonal interactions (Katzmarzyk & Mason, 2009).

Many aspects of students' psychological health, including stress management, satisfaction, and self-confidence, can be affected by physical exercise. For example, organized sports can help children develop a sense of competence and achievement, while unstructured activities can serve as a way to calm the mind and clear the thoughts.

The psychological impact of students is also influenced by the type of physical exercise they do. While individualized physical activities like yoga or running concentrate more on self-control and relaxation, structured physical activities like team sports tend to foster a sense of community and social solidarity. It is thought that the best psychological gains come from combining these two types of activities.

Many psychological theories can be used to explain the relationship between physical activity and psychological well-being. Voluntary physical activity can increase one's intrinsic motivation, which in turn affects happiness and self-satisfaction, according to


https://doi.org/10.20884/1.paju.2025.7.2.14567
e-ISSN : 2686-5807 I p-ISSN : 2686-5793

self-determination theory (Deci & Ryan, 2013). Furthermore, physical exercise can trigger the release of mood-enhancing chemicals, according to the endorphin hypothesis.

One of the main causes of stress in students is academic stress. Since exercise helps the body release stress and improves concentration, it can be a useful technique to lower this pressure. According to research, students who engage in more physical activity are better able to control their stress than those who do not (Weinberg & Gould, 2023). Encouraging adolescents to engage in physical exercise requires support from the environment, including parents and teachers. While parents can provide a home atmosphere that encourages an active lifestyle, physical education teachers can offer guidance and inspiration. Students who receive this encouragement are likely to view physical exercise positively.

Students from diverse backgrounds, including those with special needs, can benefit psychologically from physical activity as an inclusive technique. Participating in sports can help children feel less socially pressured and more connected to each other, thus creating a more welcoming and supportive environment.

For the purpose of creating physical activity programs that are incorporated into the curriculum, it is important to conduct research on the relationship between physical activity and students' psychological well-being. It is hoped that the conclusions of this study will provide advice to educators and decision-makers on how to improve children's mental health through planned and entertaining physical education.

## METHOD

A narrative literature review approach was used to analyze and synthesize various studies related to the relationship between physical activity and students' psychological well-being. This study used a narrative literature review approach to examine the correlation between physical activity and psychological well-being in college students. Data were obtained from peer-reviewed journal articles, research reports, and systematic reviews accessed through reputable databases such as PubMed, Scopus, Web of Science, and Google Scholar using keywords, e.g, *"physical activity," "psychological well-being," "student,"* and related terms. Inclusion criteria included publications within the last 15 years, a focus on a student or college student population, and studies discussing the correlation between physical activity and dimensions of psychological well-being, such as stress, anxiety, depression, self-esteem, or quality of life. Articles that were irrelevant, not


https://doi.org/10.20884/1.paju.2025.7.2.14567
e-ISSN : 2686-5807 I p-ISSN : 2686-5793

available in full text, or lacked a transparent methodology were excluded from the analysis.

Each article meeting the criteria was thoroughly read to identify the study's purpose, methodological design, population, instruments, and key findings. This information was then categorized based on themes such as the type of physical activity, the dimensions of psychological well-being measured, and the context in which it was implemented. The analysis was conducted narratively, emphasizing the relationships and differences in results between studies and factors that may influence findings variability.

## RESULT

**Table 1.** Literature Review

| No. | Author | Research Title | Research Results |
|---|---|---|---|
| 1. | (Jacob et al., 2020) | *The relationship between physical activity and mental health in a sample of the UK public: A cross-sectional study during the implementation of COVID-19 social distancing measures* | This document summarizes articles from the journal "Mental Health and Physical Activity," which focuses on the interaction between physical activity and mental health. This document highlights findings from multiple studies showing that higher levels of physical activity correlate with better mental health outcomes, especially during the COVID-19 pandemic. The research emphasizes the importance of physical activity in reducing anxiety and depression while acknowledging limitations such as self-reporting bias and the inability to establish cause-and-effect relationships due to the cross-sectional design. |
| 2 | (Maugeri et al., 2020) | *The impact of physical on psychological health during Covid-19 pandemic in Italy* | This document explores the important role of physical activity in maintaining health and well-being during the COVID-19 pandemic, particularly in Italy. The document presents findings from a study involving 2,524 participants, which revealed a significant decrease in physical activity levels across all age groups, especially among men, which adversely affects psychological well-being. The authors emphasize the importance of regular exercise to combat the negative effects of quarantine and social isolation on mental health, while acknowledging the limitations of self-reported data and the potential over-reporting of physical activity. |
| 3 | (Mahindru et al., 2023) | *Role of Physical Activity on Mental Health and Well-Being: A Review* | This research article reviews the significant positive effects of exercise on mental health, particularly in reducing symptoms of depression and anxiety. It highlights the physiological mechanisms behind these benefits, such as HPA axis function and the production of |


https://doi.org/10.20884/1.paju.2025.7.2.14567
e-ISSN : 2686-5807 I p-ISSN : 2686-5793

| | | | |
|---|---|---|---|
| | | | neurochemicals that improve mood and reduce pain sensitivity. The article also discusses the role of yoga as a complementary therapy, especially in the Indian context, and emphasizes the need for further research to develop customized exercise interventions for mental health improvement. |
| 4 | (Violant-Holz et al., 2020) | *Psychological Health and Physical Activity Levels during the COVID-19 Pandemic: A Systematic Review* | The COVID-19 pandemic has severely affected mental health and physical activity levels across various populations, leading to increased stress, anxiety and depression, especially among young adults, women and frontline healthcare workers. While some people maintained or increased their physical activity as a coping strategy, many became more sedentary, resulting in negative mental health outcomes. These findings underscore the importance of promoting physical activity as a way to reduce psychological distress during a crisis and highlight the need for further research on effective coping strategies and the long-term impact of the pandemic on mental health and physical activity behaviors. |
| 5 | (Ugwueze et al., 2021) | *Relationship Between Physical Activity Levels and Psychological Well-Being Among Male University Students in South East, Nigeria: A Cross-Sectional Study* | This study collectively explored the relationship between physical activity (PA) and psychological well-being (PWB) among various populations, primarily focusing on male university students in Nigeria. Findings showed that demographic factors, such as age and body mass index (BMI), as well as physical activity levels, significantly influenced psychological well-being. The study highlighted moderate levels of PA and PWB among the participants, indicating the need for targeted interventions to improve mental health and encourage physical activity, while addressing barriers to participation. |
| 6 | (Edmunds et al., 2007) | *Physical activity and psychological well-being in children with Type 1 diabetes* | This study explored the relationship between physical activity, psychological well-being and metabolic control in children with type 1 diabetes. The study included 36 participants aged 9-15 years, who were monitored for physical activity using heart rate monitors, and assessed for psychological well-being through questionnaires. The findings showed no significant association between physical activity levels and psychological outcomes or HbA1c levels, which suggests that the psychological benefits of exercise seen in the general population may not apply to children with Type 1 diabetes due to the complexity of managing their condition. This study highlights the need for further research to understand the unique experiences of these children and the implications for diabetes management. |
| 7 | (Villani et al., 2021) | *Impact of the COVID-19* | This study collectively examined the mental health impact of the COVID-19 pandemic on university |


https://doi.org/10.20884/1.paju.2025.7.2.14567
e-ISSN : 2686-5807 I p-ISSN : 2686-5793

| | | | |
|---|---|---|---|
| | | *pandemic on psychological well-being of students in an Italian university: a web-based cross-sectional survey* | students in Italy, revealing significant levels of anxiety (35.33%) and depression (72.93%) among participants. Key factors contributing to these mental health challenges included feelings of isolation from peers, concerns about academic performance, and the inability to engage in normal activities such as attending university or participating in physical exercise. This study highlights the importance of targeted psychological support and interventions to address the mental health needs of university students during and after the pandemic, emphasizing the protective role of physical activity against psychological distress. |
| 8 | (Baranauskas et al., 2022) | *The Association Between Physical Activity and Psychological Well-being in a Sample of Medicine and Health Sciences Students: A Pilot Study* | This study conducted at the University of Vilnius explored the relationship between physical activity and mental health, specifically anxiety and depression, among 174 medical and health science students in Lithuania. It found that most students, 51.7%, reported inadequate physical activity, while almost a third experienced severe anxiety and 4.6% experienced severe depression. Despite the known benefits of physical activity for mental health, this study found no significant association between physical activity levels and the prevalence of anxiety or depression symptoms, suggesting that other factors could have influenced these results. The authors recommend further research and systematic monitoring of students' mental health and physical activity by universities. |
| 9 | (Nienhuis & Lesser, 2020) | *The Impact of COVID-19 on Physical Activity Behavior and Well-Being of Canadians* | This study investigated the effects of COVID-19 on physical activity levels and mental well-being among Canadians, showing significant differences between active and inactive individuals. The study highlighted that most inactive participants reported a decrease in activity during the pandemic, while others became more active. This research underscores the importance of outdoor physical activity and social support in improving mental health, especially for those who are inactive, and calls for targeted health initiatives to promote physical activity during public health restrictions. |
| 10 | (Istyanto & Rahmi, 2023) | Manfaat Aktivitas Fisik Terhadap Kesehatan Mental Berbasis *Narrative Literature Review* | A compilation of research studies and articles highlights the significant positive effects of physical activity on mental health across a wide range of populations, including children, adolescents and older adults. It emphasizes the importance of integrating physical activity into educational and community programs to combat mental health issues such as depression and anxiety. These findings suggest that regular exercise not only improves emotional well-being |


https://doi.org/10.20884/1.paju.2025.7.2.14567
e-ISSN : 2686-5807 I p-ISSN : 2686-5793

but also serves as an alternative or complement to traditional mental health treatments, especially during difficult times such as the COVID-19 pandemic.

## DISCUSSION

Various studies have shown that physical activity can significantly improve students' psychological well-being. Jacob et al. (2020) found that individuals with higher levels of physical activity experienced lower symptoms of anxiety and depression during the COVID-19 pandemic. Additionally, research by Mahindru et al. (2023) highlighted that exercise can affect the hypothalamic-pituitary-adrenal (HPA) axis, which plays a role in regulating the body's stress response.

Physical activity is also known to boost students' self-confidence and self-esteem. Group sports, for example, help students feel accepted in their social environment, while individual sports such as yoga can improve self-control and relaxation (Deci & Ryan, 2013). The benefits of physical activity on mental health can be explained through various mechanisms. The endorphin hypothesis states that physical activity increases the release of endorphins, which play a role in improving mood. In addition, self-determination theory explains that voluntary engagement in physical activity can increase intrinsic motivation, which has a positive impact on happiness and self-satisfaction.

However, the type of physical activity also affects the psychological benefits gained. For example, organized sports can help build social solidarity, while individual activities focus more on introspection and self-control. A combination of both types of activity is recommended to achieve optimal benefits.

Although the benefits of physical activity have been recognized, the implementation of physical activity programs in schools faces various challenges. One of the main barriers is the lack of awareness and support from the school and parents. In addition, limited sports facilities and time are also an obstacle. Students facing academic pressure often ignore the importance of physical activity Villani et al. (2021).

To overcome these challenges, collaboration between schools, parents and communities is needed to create inclusive and engaging physical activity programs. Some recommendations include: Integrating Physical Activity in the Curriculum: Provide Adequate Facilities; Increase Awareness and Education: Involving Students in Program Planning.


https://doi.org/10.20884/1.paju.2025.7.2.14567
e-ISSN : 2686-5807 I p-ISSN : 2686-5793

## CONCLUSION

Physical activity plays an important role in improving students' psychological well-being. Various studies have shown that physical activity can reduce stress, anxiety and depression, while improving self-confidence and social interaction. However, challenges such as lack of facilities and academic pressure need to be overcome to ensure effective program implementation.

Moving forward, further research is needed to explore the causal relationship between specific types of physical activity and their psychological benefits. By integrating physical activity into students' daily lives, it is hoped that they can achieve better well-being holistically.

## REFERENCE

Baranauskas, M., Kupčiūnaitė, D., & Stukas, R. (2022). The association between physical activity and psychological well-being in a sample of medicine and health sciences students: a pilot study. Sporto Mokslas / Sport Science, 101(1), 28–33. https://doi.org/10.15823/sm.2022.101.4

Biddle, S. J. H., & Asare, M. (2011). Physical activity and mental health in children and adolescents: A review of reviews. British Journal of Sports Medicine, 45(11), 886–895. https://doi.org/10.1136/bjsports-2011-090185

Deci, E. L., & Ryan, R. M. (2013). Intrinsic motivation and self-determination in human behavior. Springer Science & Business Media.

Edmunds, S., Roche, D., Stratton, G., Wallymahmed, K., & Glenn, S. M. (2007). Physical activity and psychological well-being in children with type 1 diabetes. Psychology, Health and Medicine, 12(3), 353–363. https://doi.org/10.1080/13548500600975446

Istyanto, F., & Rahmi, S. A. (2023). Manfaat Aktifitas Fisik Terhadap Kesehatan MentalBerbasis Narrative Literature Review. Jurnal Kesehatan Madani Medika, 14(02), 182–192.

Jacob, L., Tully, M. A., Barnett, Y., Lopez-Sanchez, G. F., Butler, L., Schuch, F., López-Bueno, R., McDermott, D., Firth, J., Grabovac, I., Yakkundi, A., Armstrong, N., Young, T., & Smith, L. (2020). The relationship between physical activity and mental health in a sample of the UK public: A cross-sectional study during the implementation of COVID-19 social distancing measures. Mental Health and Physical Activity, 19(June). https://doi.org/10.1016/j.mhpa.2020.100345

Katzmarzyk, P. T., & Mason, C. (2009). Katzmarzyk & Mason_2009_The Physical Activity Transition. Journal of Physical Activity and Health, 6(1), 269–280.


https://doi.org/10.20884/1.paju.2025.7.2.14567
e-ISSN : 2686-5807 I p-ISSN : 2686-5793

Lubans, D., Richards, J., Hillman, C., Faulkner, G., Beauchamp, M., Nilsson, M., Kelly, P., Smith, J., Raine, L., & Biddle, S. (2016). Physical activity for cognitive and mental health in youth: a systematic review of mechanisms. Pediatrics, 138(3).

Mahindru, A., Patil, P., & Agrawal, V. (2023). Role of Physical Activity on Mental Health and Well-Being: A Review. Cureus, 15(1), 1–7. https://doi.org/10.7759/cureus.33475

Maugeri, G., Castrogiovanni, P., Battaglia, G., Pippi, R., D'Agata, V., Palma, A., Di Rosa, M., & Musumeci, G. (2020). The impact of physical activity on psychological health during Covid-19 pandemic in Italy. Heliyon, 6(6), e04315. https://doi.org/10.1016/j.heliyon.2020.e04315

Nienhuis, C. P., & Lesser, I. A. (2020). The impact of COVID-19 on physical activity behavior and well-being. International Journal of Environmental Research and Public Health, 17(23), 1–12.

Ugwueze, F. C., Agbaje, O. S., Umoke, P. C. I., & Ozoemena, E. L. (2021). Relationship Between Physical Activity Levels and Psychological Well-Being Among Male University Students in South East, Nigeria: A Cross-Sectional Study. American Journal of Men's Health, 15(2). https://doi.org/10.1177/15579883211008337

Villani, L., Pastorino, R., Molinari, E., Anelli, F., Ricciardi, W., Graffigna, G., & Boccia, S. (2021). Impact of the COVID-19 pandemic on psychological well-being of students in an Italian university: a web-based cross-sectional survey. Globalization and Health, 17(1), 1–14. https://doi.org/10.1186/s12992-021-00680-w

Violant-Holz, V., Gallego-Jiménez, M. G., González-González, C. S., Muñoz-Violant, S., Rodríguez, M. J., Sansano-Nadal, O., & Guerra-Balic, M. (2020). Psychological health and physical activity levels during the covid-19 pandemic: A systematic review. International Journal of Environmental Research and Public Health, 17(24), 1–19. https://doi.org/10.3390/ijerph17249419

Weinberg, R. S., & Gould, D. (2023). Foundations of sport and exercise psychology. Human kinetics.

storino, T. A., Allen, R. P., Roberson, D. W., & Jurancich, M. (2012). Effect of high-intensity interval training on cardiovascular function, V̇O 2max, and muscular force. *Journal of Strength and Conditioning Research*, *26*(1), 138–145. https://doi.org/10.1519/JSC.0b013e318218dd77

Budi, D. R., Agustan, B., Listiandi, A. D., Hidayat, R., Festiawan, R., Hanief, Y. N., … Nur, L. (2020). Tennis injury: Analysis and prevention actions among national junior tennis athlete. *International Journal of Psychosocial Rehabilitation*. https://doi.org/10.37200/IJPR/V24I8/PR280805

Yeap, E. E. L., Mokhtar, R., Muslimen, M. A., Ghazali, F., & Tarmizi, M. A. A. (2016). Outdoor-Based Education Camp: An Essential Tool to Promote Leadership Skills. *International Journal of Information and Education Technology*, *6*(5), 352–356. https://doi.org/10.7763/IJIET.2016.V6.713


https://doi.org/10.20884/1.paju.2025.7.2.14567
e-ISSN : 2686-5807 I p-ISSN : 2686-5793

# The Relationship

ORIGINALITY REPORT

| 16% | 12% | 15% | 1% |
|---|---|---|---|
| SIMILARITY INDEX | INTERNET SOURCES | PUBLICATIONS | STUDENT PAPERS |

PRIMARY SOURCES

| | | |
|---|---|---|
| 1 | cuestionesdefisioterapia.com<br>Internet Source | 3% |
| 2 | docshare.tips<br>Internet Source | 1% |
| 3 | Miranda E.G. Armstrong, Rona Macniven, Max J. Western, Klaus Gebel, Adrian E. Bauman. "The Routledge Handbook on Physical Activity and Health", Routledge, 2026<br>Publication | 1% |
| 4 | Markel Rico-González. "Physical Education in Early Childhood - Movement and Development from 3 to 6 Years", Routledge, 2025<br>Publication | 1% |
| 5 | Samuel N. Uwaezuoke. "Chapter 268 Children with Down Syndrome: Improving Their Quality of Life", Springer Science and Business Media LLC, 2026<br>Publication | 1% |
| 6 | mro.massey.ac.nz<br>Internet Source | 1% |
| 7 | Stuart Biddle, Nanette Mutrie, Trish Gorely. "Psychology of Physical Activity - Determinants, Well-Being and Interventions", Routledge, 2019<br>Publication | 1% |
| 8 | Submitted to Lewis University<br>Student Paper | 1% |
| 9 | Curt L. Lox, Kathleen A. Martin Ginis, Steven J. Petruzzello. "The Psychology of Exercise - Integrating Theory and Practice", Routledge, 2016<br>Publication | 1% |
| 10 | ijns.sums.ac.ir<br>Internet Source | 1% |
| 11 | Herda Herda, Marta Butar Butar, Helmi Suryani Nasution, Hendra Dhermawan Sitanggang. "Biopsychosocial factors related to emotional disorders among adolescents", JOURNAL OF Mental Health Concerns, 2026<br>Publication | 1% |
| 12 | doaj.org<br>Internet Source | 1% |

| | | |
|---|---|---|
| 13 | dspace.lboro.ac.uk<br>Internet Source | 1 % |
| 14 | scholars.hkbu.edu.hk<br>Internet Source | 1 % |
| 15 | www.scienceimpactpub.com<br>Internet Source | 1 % |
| 16 | www.tandfonline.com<br>Internet Source | 1 % |
| 17 | supersummary-web-next-production-c329xbezs-liftventures-dev.vercel.app<br>Internet Source | 1 % |
| 18 | theses.hal.science<br>Internet Source | 1 % |

| | | | |
|---|---|---|---|
| Exclude quotes | On | Exclude matches | < 1% |
| Exclude bibliography | On | | |