30918 / Fikri et al. / Physical Activity and Mental Health Patterns: Analysis of Pre-service Teacher Professional Education Stude

by 892019 Mahasiswa

Submission date: 04-Sep-2024 11:12AM (UTC+0700)
Submission ID: 2400835508
File name: Template_V4N2_2024.docx.pdf (293.49K)
Word count: 4306
Character count: 24427

Indonesian Journal of Kinanthropology (IJOK)
Volume 4 Nomor 2, Juli 2024
https://doi.org/10.26740/ijok.v4n2.p20-27
E-ISSN: 2775-2178

Indonesian Journal of Kinanthropology (IJOK) **Open Access**

Physical Activity and Mental Health Patterns: Analysis of Pre-Service Teacher Professional Education Students Before and During Field Experience Practice

Muhammad Dzul Fikri[1], Delvya Intan Kusumawardhani[1], Perdana Setya Prasanto[2], Muhammad Ilham Mauluddin[3]

[1] Universitas Negeri Surabaya, Jl. Raya Kampus Unesa, Surabaya, Jawa Timur 60213, Indonesia
[2] Universitas Pendidikan Ganesha, Jl. Udayana No.11, Singaraja, Bali 81116, Indonesia
[3] Universitas Airlangga, Jl. Dr. Ir. H. Soekarno, Mulyorejo, Surabaya, Jawa Timur 60115, Indonesia

Korespondensi: muhammadfikri@unesa.ac.id
(**Dikirim**: 18 April 2024 | **Direvisi**: 3 September 2024 | **Disetujui**: 4 September 2024)

ABSTRACT

Background: *Professional teachers are required to have good physical and mental health. The hope is that professional teachers can carry out their daily tasks without experiencing significant fatigue. To determine changes in physical activity and mental health before and during the practice of field experiences.*
Methods: *This research uses a quantitative approach with survey methods. The population that is the subject of the study is Pre-service PPG students of Surabaya State University (Unesa) in 2023. The instruments used involved the General Physical Activity Questionnaire (GPAQ) to assess the level of physical activity and the General Health Questionnaire (GHQ) to evaluate the level of mental health of respondents.*
Results: *The study highlights the need to balance physical and mental health among Pre-service PPG students during field experiences.*
Conclusions: *While physical activity increased, it wasn't statistically significant. However, slight rises in psychological distress suggest potential shifts in mental well-being, urging educational institutions to address these aspects for improved teacher education quality.*

Keywords: *physical activity; mental health; pre-service teacher professional education; field experience practice*

1. Introduction

The Pre-service Teacher Education Program (PPG) aims to prepare prospective teachers to become professional teachers with adequate knowledge and skills. Indonesian Ministry of Education and Culture explicitly states that professional teachers are required to have plenty of competencies. Competency is a series of knowledge, skills, and behaviors that teachers must possess and live with in order to carry out tasks in teaching (Soenarto et al., 2020). According to (Mardhiah et al., 2023), Teacher Professional Education (PPG) is an innovative educational framework derived from the teacher education strategy. According to (Ibda et al., 2023) Professional teachers must be capable of creating a curriculum and planning the lesson and how they can improve their professional knowledge and competence through social interaction. They should undertake a goal-oriented development curriculum, lesson planning, professional dialogue, and professional development. According to (Pranowo et al., 2023) The essential competencies of 21st century professional teachers are characterized One of them is Manage teaching- learning interactions, so Professional teachers can inspire them to improvise learning in and outside the classroom (Arifin et al., 2023). However, mastering learning theory alone will not be enough.

A Pre-service PPG student is faced with many course assignments. facing these tasks, Pre-service PPG students need to give efforts not only to academic aspects, but also to physical and mental health. According to (Farley et al., 2020; Zydziunaite et al., 2020) Heavy teacher workload can have a significant impact on student learning outcomes. It can lead to stress, burnout, decreased engagement, and reduced teaching quality, all of which can negatively affect students' academic achievement and experiences Responding to these tasks requires physical fitness to maintain stamina during the learning process and task completion. Research has shown that physical activity can improve strength, balance, muscular strength and endurance, all of which are essential for maintaining good stamina (Farley et al., 2020). A systematic review also highlighted the positive relationship between physical fitness components, including muscular endurance, and sports participation (Jacob et al., 2023).

Government Regulation Number 19 of 2017 ticle 52 (Peraturan Pemerintah Republik Indonesia Tentang Guru, 2017) states that the teacher's workload is at least 24 hours face-to-face and at most 40 hours face-to-face in 1 week, so with this workload teachers need to have good fitness and mental health. However, there are many teachers professional education pre-service PG) students who have sedentary lifestyle habits. Sedentary lifestyles can contribute to the development of cardiovascular diseases, such as high blood pressure, heart attacks, and strokes (Ssewanya et al., 2018). Sedentary lifestyle It is common for people who lead a sedentary lifestyle to experience back pain, ne pain, shoulder pain, and joint pain (Zhou et al., 2023). It is essential for pre-service (PPG) students to be aware of the risks associated wi a sedentary lifestyle and to prioritize regular physical activity to mitigate these health impacts. Additionally, insufficient sleep duration has been associated with unhealthy dietary habits, increased screen time, and being overweight/obese in children and adolescents, highlighting the potential health consequences of a sedentary lifestyle (Tambalis et al., 2018).

According to WHO, adults should at least do at least 150 minutes of moderate-intensity physical activity per week or 75 minutes per week, do gh-intensity physical activity (World Health Organization, 2022). A study on adolescents in Ireland found that higher participation in physical activity was associated with higher scores on positive mental health indicators and lower scores on menta health problems indicators (Molcho et al., 2021). Another study with pre-elderly people in Spain revealed that a low level of physical activity was associated with mental health vulnerability, an ety, depression (in women), and the consumption of more medications (Carmona-Torres et al., 2021). Many stude s participating in insufficient levels of both aerobic and muscle-strengthening activities (Wilson et al., 2023; Wilson et al., 2021). The physical environment is among one of the various interconnected factors that influence participation in physical activity (Sallis et al., 2008; Wilson et al., 2023).

Attention to mental health is critical, as academic demands can create significant psychological distress. Mental health problems among young adults have become a global public-health challenge in the past decade (Lakasing & Mirza, 2020; Qin et al., 2024). By 2017, more than one in ten (10.7 %) people worldwide had a mental health problem, with depress n and anxiety disorders becomin e most prevalent, accounting for 3.4 % and 3.8 %, respectively (Dattani et al., 2023; Qin et al., 2024). The Re arch has shown that high levels of academic stress can lead to a decrease in mental health, and perceived social support can play a moderating role in this relationship (Onuoha & Idemudia, 2020). Additionally udies have found that academic demands, stress, and worry can contribute to mental health problems, with gender differences in the experience of stress and its impact on mental health(Giota & Gustafsson, 2021; Stubbs et al., 2023). However, not many Pre-service PPG students know the long-term impact of their mental health.

This research ensures that prospective teachers not only understand educational theory, but also have adequate physical and mental health to face the demands of w as educators. This research can provide solutions or novelties by identifying strategies or interventions that can improve physical and mental health of Pre-service PPG students before and during Field Experience Practice (PPL). The purpose of this study was to explore and analyze the physical activity patterns and mental health of Pre-service PPG students before and during PPL.

2. Method

This research uses a quantitative approach with survey methods. The population that is the subject of the study is Pre-service PPG students of Universitas Negeri Surabaya (Unesa) in 2023. The instruments used involved the General Physical Activity Questionnaire (GPAQ) to assess the level of physical activity and the General Health Questionnaire (GHQ) to evaluate the level of mental health of respondents. The research procedure is carried out online through Google Form as a survey platform. Data from GPAQ and GHQ will be analyzed according to established guidelines. In addition, data on physical activity and mental health before and during the Field Experience Program (PPL) were analyzed using the Statistical Package for the Social Sciences (SPSS) software by applying a t-test.

3. Result

A total of 30 Pre-service PPG students participated in this study. The majority of women, body mass index is normal, and have no history of disease (Table 1). The average age of respondents was 24.8 ± to 2.17.

Table 1. Characteristic of research respondens

Characteristic of research respondens	n	%
Gender		
Man	5	26%
Woman	25	74%
Age (years)		
Average	24,8	
Body Mass Index (BMI)		
Thin	0	0%
Normal	25	83,3%
Fat	1	3,3%
Obesity	4	13,3%
Have a history of illness		
Yes	14	46,7%
No	16	53,3%

In the male group, the average MET per week during field practice (3688.8) increased from the previous one (3140), with a change of 548.8. Although these increases provide additional insight into changes in physical activity, statistical analysis shows that these differences do not reach a level of significance.

Meanwhile, in the women's group, the average MET / week during field practice (2895.2) also increased from the previous one (2086.4), with a change of 808.8. Although these changes were more significant than those of the men, statistical analysis showed that these differences did not reach a significant level either.

There was an increase in the average MET/week in total before and during PPL, the Z value and p-value indicating that the change was not statistically significant. On average, before and during the field experience practice, participants were in Moderate PA.

Table 2. MET/week before and during PPL

Study Participant	Men Mean ± SD	Min-Max	Z (p)	Women Mean ± SD	Min-Max	Z (p)	Total Mean ± SD	Min-Max	Z (p)
MET/week_before	3140 ± 3272.52	320 - 8700	0.674 (0.500)	2086.4 ± 2032.25	0 - 7440	0.843 (0.399)	2262.0000 ± 2248.25	0 - 8700	1.253 (0.210)

Study Participant	Men Mean ± SD	Min-Max	Z (p)	Women Mean ± SD	Min-Max	Z (p)	Total Mean ± SD	Min-Max	Z (p)
MET/week_during	3688.8 ± 2379.77	1600-6640		2895.2 ± 3993.17	0 - 16360		3027.4667 ± 3750.71	0 - 16360	

Table 3. Category of physical activity

MET/week	Men n(%)		Women n(%)		Total n(%)	
	Before	During	Before	During	Before	During
Sedentary 600 MET/week)	1 (20)	0 (0)	6 (24)	9 (36)	7 (23)	9 (30)
Moderate PA (600–3000 MET/week)	2 (40)	3 (60)	13 (52)	10 (40)	15 (50)	13 (43.4)
Vigorous PA (>3000 MET/week)	2 (40)	2 (60)	6 (24)	6 (24)	8 (26.7)	8 (26.7)

The analysis revealed a substantial rise in low levels of psychological distress, surging from 30% to 40%. The points toward a potential shift in the mental well-being of the respondents. Conversely, there was a significant decline in normal levels of psychological distress, dropping from 30% to 10%, indicating a positive shift in this group's psychological well-being.

Moreover, the level of psychological distress higher than normal also exhibited a noteworthy increase from 23% to 37%. Despite the stability in levels of distressing psychological distress at 10%, there was an increased likelihood of psychological impact in specific groups.

Crucially, even with this increase, the level of severe distress remained low, rising from 0% to 3%. In summary, these findings offer insights into the evolving dynamics of mental health among respondents throughout the field experience practices. The categories of psychological distress include low psychological pressure, normal psychological pressure, psychological pressure higher than normal, psychological pressure disturbing enough, and severe distress.

Table 4. Mental health conditions

Mental Health Conditions	Total n(%)				Men n(%)				Women n(%)			
	Before		During		Before		During		Before		During	
Low psychological distress	9	30%	12	40%	1	20%	2	40%	8	27%	10	33%
Normal psychological distress	9	30%	3	10%	2	40%	0	0%	7	23%	3	10%
Psychological distress is higher than normal	7	23%	11	37%	1	20%	2	40%	6	20%	9	30%
Psychological distress is disturbing enough	5	17%	3	10%	1	20%	0	0%	4	13%	3	10%
Severe distress	0	0%	1	3%	0	0%	1	20%	0	0%	0	0%

4. Discussion

Physical Activity

Changes in activity that occur in Pre-service PPG students have increased MET/week results but not significantly. Pre-service PPG students of Surabaya State University have indeed received courses on physical fitness, where this course helps students to be in their physical condition and mental health to be ready to become professional teachers. According to (Li et al., 2024) PA has a positive impact on mental health and can delay the onset of dementia. However, the duration of PA in modern society is becoming shorter and the trend of a sedentary lifestyle is growing, with a large proportion of people spending a significant part of the day sitting still. From the results of this study, students began to be aware of maintaining their stamina so as to maintain

their mental health as well. According to (Mahindru et al., 2023)(Malagodi et al., 2024) Regular physical activity is known to improve mental health and wellbeing, musculoskeletal movement that expends energy has been shown to have a positive effect on wellbeing, mood, sense of achievement, relaxation and release from daily stresses. For instance, increased aerobic exercise or strength training has been shown to significantly reduce depressive symptoms, and anxiety symptoms and panic disorder also improve with regular exercise (Paluska & Schwenk, 2000).

Mental Health

The results showed an overall change in the mental health of Pre-service Teacher Professional Education Program (PPG) students. Although most students experienced a decrease in psychological distress, there was one student who experienced a very high level of distress (severe distress). This change is generally related to an increase in workload, especially in terms of completing coursework and carrying out field experience practice (PPL).

The main factor that can be identified as the cause of this mental health change is the increase in coursework and the responsibility attached to the implementation of PPL. Additionally, a study on the impact of the COVID-19 pandemic on U.S. college students found that the stress involving coursework remained during the continued-COVID period, indicating the persistent influence of academic stress on mental health (Chen & Lim, 2022). This increased workload can affect a student's psychological balance, which in turn can lead to a decline in mental well-being. Students who have poor mental health can also have an impact on their performance when carrying out their duties. Studies say that the relationship between mental health and quality of life over time was consistent for both depression and anxiety, in that worse depression and anxiety were both linked with later worse quality of life (Sweeney et al., 2024). It is essential to pay attention to and evaluate the factors that may trigger high levels of distress in one such student. Improvement efforts and additional support may be needed to help students experiencing significant levels of distress.

Additionally, students can benefit from implementing effective time management and stress-reduction strategies, such as prioritizing self-care, seeking support from peers and professionals, and balancing academic responsibilities with activities that promote mental well-being (Cummings et al., 2023). It is also necessary to review the structure and management of coursework and PPL to ensure that students' workload remains within well-manageable limits to support their overall mental health. According (von Keyserlingk et al., 2022) to address stress levels and strengthen coping resources, universities should consider providing students with resources to improve their self-regulation and time-management skills.

5 Conclusion

This study highlights the importance of maintaining a balance of physical and mental health of Pre-service PPG students during field education and practice (PPL). Despite the increase in physical activity during PPL, statistical analysis showed that the difference was not statistically significant. There was a significant increase in low psychological distress, suggesting a potential change in respondents' mental well-being, although higher-than-normal levels of distress did not change significantly. The importance of attention to mental health in the midst of academic load is the main focus, with severe distress levels remaining low, indicating success in maintaining students' mental stability.

This study provides insight into changes in physical activity and mental health of Pre-service PPG students during PPL. Implications include the need for a holistic approach in professional teacher education, strong mental health support, and curriculum planning that considers the physical and mental aspects of students. This research not only emphasizes academic aspects, but also underscores the need for a comprehensive approach in supporting the holistic well-being of Pre-service PPG students. By understanding and responding to these

changes, educational institutions can improve the quality of pre-service teacher education by paying attention to the physical and mental aspects of prospective professional teachers.

6. References

Arifin, S., Sutama, Aryani, S. A., Prayitno, H. J., & Waston. (2023). Improving The Professional Teacher Competence Through Clinical Supervision Based on Multicultural Values in Pesantren. *Nazhruna: Jurnal Pendidikan Islam*, *6*(3), 386–402. https://doi.org/10.31538/nzh.v6i3.4037

Carmona-Torres, J. M., Cobo-Cuenca, A. I., Pozuelo-Carrascosa, D. P., Latorre-Román, P. Á., Párraga-Montilla, J. A., & Laredo-Aguilera, J. A. (2021). Physical Activity, Mental Health and Consumption of Medications in Pre-Elderly People: The National Health Survey 2017. *International Journal of Environmental Research and Public Health*, *18*(3), 1100. https://doi.org/10.3390/ijerph18031100

Chen, C.-C. (JJ), & Lim, S. (2022). Examining the effect of COVID-19 pandemic on exercise behavior and perceived academic stress among U.S. college students. *Journal of American College Health*, 1–7. https://doi.org/10.1080/07448481.2022.2094202

Cummings, C., Dunkle, J., Koller, J., Lewis, J. B., & Mooney, L. (2023). Social Work Students and COVID-19: Impact Across Life Domains. *Journal of Social Work Education*, *59*(1), 91–103. https://doi.org/10.1080/10437797.2021.1974992

Dattani, S., Rodés-Guirao, Lucas, Ritchie, H., & Roser, M. (2023). Mental Health. *Our World in Data*. https://ourworldindata.org/mental-health

Farley, J. B., Stein, J., Keogh, J. W. L., Woods, C. T., & Milne, N. (2020). The Relationship Between Physical Fitness Qualities and Sport-Specific Technical Skills in Female, Team-Based Ball Players: A Systematic Review. *Sports Medicine - Open*, *6*(1), 18. https://doi.org/10.1186/s40798-020-00245-y

Giota, J., & Gustafsson, J.-E. (2021). Perceived Academic Demands, Peer and Teacher Relationships, Stress, Anxiety and Mental Health: Changes from Grade 6 to 9 as a Function of Gender and Cognitive Ability. *Scandinavian Journal of Educational Research*, *65*(6), 956–971. https://doi.org/10.1080/00313831.2020.1788144

Ibda, H., Syamsi, I., & Rukiyati, R. (2023). Professional elementary teachers in the digital era: A systematic literature review. *International Journal of Evaluation and Research in Education*, *12*(1), 459–467. https://doi.org/10.11591/ijere.v12i1.23565

Jacob, U. S., Pillay, J., Johnson, E., Omoya, O. (Tomi), & Adedokun, A. P. (2023). A systematic review of physical activity: benefits and needs for maintenance of quality of life among adults with intellectual disability. *Frontiers in Sports and Active Living*, *5*. https://doi.org/10.3389/fspor.2023.1184946

Lakasing, E., & Mirza, Z. (2020). Anxiety and depression in young adults and adolescents. *British Journal of General Practice*, *70*(691), 56–57. https://doi.org/10.3399/bjgp20X707765

Li, X., Wang, P., Jiang, Y., Yang, Y., Wang, F., Yan, F., Li, M., Peng, W., & Wang, Y. (2024). Physical activity and health-related quality of life in older adults: depression as a mediator. *BMC Geriatrics*, *24*(1), 1–10. https://doi.org/10.1186/s12877-023-04452-6

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

Malagodi, F., Dommett, E. J., Findon, J. L., & Gardner, B. (2024). Physical activity interventions to improve mental health and wellbeing in university students in the UK: A service mapping study. *Mental Health and Physical Activity*, *26*(July 2023), 100563. https://doi.org/10.1016/j.mhpa.2023.100563

Mardhiah, Musgamy, A., & Lubis, M. (2023). Teacher Professional Development through the Teacher Education Program (PPG) at Islamic Education Institutions. *International Journal of Learning, Teaching and*

Educational Research, *22*(11), 80–95. https://doi.org/10.26803/ijlter.22.11.5

Molcho, M., Gavin, A., & Goodwin, D. (2021). Levels of Physical Activity and Mental Health in Adolescents in Ireland. *International Journal of Environmental Research and Public Health*, *18*(4), 1713. https://doi.org/10.3390/ijerph18041713

Onuoha, C. U., & Idemudia, E. S. (2020). Academic demands and mental health among undergraduate students in full-time employment: The moderating role of perceived social support. *Journal of Psychology in Africa*, *30*(2), 89–95. https://doi.org/10.1080/14330237.2020.1712805

Paluska, S. A., & Schwenk, T. L. (2000). Physical Activity and Mental Health. *Sports Medicine*, *29*(3), 167–180. https://doi.org/10.2165/00007256-200029030-00003

Peraturan Pemerintah Republik Indonesia Tentang Guru, Pub. L. No. Nomor 19 tahun 2017 (2017).

Pranowo, D. D., Dwijonagoro, S., Lumbantobing, R., & Purinthrapibal, S. (2023). Student perceptions on high school teachers' competence in online teaching. *Cakrawala Pendidikan*, *42*(3), 815–825. https://doi.org/10.21831/cp.v42i3.59237

Qin, N., Li, Y., Duan, Y. long, Luo, Y. ting, Li, J., Cao, H., Zhou, X., Wang, Y. qin, Yang, P. ting, Xie, J. fei, & Cheng, A. S. K. (2024). Associations between healthy lifestyle behavioral patterns and mental health problems: A latent class analysis of 161,744 Chinese young adults. *Journal of Affective Disorders*, *347*(November 2023), 414–421. https://doi.org/10.1016/j.jad.2023.11.087

Sallis, J. F., Owen, N., & Fisher, E. B. (2008). Ecological models of health behavior. In *Health behavior and health education: Theory, research, and practice, 4th ed.* (pp. 465–485). Jossey-Bass.

Soenarto, S., Sugito, Suyanta, Siswantoyo, & Marwanti. (2020). Vocational and senior high school professional teachers in industry 4.0. *Cakrawala Pendidikan*, *39*(3), 655–665. https://doi.org/10.21831/cp.v39i3.32926

Ssewanyana, D., Abubakar, A., van Baar, A., Mwangala, P. N., & Newton, C. R. (2018). Perspectives on Underlying Factors for Unhealthy Diet and Sedentary Lifestyle of Adolescents at a Kenyan Coastal Setting. *Frontiers in Public Health*, *6*. https://doi.org/10.3389/fpubh.2018.00011

Stubbs, J. E., Dorjee, D., Nash, P., & Foulkes, L. (2023). 'A completely different ballgame': female A-level students' experiences of academic demands, stress and coping. *Pastoral Care in Education*, *41*(4), 473–491. https://doi.org/10.1080/02643944.2022.2148176

Sweeney, M., Carpenter, L., De Souza, S., Chaplin, H., Tung, H., Caton, E., Galloway, J., Cope, A., Yates, M., Nikiphorou, E., & Norton, S. (2024). Mental health, quality of life and self-management behaviours: Online evaluation of inflammatory arthritis patients over 1 year of COVID-19 lockdowns. *Rheumatology Advances in Practice*, *8*(1), 1–8. https://doi.org/10.1093/rap/rkad103

Tambalis, K. D., Panagiotakos, D. B., Psarra, G., & Sidossis, L. S. (2018). Insufficient Sleep Duration Is Associated With Dietary Habits, Screen Time, and Obesity in Children. *Journal of Clinical Sleep Medicine*, *14*(10), 1689–1696. https://doi.org/10.5664/jcsm.7374

von Keyserlingk, L., Yamaguchi-Pedroza, K., Arum, R., & Eccles, J. S. (2022). Stress of university students before and after campus closure in response to COVID-19. *Journal of Community Psychology*, *50*(1), 285–301. https://doi.org/10.1002/jcop.22561

Wilson, O. W. A., Elliott, L. D., Cardinal, B. J., Duffey, M., & Bopp, M. (2023). Physical Activity Behaviors and Campus Recreation Use of Students Enrolled in Summer Transition Programs at a Large Northeastern United States University. *Recreational Sports Journal*, *47*(1), 67–73. https://doi.org/10.1177/15588661231157681

Wilson, O. W. A., Panza, M. J., Evans, M. B., & Bopp, M. (2021). A Scoping Review on College Student Physical Activity: How Do Researchers Measure Activity and Examine Inequities? *Journal of Physical Activity and*

Health, *18*(6), 728–736. https://doi.org/10.1123/jpah.2020-0370

World Health Organization. (2022). *Global Status Report on Physical Activity*.

Zhou, Z., Zhou, X., Shen, G., Khairani, A., & Saibon, J. (2023). Correlates of Bullying Behavior Among Children and Adolescents in Physical Education: A Systematic Review. *Psychology Research and Behavior Management*, *Volume 16*, 5041–5051. https://doi.org/10.2147/PRBM.S441619

Zydziunaite, V., Kontrimiene, S., Ponomarenko, T., & Kaminskiene, L. (2020). Challenges in Teacher Leadership: Workload, Time Allocation, and Self-Esteem. *European Journal of Contemporary Education*, *9*(4). https://doi.org/10.13187/ejced.2020.4.948

30918 / Fikri et al. / Physical Activity and Mental Health Patterns: Analysis of Pre-service Teacher Professional Education Stude

ORIGINALITY REPORT

22%	16%	18%	0%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	bmcgeriatr.biomedcentral.com Internet Source	2%
2	www.mdpi.com Internet Source	1%
3	staffnew.uny.ac.id Internet Source	1%
4	Oliver W. A. Wilson, Lucas D. Elliott, Bradley J. Cardinal, Michele Duffey, Melissa Bopp. "Physical Activity Behaviors and Campus Recreation Use of Students Enrolled in Summer Transition Programs at a Large Northeastern United States University", Recreational Sports Journal, 2023 Publication	1%
5	Francesca Malagodi, Eleanor J. Dommett, James L. Findon, Benjamin Gardner. "Physical activity interventions to improve mental health and wellbeing in university students in	1%

the UK: A service mapping study", Mental Health and Physical Activity, 2023
Publication

6	academic.oup.com Internet Source	1 %
7	www.escholar.manchester.ac.uk Internet Source	1 %
8	pubmed.ncbi.nlm.nih.gov Internet Source	1 %
9	Endah Retnowati, Anik Ghufron, Marzuki, Kasiyan, Adi Cilik Pierawan, Ashadi. "Character Education for 21st Century Global Citizens", Routledge, 2018 Publication	1 %
10	www.scilit.net Internet Source	1 %
11	research.tees.ac.uk Internet Source	1 %
12	www.atlantis-press.com Internet Source	1 %
13	Sibnath Deb, Aleena Maria Sunny, Nilanjana Sanyal, Shayana Deb. "Community Psychology - Emerging Issues and Challenges", Routledge, 2023 Publication	1 %

repository.charlotte.edu

14	Internet Source	1 %
15	Andreia S. P. Sousa, Diana C. Guedes, José Félix, Soraia Pereira, Rubim Santos. "Physical Activity, Readiness, and Cardiovascular Risk Stratification in the Polytechnics Communities of the Northern Region of Portugal Integrated in Mobility as a Service Concept", Healthcare, 2023 Publication	1 %
16	www.ijlter.org Internet Source	1 %
17	Panteleimon Ekkekakis, Dane B. Cook, Lynette L. Craft, S. Nicole Culos-Reed et al. "Routledge Handbook of Physical Activity and Mental Health", Routledge, 2013 Publication	<1 %
18	Syamsul Arifin, Sutama Sutama, Sekar Ayu Aryani, Harun Joko Prayitno, Waston Waston. "Improving The Professional Teacher Competence Through Clinical Supervision Based on Multicultural Values in Pesantren", Nazhruna: Jurnal Pendidikan Islam, 2023 Publication	<1 %
19	discovery.researcher.life Internet Source	<1 %
	perpustakaan.poltekkes-malang.ac.id	

20	Internet Source	<1%
21	www.breakinglatest.news Internet Source	<1%
22	www.ojed.org Internet Source	<1%
23	Contrady, Annette Elise. "Physical Activity Needs, Preferences, Perceptions, and Current Practices of Community Residing Older Adults.", Iowa State University, 2020 Publication	<1%
24	Louise Gilbertson, Sarah Barber-Lomax. "Power and Pinch Grip Strength Recorded Using the Hand-Held Jamar® Dynamometer and B+L Hydraulic Pinch Gauge: British Normative Data for Adults", British Journal of Occupational Therapy, 2016 Publication	<1%
25	conference.unisport.hr Internet Source	<1%
26	Suriyanisa Suriyanisa, Yani Yani, Siti Chintya Wulan Rajab, Tri Wijaya, Syamsuri Syamsuri, Iwan Ramadhan. "Analysis of PPL Implementation in The Prajabatan PPG Program In The Field of Sociology Studies At SMA Negeri 1 Pontianak", Jurnal Pendidikan Sosiologi dan Humaniora, 2024	<1%

Publication

27	Yongli Liu, Junjun Chen, Kun Chen, Jing Liu, Wei Wang. "The associations between academic stress and depression among college students: A moderated chain mediation model of negative affect, sleep quality, and social support", Acta Psychologica, 2023 Publication	<1 %
28	www.lidsen.com Internet Source	<1 %
29	Bahri ., Ulul Azmi Mustari, Andi Dewi Riang Tati. "Discussion on the Implementation of the Teacher's Marketplace Program on the Career Follow-up of PPG Private Students", KnE Social Sciences, 2024 Publication	<1 %
30	Fofanah, Isha Masham. "Examining Effects of Physical Activity and Social Support on the Relationship Between Food Insecurity and Mental Health Among College Students", Oklahoma State University, 2024 Publication	<1 %
31	G. Gandino, C. Civilotti, S. Finzi, M. Gaboardi et al. "Linguistic markers of processing the first months of the pandemic COVID-19: a psycholinguistic analysis of Italian university students' diaries", Current Psychology, 2023	<1 %

Publication

32	Haim Shaked, Chen Schechter, Alan J. Daly. "Leading Holistically - How Schools, Districts, and States Improve Systemically", Routledge, 2018 Publication	<1 %
33	academic-publishing.org Internet Source	<1 %
34	proceedingsiches.com Internet Source	<1 %
35	www.info.bt.com Internet Source	<1 %
36	www.mendeley.com Internet Source	<1 %
37	Suprapto Endah Retnowati, Jerusalem Mohammad Adam, Kristian Sugiyarto, Wagiron. "Innovative Teaching and Learning Methods in Educational Systems", Routledge, 2019 Publication	<1 %
38	Candy, L.H.Y.. "Effect of different pressure magnitudes on hypertrophic scar in a Chinese population", Burns, 201012 Publication	<1 %
39	Meijiao Huang, Yifan Zhang, Min Li, Xuan Wang et al. "Clustered health risk behaviors	<1 %

with mind wandering in young adults: serial mediation of sleep quality and emotional symptoms", Current Psychology, 2024
Publication

40	Michael A. Pizzi, Mark Amir. "Interprofessional Perspectives for Community Practice - Promoting Health, Well-Being, and Quality of Life", Routledge, 2024 Publication	<1%

Exclude quotes	On	Exclude matches	Off
Exclude bibliography	On		

30918 / Fikri et al. / Physical Activity and Mental Health Patterns: Analysis of Pre-service Teacher Professional Education Stude

GRADEMARK REPORT

FINAL GRADE

/100

GENERAL COMMENTS

PAGE 1

PAGE 2

PAGE 3

PAGE 4

PAGE 5

PAGE 6

PAGE 7

PAGE 8