

Original Article

Survey of Physical Activity of Students of SMPN 2 Tarik Sidoarjo During the Pandemic Covid-19

YULINAR AININ NUR SA'ADA¹, DONY ANDRIJANTO¹

¹ Physical Education, Health, and Recreation Study Program, Universitas Negeri Surabaya, INDONESIA

Published online: April 30, 2022

(Accepted for publication April 15, 2022)

DOI: <https://doi.org/10.17509/jpess.v1i2>

Abstract

Introduction: Covid-19 in the world continues to mutate and form a new variant, namely the Omicron variant, so that community activities are limited so that healthy life behaviors are constantly maintained, starting from wearing masks, washing hands, and not allowing direct contact with the family to friends. **Purpose:** This study was intended to determine the physical activity of 9th-grade students of SMPN 2 Tarik during the pandemic. **Methods:** Applying a quantitative descriptive approach with a survey method. The total population used is 249, with a sample of 156 respondents. The sampling technique used is simple random sampling. The instrument used is a Questionnaire Physical Activity Questionnaire for Adolescents, which adopts from previous research that has been tested for validity with a value of -0.010 - 0.0506 and reliability of 0.682 - 0.745 so that it is declared valid and reliable, used to measure physical strength activity according to by age and distributed via Google Form with data analysis techniques assisted by Microsoft Excel. **Results:** From the data results, the biological activity of students was 42.3%, with a total of 66 students in the low category. Then 45.5% in the medium category as many as 71 students, and for the last one, the percentage of 12.2% is included in the high sort with 19 students. **Conclusions:** It can be concluded that all student activities during the pandemic are in the moderate category, so that learning must be further improved so that students are more physically active when learning using the online system.

KeyWords: *physical activity, survey, covid-19, pandemic*

Introduction

SARS-CoV-2, the virus that causes COVID-19, continues to mutate, forming new variants, including the Omicron variant (B.1.1.529), which first appeared in South Africa in 2021 and then spread globally (Torjesen, 2021). All people's lives have been significantly disrupted by the Covid-19 virus, ranging from economic and social activities to the world of education. The government limits all activities; activities are now carried out at home. Learning that was initially able to be done at school offline is now being carried out at home online until conditions are deemed safe to conduct face-to-face learning. According to the Ministry of Health (Kemenkes, 2022), on February 12, 2022, the number of people confirmed to be COVID-19 reached 4,667,554 cases, death was 144,858, and those who are still active are 288,186. One of the impacts of Covid-19 in education is the absence of direct learning resulting in a lack of movement activity for students. However, children who are active and aware of the importance of health will continue to do sports activities at home even with limited space and equipment.

In contrast, they will lie down or laze around for physical activity or exercise. Watch tv, youtube, TikTok, Instagram, etc. Indeed, this pandemic cannot be separated from smartphones to support learning at school; it is not an excuse to be lazy, let alone not do physical activity. According to (WHO, 2020), physical activity means everybody's movement from the skeletal muscles necessary to expend energy. Both moderate and vigorous exercise promotes good health (Novitaningtyas, 2014). Popular activities include walking, jogging, fun games, and skills (WHO, 2020). Regular physical activity has been shown to prevent heart disease, stroke, diabetes, and certain cancers (McDonald et al., 2020). Physical activity is essential to shape physical and mental health (Putra & Rizqi, 2018). The benefits of doing a physical activity so that the body becomes

healthier, avoid various disease disorders and obesity, and can also maintain weight during the pandemic. This increases the body's immunity to prevent the spread of COVID-19. Physical activity and sports affect cognitive, social, and motor aspects (Leonardo & Komaini, 2021). An exercise is a good tool for children's motor development. It contributes to the same educational upbringing by encouraging healthy activities in a comfortable environment, which can improve physical and mental health. Mental well-being fulfills self-quality, including elements related to self-concept that promote increased physical activity and sports (Batista et al., 2016).

The world of education has a vital role for students. Judging from the subjects at school, there are two categories of issues that apply a little more practice to theory and a little more theory to practice, such as Sports Learning (Herlina & Suherman, 2020). So, PJOK includes all elements of fitness, motor skills, games, and recreation (Qomarrullah et al., 2014). PJOK subjects include knowledge and support for students to be able to move actively and as a means to achieve a national education goal. PJOK is a lesson involving various activities such as running, jumping, throwing, and hitting. Before the pandemic, a lot of learning was done outside the classroom (Lanziotti et al., 2020). Therefore, PJOK not only enables students to develop physically but psychologically, cognitively, and socially.

During a pandemic like this, it is possible for children not to move much, even though SMPN 2 Tarik Sidoarjo itself can apply face-to-face learning on a limited basis, and it is possible if the pandemic due to the Covid-19 type of omicron is multiplying, the school will be conducted online again. The impact of online schools is that children do fewer activities and stare more at their cellphones or laptops to participate in online learning. This study aims to review the level of student physical activity during the Covid-19 period in the new era of life where changes in student activity occurred before Covid-19 and after Covid-19 occurred. It also provides knowledge that maintaining a healthy lifestyle by exercising during a pandemic is essential so that the body's immunity does not decrease. Currently, learning at SMPN 2 Tarik uses online and offline methods, 50% online and 50% offline. This research needs to be carried out because, at SMPN 2 Tarik, there is no research on students' physical activity during COVID-19. Therefore, this study provides an overview of how students' physical activity.

Material & methods

This research is a quantitative descriptive type with a survey method in taking data samples using the Simple random sampling technique. Therefore, there is an equal opportunity for people representing the selected population to be survey samples (Maksum Ali, 2017). The people of this research are 9th-grade students at SMPN 2 Tarik Sidoarjo. The respondents of this study were 156 students from 8 classes with 249 students and will be randomly selected to be used as research samples using the slovin formula (Maksum Ali, 2017).

The questionnaire applied, namely the Physical Activity Questionnaire for Adolescents or PAQ-A, is to calculate the physical activity of adolescents aged 14-19 years or equivalent to grades 9-12. From this assessment there are 9 questions classified into 3 levels, namely: score >3 = high; >2 = moderate; <2 = low (Chen et al., 2008). The PAQ-A questionnaire was developed by (Kowalski et al., 1997). has been translated into Indonesian by (Dapan et al., 2017) and has been tested for validity $\alpha = 0.010 - 0.0506$ & reliability of $0.682 - 0.745$ so that it is declared valid and reliable. This data retrieval was carried out on January 14-22, 2022, using the google form media because the school wanted the learning that had just happened face-to-face not to take up a lot of student time to do the test; the school also considers mutual safety if doing the test individually. In addition, students do not strictly implement health protocols; it will cause a chain of covid-19 virus spread in schools; schools may be closed again to stop the spread of Covid. So that the school allows online research, students can fill out the questionnaire at any time according to a predetermined schedule.

Results

From the results of the analysis of the physical activity survey obtained from 9th-grade students at SMPN 2 TARIK SIDOARJO, the results obtained from the acquisition of excel are simple to the discussion. From table 1, men dominate with a total of 89 respondents or (57.1%) while women are 67 respondents (42.9%).

Table 1. Student Frequency Distribution

Gender Characteristics	F	%
Female	67	42,9
Male	89	57,1
Total Data	156	100

From table 2 there are more ages 15, namely 113 respondents (72.4%), age 14 is 30 respondents (19.2%), age 16 is 12 respondents (7.7%) and age 17 is 1 respondent (0.6%).

Table 2. Student Frequency Distribution

Age Characteristics	F	%
14	67	19,2
15	89	72,4
16	156	7,7
17	1	0,6
Total Data	156	100

Table 3 is a category of physical activity with three types, namely: the first is the highest category with the medium category with a total of 71 respondents (42.3%), the second is a low category totaling 66 respondents (45.5%), and the high category totaling 19 respondents (12.2%).

Table 3. Distribution of Students' Physical Activity

Physical Activity categories	F	%
Low	66	42,3
Medium	71	45,5
High	19	12,2
Total Data	156	100

Table 4 can be explained the level of physical activity by sex Males in the low category amounted to 27 respondents (30.3%). In comparison, the female gender in the low sort amounted to 39 respondents (58.21%), males in the medium category amounted to 48 respondents (53.9%), and the medium type totaled 23 respondents (34.3%). The high sort for males was 14 respondents (15.7%) high female category amounted to 5 respondents (7.5%).

Table 4. Student Frequency Distribution

Physical Category	Physical Activity					
	Low		Medium		High	
	F	%	F	%	F	%
L	27	57,1	48	53,9	14	15,7
P	39	58,21	23	34,3	5	7,5

Table 5 above shows that the physical activity of male students decreased at the age of 15 years by 55.6%. As well as female students by 76.9% much higher level of decline in physical activity than male students. Therefore, at this age, it must be further improved to increase the biological activity of students.

Table 5. Characteristics of Students' Physical Activity

Physical Activity	Age								Description
	14		15		16		17		
Gender	N	%	N	%	N	%	N	%	Low
Male	8	29,6	15	55,6	3	11,1	1	3,7	
Female	7	17,9	30	76,9	2	5,1	0	0	

Table 6 above explains that the characteristics of physical activity of students for male students are 50.7% for as many as 36 students. It is said that the level of physical activity is moderate at the age of 15 years.

Table 6. Characteristics of Students' Physical Activity

Physical Activity	Age								Description
	14		15		16		17		
Gender	N	%	N	%	N	%	N	%	Medium
Male	7	9,9	36	50,7	5	7,0	0	0,0	
Female	5	7,0	18	25,4	0	0,0	0	0,0	

Table 7 above explains that of all ages listed, the level of physical activity is quite high, at the age of 15 years, 75%.

Table 7. Characteristics of Students' Physical Activity

Physical Activity	Age								Description
	14		15		16		17		
Gender	N	%	N	%	N	%	N	%	High
Male	1	5,3	11	75,9	2	10,9	0	0,0	
Female	2	10,5	3	15,8	0	0,0	0	0,0	

Discussion

From the study results obtained, it can be discussed in tables 3 and 4 that most students' physical activity at SMPN 2 Tarik Sidoarjo has a moderate level of physical activity, amounting to 71 respondents out of a total of 156 respondents. The story of movement by gender is more dominant in males than females. This occurs as a result of online learning taking longer than face-to-face learning. Covid-19 students play on smartphones more often than doing a physical activity which is much more helpful in maintaining body immunity than not doing exercises. In learning PJOJ at school, students do not move much because they have not done physical activity for a long time. As a result, students are lazy to study, which involves too heavy physical activity.

The Covid-19 pandemic has limited all activities, including studying and changing students' physical activities. Physical activity is an aspect that affects students' emotional intelligence. Schools are usually taught about mental and emotional health. Physical conditions affect nerves and emotions that lead to brain anatomy (Riyanto & Mudian, 2019). The level of physical activity in the low category will tend to become a habit and will be carried into adulthood; this is quite dangerous for future generations where many young people get sick at a very young age (Hasan et al., 2019). Physical activity and a healthy diet play a vital role in maintaining the human body. Exercise is one of the simplest and cheapest options to keep your immunity and body healthy during a pandemic. For your body to stay healthy during a pandemic, you must remain active even though

space is limited. There are many sports at home, so there is no reason to continue exercising regularly because exercise can be done anywhere.

Conclusions

At SMP Negeri 2 Tarik, most students experienced a decrease in physical fitness during the pandemic; this greatly affected students' physical condition in increasing physical activity, which was classified as moderate, so that emotional intelligence skills in the nerves and brain were very influential. The level of physical activity in the low category will tend to become a habit and will be carried into adulthood; this is quite dangerous for future generations where many young people are stricken with diseases that are generally suffered by the elderly, which can occur at a very young age. This is the result of not maintaining a healthy lifestyle and exercising regularly.

Conflicts of interest . The authors have no conflicts of interest with the content of this review.

References:

- Batista, M., Cubo, D. S., Honório, S., & Martins, J. (2016). The practice of physical activity related to self-esteem and academical performance in students of basic education. *Journal of Human Sport and Exercise*, 11(2), 297–310. <https://doi.org/10.14198/jhse.2016.112.03>
- Chen, S. R., Lee, Y. J., Chiu, H. W., & Jeng, C. (2008). Impact of physical activity on heart rate variability in children with type 1 diabetes. *Child's Nervous System*, 24(6), 741–747. <https://doi.org/10.1007/s00381-007-0499-y>
- Dapan, Andriyani, F. D., Indra, E. N., Indiwati, M. P., Subeni, T., & Ramadona, E. T. (2017). C11 Uji Validitas dan Reliabilitas Instrumen.pdf (pp. 1–88). [http://staffnew.uny.ac.id/upload/131453909/penelitian/C11 Uji Validitas dan Reliabilitas Instrumen.pdf](http://staffnew.uny.ac.id/upload/131453909/penelitian/C11%20Uji%20Validitas%20dan%20Reliabilitas%20Instrumen.pdf)
- Hasan, M. F., Bahri, S., Ramanian, N. S., Kusnaedi, K., Karim, D. A., & Juniarsyah, A. D. (2019). Tingkat Aktivitas Fisik Siswa Sekolah Menengah Pertama. *Jurnal Sains Keolahragaan Dan Kesehatan*, 4(2). <https://doi.org/10.5614/jskk.2019.4.2.6>
- Herlina, H., & Suherman, M. (2020). Potensi Pembelajaran Pendidikan Jasmani Olahraga Dan Kesehatan (Pjok) Di Tengah Pandemi Corona Virus Disease (Covid)-19 Di Sekolah Dasar. *Tadulako Journal Sport Sciences And Physical Education*, 8(1), 1–7. <http://jurnal.untad.ac.id/jurnal/index.php/PJKR/article/view/16186>
- Kowalski, K. C., Crocker, P. R. E., & Kowalski, N. P. (1997). Convergent validity of the Physical Activity Questionnaire for Adolescents. *Pediatric Exercise Science*, 9(4), 342–352. <https://doi.org/10.1123/pes.9.4.342>
- kemkes. (2021). Pemerintah Gelar Kick Off Vaksinasi COVID-19 Anak Usia 6-11 Tahun Serentak Di 3 Provinsi. *Kemkes.Go.Id*. <https://www.kemkes.go.id/article/view/21121400001/pemerintah-gelar-kick-off-vaksinasi-covid-19-anak-usia-6-11-tahun-serentak-di-3-provinsi.html>
- Kemkes. (2022). Situasi Terkini Perkembangan COVID-19. *Kemkes.Go.Id*. <https://infeksiemerging.kemkes.go.id/>
- Lanziotti, V. S., De Souza, D. C., & Marques, E. T. A. (2020). Coronavirus Disease 2019: Understanding Immunopathogenesis Is the “holy Grail” to Explain Why Children Have Less Severe Acute Disease. *Pediatric Critical Care Medicine*, 21(11), 1022–1023. <https://doi.org/10.1097/PCC.0000000000002513>
- Leonardo, A., & Komaini, A. (2021). Hubungan Aktivitas Fisik Terhadap Keterampilan Motorik. *Jurnal Stamina*, 4(3), 135–144. <http://stamina.ppj.unp.ac.id/index.php/JST/article/view/764>
- Maksum Ali. (2017). *Metodologi Penelitian*. Jawa Barat: CV Jejak, 35–37.
- McDonald, H. I., Tessier, E., White, J. M., Woodruff, M., Knowles, C., Bates, C., Parry, J., Walker, J. L., Scott, J. A., Smeeth, L., Yarwood, J., Ramsay, M., & Edelman, M. (2020). Early impact of the coronavirus disease (COVID-19) pandemic and physical distancing measures on routine childhood vaccinations in England, January to April 2020. *Eurosurveillance*, 25(19), 1–6. <https://doi.org/10.2807/1560-7917.ES.2020.25.19.2000848>
- Novitaningtyas, T. (2014). No Title. HUBUNGAN KARAKTERISTIK (UMUR, JENIS KELAMIN, TINGKAT PENDIDIKAN) DAN AKTIVITAS FISIK DENGAN TEKanan DARAH PADA LANSIA DI KELURAHAN MAKAMHAJI KECAMATAN KARTASURA KABUPATEN SUKOHARJO, 8(33), 16.
- Putra, Y. W., & Rizqi, A. S. (2018). Index Massa Tubuh (Imt) Mempengaruhi Aktivitas Remaja Putri Smp Negeri 1 Sumberlawang. *Gaster*, 16(1), 105. <https://doi.org/10.30787/gaster.v16i1.233>

- Qomarrullah, R. (Rif'iy), Hidayatullah, M. F. (Muhammad), & Kristiyanto, A. (Agus). (2014). Model Aktivitas Belajar Gerak Berbasis Permainan sebagai Materi Ajar Pendidikan Jasmani (Penelitian Pengembangan pada Siswa Kelas I Sekolah Dasar). *Indonesian Journal of Sports Science*, 1(1), 218350. <https://www.neliti.com/publications/218350/>
- Riyanto, P., & Mudian, D. (2019). Pengaruh Aktivitas Fisik Terhadap Peningkatan Kecerdasan Emosi Siswa. *Journal Sport Area*, 4(2), 339–347. [https://doi.org/10.25299/sportarea.2019.vol4\(2\).3801](https://doi.org/10.25299/sportarea.2019.vol4(2).3801)
- Torjesen, I. (2021). Covid-19: Omicron may be more transmissible than other variants and partly resistant to existing vaccines, scientists fear. *BMJ (Clinical Research Ed.)*, 375(4), n2943. <https://doi.org/10.1136/bmj.n2943>
- WHO. (2020). Physical activity. *Www.Who.Int*. <https://www.who.int/news-room/fact-sheets/detail/physical-activity>.