INDONESIAN JOURNAL OF SPORT MANAGEMENT
Department of Physical Education, Universitas Majalengka, Indonesia
ISSN 2776-706X.

Profile of Physical Activity Levels of Students in Phase B at Public Elementary Schools in The Ujungberung District

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ABSTRACT
This study aims to analyze the physical activity levels of phase B students in public elementary schools in Ujung Berung District. A quantitative descriptive approach was applied using a survey method. The research population included all phase B students, with the sample determined through total sampling. The instrument used was a validated physical activity questionnaire. The results showed that most students had normal physical activity levels (52.1%), followed by high (26%), low (18.1%), very high (2.8%), and very low (1%). These findings indicate that although the majority of students have normal activity levels, there are still groups that require special attention to improve physical fitness. The study has implications for physical education teachers and parents in encouraging students to engage in regular physical activity. Furthermore, the findings can serve as a reference for future research to further explore the physical activity profiles of elementary school students.

Keywords: Physical activity; elementary school students; physical fitness

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Article History:
Submitted: July, 2025
Accepted: August, 2025
Published: August, 2025

Authors' contribution:
A) Conception and design of the study;
B) Acquisition of data;
C) Analysis and interpretation of data;
D) Manuscript preparation;
E) Obtaining funding.

Cite this article:
Susanti, D., Mahandra, A., & Gumilang, E. S. (2025). Application of The Teams Games Tournament Model Through Basketball Games on Cooperation and Responsibility of Elementary School Students. *Indonesian Journal of Sport Management, Vol.* 5(3), 571-579. https://doi.org/10.31949/ijsm.v5i3.15508

INTRODUCTION

Physical activity is a crucial aspect that contributes significantly to human health and well-being (Burhaein, 2017). In this modern, technology-rich era, many individuals spend more time in front of computer screens, televisions, or mobile devices, leading to decreased physical activity and an increased risk of non-communicable diseases (Wicaksono, 2021). This phenomenon poses a serious public health challenge, including for elementary school-aged children who are at the stage of optimal motor development (Nurcahyo, 2015).

Physical activity is not limited to structured exercise, but also includes daily activities such as walking, cycling, gardening, and cleaning the house (Ilmul Ma'arif & Iman Abdul Hamid, 2022). These activities help burn calories, strengthen muscles, and maintain heart health (Riskawati dkk., 2018). Furthermore, physical activity plays a vital role in maintaining mental health, reducing stress, and improving mood (Suryoadji & Nugraha, 2020).

Physically active individuals generally have lower levels of anxiety and depression than those who are sedentary (Alfirdaus & Susanto, 2021).

Physical activity levels are an important indicator in assessing an individual's health and well-being (Ramadhani & Fithroni, 2020). This component includes the frequency, duration, intensity, and type of activity performed (Rosiana dkk., 2023). A proper understanding of physical activity levels is essential for designing effective health interventions (Satriawan dkk., 2024). However, modernization and urbanization have led to a decline in physical activity across various age groups, including children (Putra dkk., 2018).

The World Health Organization recommends that children aged 5–17 engage in at least 60 minutes of moderate- to vigorous-intensity physical activity daily WHO (2020, hlm. 1450). This activity provides significant benefits such as improved endurance, sleep quality, and cognitive function (Aljanu dkk., 2024). Unfortunately, barriers such as limited time, access to sports facilities, and low motivation remain major barriers to children's participation in physical activity (Erlina, 2019).

Environmental, social, and demographic factors also influence children's physical activity levels (Berger dkk., 2025). Children living in areas with limited green open spaces or play facilities tend to have lower levels of physical activity (Kemenkes, 2022). This situation is relevant to the situation in Ujungberung District, an urban area with high population density and limited public space.

The novelty of this study lies in mapping the physical activity profile of phase B (grade 4) students in public elementary schools, which was analyzed based on intensity categories and demographic characteristics. Data collection used the Physical Activity Questionnaire for Older Children (PAQ-C) instrument, modified to suit the local context (Kowalski dkk., 2004). This approach allows for more accurate identification of children's physical activity patterns in the school environment.

The study was conducted in the post-COVID-19 pandemic period, when children's learning patterns, social interactions, and physical activity habits had undergone significant changes (Ilmul Ma'arif & Iman Abdul Hamid, 2022). Mobility restrictions and reduced in-person learning during the pandemic are believed to have led to a decline in children's physical activity, so this study provides a current snapshot of the recovery phase (Fadluloh et al., 2024).

The research findings are expected to serve as a reference for physical education teachers, parents, and educational policymakers in designing programs that promote structured physical activity in children. Strategies such as increasing exercise time, developing educational games, and optimizing the use of school sports facilities can be implemented to increase student physical activity (Widiyatmoko & Hadi, 2018).

By providing a detailed overview of students' physical activity profiles, this research is expected to enrich local literature and form the basis for relevant promotive-preventive interventions. These efforts are crucial for fostering a healthy movement culture from school age, thereby contributing to improving the quality of life for future generations.

METHOD

This study used a quantitative approach with descriptive methods to describe the profile of students' physical activity levels according to actual conditions in the field (Assayakurrohim dkk., 2023). The research design was in the form of a survey using the Physical Activity Questionnaire for Older Children (PAQ-C) questionnaire that has been

modified to suit the physical activity habits of children in Indonesia, including the addition of activities such as futsal, archery, and gymnastics (Sari dkk., 2024). The study population was all 4th grade students (Phase B) in seven Public Elementary Schools in Ujungberung District, Bandung City, with a total of 746 students, and all were sampled using the total sampling technique (Sumilih dkk., 2025).

The PAQ-C consists of nine items that measure the frequency, duration, intensity, and type of physical activity over the past seven days, with a rating scale of 1–5 where the average score indicates activity levels ranging from very low to very high (Rahma & Wirjatmadi, 2020). The research procedure included a preparation stage (proposal preparation, permitting, and instrument testing), an implementation stage (initial observations and distribution of online and printed questionnaires), and a final stage of data processing and report preparation Arikunto, (2017). Data were analyzed using descriptive statistics to produce frequency distributions, percentages, and averages that describe students' physical activity levels concisely and clearly (Martias, 2021).

RESULTS AND DISCUSSION

Findings

Table 1. Descriptive Analysis

		Physical activity level	Gender	Age
N	Valid	746	746	746
	Missing	0	0	0
Mean		3.12	1.54	10:44
Median		3.00	2.00	10.00
Standard Deviation		.760	.499	.546
Variance		.578	.249	.298
Range		4	1	3
Minimum		1	1	9
Maximum		5	2	12

The table above is a description of descriptive analysis data for phase b students at public elementary schools in Ujung Berung sub-district. Data on physical activity levels obtained an average value (mean) of 3.12 points, a median value of 3.00, a standard deviation of 0.760 points, a variance of 0.578 and a range of 4, the lowest value (minimum) of 1 point, and the highest value (maximum) of 5 points. Data on physical activity levels obtained an average value (mean) of 1.54 points, a median value of 2.00 points, a standard deviation of 0.499 points, a variance of 0.249 and a range of 1, the lowest value (minimum) of 1 point where the number 1 is female, and the highest value (maximum) of 2 points also with the number 2 being male. Physical activity level data, obtained an average value (mean) of 10.44 points, a median value of 10.00 points, a standard deviation of 0.546 points, a variance of 0.298 and a range of 3, the lowest value (minimum) of 9 points where number 1 is the age of the student, and the highest value (maximum) of 12 points is also the age of the student. The Physical Activity Level Variable of Phase B Students in Ujungberung District Public Elementary School consists of 9 items where each item has a maximum value of 5. After an assessment and consultation with the norms used, the respondent values were obtained as in the table below.

Table 2. Distribution of Students' Physical Activity Levels

Physical Activity Level					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Low	7	0.9	0.9	0.9
	Low	135	18.1	18.1	19.0
	Currently	389	52.1	52.1	71.2
	Tall	194	26.0	26.0	97.2
	Very high	21	2.8	2.8	100.0
	Total	746	100.0	100.0	

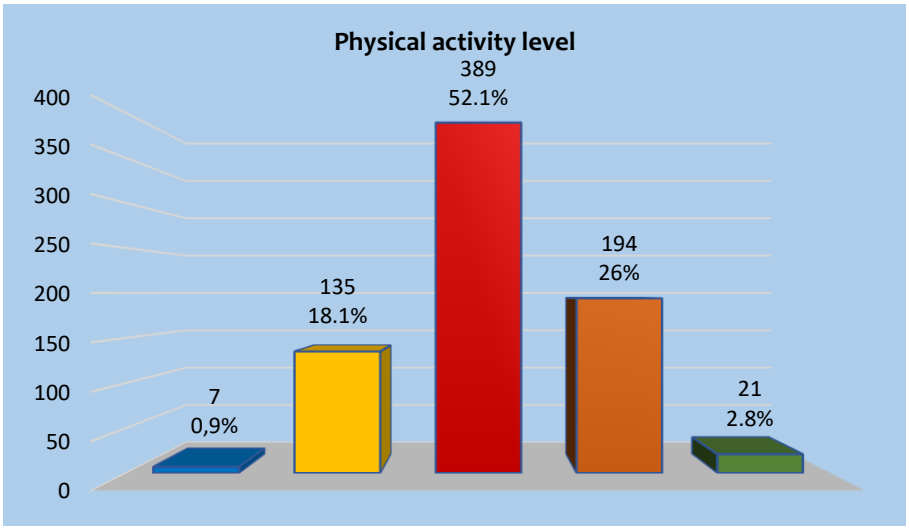

Figure 1. Physical Activity Level Distribution Diagram

Based on the data and graphs above, it can be seen that there are 135 students who have a low level of physical activity with a percentage of 18.1%, there are 380 students who have a normal level of physical activity with a percentage of 52.1%, there are 194 students who have a high level of physical activity with a percentage of 26%, and students who have a very high level of physical activity are 21 students with a percentage of 2.8%, good and very poor.

Classifying respondents by gender is considered important because it can illustrate the proportion of female and male fourth-grade students at elementary schools in Ujungberung district, and also serves as supporting data for the research. The following presents data describing the number of economics teachers by gender. The Gender Variable of Phase B Students at Ujungberung District Public Elementary School consists of Females (1) and Males (2). After conducting an assessment and consulting with the norms used, the respondent values were obtained as in the table below.

Table 3. Distribution of Respondents by Gender

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Woman	342	45.8	45.8	45.8
	Man	404	54.2	54.2	100.0
	Total	746	100.0	100.0	

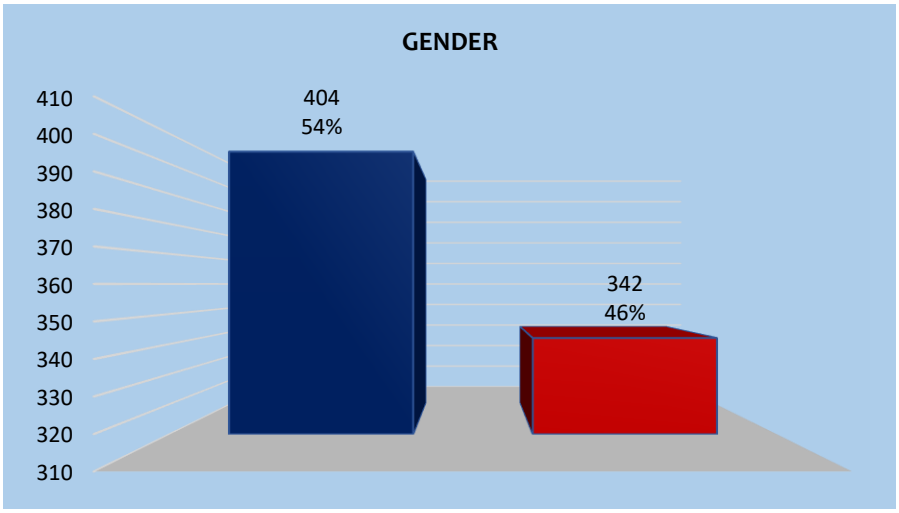

Figure 2. Percentage Diagram of Respondents Based on Gender

From the image above you can see the results of the research carried outRegarding elementary school students in grade 4 in Ujung Berung sub-district, it can be seen that the majority of respondents were male, namely 404 students or around 54%, while the number of female respondents was 342 students or around 46%. Classifying respondents by age is considered essential because it can illustrate a student's motivation to engage in physical activity, reflecting the extent to which a person reaches optimal productivity and the level of saturation that can enhance or degrade their performance. The following table presents the respondents' age levels:

Table 4. Distribution of Respondents by Age

Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	9	10	1.3	1.3	1.3
	10	405	54.3	54.3	55.6
	11	322	43.2	43.2	98.8
	12	9	1.2	1.2	100.0
	Total	746	100.0	100.0	

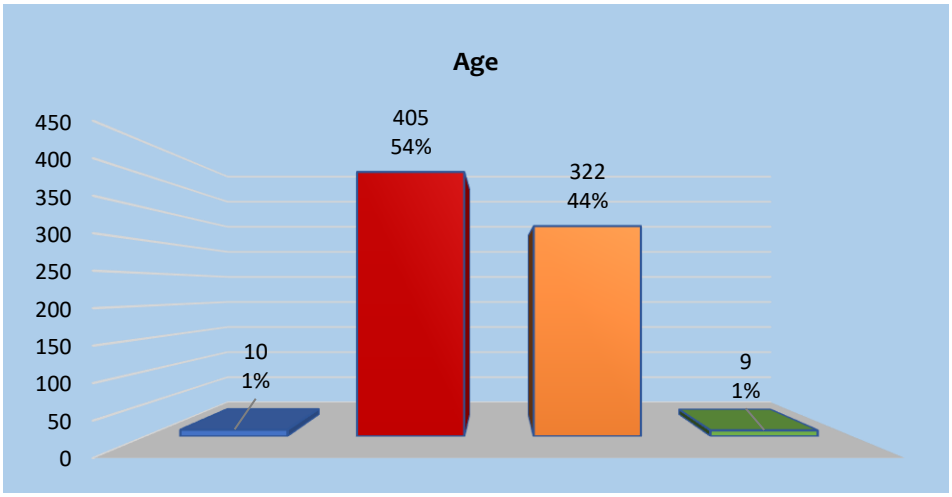

Figure 3. Percentage Diagram of Respondents Based on Age

Based on the image above, it can be seen that the characteristics of the most respondents based on age are 10 years old, amounting to 405 students or around 54% and 11 years old, amounting to 322 students or around 44%. Meanwhile, the respondents with the least frequency are at 9 years old, amounting to 10 people or around 1% and 12 years old, amounting to 9 students or around 1%.

Discussion

Based on the results of data analysis, it can be seen that there are 389 students who have a normal level of physical activity with a percentage of 52.1%, there are 194 students who have a high level of physical activity with a percentage of 26%, there are 135 students who have a low level of physical activity with a percentage of 18.1%, there are 21 students who have a very high level of physical activity with a percentage of 2.8%, and there are 7 students who have a very low level of physical activity with a percentage of 1%.

The results obtained, when linked to the framework of thought and the underlying theories, basically support the theory put forward by Widiyatmoko & Hadi, (2018, p. 141) Physical activity levels have a significant impact on health. Low levels of physical activity can increase the risk of overweight and obesity. Conversely, increased physical activity can reduce it by between 6% and 10%. Physiologists state that physical activity is a quantitative expression of a person's physical condition. Physical activity is defined as physical movement that causes muscle contraction, performed during breaks, after school, in the afternoon, and on weekends (Murbawani, 2017, p. 72). Physical activity is also defined as exercise, which is a musculoskeletal system activity that is carried out in a structured and systematic manner with a predetermined intensity, frequency, type and time (Pertama et al., 2013, p. 163). Physical activity is any bodily movement produced by skeletal muscles that requires energy expenditure. Lack of physical activity can increase the risk of chronic disease and even death.

Students who are physically active tend to have a good level of physical fitness, students who are moderately active also tend to have moderate physical activity, while students who are less physically active tend to have a low level of physical fitness. The fact that there is still a lack of physical activity carried out by 4th grade students at the Ujung Berung District Public Elementary School indicates that they are physically inactive, thus causing a low level of physical fitness. This research is relevant to the research conducted by Adi et al. (2019, p. 198) which states that low student physical activity is due to the lack of physical activity carried out by students during recess, namely by sitting, walking a little, chatting and rarely doing activities such as playing tag. Students tend to be active in physical activity only during sports hours, but this physical activity certainly only contributes a small value to the total value contained in the research instrument.

This is directly proportional to the results of observations conducted by the author in May 2025 on upper-grade students at a State Elementary School in Ujung Berung District. Some students used their free time to nap, play with gadgets, and engage in relatively light activities (Observation Results). These results indicate a tendency for students to have inactive behavior at home. Similarly, observations at school showed inactive behavior, where students during recess only sat and chatted in class. Students accustomed to this inactive behavior, if left unchecked, will have an impact on physical fitness problems. These results can be used as reference material for designing learning and activities at school and at home that can increase student physical activity, hopefully resulting in increased physical activity.

CONCLUSION

Based on the results of the analysis, description, and discussion, it can be concluded that the physical activity level of phase B students in public elementary schools in Ujung Berung District is mostly in the normal category (52.1%), followed by high (26%), low (18.1%), very high (2.8%), and very low (1%). These findings highlight the need for special attention to students with low physical activity levels to improve their lifestyle and increase physical activity for better fitness. This research can serve as a reference for future studies in developing investigations on students' physical activity profiles. In addition, physical education teachers, together with parents, are expected to play an active role in encouraging students to engage in regular physical activities that benefit their health and physical fitness.

CONFLICT OF INTEREST

There were no conflicts that occurred in this study.

REFERENCES

Adi, M., Universitas, P., & Malang, N. (2019). *Hubungan Status Gizi Dan Aktivitas Fisik Dengan Tingkat Kebugaran Jasmani Pada Siswa SMP*. *1*(3), 138–142.

Alfirdaus, Y. A. Z., & Susanto, I. H. (2021). Aktivitas Olahraga Bersepeda Pada Saat Pandemi Covid-19 Di Kabupaten Tuban. *Jurnal Kesehatan Olahraga*, *09*, 81–90.

Aljanu, T., Indika, P. M., Sari, A. P., & Kurniawan, R. (2024). *Peran Berolahraga Dalam Menciptakan Kesehatan*. *1*, 130–134.

Arikunto, S. (2017). Suharsimi Arikunto, dkk, Penelitian Tindakan Kelas (Jakarta: Bumi Aksara, 2009), 2-3. 41 digilib.uinsby.ac.id digilib.uinsby.ac.id digilib.uinsby.ac.id digilib.uinsby.ac.id digilib.uinsby.ac.id digilib.uinsby.ac.id. *Pengumpulan Data*, 2–3.

Assayakurrohim, D., Ikhram, D., Sirodj, R. a, & Afgani, M. W. (2023). Jurnal pendidikan sains dan komputer metode studi kasus dalam penelitian kualitatif jurnal pendidikan sains dan komputer. *Jurnal Pendidikan Sains Dan Komputer*, *3*(1), 1–9.

Berger, F. D., Suter, F., & Rohrmann, S. (2025). Investigation of Physical Activity Levels in the Population of Switzerland: Association With Lifestyle and Sociodemographic Factors. *International Journal of Public Health* , *70*(March), 1–9. https://doi.org/10.3389/ijph.2025.1608010

Bull, F. C., Al-Ansari, S. S., Biddle, S., Borodulin, K., Buman, M. P., Cardon, G., Carty, C., Chaput, J. P., Chastin, S., Chou, R., Dempsey, P. C., Dipietro, L., Ekelund, U., Firth, J., Friedenreich, C. M., Garcia, L., Gichu, M., Jago, R., Katzmarzyk, P. T., … Willumsen, J. F. (2020). World Health Organization 2020 guidelines on physical activity and sedentary behaviour. *British Journal of Sports Medicine*, *54*(24), 1451–1462. https://doi.org/10.1136/bjsports-2020-102955

Burhaein, E. (2017). Indonesian Journal of Primary Education Aktivitas Fisik Olahraga untuk Pertumbuhan dan Perkembangan Siswa SD. *Indonesian Journal of Primary Education*, *1*(1), 51–58.

Erlina, E. (2019). Hubungan Aktivitas Fisik Terhadap Tingkat Kebugaran Jasmani Siswa.

Jurnal Pendidikan Olahraga Dan Kesehatan , *7*(2), 225–228.

Fadluloh, F. M., Sartono, H., Kusumah, W., & Mulyana, M. (2024). *Athletes ' Perception of Parental Support and Achievement Motivation : A Correlational Study with Early Age Individual Sport Athletes in Swimming*. 412–421. https://doi.org/https://doi.org/10.31949/ijsm.v4i4.11454

Ilmul Ma'arif, & Iman Abdul Hamid. (2022). Gambaran Aktivitas Fisik pada Siswa Kelas IV SDN Mojorejo Kabupaten Mojokerto. *SPRINTER: Jurnal Ilmu Olahraga*, *3*(2), 83–86. https://doi.org/10.46838/spr.v3i2.192

Kemenkes. (2022). *Profil Kesehatan Indonesia. Kementerian Kesehatan Republik Indonesia, Jakarta*.

Kowalski, K. C., Crocker, P. R. E., Columbia, B., & Donen, R. M. (2004). *The Physical Activity Questionnaire for Older Children (PAQ-C) and Adolescents (PAQ-A) Manual*. *August*.

Martias, L. D. (2021). Statistika Deskriptif Sebagai Kumpulan Informasi. *Fihris: Jurnal Ilmu Perpustakaan Dan Informasi*, *16*(1), 40. https://doi.org/10.14421/fhrs.2021.161.40-59

Murbawani, E. A. (2017). Hubungan Persen Lemak Tubuh Dan Aktivitas Fisik Dengan Tingkat Kesegaran Jasmani Remaja Putri. *Journal of Nutrition and Health*, *5*(2), 69–84.

Nurcahyo, F. (2015). Kaitan Antara Obesitas Dan Aktivitas Fisik. *Medikora*, *1*, 87–96. https://doi.org/10.21831/medikora.v0i1.4663

Pertama, E., Pertama, C., Ilmu, G., & Judul, I. (2013). *978-979-756-917-4-924*.

Putra, K. P., Kinasih, A., & Kriswandaru, P. (2018). Gambaran Aktivitas Fisik Siswa Kelas IV Sekolah Dasar Negeri Di Salatiga. *Seminar Nasional Pendidikan Jasmani UMMI*, *5*, 244–248.

Rahma, E. N., & Wirjatmadi, B. (2020). Hubungan antara Aktivitas Fisik dan Aktivitas Sedentari dengan Status Gizi Lebih pada Anak Sekolah Dasar. *Amerta Nutrition*, *4*(1), 79. https://doi.org/10.20473/amnt.v4i1.2020.79-84

Ramadhani, N. W., & Fithroni, H. (2020). Identifikasi Pola Aktivitas Fisik Anak Sekolah Dasar di Kota Surabaya dan Kabupaten Nganjuk. *Jurnal Kesehatan Olahraga*, *08*(03), 212.

Riskawati, Y. K., Prabowo, E. D., & Al-Rasyid, H. (2018). Physical Activity Level of the Second , Third , and Fourth Years Students At Study Program of Medicine. *Majalah Kesehatan Fakultas Kedokteran Universitas Brawijaya*, *5*(1), 26–32.

Rosiana, W., Angga, P. D., & Tahir, M. (2023). Pengembangan Media Literasi Fisik (Melifis) bagi Siswa Sekolah Dasar. *Jurnal Educatio FKIP UNMA*, *9*(2), 964–975. https://doi.org/10.31949/educatio.v9i2.4707

Sari, I. P. T. P., Doewes, M., Hidayatullah, M. F., & Hariono, A. (2024). Physical activity questionnaire for older children (PAQ-C) versi Indonesia: confirmatory factor analysis. *Retos*, *61*, 100–107. https://doi.org/10.47197/retos.v61.109522

Satriawan, F. R., Pratama, B. A., Yuliawan, D., & Kurniawan, W. P. (2024). Hubungan Aktivitas Fisik Terhadap Kebugaran Jasmani Dan Keterampilan Motorik Peserta Didik Sekolah Dasar. *Jambura Journal of Sports Coaching*, *6*(1), 45–52. https://doi.org/10.37311/jjsc.v6i1.23745

Sumilih, A. D., Pujiriyani, W. D., & Jaya, A. (2025). *Metode Penelitian Kuantitatif*. 26–36.

Suryoadji, K. A., & Nugraha, D. A. (2020). Aktivitas Fisik pada Anak dan Remaja Selama Pandemi Covid-19: A Systematic Review. *Jurnal Mahasisswa*, *13*(1), 1–6.

Wicaksono, A. (2021). *Buku Aktivitas Fisik dan Kesehatan* (Issue July).

Widiyatmoko, F., & Hadi, H. (2018). Tingkat Aktivitas Fisik Siswa Di Kota Semarang. *Journal Sport Area*, *3*(2), 140. https://doi.org/10.25299/sportarea.2018.vol3(2).2245