

The Relationship Between Social Media Use Intensity and Physical Activity with Mental Health of Eighth Grade Students at Bambanglipuro 1 Public Junior High School

Linda Cahyaningsih¹, Amat Komari²

^{1,2} Department of Sport Science, Yogyakarta State University, Yogyakarta Indonesia

ABSTRACT: This study aims to examine the relationship between social media usage intensity and physical activity with the mental health of eighth-grade students at SMP Negeri 1 Bambanglipuro. Using a quantitative correlational design, the research involved 154 students selected through cluster random sampling from a population of 252 students. Data were collected using a social media usage questionnaire, the Physical Activity Questionnaire for Adolescents (PAQ-A), and the General Health Questionnaire-12 (GHQ-12), and analyzed using multiple regression. The results revealed a significant positive relationship between social media usage and mental health ($r = 0.457$, $p < 0.05$), a significant negative relationship between physical activity and mental health ($r = -0.496$, $p < 0.05$), and a significant simultaneous relationship between both variables and mental health ($F = 43.709$, $p < 0.05$), with a combined contribution of 35.80%. These findings suggest that both social media usage and physical activity significantly influence students' mental health and should be considered in efforts to promote adolescent well-being.

KEYWORDS: social media usage intensity, physical activity, mental health

INTRODUCTION

In the increasingly advanced digital era, the development of information technology has significantly changed patterns of human interaction. One form of this transformation is evident in the use of social media, which has now become an integral part of daily life, especially among adolescents. Platforms such as Facebook, Instagram, TikTok, and Twitter are no longer used solely for communication, but also for identity formation, seeking social validation, and self-expression (Hidayat et al., 2024). Adolescents, as an age group undergoing a complex phase of psychosocial development, are particularly vulnerable to the influence of this digital environment (Aprilia et al., 2020).

Excessive use of social media has become a global concern due to its strong association with various mental health disorders. The World Health Organization (WHO) reports that around 10–20% of adolescents worldwide experience mental disorders, most of which go undetected and untreated (WHO in Aprilia et al., 2020). This phenomenon is exacerbated by exposure to negative content, cyberbullying, virtual social pressure, and lack of sleep due to staying up late accessing social media. Keles et al. (2020), in their meta-analysis, emphasized that high social media usage is positively correlated with anxiety, depression, and a decline in quality of life among adolescents.

Along with high exposure to social media, adolescents' lifestyles have also shifted toward a sedentary pattern, marked by reduced physical activity. Physical activity is a crucial component in maintaining mental health, as it can increase levels of neurotransmitters such as endorphins and serotonin, which help regulate mood and cognitive functions (Alghadir et al., 2020; Ariyanto et al., 2021). Conversely, lack of physical activity can lead to hormonal imbalances, sleep disturbances, and increased risk of stress and depression (Breidokienė et al., 2021). In the long term, this condition can affect learning ability, social relationships, and even suicide risk. According to WHO data, depression is the third leading cause of death among adolescents aged 15–29 (Thursina, 2023).

In the educational context, impaired mental health has serious implications for learning quality. Students experiencing psychological disorders tend to have low academic performance, struggle with social interaction, and often display deviant behavior (Isrokatun et al., 2022; Pratiwi et al., 2022). Teachers, as learning facilitators, also face challenges in motivating students who suffer from concentration issues due to fatigue, anxiety, and lack of physical activity.

The Relationship Between Social Media Use Intensity and Physical Activity with Mental Health of Eighth Grade Students at Bambanglipuro 1 Public Junior High School

Based on initial observations at SMP Negeri 1 Bambanglipuro, particularly among eighth-grade students, there appears to be a high level of social media use accompanied by minimal engagement in physical activities both inside and outside the school environment. Students tend to spend their free time playing on gadgets late into the night, resulting in fatigue during lessons and low motivation to participate in Physical Education (PJOK) classes. This condition raises concerns about their mental balance and calls for a more in-depth scientific study.

Several previous studies have shown a significant relationship between physical activity and mental health (Chaeroni et al., 2021; Ahmed et al., 2020). However, in the context of both social media use and physical activity, findings have varied. Maharani (2021) stated that adolescents with high social media usage tend to be at risk of mental disorders, while Bell et al. (2019) emphasized the importance of physical activity as a buffer against the psychological pressure brought on by the digital world.

Considering these conditions, this study is designed to empirically examine:

- (1) The relationship between the intensity of social media use and mental health,
- (2) The relationship between physical activity and mental health, and
- (3) The simultaneous relationship between social media usage intensity and physical activity with the mental health of eighth-grade students at SMP Negeri 1 Bambanglipuro.

The results of this study are expected to serve as a basis for schools, parents, and communities in designing appropriate interventions to balance adolescents' digital and physical lives in order to achieve optimal mental health..

METHOD

This study employs a correlational research design, which aims to determine the presence or absence of a relationship between two or more variables (Arikunto, 2019, p. 247). The approach used is the survey method, which is appropriate for collecting data from a large population within a relatively short period, allowing researchers to draw conclusions based on representative samples.

The research was conducted at SMP Negeri 1 Bambanglipuro, located in Kraton, Bambanglipuro District, Bantul Regency, Special Region of Yogyakarta (postal code 55764). The data collection process took place over two months, from May to June 2024, aligning with the school's academic calendar to ensure smooth access to the target respondents.

The population in this study consisted of all eighth-grade students, totaling 252 learners. Due to the large number of students, the researcher employed cluster random sampling, a technique suitable for dividing the population into smaller, randomly selected groups. As a result, a sample of 154 students was selected to represent the broader population while maintaining the diversity and distribution of characteristics within the group.

For data collection, several validated and reliable instruments were utilized. The intensity of social media use was measured using an instrument adapted from Dalila et al. (2021), which has demonstrated good psychometric properties, with item validity ranging from $r = 0.400$ to $r = 0.708$, and a high reliability score of $\alpha = 0.912$. The mental health of students was assessed using the General Health Questionnaire-12 (GHQ-12), a well-established tool with sensitivity and specificity values of 0.81 and 0.62, respectively, and a reliability coefficient of 0.86, ensuring its suitability for adolescent populations. In addition, students' physical activity levels were measured using the Physical Activity Questionnaire for Adolescents (PAQ-A), which showed a validity score of 0.568 and a Cronbach's Alpha of 0.721, indicating strong internal consistency and reliability in measuring adolescent physical activity.

To analyze the collected data, both descriptive and inferential statistical methods were used. Descriptive statistics were applied to describe the distribution and central tendencies of each variable. Meanwhile, inferential statistics included normality tests, linearity tests, and hypothesis testing to evaluate the strength and nature of the relationships among variables. These steps ensure that the conclusions drawn from the data are valid, reliable, and generalizable within the scope of the study.

RESULT

The descriptive analysis results regarding the intensity of social media use, physical activity, and mental health of eighth-grade students at SMP Negeri 1 Bambanglipuro are presented as follows.

In terms of social media usage intensity, most students were categorized as having low usage, with 52.60% or 81 students falling into this group. A substantial portion, 40.91% or 63 students, were in the high usage category. Meanwhile, only 1.95% (3 students) were classified as having very low usage, and 4.55% (7 students) were identified in the very high usage category. These findings indicate that the majority of students actively use social media, with a significant portion using it at high levels.

For physical activity levels, the majority of students were in the low and very low categories, with 55.84% (86 students) categorized as having low physical activity, and 9.74% (15 students) as very low. Only 27.92% (43 students) reported a moderate

The Relationship Between Social Media Use Intensity and Physical Activity with Mental Health of Eighth Grade Students at Bambanglipuro 1 Public Junior High School

level of activity, while 6.49% (10 students) were in the high category. Notably, none of the students (0.00%) reached the very high level of physical activity. This suggests that physical inactivity is prevalent among the student population, raising concerns regarding their lifestyle habits.

In contrast, the mental health status of students showed relatively positive results. More than half of the students, 54.55% (84 students), were categorized as having very high mental health, while 42.21% (65 students) fell into the high category. Only a small proportion, 3.25% (5 students), were classified as having low mental health, and no students (0.00%) were found in the very low category. These findings imply that, despite the challenges posed by digital exposure and limited physical activity, most students perceive themselves as being in a good mental state.

Overall, these results provide a nuanced picture of students' behavioral patterns, highlighting the high levels of social media use, insufficient physical activity, yet generally good self-reported mental health—an interesting dynamic that warrants deeper investigation in the subsequent inferential analysis.

The normality test was conducted using the Kolmogorov-Smirnov test, which determines normal distribution if the Asymp. Sig. (2-tailed) > 0.05. A summary of the normality test is presented in Table 1 below.

Table 1. Normality Test Results

	Unstandardized Residual
N	154
Normal Parameters	
Mean	0.0000000
Std. Deviation	2.84506331
Most Extreme Differences	
Absolute	0.090
Positive	0.056
Negative	-0.090
Kolmogorov-Smirnov Z	1.112
Asymp. Sig. (2-tailed)	0.169

Based on the Kolmogorov-Smirnov test in Table 1, the significance value is $0.169 > 0.05$, indicating that the data are normally distributed.

The linearity test was conducted using an F-test. The relationship between the independent (X) and dependent (Y) variables is considered linear if sig. > 0.05. The results are presented in Table 2:

Table 2. Linearity Test Results

Variables	p-value	Sig.	Description
Social media usage intensity and mental health	0.437	0.05	Linear
Physical activity and mental health	0.103	0.05	Linear

Based on Table 2, the relationship between social media usage intensity and physical activity with mental health has a significance value greater than 0.05, indicating that the relationships are linear.

Hypothesis testing used correlation (r-test), F-test, and coefficient of determination. The results are explained below. The correlation test examined the relationship of each independent variable with the dependent variable. The hypotheses (H_a) are:

1. There is a significant relationship between social media usage intensity and mental health among Grade VIII students at SMP Negeri 1 Bambanglipuro.
2. There is a significant relationship between physical activity and mental health among Grade VIII students at SMP Negeri 1 Bambanglipuro.

Table 3. Correlation Test Results

Variable	r-value	t-value	r-table	Sig.
Social media usage intensity (X1)	0.457	5.362	0.159	0.000
Physical activity (X2)	-0.496	-6.135	0.159	0.000

The Relationship Between Social Media Use Intensity and Physical Activity with Mental Health of Eighth Grade Students at Bambanglipuro 1 Public Junior High School

The variable social media usage intensity in relation to mental health shows a calculated correlation value (r) of 0.457, which is greater than the r table value of 0.159, with a significance value of $0.000 < 0.05$. Therefore, H_0 is rejected, meaning the hypothesis stating “There is a significant relationship between the intensity of social media use and the mental health of Grade VIII students at SMP Negeri 1 Bambanglipuro” is accepted. The correlation coefficient is positive, indicating that the higher the intensity of social media use, the higher the likelihood of mental health issues among Grade VIII students at SMP Negeri 1 Bambanglipuro.

The variable physical activity in relation to mental health shows a calculated correlation value (r) of -0.496, which is greater than the r table value of 0.159, with a significance value of $0.000 < 0.05$. Therefore, H_0 is rejected, meaning the hypothesis stating “There is a significant relationship between physical activity and the mental health of Grade VIII students at SMP Negeri 1 Bambanglipuro” is accepted. The correlation coefficient is negative, indicating that the better the physical activity, the lower the likelihood of mental health issues among Grade VIII students at SMP Negeri 1 Bambanglipuro.

The F-test aims to determine the combined relationship between social media usage and physical activity with mental health. ANOVA was used for this analysis. The hypothesis is accepted if F calculated $> F$ table and $\text{sig.} < 0.05$.

Table 4. F-Test Results

Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	716.962	2	358.481	43.709	0.000
Residual	1238.441	151	8.202		
Total	1955.403	153			

Based on the analysis results in Table 16, the relationship between social media usage intensity and physical activity with mental health yielded an F-value of 43.709, which is greater than the F-table value (2;151) of 3.06, with a significance value of $0.000 < 0.05$. Therefore, the hypothesis stating “There is a significant relationship between the intensity of social media use and physical activity with the mental health of Grade VIII students at SMP Negeri 1 Bambanglipuro” is accepted. It can be concluded that the selected regression model is suitable for analyzing the data, and the model can be used to predict that social media usage intensity and physical activity jointly relate to the mental health of Grade VIII students at SMP Negeri 1 Bambanglipuro.

The Coefficient of Determination (R^2) is essentially used to measure the extent to which the regression model is able to explain the variation in the dependent variable. The results of the analysis of the Coefficient of Determination (R^2) for social media usage intensity and physical activity in relation to the mental health of Grade VIII students at SMP Negeri 1 Bambanglipuro are presented in Table 5 as follows.

Table 5. Determination Coefficient Results

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.606	0.367	0.358	2.86384

Based on the Coefficient of Determination (R^2) in Table 5, the R Square value is 0.358. This means that the variables social media usage intensity and physical activity contribute 35.80% to the variation in the mental health of Grade VIII students at SMP Negeri 1 Bambanglipuro, while the remaining 64.20% is influenced by other factors outside the scope of this study.

The effective contribution (EC) and relative contribution (RC) show that the physical activity variable makes the largest contribution to the mental health of Grade VIII students at SMP Negeri 1 Bambanglipuro, with a value of 19.83%, while the social media usage intensity variable contributes 15.97% to the students' mental health.

DISCUSSION

The results show that the more frequent or intense the use of social media, the higher the likelihood of experiencing mental health disorders. This finding is supported by several studies, including Marchant et al. (2017), which revealed that social media use can increase the risk of self-harm by exposing users to various methods of self-injury, social comparison, and contagion. However, these platforms can also be important sources of emotional support online. Among young people, heavy and prolonged social media use not only raises the risk of mental health symptoms but also leads to a decline in physical health (Naslund et al., 2020). Moreover, excessive long-term social media use may result in more frequent somatic symptoms such as headaches, chest pain, or backaches (Lee et al., 2022).

Passive use of social media may cause mood disorders and depressive symptoms such as loss of interest or self-inflicted pain (Hussain & Griffiths, 2018). Excessive use is a sign of depression and poor social relationships with peers and family (Vannucci &

The Relationship Between Social Media Use Intensity and Physical Activity with Mental Health of Eighth Grade Students at Bambanglipuro 1 Public Junior High School

McCauley Ohannessian, 2019). This may also occur indirectly through mediators such as a weakened emotional bond with others, which increases loneliness and ultimately leads to depression (van Rooij et al., 2017).

Uncontrolled use of social media can lead to a range of psychosocial issues such as sleep disturbances (Garett et al., 2018), poor academic performance (Sobaih et al., 2016), anxiety, and depression (Seabrook et al., 2016). Social networking platforms often heighten awareness and sensitivity to appearance by fostering social comparison. Obsession with physical appearance promoted by social media correlates positively with its usage, as shown by the link between social media and depression, social anxiety, appearance-related anxiety, and appearance-based rejection sensitivity (Hawes et al., 2020).

Mental health disorders are a growing challenge in line with increasing use of social media platforms. Social media use ranks as the second leading cause of disability among mental disorders (Zubair et al., 2023). Good mental health is essential for students' well-being both in and outside the classroom. Poor mental health can negatively affect students' ability to learn, retain information, and focus in class (Houghton & Anderson, 2017). Additionally, it may impair their social relationships with peers, family, and the school environment (García-Carrión et al., 2019).

A study found that screen time for educational purposes negatively correlates with children's physical activity, while time spent outdoors is positively associated with children's age and somatic symptoms. Longer screen time for leisure is also linked to reduced physical activity (Breidokienė et al., 2021). Giving children internet-connected electronic devices and introducing them early may reduce movement and physical activity (Kobak et al., 2018). Prolonged social media use by adults and adolescents negatively affects mental health, either directly or indirectly. Excessive use can contribute to psychological issues, emotional instability, anxiety, hopelessness, fear, tension, and even disrupt sleep cycles (Dhir et al., 2018; Alonzo et al., 2021).

The findings also show that better physical activity correlates with a lower likelihood of experiencing mental health problems. Supporting studies include McMahon et al. (2017), who reported a significant relationship between physical activity scores and mental health measures, with a significance value of ($p=0.005$). Wheatley et al. (2020) stated that a physically active lifestyle is associated with better overall mental health during adolescence. Proper physical activity has positive effects on stress, improves mood, reduces life dissatisfaction, and enhances quality of life (Koo & Kim, 2018).

The study also found a small but significant relationship between overall physical and mental health. Students with poor mental health reported poor physical health, and vice versa (Eisele, 2019). Social media use may also result in more frequent somatic symptoms like headaches, chest, or back pain (Lee et al., 2022). On the positive side, some social media users feel hopeful and motivated, but at the same time, others feel that their physical health may deteriorate (Dibb, 2019).

A study by Bell et al. (2019) found that increasing physical activity could reduce emotional issues such as excessive worry, fear, tension, sadness, headaches, stomachaches, and pain. Regular physical activity helps maintain blood pressure and cholesterol levels, normal body weight, heart health, and blood circulation, strengthens bones, muscles, and joints, reduces symptoms of mental stress, and improves quality of life (Desyanti, 2021).

The study results show a significant relationship between the intensity of social media use, physical activity, and mental health. A U.S.-based study revealed that respondents who reported spending more time at home and using social media via smartphones were at a higher risk of depression and suicidal ideation compared to teens who reported spending more time away from screens and engaging in outdoor activities such as face-to-face social interactions, sports, and recreational activities (Naslund et al., 2020).

One preventive strategy to reduce the likelihood of mental health problems such as depression and anxiety is engaging in physical activity (Arat & Wong, 2017). Optimal adolescent health is achieved by maintaining a balance between high levels of physical activity, low sedentary behavior, and sufficient daily sleep. Physical activity is associated with many health benefits for adolescents, including social skill development, emotional regulation, and psychological well-being (Bates et al., 2020, p. 138). Insufficient physical activity may negatively impact mental well-being (Maugeri et al., 2020).

Appropriate physical activity positively affects stress levels, mood, life satisfaction, and overall quality of life. Participation in physical activity can foster interaction with nature and potentially elevate mood. During adolescence, physical activity can serve as a medium for improved self-regulation (Barney et al., 2017). Adolescents who maintain high levels of physical activity tend to sustain better mental health compared to those with consistently low levels of physical activity (Groffik et al., 2020).

CONCLUSION

Based on the results of data analysis, description, research findings testing, and discussion, the following conclusions can be drawn:

- 1) There is a significant relationship between the intensity of social media use and the mental health of Grade VIII students at SMP Negeri 1 Bambanglipuro, with a correlation coefficient (r) of 0.457, significance value of $0.000 < 0.05$, and an effective

The Relationship Between Social Media Use Intensity and Physical Activity with Mental Health of Eighth Grade Students at Bambanglipuro 1 Public Junior High School

contribution of 15.97%. The positive correlation coefficient indicates that the higher the intensity of social media use, the greater the likelihood of mental health disorders among Grade VIII students at SMP Negeri 1 Bambanglipuro.

- 2) There is a significant relationship between physical activity and the mental health of Grade VIII students at SMP Negeri 1 Bambanglipuro, with a correlation coefficient (r) of -0.496, significance value of $0.000 < 0.05$, and an effective contribution of 19.83%. The negative correlation coefficient indicates that the better the level of physical activity, the lower the likelihood of mental health disorders among Grade VIII students at SMP Negeri 1 Bambanglipuro.
- 3) There is a significant relationship between the intensity of social media use and physical activity with the mental health of Grade VIII students at SMP Negeri 1 Bambanglipuro, with an F -value of 43.709, significance value of $0.000 < 0.05$, and an effective contribution of 35.80%.

REFERENCES

- 1) Ahmed, Y. A., Ahmad, M. N., Ahmad, N., & Zakaria, N. H. (2019). Social media for knowledge-sharing: A systematic literature review. *Telematics and informatics*, 37, 72-112.
- 2) Alghadir, A. H., Gabr, S. A., & Iqbal, Z. A. (2020). Effect of gender, physical activity and stress-related hormones on adolescent's academic achievements. *International journal of environmental research and public health*, 17(11), 4143.
- 3) Alonzo, R., Hussain, J., Stranges, S., & Anderson, K. K. (2021). Interplay between social media use, sleep quality, and mental health in youth: A systematic review. *Sleep medicine reviews*, 56, 101414.
- 4) Aprilia, R., Sriati, A., & Hendrawati, S. (2020). Tingkat kecanduan media sosial pada remaja. *Journal of Nursing Care*, 3(1).
- 5) Arikunto, S. (2019). *Prosedur penelitian suatu pendekatan praktik*. Jakarta: PT. Rineka Cipta.
- 6) Ariyanto, A., Cinta, N. P., & Utami, D. N. (2020). Aktivitas fisik terhadap kualitas hidup pada lansia. *Jurnal Kesehatan Al-Irsyad*, 13(2), 145-151.
- 7) Barney, D. C., Pleban, F., & Lewis, T. (2017). Relationship between physical activity and stress among junior high school students in the physical education environment, *Faculty Publications*, 2044.
- 8) Bell, S. L., Audrey, S., Gunnell, D., Cooper, A., & Campbell, R. (2019). The relationship between physical activity, mental wellbeing and symptoms of mental health disorder in adolescents: a cohort study. *International Journal of Behavioral Nutrition and Physical Activity*, 16, 1-12.
- 9) Breidokienė, R., Jusienė, R., Urbonas, V., Praninskienė, R., & Girdzijauskienė, S. (2021, June). Sedentary behavior among 6–14-year-old children during the COVID-19 lockdown and its relation to physical and mental health. In *Healthcare* (Vol. 9, No. 6, p. 756). MDPI.
- 10) Chaeroni, A., Ma'mun, A., & Budiana, D. (2021). Aktivitas fisik: Apakah memberikan dampak bagi kebugaran jasmani dan kesehatan mental?. *Jurnal Sporta Saintika*, 6(1), 54-62.
- 11) Dalila, F., Putri, A. M., & Harkina, P. (2021). Hubungan antara intensitas penggunaan media sosial instagram dengan harga diri. *Jurnal Psikologi Malahayati*, 3(1), 47-55.
- 12) Dhir, A., Yossatorn, Y., Kaur, P., & Chen, S. (2018). Online social media fatigue and psychological wellbeing—A study of compulsive use, fear of missing out, fatigue, anxiety and depression. *International journal of information management*, 40, 141-152.
- 13) Garrett, R., Liu, S., & Young, S. D. (2018). The relationship between social media use and sleep quality among undergraduate students. *Information, Communication & Society*, 21(2), 163–173.
- 14) Groffik, D., Fromel, K., & Badura, P. (2020). Composition of weekly physical activity in adolescents by level of physical activity. *BMC Public Health*, 20, 1-9.
- 15) Hawes, T., Zimmer-Gembeck, M. J., & Campbell, S. M. (2020). Unique associations of social media use and online appearance preoccupation with depression, anxiety, and appearance rejection sensitivity. *Body Image*, 33, 66–76.
- 16) Hidayat, N. A. S. N., Septian, R. N., & Herlambang, Y. T. (2024). Sosial media dalam masyarakat sebagai konsep nyata determinisme teknologi. *UPGRADE: Jurnal Pendidikan Teknologi Informasi*, 1(2), 73-80.
- 17) Hussain, Z., & Griffiths, M. D. (2018). Problematic social networking site use and comorbid psychiatric disorders: A systematic review of recent large-scale studies. *Frontiers in Psychiatry*, 9, 429595.
- 18) Isrokatun, I., Rahayu, M., & Dewi, W. P. (2022). Pengaruh pembelajaran daring dengan kesehatan mental peserta didik di masa pandemi COVID-19. *Jurnal Basicedu*, 6(1), 834-851.
- 19) Keles, B., McCrae, N., & Grealish, A. (2020). A systematic review: the influence of social media on depression, anxiety and psychological distress in adolescents. *International journal of adolescence and youth*, 25(1), 79-93.

The Relationship Between Social Media Use Intensity and Physical Activity with Mental Health of Eighth Grade Students at Bambanglipuro 1 Public Junior High School

- 20) Koo, K. M., & Kim, C. J. (2018). The effect of the type of physical activity on the perceived stress level in people with activity limitations. *Journal of exercise rehabilitation*, 14(3), 361.
- 21) Maharani, A. S. (2021). Hubungan aktivitas fisik dan kesehatan mental pada usia dewasa muda di masa pandemi covid-19. *Publikasi Ilmiah*, Universitas Muhammadiyah Surakarta.
- 22) Marchant, A., Hawton, K., Stewart, A., Montgomery, P., Singaravelu, V., Lloyd, K., Purdy, N., Daine, K., & John, A. (2017). A systematic review of the relationship between internet use, self-harm and suicidal behaviour in young people: The good, the bad and the unknown. *PloS One*, 12(8), e0181722.
- 23) McMahon, E. M., Corcoran, P., O'Regan, G., Keeley, H., Cannon, M., Carli, V., ... & Wasserman, D. (2017). Physical activity in European adolescents and associations with anxiety, depression and well-being. *European child & adolescent psychiatry*, 26, 111-122.
- 24) Naslund, J. A., Bondre, A., Torous, J., & Aschbrenner, K. A. (2020). Social media and mental health: benefits, risks, and opportunities for research and practice. *Journal of technology in behavioral science*, 5, 245-257.
- 25) Pratiwi, U. N., Sulianto, J., & Artharina, F. P. (2022). Dampak pembelajaran daring selama pandemi covid-19 terhadap kesehatan mental siswa kelas V Sd Negeri Wonomerto 01 Batang. *Praniti: Jurnal Pendidikan, Bahasa, dan Sastra*, 2(1), 100-111.
- 26) Sobaih, A. E. E., Moustafa, M. A., Ghandforoush, P., & Khan, M. (2016). To use or not to use? Social media in higher education in developing countries. *Computers in Human Behavior*, 58, 296–305.
- 27) Thursina, F. (2023). Pengaruh media sosial terhadap kesehatan mental siswa pada salah satu SMAN di Kota Bandung. *Jurnal Psikologi dan Konseling West Science*, 1(1), 19-30.
- 28) Vannucci, A., & McCauley Ohannessian, C. (2019). Social media use subgroups differentially predict psychosocial well-being during early adolescence. *Journal of Youth and Adolescence*, 48, 1469–1493.
- 29) Wheatley, C., Wassenaar, T., Salvan, P., Beale, N., Nichols, T., Dawes, H., & Johansen-Berg, H. (2020). Associations between fitness, physical activity and mental health in a community sample of young British adolescents: baseline data from the Fit to Study trial. *BMJ Open Sport & Exercise Medicine*, 6(1), e000819.



There is an Open Access article, distributed under the term of the Creative Commons Attribution – Non Commercial 4.0 International (CC BY-NC 4.0) (<https://creativecommons.org/licenses/by-nc/4.0/>), which permits remixing, adapting and building upon the work for non-commercial use, provided the original work is properly cited.