



## The relationship of physical literacy, physical activity, physical fitness to the psychological well-being of students

Mohammad Irfan<sup>1</sup>

<sup>1</sup> Department of Physical Education, Health, and Recreation, STKIP Modern Ngawi, INDONESIA.

\* Corresponding Author. E-mail: <sup>1</sup> [mohammadirfan@stkipmodernngawi.ac.id](mailto:mohammadirfan@stkipmodernngawi.ac.id)

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### Abstrak

Psikologis terhadap peserta didik merupakan komponen penting dalam proses pendidikan karakter terhadap anak khususnya ditinjau dari segi Literasi Fisik, Aktivitas Fisik, dan Kebugaran Jasmani. Tujuan dari penelitian ini adalah untuk mengetahui hubungan literasi fisik, aktifitas fisik, dan kebugaran jasmani terhadap kesejahteraan psikologis pada peserta didik usia 16-18 Tahun. Populasi dan sampel yang terlibat pada penelitian sejumlah 129 subjek. nilai signifikansi masing-masing 0,000 dan 0,000 dan 0,860 dapat dikatakan bahwa terdapat hubungan yang signifikan terhadap literasi fisik, aktifitas fisik, kebugaran jasmani terhadap kesejahteraan psikologis pada peserta didik. Seseorang dalam memilih cabang olahraga berdasarkan pengetahuan dan pemahaman terhadap olahraga yang dipilihnya. tingkat kebutuhan peserta didik dalam menerima literasi fisik, aktivitas fisik, dan kebugaran jasmani merupakan bagian penting dalam memaksimalkan motorik siswa. Selain meningkatkan gerak motorik terhadap siswa, literasi fisik, aktivitas fisik dan kebugaran jasmani dapat memberikan siswa menjadi faham dengan gaya hidup yang lebih baik.

**Kata Kunci:** Literasi Fisik, Aktivitas Fisik, Kebugaran Jasmani, Psikologis, Siswa.

### Abstract

*Psychological towards students is an important component in the process of character education for children, especially in terms of Physical Literacy, Physical Activity, and Physical Fitness. The purpose of this study was to determine the relationship between physical literacy, physical activity, and physical fitness on psychological well-being in students aged 16-18 years. The population and sample involved in the study were 129 subjects. The significance values of 0.000 and 0.000 and 0.860 respectively can be said that there is a significant relationship with physical literacy, physical activity, physical fitness to psychological well-being in students. A person chooses a sport based on knowledge and understanding of the sport he chooses. The level of need of students in receiving physical literacy, physical activity, and physical fitness is an important part in maximizing student motor. In addition to improving motor movements of students, physical literacy, physical activity and physical fitness can provide students with a better lifestyle.*

**Keywords:** Physical Literacy, Physical Activity, Physical Fitness, Psychological, Students.

## Introduction

Sport is one of the most important elements in life and a human need [1]. According to [2] means that exercise is a human need to maintain the condition of his body to always be healthy. If the body condition is healthy, it can be ascertained that the person can carry out activities in daily life properly [3]. The sports defined above aim to improve and maintain a person's body and physical fitness in everyday life so that their physical condition continues to be prime and healthy [4].

Physical literacy in question is motivation, confidence, physical skills, knowledge and understanding that describes a person's readiness as an integrated element of lifestyle, which is needed to realize physical fitness goals [5].

Health is one of the important elements in human life [6]. In a healthy condition physically and spiritually, humans can carry out activities optimally. To get good physical and spiritual health, it is necessary to maintain health regularly [7]. One of the efforts to maintain health is to do physical activity. [8] explained that doing regular physical activity is useful for regulating weight and strengthening the blood vessel system, which means that health maintenance efforts can be done through physical activity.

Physical activity that is beneficial to health must meet FITT criteria (frequency, intensity, time, type). Frequency is how often activities are carried out, how many days a week [9]. Intensity is how hard an activity is performed. It is usually classified into low, medium and high intensity. Time is usually how long an activity is carried out in one meeting. Types of activity are

the types of physical activity performed. According to [10] the types of activities commonly carried out include aerobic exercise, muscle strengthening (muscle strengthening), flexibility, and balance training. How much exercise is done depends on each individual's goals, whether for independence, health, fitness, or for performance improvement.

Psychological well-being is the ability of individuals to assess the level of independence, positive relationships with others, self-acceptance, mastery over the environment, personal growth and steadiness of life goals, and make it the basis for their development [11]. This study aims to find the relationship between physical literacy, physical activity, and physical fitness to psychological well-being in students.

## Method

This research researchers used a quantitative approach. With variables of physical literacy ( $X_1$ ), physical activity ( $X_2$ ), physical fitness ( $X_3$ ), and Psychological Well-Being as variable Y. respondents from this study were 44 men aged 23-28 years. Questionnaire data collection on variables  $X_1$ ,  $X_2$ , and Y while for  $X_3$  was carried out through several physical fitness tests. Because the respondents were non-athletes, for  $X_3$  researchers only took 1 component, namely cardio respiratory with BeepTest. To determine the relationship between variables, testing in this study was carried out simultaneously (F test) or partially (t test) with a significance level of 0.05 with the help of SPSS.

## Results and Discussion

## Result

- a. The Relationship between Physical Literacy and Physical Activity  
 The SPSS calculation results show as shown in the table below

Table 1. *The Relationship between Physical Literacy and Physical Activity*

		ANOVA <sup>a</sup>				
Type		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1607,251	1	1607,251	105,038	,000 <sup>b</sup>
	Residual	1943,307	127	15,302		
	Total	3550,558	128			

a. Dependent Variable: Physical Activity

b. Predictors: (Constant), Physical Literacy

It is known that the results of the analysis of Anova with a significance value of .000. It can be said that there is a relationship between  $X_1$  (Physical literacy) and  $X_2$  (physical activity).

- b. The relationship of  $X_1$  (Physical literacy),  $X_2$  (physical activity) and  $X_3$  Physical fitness

Table 2. *Correlation Between Variables*

		ANOVA <sup>a</sup>				
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1555,914	2	777,957	29,191	,000 <sup>b</sup>
	Residual	3357,962	126	26,650		
	Total	4913,876	128			

a. Dependent Variable: Physical fitness

b. Predictors: (Constant), Physical Activity, Physical Literacy

From the calculation results (table) it is known that the significance of .000. It can be said that there is a relationship between the relationship  $X_1$  (Physical literacy),  $X_2$  (physical activity) and  $X_3$  (Physical fitness).

- c. Variable Regression Coefficient

Table 3. *Variable Regression Coefficient*

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-,302	4,594		-,066	,948
	Physical Literacy	,365	,066	,312	5,542	,000
	Physical Activity	1,633	,142	,657	11,529	,000
	Physical	-,018	,103	-,009	-,176	,860

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fitness

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With regression coefficients of 0.365 and 1.633 and -0.018 and standardized regression coefficients (Beta) of 0.312 and 0.657 and -0.009 and significance values of 0.000 and 0.000 and 0.860 respectively, it means rejecting the null hypothesis and accepting the alternative hypothesis, which states that there is a relationship between physical literacy and physical activity and physical fitness on psychological well-being.

### Discussion

The results of this study found a relationship between physical literacy and physical activity ( $r = 0.306$ ). This result is in accordance with research [12] that physical literacy is closely related to education about physical activity and is able to foster enthusiasm for physical activity. The results of the analysis in this study show that physical literacy is closely related to the physical activity of seminar participants, with high physical literacy having a relationship with motivation to do physical activity. In addition, the results of this study show that physical literacy not only helps in increasing physical activity motivation, but can make people happier.

A person chooses a sport based on knowledge and understanding of the sport he chooses [13]. For example, when someone understands theory and gets accurate information about the game of basketball, then naturally will be interested in liking the game of basketball, then it is likely to also like and choose the same sport. The results of this study show that there is a relationship between physical literacy, physical activity, physical fitness and psychological well-being with grades ( $r = 0.948$ ). The results of this analysis show that the level of physical literacy, physical activity, physical fitness

to psychological well-being has a close relationship. This is in accordance with the results of research [14] which states that physical activity has a significant relationship with physical fitness levels. This is in line with research from [15] which states The relationship between physical literacy and aerobic fitness, but not with other health indicators, is mediated directly by MVPA. Higher physical literacy in children is associated with indicators of good health, and the relationship between physical literacy and aerobic fitness is influenced by MVPA. Future research should examine this relationship longitudinally and determine whether changes in physical literacy lead to health changes.

MVPA appears to affect the central dopaminergic, noradrenergic, and serotonergic systems. In this sense, it has been observed that an increase in PA seems to generate a corresponding increase in neurotransmitter activity. PA is known to alter the dopamine system in the central nervous system, increasing the availability of dopamine receptors. This association may have positive consequences, such as reducing the severity of symptoms of anxiety, depression, and other mental-related problems. The mental health benefits of exercise have been well documented. MVPA and regular exercise contribute to improved mental health through improved cognition, increased BDNF levels in the brain, and brain plasticity. In addition, people who are more physically active and have better fitness levels are less likely to have mental illnesses such as depression and anxiety. From the results of this systematic review, it can be seen that exercise has a positive and significant effect on dopamine synthesis.

Exercise can have a positive impact on mental health. For this reason, MVPA

and exercise are, in some cases, effective behaviors for the prevention of mental illness and have a positive effect on the treatment of mental health problems. One theory is that PA and exercise trigger the release of dopamine, which can improve mood. It is important to emphasize that dopamine is a monoamine that regulates, and undergoes regulatory influence from, two other major monoamine neurotransmitters, noradrenaline and serotonin. This means that the monoamine system mediates exercise-induced increases of various brain functions.

### Conclusion

From the results of the research above, it can be concluded that the level of need of students in receiving physical literacy, physical activity, and physical fitness is an important part in maximizing student motorics. In addition to improving motor movements of students, physical literacy, physical activity and physical fitness can provide students with a better lifestyle.

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