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The Relationship Between Physical Fitness And Personal Development of Elementary School Students

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ABSTRACT

This study aims to analyze the relationship between physical fitness and the personal development of elementary school students. The method used was quantitative correlation with a sample of students in grades IV, V, and VI from several elementary schools. Physical fitness data was measured using the Indonesian Physical Freshness Test (TKJI), while personal development was measured through questionnaires. The results of the analysis showed that there was a significant positive relationship between physical fitness and personal development, with a Spearman correlation coefficient of 0.185 (p = 0.009). Although the relationship is weak, these findings indicate that physical fitness contributes to students' personal development, which includes aspects of self-confidence, responsibility, and social skills. This study suggests that schools and parents pay more attention to the importance of physical activity in supporting children's personal development.

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INTRODUCTION

In this modern era, the challenges faced by children are increasingly complex, including the increasing use of technology that tends to reduce physical activity. This has the potential to lead to health problems, such as obesity, as well as reduced personal skills needed in social interaction and the learning process. Another impact that occurs is the decline in the level of physical fitness among children, which occurs almost all over the world. The main cause is that they are less active in moving and using time to do activities that use their bodies. In addition, children prefer to play games on the computer, video games, sleep late at night and have unhealthy diets, so that they risk lowering the function of degenerative organs.(Supariyadi et al., 2022).

Previous research conducted by Yola et al. (2023) with the title "The relationship between physical fitness and personal development in adolescents" examined the

relationship between physical fitness and personal development in adolescents. The results of this study show that there is a relationship between physical fitness and personal development in adolescents, with a correlation value of 0.887. In the previous study, which focused on the relationship between physical fitness and personal development in adolescents, this study focused on the relationship between physical fitness and personal development of elementary school students.

One of the goals of national education is the development of students to become healthy human beings. The government's efforts to realise this goal are by requiring physical education, sports and health (penjasorkes) subjects at every level of education, both elementary school, junior high school and high school. Physical education began to emerge as a school subject in the late 19th century when all children first attended school (Carse & Keay, 2017). Physical education is a planned and progressive learning that takes place within the school curriculum schedule and is given to all students. It involves "learning to move" (i.e. becoming more physically competent) and "moving to learn" (e.g. learning through movement, various skills and understandings outside of physical activity, such as working together with others). The context of learning is physical activity, with children experiencing a variety of activities, including sports and dance (Lynch, 2016).

Physical fitness is the body's ability to adjust the physical load given without causing excessive fatigue, and still have energy reserves for other activities. In general, what is meant by fitness is physical fitness, which is the ability of a person to do daily work efficiently, without excessive fatigue, so that they can still enjoy their free time (Herman, 2016). If a person has good physical fitness, they can certainly perform daily activities well (Okilanda et al., 2022). Physical fitness is very important for a person to have because there are many benefits, including for immunity and strengthening the body's immunity (Supariyadi et al., 2022). Physical fitness is not only related to body health, but also has an important role in supporting children's ability to do activities, concentrate, and interact positively with the surrounding environment. Regular and targeted physical activity has been proven to improve motor coordination, improve mood, and foster values such as discipline, cooperation, and sportsmanship.

Development is a systematic, progressive, and continuous change in an individual from birth to the end of their life. These changes are undergone by every individual, especially from birth to reaching maturity or maturity. Systematic means that the development in the normal sense is clear in order (Sabani, 2019). Development is something that continues to occur during the lifetime of human life (Wahyuningrum, 2021). According to Jahja (2011), development is the increase in skills in more complex body structures and functions in a regular and predictable pattern, as a result of the maturation process. Personal development is often seen as an abstract concept. It refers to the effort we need to make to improve ourselves or feel better about our current situation, impact, or way of life (Kirkwood & Kirkwood, 2019).

However, attention to the importance of physical fitness in supporting students' personal development is still often ignored. In many elementary schools, the portion of physical education lessons is still relatively small and is often considered less important

than other academic subjects. If children experience a lack of physical activity, they are prone to health problems such as obesity, decreased motor skills, and emotional and social disorders. Therefore, there needs to be a wider awareness among educators, parents, and the community about the importance of integrating physical fitness into daily learning activities at school.

In this case, physical education can improve the physical fitness of students, which will later support student development (Widodo et al., 2018). Maintenance and improvement of physical fitness need to be carried out. Efforts to maintain and improve physical fitness that are directed and regular are basically part of the lifestyle that develops due to the process of culture and education (Sulistiono, 2014). In addition, Schools should improve and enrich physical education programs, so that students participate more in physical activities that can improve their physical fitness. The program not only focuses on physical abilities but also involves psychological aspects that can support personal development.

This research has a very high urgency because it can provide important insights into how physical fitness not only plays a role in physical health but also supports holistic personal development. With data and an understanding of these relationships, schools, parents, and policymakers can design more effective approaches to support children's growth and development optimally, both physically, socially, emotionally, and academically. The results of this study are expected to make a positive contribution to the development of physical education programs in elementary schools, as well as encourage educators and parents to pay more attention to the importance of physical activity in supporting children's personal development. Through a better understanding of these relationships, it is hoped that there will be greater efforts to create an environment that supports students' physical fitness and personal abilities, so that they can grow into healthy, characterful, and challenged individuals in the future.

METHODS

The research design used is correlational. The researchers collected data from respondents without giving a specific treatment, then analyzed the relationship between physical fitness variables and personal development. This design is suitable for knowing the extent of the relationship between two variables measured simultaneously.

This research will be carried out in 2025 in 3 elementary schools in Dukupuntang district, namely, SD Negeri 2 Girinata, SD Negeri 2 Cisaat and SD Negeri 2 Pegagan, which will later conduct an Indonesian physical freshness test (TKJI) and a questionnaire test (Questionnaire). The sampling techniques used are non-probability sampling or non-random sampling, which is not random, with the type of purposive sampling.

The data collection procedure in this study is carried out through several stages. First, the researcher prepared research instruments, both physical fitness tests and personal development questionnaires. Furthermore, the researcher coordinated with the school to determine the time for data collection. After that, data is collected directly through the

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implementation of physical fitness tests and filling out questionnaires by students. The test was carried out in the school field with the assistance of PJOK teachers, while questionnaires were filled out in the classroom with the guidance of researchers and classroom teachers. After all the data is collected, the researcher checks the completeness of the data, then processes and analyzes it using appropriate statistical techniques.

The instruments used by the researcher in this study are the TKJI (Indonesian Physical Freshness Test) to obtain physical fitness data, and questionnaires to obtain personal development data.

Before conducting a correlation hypothesis test, a prerequisite test stage is required to ensure that the data meet the basic assumptions needed in correlational analysis. This prerequisite test stage includes a normality test to find out if the data is normally distributed, and a linearity test to see if the relationships between variables are linear. The normality test uses the Kolmogorov-Smirnov method because the sample is more than 50, while the linearity test can be tested through the ANOVA linearity test. The results of this prerequisite test serve as the basis for determining whether parametric correlation techniques, such as Pearson correlation, can be used or whether it is necessary to switch to non-parametric techniques, such as Spearman correlation, if the data do not meet the required assumptions. Thus, this prerequisite test stage is very important to ensure the accuracy and validity of the results of the correlation analysis carried out.

RESULTS AND DISCUSSION

The normality test was carried out to find out whether the data in this study were normally distributed or not. The normality test used was the Kolmogorov-Smirnov test because the sample in this study was more than 50, with a significance level of 0.05. The results of the normality test can be seen in the following table:

Table 1.
Normality Test

	Kolmogorov-Smirnova		
	Statistic	**df**	**Itself.**
Fitness	.163	200	.000
Development	.084	200	.002

Based on the table above from a normality test has been carried out. So the researcher used the Kolmogorov smirnov normality test, because the number of samples was more than 50, after that it can be concluded that the data that had been taken through the Indonesian physical freshness test (TKJI) showed a result of 0.000 < 0.05 then for the variables of personal development measured by the personal development questionnaire showed a result of 0.002 < 0.05. From these results, it can be concluded that the two variables, namely physical fitness and personal development, are abnormally distributed. Therefore, in the analysis of the relationship between variables, a non-parametric Spearman's rho test is used.

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Table 1
Linearity Test

		Sum of Squares	df	Mean Square	F	Itself.
Development* Fitness	Linearity	46.343	1	46.343	7.486	.007
	Deviation from linearity	45.945	6	7.656	1.237	.289

The linearity test was performed to find out whether the relationship between physical fitness variables and personal development was linear. Based on the results of the linearity test shown in the ANOVA Table, a significance value for the Linearity component was obtained of 0.007, which is smaller than the significance limit of 0.05. This suggests that there is a significant linear relationship between physical fitness and the personal development of elementary school students. Meanwhile, the significance value on the Deviation from Linearity component of 0.289, which is greater than 0.05, indicates that there is no significant deviation from the linear relationship. Thus, it can be concluded that the relationship between the two variables is linear, and advanced analysis can be carried out using statistical techniques that assume a linear relationship, such as Spearman correlation or linear regression.

After the normality test was carried out and it was found that the data were not distributed normally, the relationship between physical fitness and the personal development of students was analyzed using Spearman's rho test. The results are presented in the following table:

Table 2
Correlation Test

			Fitness	Development
Spearman's rho	Fitness	Correlation Coefficient	1.000	.185**
		Sig. (2-tailed)	.	.009
		N	200	200
	Development	Correlation Coefficient	.185**	1.000
		Sig. (2-tailed)	.009	.
		N	200	200

The results showed that the value of the correlation coefficient (ρ) between physical fitness and personal development of students was 0.185 with a significance value of 0.009. Because the significance value is < 0.01, it can be concluded that there is a statistically significant relationship between the two variables. However, the magnitude of the correlation coefficient value at 0.185 indicates that the relationship is in the low or weak category. Thus, it can be said that the higher the level of physical fitness of the student, the more likely it is to be followed by an increase in the student's personal development, even though the relationship between the two is not very strong.

Discussion

The results of the study showed that there was a significant positive relationship between physical fitness and the personal development of elementary school students.

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These findings indicate that the better a student's level of physical fitness, the better his or her personal development tends to be, even though the relationship is statistically weak. This relationship is important to be discussed further in the context of theory, the results of previous research, and its implications in the world of education.

In other words, students who have a fitter physical condition in terms of strength, endurance, flexibility, and speed and agility tend to be better able to manage emotions, have higher confidence, and show better responsibility and social skills. This reinforces the view that the physical and psychosocial aspects of children are interrelated and affect each other.

This finding is in line with the theory from Sudjana (2000) and Annas (2011), which states that physical education and fitness not only aim to improve physical abilities, but also play a role in shaping the character, behaviour, and social skills of students. From an educational perspective, physical fitness can be a medium to instil positive values, such as discipline, cooperation, and confidence (Bangun, 2016). These results are also supported by international research such as that conducted by Park et al. (2014) and López-Torres et al. (2021), which found that children who are more physically active tend to have better levels of emotional regulation, higher social adaptability, and stronger self-confidence. This shows that physical activity and physical fitness are closely related to the personal development of students in general.

The findings of this study also reinforce the results of a study by Yola et al. (2023), which showed a correlation between physical fitness and personal development in adolescents, with a strong correlation ($r = 0.887$). Although the correlation results in this study were lower, the difference could be due to differences in sample characteristics (elementary school age vs. adolescents) and measurement instruments. In addition, a study by Kriemler et al. (2010) that examined the influence of school-based physical activity programs on the physical and psychosocial quality of life of elementary school children also showed results that regular physical activity is able to improve personal development, especially social and emotional aspects.

In the context of character and social-emotional education, the CASEL-based approach (Collaborative for Academic, Social, and Emotional Learning) mentions five main competencies that must be developed, namely self-awareness, self-management, social awareness, relationship skills, and responsible decision-making. All of these competencies can be honed through physical activities that are oriented towards the formation of values and responsibilities (Domitrovich et al., 2017).

Although the relationship found in this study was relatively low, the statistical significance suggests that physical fitness still makes a significant contribution to personal development. This implies that physical education programs in elementary schools should be designed not only to improve students' physical abilities, but also as a medium of character development.

CONCLUSION

Based on the results of research that has been conducted on the relationship between physical fitness and the personal development of elementary school students,

it can be concluded that there is a positive and significant relationship between the two variables. The results of the analysis showed that the value of the Spearman correlation coefficient was 0.185 with a significance level of 0.009, which shows that the better the physical fitness of students, the better their personal development tends to be. However, these relationships fall into the weak category, so physical fitness is not the only factor that affects students' personal development. Other factors such as psychological conditions, family environment, social interactions, and learning approaches also have an equally important influence.

The magnitude of the relationship between physical fitness and the personal development of elementary school students can be categorized as low. This indicates that although physical fitness contributes to the personal development of students, it is not dominant. Thus, to develop students' aspects such as responsibility, self-confidence, social skills, and emotional regulation, it is also necessary to consider other factors that play a role, both from the internal aspects of the individual and from the surrounding social and educational environment.

In other words, physical fitness does have a contribution to the personal development of students, but it is not the most dominant. Many other factors also affect students' personal development, such as psychological conditions, family upbringing, social environment, interaction with peers, and learning approaches used by teachers at school. Therefore, these results need to be understood holistically, that while physical fitness can support the formation of students' character, discipline, responsibility, self-control, and social abilities, these influences do not stand alone but rather become part of the broader educational ecosystem.

Thus, it can be concluded that there is a positive and significant relationship between physical fitness and the personal development of elementary school students, but the relationship is weak. Physical fitness contributes to personal development, but in practice, it needs to be combined with a supportive educational and environmental approach so that the results obtained can be maximized.

Based on the results of the research and the conclusions that have been presented, the researcher provides several suggestions that can be used as recommendations for related parties. First, for schools and teachers, especially physical education teachers, it is recommended to design a physical activity program that not only focuses on improving physical abilities but is also directed at shaping the character of students. Physical activity at school can be a medium for learning values such as discipline, responsibility, sportsmanship, and the ability to cooperate and control emotions, which are an important part of students' personal development.

Second, for parents, it is important to provide support and motivation to children in doing regular physical activity, both at home and outside of school. Parents are expected to be able to create an atmosphere that encourages children to move actively, such as reducing the time spent using gadgets and increasing outdoor play time. Regular physical activity at home will support children's growth and development holistically, both physically and psychosocially.

Third, for future researchers, this study has several limitations that need to be considered in the interpretation of the results. First, the population studied only included elementary school students in grades IV–VI in one sub-district, so the results could not be generalized to the wider population. Second, the instruments used to measure personal development are still based on questionnaires, which are prone to the subjectivity of respondents, especially children. In addition, this study did not directly control or measure other factors that can affect personal development, such as parenting, socioeconomic background, or the quality of relationships with teachers and peers. For further research, it is recommended to:

1. Using a multivariate or mixed-method quantitative research design to be able to explore other factors that affect personal development more comprehensively.
2. Add qualitative data, such as interviews or observations, to enrich understanding of the dynamics of the relationship between physical fitness and the personal aspects of students.
3. Involving samples from different regions and levels of education, so that the results can be compared and analyzed across contexts

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