

The Effect of Physical Fitness, Play Activities, Nutritional Status on Children's Motor Skills in Three Public Elementary Schools Pancung about South Coast District



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ABSTRACT: The problem of this research is the low motor skills of children in the Pancung Sol Pesisir Selatan sub-district. The low motor skills of children are influenced by several factors, such as physical fitness, play activities and nutritional status. This study aims to reveal direct and indirect effects, as well as the simultaneous influence between variables. This type of research is quantitative associative with a path analysis approach. The population in this study were all 3rd and 4th grade students at several elementary schools in Pancung, South Pesisir Selatan sub-district, totaling 60 people. Samples were taken using purposive sampling. Physical fitness instruments using TKJI, playing activities using a questionnaire, nutritional status using BMI and children's motor skills using the Scott motor ability test. Data were analyzed by path analysis through structural model testing at $\alpha = 0.05$. The results of hypothesis testing show: (1) there is a direct effect of physical fitness on motor skills ($\beta_1 = 0.334$ or 11.1%), (2) there is a direct effect of play activities on motor skills ($\beta_2 = 0.349$ or 12.1%), (3) there is a direct effect of nutritional status on motor skills ($\beta_3 = 0.440$ or 19.3%), (4) there is an indirect effect of physical fitness on motor skills through nutritional status ($\beta_1 \cdot \beta_3 = 0.234$ total effect of 32.3%), (5) there is an indirect effect of play activity on motor skills through the nutritional status of students ($\beta_2 \cdot \beta_3 = 0.272$ total effect of 38.6%), and (6) there is an effect of physical fitness, play activity and nutritional status together with the ability motor ($R^2 = 0.931$ or 93.1%).

KEYWORDS: Physical Fitness, Play Activity, Nutrition Status and Motor Ability

I. INTRODUCTION

Education is one of the most important factors in shaping the future of the nation. Therefore, education cannot be separated from human life. In the 1945 Constitution of the Republic of Indonesia (UUD RI 1945) it is also explained that everyone has the right to get an education, it is regulated in article 31 paragraphs 1-5 in the 1945 Constitution of the Republic of Indonesia In article 31 paragraphs 2 and 3 it is explained that for anyone citizen has the right to get an education, and the government is obliged to pay for it, it aims to achieve the nation's goal of educating the nation's life.

This education aims to improve the quality of human resources through improving the quality of education, it is sought to achieve the formation of an Indonesian human profile that is intellectually, mentally, physically and spiritually ready to face a future that increasingly requires science and technology. To achieve the national education goals, it must be supported by many factors including facilities and infrastructure in schools, play activities, nutritional intake and last but not least motor skills. (Darmawan 2017; Mahfud, Gumantan, and Nugroho 2020; Widodo 2018)

Physical education strives to achieve educational goals through jasmanni activities and healthy life development that has the aim of helping the growth and development of students. Physical education learning in schools is expected to be able to play a role in pursuing basic movement development learning for all children from early childhood to elementary school. (Panggraita, Tresnowati, and Putri 2020; Sobarna, Hambali, and Koswara 2020). Based on the quote above, it can be concluded that how important physical education, sports and health are to develop and improve various movement and sports skills, science, attitudes (social formation). Judging from the learning objectives of physical education, sports and health, it also increases the physical freshness of students fostering a healthy lifestyle. To improve the physical quality of elementary school-aged children, namely by having good physical fitness, and good motor mobility and balanced nutritional status, then accompanied by play activities that are often carried out by children that make children more active in moving, so that children have good physical

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fitness to carry out their daily lives. (Pusat Pengembangan Kualitas Jasmani 2002) explains that "Physical fitness as the ability of one's body to perform daily tasks or work without significant fatigue. Play activities are all spontaneous activities that are fun and have positive value for children, do not have extrinsic goals, but the motivation is intrinsic, involves the active participation of children either using tools or without tools, without thinking about the final result carried out without the coercion of others, and does not expect rewards or praise (Abduh, Humaedi, and Agusman 2020; Supriyadi 2018)

The nutritional status of the child in general can be reinterpreted from the physical state that the child has. Physical fitness will be more optimal if the child has a good nutritional status. Motoric ability is basically inseparable from performing motion activities, both are two things that are interrelated. The abundance of exercises or motion experiences will improve the student's motor skills. This means that the more students experience movement or physical activity, the more trained and capable the elements of their motor skills will be. Gross motor is a body movement that is influenced by the maturity of the child himself. Motor is everything that has to do with body movements. It is further explained that in motor development there are three elements that determine it, namely muscles, nerves, and brain. Children whose brains are impaired appear to be less skilled in their body movements.

Many factors have influenced the lack of basic mobility in the three State Elementary Schools of Pancung Soal District, South Coast District. This lack of basic level of motion ability may be due to students doing less movement, very less play time or because most of the time home from school is spent watching (TV). Furthermore, the implementation of poor learning, facilities and infrastructure that are not met with too many students also affect this condition. Another factor also comes from the creativity of teachers in using the learning approach that is used less in accordance with the existing situation (Pambudi, Winarno, and Dwiyoogo 2019; Zarya and Welis 2021). Ketiga faktor yang berkaitan dengan kemampuan gerak dasar sesuai dengan hasil studi terdahulu perlu mendapatkan perhatian, agar kemampuan gerak dasar meningkat dan berkembang dengan baik, kalau sudah memiliki tubuh yang sehat, tentu akan mudah dalam mengikuti berbagai aktivitas belajar, bermain dan sebaliknya (Abdullah 2015; Izzaty and dkk 2008; Oktaviani 2016).

However, based on the results of observations that the author made on children in three State Elementary Schools in Pancung Soal District, South Coast Regency, and also according to the health investigator there. Students are less enthusiastic in doing sports activities and often get sleepy during class time. Students in sports activities rarely do play activities that do a lot of movement, and face-to-face hours in physical learning are still lacking to improve basic motion skills. This is due to the fact that in school activities there are many activities carried out by students such as: studying, making tasks from the teacher, returning home from school already in the afternoon. Although there is free time, it is used for playing such as the internet or games. Then it was aggravated again by parents who too limited their children's space to play. So as a result, children will lose time playing with their friends, so children cannot use their time to do physical education activities, both at school and at home. Because movement and play activities at this age are very important and are needed by students for their developmental period (Jamaluddin 2016; Siska 2019; Suprpto et al. 2018).

So far, physical education activities in schools have not gone well. In this case, teachers feel it is necessary to develop learning through an approach that is appropriate to the student's situation, so that students will be able to improve basic movement skills, thinking abilities and skills in accordance with the goals that have been set nationally. Even though the government, teachers and parents expect the level of students' basic mobility ability to increase after the learning of health workers carried out in schools, but in fact, it is not in accordance with what is expected in the Law on the National Sports System. (Alzu'bi 2015; Mareta 2021; Shiver et al. 2020).

Banyak aktivitas yang dilakukan oleh siswa/siswi baik saat di sekolah maupun pada saat berada di luar sekolah, juga akan mempengaruhi perkembangan kemampuan motorik siswa. Jika siswa banyak melakukan aktivitas maka perkembangan gerak dasarnya lebih baik dan begitu sebaliknya. Aktivitas yang berbeda-beda tersebut, akan membawa dampak yang logis terhadap motorik kasar yang bersangkutan. Anak Sekolah Dasar yang memiliki kemampuan motorik kasar yang baik, pasti akan mudah dalam melakukan berbagai aktivitas termasuk aktivitas gerak. Dalam permasalahan ini peneliti meneliti siswa di Tiga Sekolah Dasar Negeri Kecamatan Pancung Soal Kabupaten Pesisir Selatan (Barra, Wilujeng, and Kuswanto 2019; Nuzzo 2020; Wiarto 2013).

According to the author's observations and experience in the field, there are several factors that are quite dominant in influencing motor abilities, including; Factors of nutritional status, play activities and social status can be seen from the laziness of children in carrying out movements due to weak body conditions that are possible due to lack of nutritional intake which causes a lack of energy in children, besides that many children also tend to be lazy to move which is possible because they are not used to doing play activities both at school and at home. (Prayitno 2014; Puger 2015; Suhendro 2012).

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Based on observations and interviews with teachers and students in three State Elementary Schools in Pancung Soal District, Pantai Selatan District, there are students who have limited gross motor development. The development is that it has not been able to jump, and the obstacles to the balance of the body. The motor development of children that the authors focused on in this study was gross motor locomotor jumping. Because the development of jumping is useful for students in carrying out daily activities that require the development of jumping. If the gross motor development of locomotor jumping is not possessed as early as possible, it can result in problems in the future development of locomotor (the development of individuals to move), problems in nonlocomotor motor development (development of individuals to move without changing places, for example stretching, twisting) and manipulative motor development (development of individuals engineering objects, for example dribbling) (Kobawon 2021; Okilanda et al. 2020; Subarjah 2016).

II. MATERIAL AND METHODS

The method used in this study is a quantitative method using the Path Analysis approach, which uses structural equations that look at the causality of the dimensions of the influences of physical fitness (X1), play activity (X2), nutritional status (X3) on children's gross motor abilities (Y). The implementation of this research was carried out at several SD N Pancung Soal South Coast Districts. The population is the overall object studied in this study is 60 students. The sample is part of the number of characteristics possessed by the population. The sample determination technique in this study uses a purposive sampling technique where the determination of the sample is based on certain considerations according to the objectives set by the researcher. The sample used in this study was 45 people who were male students in grades 3 and 4.

An instrument used to measure a student's physical fitness by looking at the results of the TKJI test with 5 test items in it (Komaini, Sepdanius, and Rifki 2019). Measuring play activity by spreading questionnaires that have been validated by experts previously in the sadur from the grid (Gusril 2004). Meanwhile, how to measure the nutritional status of students by looking at the BMI number (Par'i, Wiyono, and Harjatmo 2017). In this study the gross motor ability of children with guided on the Scott Motor Ability test (Gusril 2008). Data analysis includes: (1) data description, (2) analysis requirements test consisting of: normality test and linearity test, (3) path analysis which includes: model testing and hypothesis testing.

III. RESULTS AND DISCUSSION

Results

Based on the results of the research conducted, the results were found:

1. Total Summary of overall Direct and Indirect Influences

Koef Jalur	Direct Influence			Indirect Influence				Total Direct + Indirect Influence		
	Koef	(²)	(%)	Intervening X ₃	Koef	(²)	(%)	Total koef	(²)	Total (%)
X _{1Y} (P _{y1})	0,334	0,111	11,1	X ₁ ke Y melalui X ₃	0,534	0,285	28,5	0,234	0,323	32,3
X _{2Y} (P _{y2})	0,349	0,121	12,1	X ₂ ke Y melalui X ₃	0,619	0,383	38,3	0,272	0,386	38,6
X _{3Y} (P _{y3})	0,440	0,193	19,3					0,440	0,193	19,3
Total Direct + Indirect Influence									0,903	90,3
Influence of Other Variables									0,096	9,63

Based on the table above, that the total total direct and indirect influence through the variable Intervening motor ability of students in three State Elementary Schools of Pancung Soal District, South Coast District is 90.3%, while the remaining 9.63% is another factor not explained in this study.

IV. DISCUSSION

Based on the results of the research conducted, there is a direct influence of physical fitness on the motor skills of students in three State Elementary Schools in Pancung Soal District, Pesisir Selatan Regency. The result of the path coefficient to obtain py1 = 0.334 and the value of Sig.= 0.019 < α = 0.05 or the value of counting = 4.547 > t_{table} = 1.684. The magnitude of the direct

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influence of physical fitness on the motor skills of students in the three State Elementary Schools of Pancung Soal District, South Coast District was 11.1%, while the rest was influenced by other factors not described in this study.

So it can be explained that physical fitness has a significant influence on a person's motor abilities. People who have good physical fitness tend to have better motor skills compared to people who do not have good physical fitness. This is because regular physical exercise can increase strength, flexibility, and endurance, all of which are important factors in improving motor skills. In addition, people who have good physical fitness also adjust more quickly to new physical activities and are less exposed to injuries. To maintain good physical fitness and improve motor skills, a person needs to engage in regular physical activity and maintain a healthy diet. If a person has certain health problems, it is best to seek advice from a doctor before engaging in intense physical exertion.

Based on the results of the research conducted, there is a direct influence of play activities on the motor skills of students in three State Elementary Schools in Pancung Soal District, Pesisir Selatan Regency. The result of the path coefficient to obtain $\beta_2 = 0.349$ and the value of $\text{Sig.} = 0.007 < \alpha = 0.05$ or the calculated value $= 1.815 > t_{\text{tabel}} = 1.684$. The magnitude of the direct influence of play activities on the motor skills of students in three State Elementary Schools in Pancung Soal District, South Coast District was 12.1%, while the rest was influenced by other factors that were not described in this study. Play activities are very important activities for children's growth and development and can have a significant influence on a person's motor abilities. Through play activities, children can develop their motor skills naturally and become more active. Fun play activities can help children learn to control their body movements, hone their coordination skills, and improve balance. In addition, play activities can also help increase strength, flexibility, and endurance, all of which are important factors in improving motor skills.

Based on the results of the research conducted, there is a direct influence of nutritional status on the motor abilities of students in three State Elementary Schools in Pancung Soal District, Pesisir Selatan Regency. The result of the path coefficient to obtain $\beta_3 = 0.440$ and the value of $\text{Sig.} = 0.000 < \alpha = 0.05$ or the calculated value $= 7.801 > t_{\text{tabel}} = 1.684$. The magnitude of the direct influence of nutritional status on the motor abilities of students in three State Elementary Schools in Pancung Soal District, South Coast District was 19.36%, while the rest was influenced by other factors not explained in this study. A person's nutritional status can have a significant influence on a person's motor abilities. People who have good nutritional status tend to have better motor skills compared to people who have poor nutritional status. This is because adequate and balanced nutrition can help increase strength, flexibility, and endurance, all of which are important factors in improving motor abilities. In addition, people who have a good nutritional status are also less affected by injuries when doing physical activity.

Based on the results of the analysis test, that the value of the indirect influence path coefficient given by the Intervening variable ($\beta_{31.\beta_3} = 0.234$). The total direct influence of physical fitness on motor ability and indirect influence given through the nutritional status of students in three State Elementary Schools of Pancung Soal District, South Coast District was 0.234 or 32.3%. Physical fitness has an indirect influence on motor abilities through nutritional status. People who have good physical fitness tend to have good nutritional status as well. This is because people who have good physical fitness tend to be more active and better able to manage their diet and nutritional intake. In addition, people who have good physical fitness also tend to be healthier and have a lower risk of developing diseases, all of which can help maintain a good nutritional status.

Based on the results of the analysis test, that the value of the indirect influence path coefficient given the Intervening variable ($\beta_{32.\beta_3} = 0.272$). The total direct influence of play activities on motor skills and indirect influences given through the nutritional status of students in three State Elementary Schools in Pancung Soal District, South Coast District was 0.272 or 28.6%. Play activities have an indirect influence on motor abilities through nutritional status. Children who play frequently tend to have good nutritional status because play activities can help increase children's energy needs and help manage the intake of nutrients needed by the body. In addition, play activities can also help increase muscle suppleness and reduce the risk of injury when doing physical activity.

Based on the results of the analysis of the effect of physical fitness, play activities and nutritional status simultaneously on the motor abilities of students in three State Elementary Schools in Pancung Soal District, South Coast Regency obtained 0.931. The results of this study showed that the magnitude of the influence of physical fitness, play activities and nutritional status simultaneously on the motor abilities of students in three State Elementary Schools in Pancung Soal District, South Coast Regency was 93.1%, while the rest were other factors that were not explained in this study.

Physical fitness, play activities, and nutritional status are all factors that have an influence on a person's motor abilities. Good physical fitness can help improve strength, flexibility, and endurance, all of which are important factors in improving motor skills. Fun play activities can help children learn to control their body movements, hone their coordination skills, and improve balance. Good nutritional status can help increase strength, flexibility, and endurance, as well as reduce the risk of injury when doing physical activity.

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V. CONCLUSION

The results of this study explained that the motor abilities of students in three State Elementary Schools in Pancung Soal District, Pesisir Selatan Regency, were influenced by these three factors or it could be interpreted that motor abilities can be maximized if they have variables of physical fitness, play activities and nutritional status.

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