The Relationship Between Children's Nutritional Status, Father's Last Education Level and Mother's Last Education Level with Student Learning Outcomes at SDN Plosorejo 1 Plosorejo Village Randublatung Blora Regency

Rani Kartikasari
Department of Public Health Sciences, Faculty of Sports Science, Semarang State University

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ABSTRACT

The problem studied in this study is how the respondent's picture based on the nutritional status of the child, the father's last education level, the mother's last education level, and student learning outcomes, is there a relationship between the child's nutritional status, the father's last education level, and the mother's last education level with the results student learning. The purpose of this study was to determine the description of respondents based on the nutritional status of children, father's last education level, mother's last education level, and student learning outcomes, the relationship between children's nutritional status, father's last education level, and mother's last education level with student learning outcomes. This type of research is an analytic survey with a case control design. The population is all elementary school students in grades 4, 5 and 6 at SDN Plosorejo I, a total of 85 children. A sample of 62, consisted of 31 case groups and 31 control groups. Sampling technique with restriction. The instruments used in this study were stamping scales (seca), microtoise, class register books, student report cards. Bivariate analysis with Chi Square statistical test and to determine the magnitude of the risk factors used Odds Ratio analysis. The results showed that the nutritional status (BB/TB) of grade 4, 5, and 6 SDN Plosorejo I students were mostly normal, in the case group it was 87.1% and the control group was 61.2%, nutritional status (TB/U) mostly normal, in the case group by 74.2% and the control group by 67.8%, the father's last education level was mostly elementary school, in the case group it was 25.8% and the control group was 38.8%, and education level Finally, some mothers also finished elementary school, in the case group by 35.4% and in the control group by 42%. The statistical test results show that there is a significant relationship between nutritional status (BB/TB) and learning outcomes (p value=0.040 and OR=4.623), there is no significant relationship between nutritional status (TB/U) and student learning outcomes (p value = 0.780 and OR = 1.369), there is no relationship between father's last education level and student learning outcomes (p value = 0.786 and OR = 0.744), and there is no

significant relationship between mother's last education level and student learning outcomes (p value = 0.057 and OR = 0.291). The conclusions that can be drawn are that there is a significant relationship between nutritional status (BB/TB) and learning outcomes, there is no significant relationship between nutritional status (TB/U) and student learning outcomes, there is no relationship between father's level of education and student learning outcomes.

E-mail:
ranikartika20@gmail.com

1. INTRODUCTION

National development goals lead to improving the quality of human resources (HR). In this global era full of competition in mastering this technology, reliable human qualities are needed[1]. The indicators are people who are able to live longer (measured by life expectancy), enjoy a healthy life (measured by morbidity and malnutrition), live in prosperity (measured by an adequate level of per capita income or are free of poverty), and have the opportunity to increase their income. science (measured by literacy rate and education level)[2].

Learning is an important process for changing human behavior and it includes everything that is thought and done. Learning can be defined as a business or activity that aims to make changes in a person, including changes in behavior, attitudes, habits, knowledge, skills, and so on.[3].

The success of a nation in building education as a whole greatly affects the greatness and smallness of the nation[4]. Evidently, the inability of the Indonesian people to get out of the puddle of the current multi-dimensional crisis is directly proportional to the backwardness of Indonesia's education development from other countries. This is shown by the report of the United Nations Development Program (UNDP) in the Human Development Index (HDI) in 2003 which puts Indonesia's human quality at 112 out of 175 countries, far below Malaysia (58), Thailand (74), and the Philippines (85).

Even the multi-dimensional crisis that began with the monetary crisis in mid-1997, in fact has a significant correlation with the decline in the quality of Indonesian people. This is shown in the HDI report in 1996-2000, that the quality of Indonesian human beings is in 102 (1996), 99 (1997), 99 (1998), 105 (1999) and 109 (2000) positions out of 174 countries. HDI is a unit developed by UNDP, one of the world's bodies under the auspices of the United Nations (UN) organization.

If the decline in the quality of human resources continues, it will endanger the fate of the Indonesian people. Therefore, efforts are needed to improve the quality of Indonesian human resources[5]. One of the efforts made is through education. The longer the average years of education in a country, the higher the quality of human resources. One of the factors that determine success in education is the state of health and nutrition of school children[6]. School children belong to the nutritionally vulnerable group. For this reason, efforts to improve nutrition should especially be aimed at children[7].

Nutrition is a process of using food that is consumed normally through the processes of digestion, absorption, transportation, storage, metabolism, and excretion of substances that are not used to maintain life, growth and normal function of organs and produce energy[8]. Nutrients are substances obtained from the food consumed by a person which is the basic building block of food ingredients[9].

Lack of nutrients in young children will inhibit mental development and brain intelligence in the future. Abnormalities that occur in brain tissue due to poor nutrition will cause a decrease in brain function, which will affect learning abilities[10]. Research conducted in Central America, Brazil, and India shows that children who are malnourished early in their lives, 20%-30% do not go to grade and repeat in the first year at least once, and 17%-30% repeat in the second year when they attend elementary school. Children who are malnourished in early life have a 5-50 score lower intelligence

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(IQ) than children who are not malnourished in early life.[11]. The results of research conducted on the impact of past malnutrition on children's physical performance and intelligence, show that the average IQ of children who have experienced malnutrition at an early age is 13.7 points lower than children who have never experienced malnutrition at an early age. . The study was conducted on 31 children aged 6-9 years as a sample and 31 children as a comparison.

Student learning outcomes are closely related to the level of formal education of parents. Parents with higher levels of formal education have more ability to help their children learn than parents with lower levels of education[12][13].

From the results of a study by the US Department of Education referred to by the Wood Elementary Dad's Club, it was found that students who got an A grade (equivalent to 9-10) turned out to be 51% of their fathers and mothers with higher education, or 48% only fathers with higher education, or 44 % only mothers have high education, and or 27% both fathers and mothers have low education. Meanwhile, among students who live in class, only 6% of both fathers and mothers have high education, or 9% only mothers have high education and or 20% both fathers and mothers have low education. Among students who got an A grade (equivalent to 9-10) half of the students in fact only had a highly educated father, and a third of the students turned out to have a low education father[14].

From the results of the preliminary survey, the father's education level of grade 4, 5 and 6 SDN Plosorejo I students was 14.12% not in school, 27.06% did not finish elementary school, 35.29% finished elementary school, 5.88% did not finish Junior high school, 9.41% graduated from junior high school, 3.53% did not finish high school, and 4.71% graduated from high school. Regarding the education level of mothers, 15.29% did not go to school, 22.35% did not finish elementary school, 47.06% finished elementary school, 4.71% did not finish junior high school, 4.71% finished junior high school, 2.35% did not finish high school, and 3.53% finished high school. From these data, it is noted that the highest number of fathers' education levels are elementary school graduates as much as 35.29% and the largest number of mothers education levels are elementary school graduates as much as 47.06%.

The average score of grade 3, 4 and 5 students of SDN Plosorejo I in the second semester of the 2005/2006 academic year is included in the sufficient category (5.5-6.9), namely the achievement value of grade 3 students for mathematics is 6 ,2, the average value of science is 6.4, and the average value of social studies is 6.75, while the average grade 4 student achievement score for mathematics is 5.5, the average value of science is 5, 7, and the average score for social studies is 5.4, while the average grade 5 student achievement score for mathematics is 5.6, the average value for science is 6.1, and the average score for social studies is 5, 5.

2. METHOD

The independent variable is the nutritional status of the child, the father's last education level and the mother's last education level, while the dependent variable is student learning outcomes. Confounding variables are health status (disease infection) and students' breakfast habits.

Health status (disease infection) is called a confounding variable because disease infection is related to the nutritional status of children, student learning outcomes, and is not an intermediate variable. Between poor nutritional status and infection there is a back and forth interaction. Infection can cause malnutrition through various mechanisms. Controlled by taking samples that 2 weeks before the study did not suffer from illness, absenteeism was not more than 1 week in one semester, students did not experience hearing and vision problems.

Students' breakfast habits are called confounding variables because they are related to the variables of children's nutritional status, student learning outcomes, and are not intermediate variables. In children, breakfast habits can increase academic intelligence and psychosocial abilities. Controlled by taking samples that get used to breakfast.

The Variable Operational Definitions and Variable Measurement Scales are:

Table 1. Operational Definition and Variable Measurement Scale

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No	Variable Name	Operational definition	Category	Scale	Instrument
1	Status child nutrition	Something the child's nutritional status or condition the child's body is assessed based on anthropometric measurements with the index BW/TB and TB/U, with z-score calculation.	According to WHO-NCHS, the BB/TB index is divided into 4 categories, namely: 1. Nutritional status fat =>2 SD 2. Normal nutritional status = -2 SD to +2 SD 3. Underweight nutritional status = -3 SD up to - 2 SD 4. Very thin nutritional status = <-3 SD The TB/U index is divided into 2 categories, namely: 1. Normal= >-2 SD 5. Short= <-2 SD	ordinal	1. Measuring weight with a tread scale or by hand 2. Measuring TB with microtoise
2	The father's last education level and the mother's last education level.	The last level or level of formal educationtaken by father and mother.	Shared Becomes 8 categories, namely: 1. No school 2. Not completed in primary school 3. finished elementary school 4. Did not finish junior high school 5. High school graduate 6. Did not finish high school 7. High school graduate 8. College (PT) For the purposes of data analysis, they are grouped into 2 categories: 1. No school until finished elementary school 2. Did not finish junior high school until finished high school	ordinal	Book class report
3	Student learning outcomes	Results 4th grade elementary school student learning, 5, and 6 in the form of total value average eye math, science, and IPS semester II year.	According to the Ministry of Education and Culture, student learning outcomes are divided into 5 categories, namely: 1. Very Good (A)= 8.5-10 2. Good (B)= 7.0-8.4 3. Enough (C) = 5.5-6.9 4. Less (D)= 4.0-5.4 5. Less once (E) =< 4.0 For the purposes of data	ordinal	Student report card

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Taken based on the data contained in the school through report cards learning outcomes.

analysis, the learning outcomes student grouped into 2 categories:
1. Case = Less (4,0- 5,4) and Less Once (< 4.0)
2. Control = Very Good (8.5-10), Good (7.0-8.4) and Fairly (5.5-6.9)

The population in this study were all elementary school students in grades 4, 5 and 6 at SDN Plosorejo I, with a total population of 85 children. The population is divided into two, namely the case population and the control population. The case population was all elementary school students in grades 4, 5 and 6 at SDN Plosorejo I who had an average score of less (4.0-5.4), and very less (< 4.0) for mathematics. Science, and social studies as many as 33 students. The control population was all elementary school students in grades 4, 5 and 6 at SDN Plosorejo I who had an average score of sufficient (5.5-6.9), good (7.0-8.4), and very good. good (8.5-10) for the subjects of mathematics, science, and social studies as many as 52 students. Case samples were taken from the case population, namely grade 4 elementary school students, 5 and 6 in SDN Plosorejo I which have an average score of less (4.0-5.4), and very less (< 4.0) for mathematics, science, and social studies subjects. With the condition that 2 weeks before the study, the students did not suffer from illness, absent for more than 1 week in one semester, did not experience hearing and vision problems, and used to eat breakfast, as many as 31 students. Control samples were taken from 4th, 5th and 6th grade elementary school students at SDN Plosorejo I who had an average score of sufficient (5.5-6.9), good (7.0-8.4), and very good. good (8.5-10) for mathematics, science, and social studies subjects. On the condition that 2 weeks prior to the study the student does not suffer from illness, absent for more than 1 week in a semester, does not experience hearing and vision problems, and gets used to breakfast,

The research instruments used were: stamping scales or seca, microtoise, class register books and student report cards. Stepping scales or calipers. Weighing equipment using a stepping or seca scale with a capacity of 200 kg and a level of accuracy of 0.1 kg to obtain data about students' weight. Microtoise as a measure of height with a length of 200 cm and a level of accuracy of 0.1 cm to get data about the height of students. Class register book to get data about father's last education level and mother's last education level. Student report cards to obtain data on the acquisition of the average value of mathematics, science, and social studies subjects.

3. RESULT AND DISCUSSION
3.1 Univariate Analysis

Based on research data, it can be seen that most of the students in the case group aged 11 years were 9 students (29.0%) while most of the control group was 10 years old as many as 12 students (38.7%). After testing the normality of the data, the value of $p = 0.031$ in the case group and $p = 0.000$ in the control group was obtained. Because $p<0.05$, the age distribution of respondents in the case group is not normally distributed, so it can be seen that the mean value of the age distribution of respondents is 11 years, the minimum value is 9 years, and the maximum value is 13 years. While the age distribution of respondents in the control group is not normally distributed, so it can be seen that the mean value of the age distribution of respondents is 10 years, the minimum value is 9 years, and the maximum value is 12 years, the age distribution of respondents is not normally distributed.

Table 2. Distribution of Respondents Based on Nutritional Status (W/W)

Nutritional Status (W/W)	Learning outcomes				Total	
	Case		Control			
	N	%	N	%	n	%
Normal (-2 SD to +2 SD)	27	87.1	19	61.2	46	74.19
Skinny (-3 SD to 2 SD)	3	9.7	10	32.2	13	20.97
Very Thin (<-3 SD)	1	3.2	2	6.4	3	4.84

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Amount	31	50.0	31	50.0	62

Based on the table above, it can be seen that the nutritional status of respondents according to BB/TB in the case group was mostly in the normal category as many as 27 respondents (87.1%), and the nutritional status of respondents according to BB/TB in the control group was mostly in the category normal as many as 19 respondents (61.2%). After testing the normality of the data, the value of p = 0.000 in the case group and p = 0.000 in the control group was obtained. Because p<0.05, the distribution of the nutritional status data (BB/TB) of respondents in the case group was not normally distributed, so it can be seen that the mean distribution of nutritional status (BB/TB) of respondents is -1.67, the minimum value is -3.20, and the maximum value is 1.07. While the distribution of nutritional status data (BB/TB) of respondents in the control group was not normally distributed,

Table 3. Distribution of Respondents Based on Nutritional Status (TB/U)

| Nutritional Status (TB/U) | Learning outcomes | | | | Total | |
| | Case | | Control | | | |
	N	%	N	%	n	%
Normal (>-2 SD)	23	74.1	21	67.7	44	70.96
Short (<-2 SD)	8	25.9	10	32.3	18	29.04
Amount	31	50.0	31	50.0	62	

Based on the table above, it can be seen that the nutritional status of respondents according to TB/U in the case group was mostly in the normal category as many as 23 respondents (74.1%), and the nutritional status of respondents according to TB/U in the control group was mostly in the category normal as many as 21 respondents (67.7%). After testing the normality of the data, the value of p = 0.000 in the case group and p = 0.000 in the control group was obtained. Because p<0.05, the distribution of the nutritional status data (TB/U) of respondents in the case group is not normally distributed, so it can be seen that the mean distribution of nutritional status (TB/U) of respondents is -1.62, the minimum value is -3.08, and the maximum value is 0.21. While the distribution of nutritional status data (TB/U) of respondents in the control group was not normally distributed,

Table 4. Distribution of Respondents Based on Father's Last Education Level

| Level of education Father's Last | Learning outcomes | | | | Total | |
| | Case | | Control | | | |
	N	%	N	%	n	%
No school	7	22.6	4	13	11	17.74
Not completed in primary school	7	22.6	4	13	11	17.74
finished elementary school	8	25.8	12	38.8	20	32.26
Did not finish junior high school	2	6.4	0	0.0	2	3.23
High school graduate	6	19.4	10	32.2	16	25.8
High school graduate	1	3.2	1	3.2	2	3.23
Amount	31	50.0	31	50.0	62	

Based on the table above, it can be seen that the last education level of the respondent's father in the case group was mostly elementary school graduates as many as 8 people (25.8%). The last education level of the respondent's father was the lowest, 7 people did not go to school (22.6%), while the last education level of the respondent's father was the highest, 1 person graduated from high school (3.2%). The last education level of the respondent's father in the control group was mostly elementary school graduates as many as 12 people (38.8%), the lowest level of education of the respondent's father was not in school as many as 4 people (13%), while the highest education level of the respondent's father was graduated from high school as many as 1 person (3.2%).

Table 5. Distribution of Respondents Based on Mother's Last Education Level

| Level of education Father's Last | Learning outcomes | | Total |
| | Case | Control | |

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	N	%	N	%	n	%
No school	6	19.4	2	6.4	8	12.9
Not completed in primary school	8	25.8	2	6.4	10	16.13
finished elementary school	11	35.4	13	42	24	38.7
Did not finish junior high school	4	13	0	0.0	4	6.45
High school graduate	2	6.4	13	42	15	24,19
High school graduate	0	0.0	1	3.2	1	1.72
Amount	31	50.0	31	50.0	62	

Based on the table above, it can be seen that the last education level of the respondent's mother in the case group was mostly elementary school graduates as many as 11 people (35.4%). The last education level of the respondent's mother was the lowest 6 people (19.4%), while the last education level of the respondent's mother was the highest, 2 people graduated from junior high school (6.4%). The last education level of the respondent's mother in the control group was mostly elementary school graduates as many as 13 people (42%) and high school graduation as many as 13 people (42%), the lowest level of education of the respondent's mother was not in school as many as 2 people (6.4%) , while the highest level of education of the respondent's mother was a high school graduate as many as 1 person (3.2%).

Table 6. Distribution of Respondents Based on Student Learning Outcomes

Student learning outcomes	Learning outcomes				Total	
	Case		Control			
	N	%	N	%	n	%
Good (B) = 7.0-8.4	0	0.0	3	9.7	3	4.8
Enough (C) = 5.5-6.9	0	0.0	28	90.3	28	45.2
Less (D) = 4.0-5.4	31	100	0	0.0	31	50
Amount	31	50.0	31	50.0	62	

Based on the table above, it can be seen that the student learning outcomes in the case group were entirely less than 31 students (100%), and the student learning outcomes in the control group were mostly sufficient as many as 28 respondents (90.3%). After testing the normality of the data, the value of $p = 0.000$ in the case group and $p = 0.000$ in the control group was obtained. Because $p<0.05$, the distribution of student learning outcomes of respondents in the case group is not normally distributed, so it can be seen that the mean distribution of student learning outcomes of respondents is 5, the minimum value is 4, and the maximum value is 5.3. While the distribution of student learning outcomes of respondents in the control group is not normally distributed, so it can be seen that the mean value of the distribution of student learning outcomes of respondents is 6.2, the minimum value is 5.7, and the maximum value is 7.7.

3.2 Bivariate Analysis

The Chi Square test was carried out on nutritional status (BB/TB) with the student learning outcomes in the case and control groups, a p value of 0.040 was obtained. The basis for making the Chi Square test decision to test the hypothesis is that the p value is less than 0.05, meaning that Ha is accepted, that is, there is a relationship between the independent variable and the dependent variable. Based on the Chi Square test, the p value is smaller than 0.05 (0.040 <0.05), so Ha is accepted which states that there is a significant relationship between nutritional status on the basis of weight and height (BB/TB) with student learning outcomes. grades 4, 5, and 6 SDN Plosorejo 1 Plosorejo Randublatung Village, Blora Regency. The results of the crosstab calculation of the independent variable with the dependent variable can be seen in table 7 as follows:

Table 7. Crosstab between Nutritional Status (BB/TB) and Learning Outcomes

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| Nutritional Status (W/W) | Learning outcomes | | | | Total | | OR 95%CI | P value |
| | Case | | Control | | | | | |
	n	%	n	%	N	%		
Skinny+Very Skinny	4	13	12	38.8	16	51.8	4,263	0.040
Normal	27	87	19	61.2	46	148.2	1.192-15.252	
Amount	31	100	31	100	62			

According to the results of the Odd Ratio calculation above, the OR (Odds Ratio) value obtained is 4.263 with a 95% confidence level, the interval is 1.192 – 15.252. So it can be explained that the nutritional status on the basis of body weight and height (BB/TB) is thin and very thin is a risk factor for low student learning outcomes by 4.263 times compared to students who have normal nutritional status.

The Chi Square test was carried out on nutritional status (TB/U) with the student learning outcomes in the case and control groups, a p value of 0.780 was obtained. The basis for making the Chi Square test decision for hypothesis testing is that the p value is less than 0.05 meaning that Ha is accepted, that is, there is a relationship between the independent variable and the dependent variable. Based on the Chi Square test, the p value is greater than 0.05 (0.780>0.05), so Ha is rejected. Thus, it can be explained that there is no significant relationship between nutritional status on the basis of height and age (TB/U) with the results 4th, 5th, and 6th grade students of SDN Plosorejo 1 Plosorejo Randublatung Village, Blora Regency. The results of the crosstab calculation of the independent variable with the dependent variable can be seen in table 8 as follows:

Table 8. Crosstab between Nutritional Status (TB/U) and Learning Outcomes

| Nutritional Status (TB/U) | Learning outcomes | | | | Total | | OR 95%CI | P value |
| | Case | | Control | | | | | |
	n	%	n	%	N	%		
Skinny+Very Skinny	8	25.8	10	32.2	16	56	1.369	0.780
Normal	23	74.2	21	67.8	44	142	0.455-4.121	
Amount	31	100	31	100	62			

According to the results of the Odd Ratio calculation above, the OR (Odds Ratio) value obtained is 1.369 with a 95% confidence level, the interval is 0.455 - 4.121. So it can be explained that nutritional status on the basis of short height and age (TB/U) only provides a risk factor for low student learning outcomes of 1.369 times compared to students who have normal nutritional status.

The Chi Square test which was carried out on the father's last educational level status with the student learning outcomes of the case and control groups obtained a p value of 0.786. Based on the Chi Square test, the p value is greater than 0.05 (0.786> 0.05), so Ha is rejected. Thus, it can be explained that there is no significant relationship between the father's last education level and the learning outcomes of grade 4, 5, and 6 students. Plosorejo 1 Elementary School, Plosorejo Village, Randublatung, Blora Regency. The results of the crosstab calculation of the independent variable with the dependent variable can be seen in table 9 as follows:

Table 9. Crosstab between Father's Last Education Level and Learning Outcomes

| Father's Last Education Level | Learning outcomes | | | | Total | | OR 95% CI | P value |
| | Case | | Control | | | | | |
	n	%	n	%	N	%		
No school, finished elementary school	20	64.6	22	71	42	135.6		0.786
Did not finish junior high school until finished high school	11	35.4	9	29	20	64.4	0.744 0.255-2.166	
Amount	31	100	31	100	62			

According to the results of the Odd Ratio calculation above, the OR (Odds Ratio) value obtained is 0.744 with a 95% confidence level, the interval is 0.255 – 2.166. So it can be explained that the father's low level of recent education (no school, did not finish elementary school and finished

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elementary school) is a protective factor for low student learning outcomes by 0.774 times compared to students whose fathers have a high level of education.

The Chi Square test which was carried out on the mother's last education level with the student learning outcomes of the case and control groups obtained a p value of 0.057. Based on the Chi Square test, the p value is greater than 0.05 (0.057> 0.05), so Ha is rejected which states that there is no significant relationship between the mother's last education level and the learning outcomes of grade 4, 5, and 6 SDN Plosorejo students. 1 Plosorejo Randublatung Village, Blora Regency.

Table 10. Crosstab between Mother's Last Education Level and Learning Outcomes

Mother's Last Education Level	Learning outcomes				Total		OR 95% CI	P value
	Case		Control					
	n	%	n	%	N	%		
No school, finished elementary school	17	54.8	25	80.6	42	135.4		0.757
Did not finish junior high school until finished high school	14	45.2	6	19.4	20	64.6	0.291 0.093-0.909	
Amount	31	100	31	100	62			

According to the results of the Odd Ratio calculation above, the OR (Odds Ratio) value obtained is 0.291 with a 95% confidence level, the interval is 0.093 - 0.909. So it can be explained that the mother's low level of recent education (not attending school, not completing elementary school and graduating from elementary school) is a protective factor for low student learning outcomes by 0.291 times compared to students whose mothers have a high level of education.

3.3 Discussion

Based on the calculation research using the Chi Square test, the p value is smaller than 0.05 which means that the low learning outcomes of grade 4, 5, and 6 students at SDN Plosorejo 1, Plosorejo Randublatung Village, Blora Regency, are caused by underweight and very thin nutritional status as measured by weight and height (BW/TB). This condition illustrates that the level of welfare of the families of Plosorejo 1 State Elementary School students, Plosorejo Randublatung Village, Blora Regency is still low so that their ability to meet the nutritional needs of the family is also low. With low consumption of nutrients, the child's growth will also be stunted (his body is thin), besides that the child will easily get tired while studying. The results of this study are strengthened by the results of a previous study (Itawati Yuliani) which stated that there was a relationship between the nutritional status of BB/TB and student achievement. r: 0.341 and p value: 0.008.

Based on the Chi Square test, it was obtained that the p value was greater than 0.05 (0.780>0.05), so Ha was rejected. Thus, it can be explained that there is no significant relationship between nutritional status on the basis of height and age (TB/U) with the results 4th, 5th, and 6th grade students of SDN Plosorejo 1 Plosorejo Randublatung Village, Blora Regency. There is no relationship between nutritional status on the basis of height and age with student learning outcomes due to a short child, namely a child whose body growth is not proportional to his age does not always have a bad health condition. Height is an anthropometry that describes the state of skeletal growth. Growth in height, unlike weight, is relatively less sensitive to malnutrition in a short period of time. The effect of nutritional deficiency on height will appear in a relatively long time. In addition, a person's height in addition to developing along with age is also determined by heredity. Many children have short bodies but they have a healthy body condition that allows them to be able to carry out their learning activities well to get good learning outcomes as well.

A father who is highly educated will have the ability to educate his children well and conversely a father who has low education will be less able to educate and raise his children well. Based on the Chi Square test, it was obtained that the p value was greater than 0.05 (0.786> 0.05), so Ha was rejected. Thus, it can be explained that there is no significant relationship between the father's last education level and the learning outcomes of grade 4, 5, and 6 students. Plosorejo 1 Elementary School, Plosorejo Village, Randublatung, Blora Regency. The results of this study contradict the

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findings of the US Department of Education referred to by the Wood Elementary Dod's Club (2000) which found that 48% of students whose fathers had a higher education level got an A (equivalent to 9-10). This condition is related to the culture that exists in Indonesian society where a father has a great responsibility to the family in terms of the economy. A father tends to be out of the house more to work to provide for the family's needs, so they hardly have time to pay attention or accompany their children while studying.

The level of education of a mother provides a large enough role in supporting the success of children's learning. Based on the Chi Square test, the p value is greater than 0.05 (0.057> 0.05), so Ha is rejected which states that there is no significant relationship between the mother's last education level and the learning outcomes of grade 4, 5, and 6 SDN Plosorejo students. 1 Plosorejo Randublatung Village, Blora Regency. The results of this study contradict the which states that student learning outcomes are closely related to the level of formal education of parents. Parents with higher levels of formal education have more ability to shape children's learning compared to parents with lower levels of education. Similar findings were also obtained from a study by the US Department of Education referred to by the Wood Elementary Dod's Club (2000) which found that 44% of students whose mothers had a higher education level got an A (equivalent to 9-10). This condition is related to the condition of mothers in Plosorejo village who have to help their husbands work in the fields every day to help meet the needs of their families, so they hardly have time to pay attention to or accompany their children while studying.

4. CONCLUSION

Based on the results of the research conducted, it was concluded that: The nutritional status (BB/TB) of grade 4, 5 and 6 students of SDN Plosorejo I, Plosorejo Randublatung Village, Blora Regency was mostly normal, in the case group it was 87.1% and the control group was 61.2 %. The nutritional status (TB/U) of the 4th, 5th and 6th graders of SDN Plosorejo I, Plosorejo Randublatung Village, Blora Regency was mostly normal, in the case group it was 74.2% and the control group was 67.8%.

The last education level of fathers of 4th, 5th and 6th grade SDN Plosorejo I village, Plosorejo Randublatung, Blora Regency, most of them graduated from elementary school, 25.8% in the case group and 38.8% in the control group. The last education level of the mothers of grade 4, 5 and 6 students at SDN Plosorejo I, Plosorejo Randublatung Village, Blora Regency, partially graduated from elementary school, in the case group it was 35.4% and in the control group it was 42%. The learning outcomes of 4th, 5th and 6th graders at SDN Plosorejo I, Plosorejo Randublatung Village, Blora Regency in the case group were 100% lacking and in the control group were mostly sufficient (90.3%). There is a relationship between nutritional status (BB/TB) and student learning outcomes in grades 4, 5 and 6 at SDN Plosorejo 1 Plosorejo Village, Randublatung District, Blora Regency (p value = 0.040 and OR = 4.623).

There is no relationship between nutritional status (TB/U) with student learning outcomes in grades 4, 5 and 6 of SDN Plosorejo 1 Plosorejo Village, Randublatung District, Blora Regency (p value = 0.780 and OR = 1.369). There was no relationship between the father's last education level and the learning outcomes of grade 4, 5 and 6 SDN Plosorejo 1 Plosorejo Village, Randublatung District, Blora Regency (p value = 0.786 and OR = 0.744). There was no relationship between the mother's last education level and the learning outcomes of grade 4, 5 and 6 SDN Plosorejo 1 Plosorejo Village, Randublatung District, Blora Regency (p value = 0.057 and OR = 0.291).

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