The Relationship Between Physical Activity And Diet With Nutritional Status In Students At The IIK Strada Indonesia Campus In Kediri City

Ana Solikah[1*], Nurwijayanti[2]
Institut Ilmu Kesehatan STRADA Indonesia
*Corresponding author: anasolikah635@gmail.com

ABSTRACT

In Indonesia, the nutritional problem that is being faced is the problem of undernutrition but more nutritional problems are starting to emerge simultaneously (double burden). Generally, adolescent age groups need enough energy to do diverse physical activities, light physical activity such as sitting or lying down, talking, reading, playing games and watching TV is more at risk of causing heart disease and blood vessels. The purpose of this study was to determine the relationship between physical activity and diet with nutritional status in students at the IIK Strada Indonesia campus in Kediri City. The method used is a quantitative method with a cross sectional type of research. The population in this study was all 7th semester fakar faculty students majoring in public health, pharmacy and hospital administration. The sample size was 42 respondents. The results of the study found a relationship between diet and nutritional status in students at the IIK STRADA Indonesia campus in Kediri City where the results of the chi-square test analysis obtained a p-value of 0.002. There is no relationship between physical activity and nutrition ststus in students at the IIK STRADA Indonesia campus in Kediri City where the results of the chi-square test analysis obtained a p-value of 0.757.). For respondents whose nutritional status is lacking, it is recommended to increase nutritional intake according to needs and do physical activity according to their abilities. Physical activity that is done regularly such as brisk walking or jogging can reduce fat accumulation so as to reduce a person's risk of overweight conditions. Studentswhose diet is lacking and have thin nutritional status, according to the results of the existing questionnaire that this is because respondents in a day their food intake is less because their eating habits are less varied types. In addition, students in terms of eating they are too picky so that they are not controlled what they eat.

Keywords: Diet, Physical Activity, Student And Nutritional Status.

INTRODUCTION

According to the Minister of Health of the Republic of Indonesia (2015), the relationship between nutrition and development is reciprocal, which means that nutrition will determine the success of a nation. Conversely, the condition of a nation can affect the nutritional status of its people. Nutrition in relation to the development of a nation is related to human resources, because nutrition is the center for human development. A person's life that is supported by appropriate nutrition will grow and develop optimally and produce human resources.

The results of Adinda's research (2017), showed that most adolescents had physical activity in the light category as much as 77.8% and physical activity in the heavy category of 5.6%. Based on the results of Riskesdas in 2018, it is known that the proportion of overweight

and obesity in adults aged >18 years is 13.6% and 21.8%. When compared to the previous year, namely 2013-2018, there was an increase, namely more weight in 2013 by 11.5% and increased in 2018 to 13.6%. While obesity in 2013 of 14.8% also increased in 2018 to 21.8%. In 2018 for the East Java region, the proportion of obesity in adults aged >18 years was 21.9%. According to data obtained by researchers from 5 IIK Strada Indonesia students who have normal weight = 3, thin = 1, and obesity = 1.

Adolescents in this case students often experience problems with their nutritional status because they are influenced by several factors, including: the application of bad eating habits without knowing the nutrients contained in the food they consume, a wrong understanding of nutrients triggered by the inability of adolescents to have a slim body, excessive liking for certain types of food so that the need for nutrition cannot be fulfilled properly, excessive promotion of food products through mass media and the entry of new food products from abroad whose nutritional content is very low (Wirjatmadi and Adriani. 2014).

Physical activity is the movement of the limbs produced by muscle contractions so as to produce energy that serves for the maintenance of physical and mental health and maintaining the quality of life to stay healthy and fit all day (Akmal, 2012). According to Akmal (2012) physical activity can be classified into three levels, physical activity that is suitable for adolescents, namely light, moderate, and heavy physical activity. Some of the factors that affect adolescent physical activity are age, diet and disease.

Too many lecture activities make students less interested in doing physical activity. Students prefer to gather with friends or travel to entertainment places rather than doing physical activities such as sports. With many activities outside of doing physical activity reduces the interest of students to do physical activity. Students still choose to play with peers compared to doing physical activity.

One of the impacts caused by lack of physical activity is to cause a decrease in fitness, besides that limited physical activity also causes adolescents in this case students to be overweight . Excess weight is caused by increased energy deposits in the form of fat tissue, usually in the abdominal cavity or hips, due to decreased energy use (Akmal, 2012).

In Indonesia, the nutritional problem that is being faced is the problem of undernutrition but more nutritional problems are starting to emerge simultaneously (double burden). Generally, adolescent age groups need enough energy to do diverse physical activities, light physical activities such as sitting or lying down, talking, reading, playing games and watching TV are more at risk of causing heart disease and blood vessels (Sari et al, 2017).

METHODS

In this study, researchers used an analytical quantitative research design with a cross sectional approach, which is a study to study the dynamics of correlation between risk factors and effects, by means of an observation approach or data collection at once at a time (point time approach), meaning that each research subject was only observed once and measurements were made on the character status or variables of the subject at the time of examination. In this study, the population was all 7th semester FAKAR faculty students majoring in public health, pharmacy and hospital administration at the IIK Strada Indonesia campus in Kediri City. The number of samples in this study was selected using the Slovin formula and simple random sampling techniques obtained amounting to 42 respondents. Data collection in this study used questionnaires distributed online. The data analysis used in this study was bivariate analysis using chi-square test with a significant of 0.002 or less than 0.05 then H_0 was rejected and H_1 was accepted. In this study, the independent variable is the relationship between physical activity and diet, while the dependent variable is nutritional status in students. The measuring instrument used is a questionnaire.

RESULTS

Questionnaires are given online to each 7th semester student. The total subjects of this study were 42 students. The questionnaire was filled out independently by respondents without being directed by the researcher. Of the 42 respondents who filled out the questionnaire, they were then analyzed according to their characteristics based on age, sex, physical activity, diet and nutritional status. In this study, respondents were dominated by women (59.5%) aged 23 years (31.0%) with light physical activity (69.0%), adequate diet (92.9%) and normal nutritional status (69.0%).

Table 1 Characteristics of respondents based on the age of students at the IIK STRADA Indonesia campus in Kediri City

Age (years)	N	%
21 yrs	7	16,7%
22 yrs	10	23,8%
23 yrs	13	31,0%
24 yrs	6	14,3%
25 yrs	5	11,9%
28 yrs	1	2,4%
Total	42	100%

Based on table 1, It is known that the age of respondents ranged from 21-28 years, most of the respondents were 23 years old as many as 13 respondents (31.0%) from a total of 42 respondents at the IIK STRADA Indonesia campus in Kediri City.

Table 2 Characteristics of respondents by gender at Institut Ilmu Kesehatan STRADA Indonesia campus Kediri City

Gender	N	%
Woman	25	59,5%
Man	17	40,5%
Total	42	100,0%

Based on table 2, it is known that most of the respondents were female as many as 25 respondents (59.5%), and those who were male as many as 17 respondents (40.5%) from a total of 42 respondents at the Institut Ilmu Kesehatan STRADA Indonesia campus in Kediri City.

Table 3 Characteristics of variables based on the physical activity of respondents at the Institut Ilmu Kesehatan STRADA Indonesia campus in Kediri City.

Physical activity	N	%
Light	29	69,0%
Keep	13	31,0%
Heavy	0	0%
Total	42	100%

Based on table 3, it is known that most respondents did light physical activity as many as 29 respondents (69.0%), who did moderate physical activity as many as 13 respondents

(31.0%), and who did no strenuous activity (0%) out of a total of 42 respondents at the Institut Ilmu Kesehatan STRADA Indonesia campus Kediri City.

Table 4 Characteristics of variables based on the diet of respondents at the Institut Ilmu Kesehatan STRADA Indonesia campus in Kediri City.

Diet	N	%
Enough	39	92,9%
Less	3	7,1%
Total	42	100%

Based on table 4, it is known that most respondents have an adequate diet, namely as many as 39 respondents (92.9%) and respondents who have a diet less as many as 3 respondents (7.1%) from a total of 42 respondents at the Institut Ilmu Kesehatan STRADA Indonesia campus in Kediri City.

Table 5 Characteristics of variables based on the nutritional status of respondents at the Institut Ilmu Kesehatan STRADA Indonesia campus in Kediri City

Nutritional status	N	%
That	9	21,4%
Normal	29	69,0%
Fat	4	9,5%
Total	42	100%

Based on table 5, it is known that most respondents have normal nutritional status as many as 29 respondents (69.0%), who have thin nutritional status as many as 9 respondents (21.4%) and who have the least nutritional status as fat as many as 4 respondents (9.5%) from a total of 42 respondents at Institut Ilmu Kesehatan STRADA Indonesia campus Kediri City.

Table 6 Cross-tabulation between variables of nutritional status and physical activity of respondents at Institut Ilmu Kesehatan STRADA Indonesia campus Kediri City.

Nutritional Status	Physical Activity		Total
	Light	Keep	
That	7	2	9
	24,1%	15,4%	21,4%
Normal	19	10	29
	65,5%	76,9%	69,0%
Fat	3	1	4
	10,3%	7,7%	9,5%
Total	29	13	42
	69,0%	31,0%	100%

Based on table 6, it is known that those who have thin nutritional status by doing light physical activity as many as 7 respondents (24.1%), thin nutritional status by doing moderate physical activity as many as 2 respondents (15.4%), who have normal nutritional status by doing light physical activity as many as 19 respondents (65.5%), normal nutritional status with moderate physical activity as many as 10 respondents (76.9%), and those who have fat nutritional status by doing light physical activity as many as 3 respondents (10.3%), fat nutritional status by doing moderate physical activity as many as 1 respondent (7.7%) from a total of 42 respondents at the Institut Ilmu Kesehatan STRADA Indonesia campus Kediri City.

Table 7 Cross-tabulation between variables of nutritional status and diet of respondents at Institut Ilmu Kesehatan STRADA Indonesia Kediri City.

Nutritional Status	Diet		Total
	Enough	Less	
That	6	3	9
	15,4%	100%	21,4%
Normal	29	0	29
	74,4%	0%	69,0%
Fat	4	0	4
	10,3%	0%	9,5%
Total	39	3	42
	92,9%	7,1%	100%

Based on table 7, it is known that respondents who have thin nutritional status with a sufficient diet as many as 6 respondents (15.4%), thin nutritional status with a less diet as many as 3 respondents (100%), for those who have normal nutritional status with a sufficient diet as many as 29 respondents (74.4%), normal nutritional status with a diet less as many as 0 respondents (0%), and those who have obese nutritional status with a sufficient diet as many as 4 respondents (10.3%), nutritional status of fat with a diet of less than 0 respondents as many as (0%) from a total of 42 respondents at the Institut Ilmu Kesehatan STRADA Indonesia in Kediri City.

Table 8 Cross-tabulation between variables of physical activity and diet of respondents at Institut Ilmu Kesehatan STRADA Indonesia Kediri City

Physical Activity	Diet		Total
	Enough	Less	
Light	26	3	29
	66,7%	100%	69,0%
Keep	13	0	13
	33,3%	0%	31,0%
Total	39	3	42
	92,9%	7,1%	100%

Based on table 8, it is known that respondents who did light physical activity with a sufficient diet were 26 respondents (66.7%), who did light physical activity with a diet of less than 3 respondents (100%). For those who do moderate physical activity with a sufficient diet as many as 13 respondents (33.3%), who do moderate physical activity with a diet less as many as 0 respondents (0%) from a total of 42 respondents at the Institut Ilmu Kesehatan STRADA Indonesia conference in Kediri City.

Table 9 Statistical test results of the relationship between physical activity and nutritional status in students at the Institut Ilmu Kesehatan STRADA Indonesia in Kediri City

Physical Activity	Nutritional Status			Total	p-value
	That	Normal	Fat		
Light	7	19	3	29	0,757
	77,8%	65,5%	75,0%	69,0%	
Keep	2	10	1	13	
	22,2%	34,5%	25,0%	31,0%	
Total	9	29	4	42	
	21,4%	69,0%	9,5%	100%	

Based on table 9, statistical test results using the *chi-square test* showed that *there was no significant relationship* between physical activity and nutritional status (p = 0.757 > 0.05). In addition, students with nutritional status were more or less in students with light physical activity, as many as 7 respondents (77.8%). While students with more nutritional status, more students who have light physical activity are as many as 3 respondents (75.0%) because of their physical activity habits only sitting, standing, and walking both on campus and at home.

Table 10 Statistical test results of the relationship between diet and nutritional status in students at the Institut Ilmu Kesehatan STRADA Indonesia in Kediri City

Diet	Nutritional Status			Total	p-value
	That	Normal	Fat		
Enough	6	29	4	39	0,002
	66,7%	100%	100%	92,9%	
Less	3	0	0	3	
	10,3%	0%	0%	7,1%	
Total	9	29	4	42	
	21,4%	69,0%	9,5%	100%	

Based on table 10 statistical test results using the *chi-square test* show that *there is a relationship* between diet and nutritional status (p = 0.002 < 0.05). In addition, students with underweight nutritional status were more likely to study students with adequate diets, namely as many as 6 respondents (66.7%). While students with obese nutritional status are more in students with adequate diet, namely as many as 4 respondents (100%).

In students whose diet is lacking and has thin nutritional status, according to the results of the existing questionnaire that it is because respondents in a day lack of food intake because their eating habits are less varied in type. In addition, students in terms of eating they are too picky so that they are not controlled what they eat.

DISCUSSION

A.   Identifying Physical Activity in Students at IIK STRADA Indonesia Campus Kediri City

From the results of the study, almost all respondents as many as 29 respondents (69.0%) did physical activity in the light category, besides that as many as 13 respondents (31.0%) did physical activity in the moderate category and no respondents did physical activity in the heavy category. So that the highest results were respondents with light physical activity as many as 29 respondents and the lowest results were moderate physical activity as many as 13 respondents. Based on the results of the recapitulation of questionnaire data, it was found that 227 answers were rarely 227 answers which were the highest answer results, often as many as

129 answers, sometimes as many as 138 answers, never as many as 51 answers, and very often as many as 1 answer which was the lowest answer result.

Physical activity is physical movement carried out by the muscles of the body and its supporting system (Almatsier, 2003). Physical activity is all body movements produced by skeletal muscles that require energy expenditure. Physical activity is broadly defined as daily exercise, work, leisure activities, and active transportation (Garber *et al.*, 2011). According to (Akmal, 2012) physical activity is the movement of limbs produced by muscle contractions so as to produce energy that functions for the maintenance of physical and mental health and maintains the quality of life to stay healthy and fit throughout the day.

One of the negative impacts caused by lack of physical activity is to cause a decrease in fitness, besides that limited physical activity also causes adolescents in this case students to be overweight. Excess weight is caused by an increase in energy deposits in the form of fat tissue that is usually found in the abdominal cavity or hips, due to decreased energy use (Akmal, 2012). While the positive impact caused by regular physical activity can reduce body fat and build muscle mass and increase body metabolism. If accompanied by appropriate nutritional intake, exercise can help you lose weight while preventing obesity as a trigger for various diseases.

Based on the results of research conducted at the IIK STRADA Indonesia campus in Kediri City, researchers assume that the cause of students doing a lot of light physical activity, one of which is because students are less enthusiastic and there is no motivation from people around to do physical activity. Physical fitness is needed by students for lectures or activities that support lecture activities. Therefore, every student should have good physical fitness to support and expedite their lecture activities. Making the body become active, regular exercise makes the supply of the amount of oxygen and nutrients in body tissues to the maximum. In addition, improving exercise mood can also improve our mood. The main purpose of doing physical activity is to get health, body fitness and recreation (CDC, 2010). Regular physical exercise provides many health benefits including reducing the risk of cardiovascular disease, cancer, and diabetes (Power and Jackson, 2008).

B.   Identifying Eating Patterns in Students at IIK STRADA Indonesia Campus Kediri City

From the results of the study, almost all respondents as many as 39 respondents (92.9%) had an adequate diet and only 3 respondents (3.1%) had a less diet. So that the highest results were respondents with a sufficient diet of 39 respondents and the lowest results were respondents with a diet of less than 3 respondents. Based on the results of the recapitulation of questionnaire data, there are often 91 answers which are the lowest answer results, rarely as many as 517 answers which are the highest answer results, sometimes as many as 198 answers, and never as many as 175 answers.

According to Sulistyoningsih (2011), diet is a characteristic of individual activities that repeatedly eat or each person eats in meeting food needs. Diet is a way or effort in regulating the amount and type of food with picture information that includes maintaining health, nutritional status, preventing or helping cure diseases. A diet with an unbalanced and excessive menu such as eating high in carbohydrates, high in fat, and high in protein can affect lipoprotein levels, triglycerides, and cholesterol levels in the blood (Day Two, 2012).

The negative impact caused if the diet is irregular can reduce the thermal effect of the food consumed. The thermal effect is the energy used to digest and absorb food, so it can disrupt the digestive system. Irregular eating patterns will make hormones in the body become unbalanced because if you skip breakfast / lunch / dinner, it will increase the hormone cortisol and can cause weight gain. Studies conducted by *Northwestern University* have found that irregular eating patterns can affect weight and lead to obesity. Experts have even found that irregular eating habits can increase the risk of obesity, high blood pressure, and diabetes. While

the positive impact caused if a regular diet can facilitate the work of the metabolic system, this habit will also help the body control cholesterol properly. Sugar levels can also be controlled through a regular and scheduled diet.

Based on the results of research conducted at the IIK STRADA Indonesia campus, Kediri City, researchers assume that the cause of students' irregular eating patterns is because most students have the habit of eating only 2 times a day, especially for those who are boarding houses, maybe sometimes only eat 1 meal a day. So it is possible that the calorie intake has not been met. Diet and lifestyle have made people faced with double nutrition problems. Excess and undernutrition can cause infectious diseases and degenerative diseases. Please also note that a good diet is a diet that balances healthy eating by 80% with eating that makes happy (favorite foods) by 20%, for example such as fried foods.

C.   Identifying nutritional status in students at IIK STRADA Indonesia Campus Kediri City

From the results of the study, almost all students as many as 29 respondents (69.0%) had normal nutritional status, who had thin nutritional status as many as 9 respondents (21.4%) and who had the least obese nutritional status as many as 4 respondents (9.5%).

Nutrition is the bond needed by the body to perform its functions of producing energy, building and maintaining tissues, and regulating life processes (Almatsier, 2010). According to Hasdianah, et al (2014) nutrition is the process of living things using food consumed normally through the process of digestion (absorption), absorption, transportation, storage, metabolism and removal of substances that are not used. According to WHO, nutrition is an organic substance needed by organisms to restore normal body functions such as body systems, immune system from viruses and bacteria and play a role in growth.

Nutritional status is the state of health due to the interaction between food, the human body and the human living environment. Furthermore, Mc. Laren stated that nutritional status is the result of a balance between substances that enter the human body and their use (Irianto, 2013). From some of the above understandings, it can be concluded that nutritional status is a measure of balance between nutritional needs and inputs indicated by certain variables (Supariasa, 2001). According to Susilowati (2016), nutritional status is a measure of a person's body condition which can be seen from the food consumed and the use of substances in the body.

The impact of malnutrition problems is mostly caused by lack of nutritional intake and infectious diseases. Many adolescent nutrition problems occur due to wrong nutritional behavior such as imbalance between nutrition and recommended nutritional adequacy. Lack of energy and protein has an impact on the body resulting in obesity, chronic lack of energy (poor nutrition) and anemia (Hafiza, Utami and Niriyah, 2020). While the problem of overnutrition is mostly faced in the form of overweight and obesity. Excess nutrition or overnutrition is at risk of causing degenerative diseases such as diabetes mellitus, stroke and cancer.

Based on the results of research conducted at the IIK STRADA Indonesia campus in Kediri City, researchers assume that the cause of adolescents in this case students often experience problems with their nutritional status because they are influenced by several factors such as the application of bad eating habits without knowing the nutrients contained in the food they consume, wrong nutritional understanding and triggered by the desire of adolescents to have a slim body, excessive liking for certain types of food so that nutritional needs cannot be fulfilled properly, excessive promotion of food products through social media and the entry of new food products from abroad whose nutritional content is very low (Wirjatmadi and Adriani, 2014).

D.   Analyzing the Relationship Between Physical Activity and Nutritional Status in Students at IIK STRADA Indonesia Campus Kediri City

Based on the results of research from table 6, it can be seen that there were 29 respondents who did light physical activity where from the 29 respondents (69.0%) there were 7 students (24.1%) who had thin nutritional status, 19 respondents (65.5%) who had normal nutritional status, and 3 respondents (10.3%) who had obese nutritional status. The results showed that there were 13 respondents who did moderate physical activity where of the 13 respondents (31.0%) there were 2 respondents (15.4%) who had thin nutritional status, 10 respondents (76.9%) who had normal nutritional status, and 1 respondent (7.7%) who had obese nutritional status.

Based on table 9, statistical test results using the *chi-square test* showed that *there was no significant relationship* between physical activity and nutritional status (p = 0.757 > 0.05). In addition, students with nutritional status were more or less in students with light physical activity, as many as 7 respondents (77.8%). While students with more nutritional status, more students who have light physical activity are as many as 3 respondents (75.0%) because of their physical activity habits only sitting, standing, and walking both on campus and at home.

Regular physical activity can improve quality of life and reduce the risk of developing many major causes of illness and death. Physical activity helps maintain energy balance thereby preventing obesity (Michael et.all, 2013). Physical activity or exercise is done at least 30 minutes for heart health, 60 minutes to prevent weight gain and 90 minutes to lose weight (Rina, 2011). According to Amelia (2013), excess body fat can occur due to an imbalance of energy in the body, namely energy intake that is greater than energy expenditure (energy output) in the long term. Energy is the result of carbohydrate, protein and fat metabolism contained in the food consumed by a person. Excessive energy in the body will be converted into *triglycerides* and will be stored in adipose tissue as body fat.

Adolescence is one of the periods of human development. This period is a time of change or transition from childhood to adulthood which includes biological changes, psychological changes, and social changes. In most societies and cultures adolescence generally begins at the age of 10-13 years and ends at the age of 18-22 years (Notoatmodjo, 2007). A student is someone who is in the process of gaining knowledge or studying and is registered to be undergoing education in one form of higher education consisting of academics, polytechnics, high schools, institutes and universities (Hartaji, 2012).

The impact caused by nutritional problems that are often faced by adolescents is the problem of double nutrition, namely undernutrition and overnutrition. In addition, anemia is also another problem in adolescents due to inappropriate nutritional intake. One of the double nutrition problems mentioned earlier is more nutrition. Nutrition is more of a health problem in children, adolescents, and adults in the United States. The prevalence of anemia ranges from 40%, while the prevalence of adolescents with underweight BMI ranges from 30% (Hasdianah et al, 2014). Excessive energy intake and not balanced with balanced energy expenditure (lack of physical activity) will cause weight gain. Lifestyle changes result in the occurrence of people's diets that refer to a diet high in calories, fat, and cholesterol that is not balanced with physical activity can cause more nutritional problems (Hidayati, 2010).

Based on the results of research conducted at the IIK STRADA Indonesia campus, Kediri City, researchers assume that physical activity determines a person's health condition. Excess energy due to low physical activity can increase the risk of obesity and obesity (Mahardik and Rosita, 2008). For respondents whose nutritional status is lacking, it is recommended to increase nutritional intake according to needs and do physical activity according to their abilities. Physical activity that is done regularly such as brisk walking or jogging can reduce fat accumulation so as to reduce a person's risk of overweight conditions.

The results of this study are supported by research conducted in America where the results showed that an increase in average energy intake of 341 kcal / day had an impact on increasing the prevalence of obesity in women from 16.6% to 36.5% (Amelia, 2013).

E.   Analyzing the relationship between diet and nutritional status in students at IIK STRADA Indonesia Campus Kediri City

Based on the results of research from table 7, it can be seen that there were 39 respondents who had an adequate diet where from the 39 respondents (92.9%) there were 6 students (15.4%) who had thin nutritional status, 29 respondents (74.4%) who had normal nutritional status, and 4 respondents (10.3%) who had fat nutritional status. The results showed that there were 3 respondents who had a less diet where of the 3 respondents (7.1%) there were 3 respondents (100%) who had thin nutritional status, 0 respondents (0%) who had normal nutritional status, and 0 respondents (0%) who had fat nutritional status.

Based on table 10, statistical test results using the *chi-square test* show that *there is a relationship* between diet and nutritional status (p = 0.002 < 0.05). In addition, students with underweight nutritional status were more likely to study students with adequate diets, namely as many as 6 respondents (66.7%). While students with obese nutritional status are more in students with adequate diet, namely as many as 4 respondents (100%).

According to Siswanti (2007), diet is to consume diverse foods, consumption of foods that meet energy needs, consumption of carbohydrates half of energy needs, consumption of fat a maximum of a quarter of energy needs, consumption of foods containing iron, get used to breakfast (maintain the frequency of eating), avoid alcoholic drinks, consumption of safe foods and read labels on packaged foods. Diet is a person's response to food as a vital necessity for life. This behavior includes knowledge, perceptions, attitudes and practices towards food and the elements contained therein (nutrients), food processing and so on (Notoatmodjo, 2007).

According to the Ministry of Health of the Republic of Indonesia (2009), diet is a way or effort in regulating the amount and type of food with an information picture including maintaining health, nutritional status, preventing or helping to cure diseases. Diet is characteristic of activities that repeatedly eat individuals or each person eats in meeting food needs (Sulistyoningsih, 2011). Diet is a variety of information that provides an overview of the types and amounts of food eaten every day by one person and is characteristic for a particular group of people. Food consumption is the arrangement of food commonly eaten including the type and amount of food consumed by a person or group of people / population in a certain frequency and period of time (Ministry of Health of the Republic of Indonesia, 2011).

An unhealthy diet will have a negative impact on the body, one of the factors that cause less nutritional status and more nutritional status at a young age is a diet factor that contains high fat, sugar, salt, but less consumption of fiber, especially those derived from fruits and vegetables (Arisman, 2012). While nutritional status is said to be good if our diet is balanced (Supariasa, 2000).

According to balanced nutrition guidelines, good nutritional status can only be achieved with a good diet, which is a diet based on the principle of a balanced, natural and healthy menu filled with nutritional needs not only carbohydrates but also protein, vitamins, and minerals. Small portions are provided for breakfast because the amount provided is enough 20-25% of daily needs. Daily diet is a person's diet related to eating habits every day. To achieve the goal of a healthy diet cannot be separated from nutritional input which is the process of organisms using food consumed through the process of digestion, absorption, transportation, storage, metabolism and removal of substances that are not used to maintain life, growth and normal function of organs and produce energy (Syakira, 2009).

Based on the results of research conducted at the IIK STRADA Indonesia campus in Kediri City, researchers assume that students whose diet is lacking and have thin nutritional status, according to the results of existing questionnaires that this is because respondents in a

day lack of food intake because their eating habits are less varied in type. In addition, students in terms of eating they are too picky so that they are not controlled what they eat.

CONCLUSION

From the results of the study, almost all respondents as many as 29 respondents (69.0%) did physical activity in the light category (highest), besides that as many as 13 respondents (31.0%) did physical activity in the moderate category (lowest). From the results of the study, almost all respondents as many as 39 respondents (92.9%) had an adequate diet (the highest) and only 3 respondents (3.1%) had a less diet (lowest).

From the results of the study, almost all students as many as 29 respondents (69.0%) had normal nutritional status (highest), who had thin nutritional status as many as 9 respondents (21.4%) and who had the least nutritional status as fat as many as 4 respondents (9.5%) (lowest).From the results of the study, there were 39 respondents who had an adequate diet where from the 39 respondents (92.9%) there were 6 students (15.4%) who had thin nutritional status, 29 respondents (74.4%) who had normal nutritional status, and 4 respondents (10.3%) who had fat nutritional status. The results showed that there were 3 respondents who had a less diet where of the 3 respondents (7.1%) there were 3 respondents (100%) who had thin nutritional status, 0 respondents (0%) who had normal nutritional status, and 0 respondents (0%) who had fat nutritional status.

From the results of the study, there is a relationship between diet and nutritional status in students at the IIK STRADA Indonesia campus in Kediri City, where the results of the chi-square test analysis obtained a p-value of 0.002. There is no relationship between physical activity and nutrition ststus in students at the IIK STRADA Indonesia campus in Kediri City where the results of the chi-square test analysis obtained a p-value of 0.757.

REFERENCES

Afrilia, D. A. (2018). The relationship between diet and physical activity on nutritional status in students of SMP al-Azhar Pontianak. Pontianak Nutrition Journal (PNJ), 1(1), 10-13.

Katmawanti, S., Supriyadi, S., &; Setyorini, I. (2019). The Relationship between Diet and Physical Activity with the nutritional status of grade VII students of State Junior High School (Full Day School). Preventia: The Indonesian Journal of Public Health, 4(2), 63-74.

Kumala, A. M., Margawati, A., &; Rahadiyanti, A. (2019). The relationship between the duration of use of electronic devices (gadgets), physical activity and diet with nutritional status in adolescents aged 13-15 years. Journal of Nutrition College, 8(2), 73-80.

Mahoney, G., Susilo, T. E., &; Fis, S. (2022). The relationship between body mass index and lumbar flexibility in high school children in the era of adaptation to new habits after Covid-19 (doctoral dissertation, University of Muhammadiyah Surakarta).

Mufidah, R., &; Soeyono, R. D. (2021). Diet, physical activity, and sleep duration on the nutritional status of Unesa Nutrition Study Program students. Junal Gizi Univ Surabaya, 1(01), 60-4.

Noviyanti, R. D., &; Marfuah, D. (2017). The relationship of knowledge of nutrition, physical activity, and diet to the nutritional status of adolescents in Purwosari Laweyan sub-district

Octaviani, P., Izhar, M. D., &; Amir, A. (2018). The relationship between diet and physical activity with nutritional status in elementary school children at SD Negeri 47/IV Jambi

City. Jambi Kesmas Journal, 2(2), 56-66.

Surakarta. URECOL, 421-426.

Ulandari, S., Kartini, T. D., &; Hartono, R. (2019). Physical Activity and Diet with the Nutritional Status of Young Women at SMPN 16 Makassar. Food Nutrition Media, 26(2).

Zuhdy, N. (2015). The relationship between physical activity patterns and eating patterns with nutritional status in grade 1 high school girls in North Denpasar. Public Health and Preventive Medicine Archive, 3(1), 78.