

## The Relationship Of Knowledge And The Level Of Income Of The Parent With The Incidence Of Anemia In Young Women In Smpn 25 Banjarmasin

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### ABSTRACT

**Background:** Anemia is a problem of nutrition in Indonesia. According to RISKESDAS 2013 Genesis anemia based on age group 5-14 years 15-24 years 26.4%, 18.4%, in South Kalimantan province alone according to figures Dinskes Prov. KALSEL 2015 results from the examination of HB to 15,600 young women showed the results of 49% Suffering from anemia one of them is in school SMPN 25 Banjarmasin as much as 75% of 40 people 30 of them positive anemia.

**The object of the research:** Analyzing the relationship of knowledge and the level of income of the parent with the incidence of Anemia In young women in SMP 25 Banjarmasin.

**Methods:** This research uses the approach of *Cross-sectional*, a collection of data is done to 60 young women in SMP 25 Banjarmasin by way of *systematic random sampling*.

**Results:** The results of the analysis of the test statistic with *Spearman Rank* retrieved value  $p = 0.276$  for the knowledge of parents and  $p = 0.167$  parent income level for young women in SMP 25 Banjarmasin above value  $\alpha = 0.05$  ( $p < 0.05$ ).

**Conclusion:** It was concluded that there is no relationship between the knowledge and the level of income of the parent with the incidence of anemia in young women in SMP 25 Banjarmasin.

**Keywords:** Anemia of young, knowledge of parents, parents ' incoming levels

## BACKGROUND

Anemia is a condition in which the number of red blood cells (and oxygen carrying capacity) is insufficient to meet the physiological needs of the body. Iron deficiency is thought to be the most common cause of anemia globally but lacks other nutrients (including folate, vitamin B12, and vitamin A), acute and chronic inflammation, parasitic infections, and disorders that affect hemoglobin synthesis, red blood cell production or survival red blood cells, all can cause anemia

(WHO, 2011). Based on the criteria of WHO HB levels which can be said anemia when  $<12$  g/dl.

Anemia affects 800 million children and women. For 2011, it is estimated that about 43% of children, 29% of nonpregnant women and 29% of all women of reproductive age are anemic globally, corresponding to 273 million children, 496 million women who are not pregnant (reproduction). The data were sourced from the WHO Department of Nutrition for Health and Development and the United States Centers for Disease Control and Prevention in 2008 for 1993-2005 (WHO, 2011). According to the Indonesian Basic Health Research data, the incidence of anemia based on age group is 5-14 years 26,4%, 15-24 year 18,4% in a woman (RISKESDES, 2013). Based on the data it is known that the age group most experienced anemia that is at age 5-14 years where if prevalence  $> 15\%$  it is a problem. HB examination results to 15,600 young women in South Kalimantan in 2014 showed that 49% of young women suffer from iron nutritional anemia (DISKES PROV KALSEL, 2015).

Factors that can cause anemia among young women are blood loss, lack of iron in the diet, chronic illness, changed lifestyle, and an imbalance between nutritional intake and teenage activities (Yuni, 2015). Of socioeconomics include nutritional knowledge, parental education, parent employment, parent income, and the latter nutritional status. As among several factors, economic status is the most influential factor in the frequency of diseases such as Anemia, malnutrition and parasite diseases that many suffered by low-economic societies, which, when the higher the economic status, the more the amount and type

of food that is obtained then the better in the fulfillment of nutrition (Wijayanti, 2011).

In addition, parents' knowledge factor also affects the incidence of anemia because it affects healthy family life behavior. More knowledge enables a person to implement daily lifestyle behaviors, especially in health and nutrition compared to someone with less knowledge.

From the result of a preliminary study at Dinkes Kota Banjarmasin 2014 the incidence of anemia in high school student is 30,89%, while the incidence of anemia in the year 2015 number of anemia incident in high school student is 48,43%. The highest occurrence in adolescence, especially in high school, first is SMPN 25 as much as 75% that is from 40 people, 30 of them positively have anemia. According to data from SMPN 25 Banjarmasin, the number of SMPN 25 students

is 220 people consisting of class VII 80 people, VIII 72 people, and IX 68 people. Employment of 90% labor parents, 5% employees, and not necessarily 5%. Primary school education 55%, junior high school 30.03%, 15% high school, 0.1% Diploma and S1 0.1%.

Based on the above background, researchers feel interested to conduct research on the relationship of knowledge and income levels of parents with the incidence of anemia in young women in SMPN 25 Banjarmasin.

## MATERIALS AND METHODS

This research is an analytic survey research with the Cross-Sectional or cross-sectional approach. The population in this study consisted of 152 people consisting of classes VII and VIII and the sample of research taken based on the sample formula according to (Sugiono 2010 Cit Sari 2015) obtained the result of 60 samples, so the sample is thoroughly numbered 60 people who are in class VII and VII sampling technique Systematic random Sampling. Data collection by Hb checking using Hb Meter tool and spreading questionnaires previously tested by the researcher.

Method of data analysis in this research include:

Univariate analysis is done to each variable from research result to know the

distribution, frequency, and percentage of each variable studied.

Bivariate analysis was conducted on two variables that were suspected to be related

(hypothesis test) ie to know the relation of the independent variable with dependent variable through Spearman rank test.

**RESULTS**

Characteristics of respondents by class can be seen in the following table:

Table 1. Characteristics of respondents by class

No.	Categories Gender	frequency	%
1.	VII	36	60%
2.	VIII	24	40%
Total		60	100%

Based on table 1 the characteristics of respondents by

The class can be seen that from class VII that became respondents as many as 36 people (60%) and from class VIII as many as 24 people (40%).

Table 2. Distribution of parental knowledge

No.	Type of operation	frequency	%
1.	Deficient	10	16,7%
2.	Enough	34	56,7%
3.	Good	16	26,7%
Total		60	100%

Based on table 2 of the knowledge variables in the above table it is known that from 60 parents of students in the research, as many as 34 parents of students have enough knowledge (56.7%), 16 parents have good knowledge (26.7%). And 10 parents of students have less knowledge (16,7).

Table 3. Distribution of parental income frequency

No.	Kategori	Frekuensi	%
1.	Less	35	58,3%
2.	more	25	41,7%
Jumlah		60	100%

Based on table 3, the income variable in the table above shows that from the 60 parents of the studied students, 35 of the students have less income (58,3%) and 25 parents have more income (41,7%).

Table 4. Distribution of anemia incidence in adolescent girls

No.	Category	Frekuensi	%
1.	Anemia	28	46,7%
2.	Not Anemia	32	53,3%
Total		60	100%

Based on table 4 Variable anemia in the table above can be seen that from 60 female

students studied, as many as 28 female students suffering from anemia (46.7%) and 32 female students are not anemic (53,3%).

Of the 28 teenage girls who suffered from anemia included in the classification of mild and moderate degrees described as follows.

Table 5. The degree of anemia

	F	%
Light	27	96,43
medium	1	3,57
Total	28	100,0

Based on table 5, female adolescents with mild degenerative anemia were 27 female students (96.43%) and adolescent girls had moderate anemia of 1 student (3.57%).

Table 6 Cross-tabulation and correlation of knowledge of parents with the incidence of anemia in adolescent girls in SMPN 25 Banjarmasin

	Knowledge			total	P Value
	less	enough	good		
	F %	F %	F %		
Anemia	6 10,0%	1 26,7%	6 10,0%	28	0,276
Not Anemia	4 6,7%	8 30,0%	0 0%	32	
Total	1 16,7%	3 56,7%	1 26,7%	10	0%

Based on table 7 it is found that the knowledge of parents with the incidence of anemia in adolescent girls is not significant, it is seen from the significant value of P-value sebersar 0,276. This indicates that the value is greater than the value of  $\alpha$  is  $\square$  0.05 where in that case  $p \square \alpha$  then the hypothesis is rejected which means there is no relationship between knowledge of parents with the incidence of anemia in young girls in SMPN 25 Banjarmasin.

Table 7 Cross-linked and correlation of parent's income level with the incidence of anemia in adolescent girls at SMPN 25 Banjarmasin

	Income		total	P Value
	more	less		
	F %	F %		
Anemia	9 15%	1 31,7%	28	0,167
Not Anemia	1 26,7%	1 26,7%	32	
Total	2 41,7%	3 58,3%	100	

Based on table 7 it is found that the income level of parents with the incidence of anemia in adolescent girls is not significant, it is seen from significant value P value amount 0,167. This indicates that the value is greater than the value of  $\alpha$  is  $\geq 0.05$  where in that case  $p \geq \alpha$  then the hypothesis is rejected which means there is no relationship between the income level of parents with the incidence of anemia in young girls in SMPN 25 Banjarmasin.

## DISCUSSION

### 1. Knowledge of parents of SMPN 25 Banjarmasin

Based on the results of research as shown in table 4.3 shows that 34 parents or 56.7% of students have adequate knowledge. The data above shows that almost all parents of SMPN 25 Banjarmasin still have sufficient knowledge about health.

The results of this study in accordance with the opinion Notoatmodjo (2010) which states that Man undergoes the process of growth and development that will affect the quality of life. The creation of human beings does not just happen. To understand it all requires a multistage process of knowledge, science, and philosophy. Then the higher the level of one's knowledge will be reflected in his daily behavior. There are several factors that affect a person's knowledge that is, an educational factor where education is an attempt to develop personality and abilities inside and outside the school and lasts a lifetime. Which is obtained from the results of preliminary studies by previous researchers the average education of parents of young women in junior high school country 25 Banjarmasin is 55% primary school.

### 2. Income level of parents of SMPN 25 Banjarmasin

Based on the results of research as shown in table 4.4 shows that 35 parents or 58.3% of students have less income, and from the results of preliminary studies that researchers have done before the average work of parents of

young women in SMPN 25 Banjarmasin is a laborer of 90 %.

According to the Ministry of Education and Culture (1998) in a large dictionary of Indonesian income is the result of work (business or so). While income in the management dictionary is money received by individuals, companies and other organizations in the form of wages, salaries, leases, interest, commissions, fees and profits (Marbun, 2003).

According to Stice and Skousen (2009) income is the inflow or settlement (or a combination of both) of the delivery or production of goods, providing services or performing other activities which are the main activity or ongoing centra activities.

According to Nafarin (2006) income is the inflow of assets from the activities of a company selling goods and services in a period resulting in an increase in capital that does not come from investment contributions.

A person's income can also be defined as the number of revenues assessed by the unit of currency that a person or nation can generate in a given period. Reksoprayitno defines: "Revenue (Revenue) can be defined as the total revenue obtained in a certain period". Thus it can be concluded that income is the amount of income received by members of society for a certain period of time as a reward or factors of production that has been donated (Reksoprayitnio, 2004).

The Governor's Decree on the minimum wage of employees Kalimantan

Selatan 2015 is Rp 2,085,050.00 (two million two eighty-five thousand fifty rupiah).

Based on some understanding above it can be concluded that income is income received by members of society, the inflow of property from the production of goods or provide services to others d where the income level is divided into two that is more than Rp 2.085.050,00 (two million two eighty-five thousand fifty rupiah). And less than Rp2,085,050.00 (two million two eighty-five thousand fifty rupiah).

Meanwhile, according to Boediono (2002), one's income is influenced by several factors, among others, influenced:

- a. The number of factors of production owned by sourced, the results of this year's savings and inheritance or grant.
  - b. Price per unit of each factor of production, this price is determined by supply and demand in the factor market.
  - c. Results of the activities of family members as side workers.
3. Anemia in young women in SMPN 25 Banjarmasin

From the results of the research listed above listed in table 4.5 shows that 32 students or 53.3% did not suffer from anemia or normal, and as many as 28 students or 46.7% suffer from anemia. So it can be concluded that although SMPN 25 Banjarmasin more students who do not have anemia but the difference is not too far away.

In this study, 28 students got anemia many factors causing anemia one of them is menstruation and diet. According to Tarwoto

and Wartonah (2008), Anemia is a condition of the lack of red blood cells (erythrocytes) in the blood circulation or hemoglobin thus disrupting its function as a carrier of oxygen to the tissues. And In anemia condition, the number of red blood cells or Hb is less than the normal value. As a result, red blood cells are not able to bring oxygen to the network to the maximum, causing a person tired (Briawan, 2013).

From the results of a brief discussion that researchers do with respondents many young women who do not eat breakfast before going to school, which breakfast is useful to maintain endurance to work or learn well, and help adequate nutrients, which In previous research done Permeasih (2005), in getting results that there is a meaningful relationship between breakfast habits with the incidence of anemia.

In addition to dietary factors of menstruation can also cause anemia, obtained from the results of previous research conducted by Farida (2006) there is a relationship between menstrual pattern with the incidence of anemia which when blood coming out during menstruation very much will occur iron

deficiency anemia. In young women with long menstrual days lasting more than 8 days and short menstrual cycles (less than 28 days) allows for the loss of iron in large quantities than those with normal menstrual patterns.

4. Hubungan Pengetahuan orang tua dengan kejadian anemia pada remaja putri di SMPN 25 Banjarmasin.

Based on the results of research as shown in table 6 shows that students with anemia with enough knowledge of their parents as many as 16 people (26.7%), students who do not have anemia with enough knowledge of his parents as many as 18 people (30.0%). Students who experienced anemia with knowledge of their parents less as much as 6 people (10,0%), students who did not experience anemia with knowledge of their parents that less as much as 4 people (6,7%). And students who experienced anemia with good knowledge of their parents as many as 6 people (10.0%), students who did not experience anemia with good knowledge of their parents as much as 10 people (16,7%).

Based on the result of bivariate in getting result  $p\text{-value} = 0,276$ . This shows that there is no relationship between knowledge with the incidence of anemia in young girls in SMPN 25 Banjarmasin. The results of this study are not in accordance with the research and theory stated by Soekidjo Notoatmojo (2010), Romano Ngui (2012) and Assefa (2014) there is a significant relationship between knowledge with the incidence of anemia and the theory that the behavior of one's health or society is determined by intention the presence or absence of support from the surrounding community, the presence or absence of information about health, individual freedom to act and situations that allow acting.

However, this is alleged because the increase in knowledge does not lead to changes in behavior so that young women with good knowledge do not guarantee the practice of

prevention of anemia is also good (Farida, 2006).

5. Relationship Level of income of parents with the incidence of anemia in young women in SMPN 25 Banjarmasin.

In this research, it was found that the students who had anemia with the income of their parents were less than 19 people (31,7%), did not have anemia as many as 16 people (26,7%). And girls who experienced anemia with their parent's income more than 9 people (15.0%), did not have anemia as much 16 people (26,7%).

from the result of the variation test that has been done by the researcher got value P value 0,167 this show that there is no

significant correlation between income level of people with the incidence of anemia at the adolescent girl in SMPN 25 Banjarmasin. This is contrary to previous research conducted by Fanny (2003), Wijayanti (2011) and Hidayah (2016) showed that there was a significant relationship between family income and the incidence of anemia. The risk of anemia is higher by 1.75 times in children from low-income families compared to high-income families (Kaya, 2006).

This research is in line with the research conducted by Hioui (2008). that there is no significant relationship between family income and the incidence of anemia in primary school children. High economic status, has not determined a person's nutritional status to be good. This is because the possible use of money circulating in the family is uneven. It is likely that most of the money held is used for non-food expenditure so that despite having a high economic status cannot consume nutritious food, this is because the way to manage poor family expenditure for food, for example, provided too little shopping and can not or less clever to choose the type or foodstuffs that result in poor food quality (Fazrin, 2012).

Limitations of this research is when questionnaires are distributed sometimes answers given by respondents do not show in seriousness in filling out questionnaires, in this study only explore the knowledge and income levels of parents in SMPN 25 Banjarmasin, not digging deeper into other factors, In this study not digging about mother's knowledge about healthy and good food, but only general knowledge. Questionnaires are not specifically directed to mothers only, whereas mothers are the ones who contribute in choosing healthy foods and preparing food at home.

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