

## THE EFFECT OF NUTRITION COUNSELING ON THE PROSPECTIVE BRIDES' KNOWLEDGE IN THE ANEMIA PREVENTION AT UPTD PUSKESMAS WONOGIRI 1

Endah Wilarsih<sup>1</sup>, Anik Kurniawati<sup>2</sup>, Suroso<sup>3</sup>

<sup>1</sup> Puskesmas Wonogiri I

<sup>2</sup> Study Program of DIII Midwifery of Poltekkes Kemenkes Surakarta

<sup>3</sup> Study Program of DIII Anapharma of Poltekkes Kemenkes Surakarta

Email<sup>1</sup>: endahwilarsih777@gmail.com

Email<sup>2</sup>: anikpoltek@gmail.com

Email<sup>3</sup>: suroso0618@gmail.com

### ABSTRACT

Prospective brides who suffer from anemia are at risk of developing anemia during pregnancy. This will have a negative impact on the growth and development of the fetus in the womb and have the potential to cause complications in the pregnancy and childbirth. Anemia can increase the risk of miscarriage, stunted fetal growth, premature birth, low birth weight, and bleeding that can cause death. Therefore, the importance of the knowledge and awareness of prospective brides about the importance of pre-conception nutrition is something that cannot be ignored. The objective of this research was to determine the effect of nutritional counseling on the prospective brides' knowledge in preventing anemia at UPTD Puskesmas Wonogiri 1. This type of research was a quasi-experimental with a one group pretest-posttest design. The sampling technique was total sampling, the number of samples was 25 prospective brides who had their premarital health checked at the UPTD Puskesmas Wonogiri 1. The data analysis technique used the Wilcoxon signed rank test. The results of this study showed that the average value of the respondents' knowledge before being given nutritional counseling was 56.40 and after being given nutritional counseling was 75.60. There was an increase in the average knowledge of 19.20. The results of the analysis with the Wilcoxon signed rank test statistical test obtained a *p*-value of 0.000 (*p* < 0.05). There was an effect of nutritional counseling on the prospective brides' knowledge in preventing anemia at the UPTD Puskesmas Wonogiri 1.

**Keywords:** Nutrition counseling, prospective brides' knowledge, anemia prevention

### INTRODUCTION

Nutrition is one of the determinants of the quality of human resources. Malnutrition will lead to failure of physical growth and

intellectual development, reduce work productivity and reduce body resistance, which results in the increased morbidity and mortality. Adequate nutrition is needed by every individual since the fetus,

infants, children, adolescence, adulthood to the elderly. Mothers and prospective mothers are a vulnerable group, because they need adequate nutrition so that their nutritional and health status must be maintained in order to give birth to healthy babies (Depkes, 2013)

Nutritional anemia is one of the public health problems in Indonesia that can be experienced by all age groups from toddlers to the elderly (Kemenkes, 2018). According to (Adriani, 2012) anemia is defined as a condition where the hemoglobin (Hb) level in the blood is lower than normal for groups of people according to the age and gender. While nutritional anemia is a condition in which the levels of hemoglobin, hematocrit, and red blood cells are lower than normal values, as a result of a deficiency of one or several essential food elements that can affect the onset of the deficiency (Arisman, n.d.)

Women of childbearing age (15-49 years) are prone to anemia because they lose a lot of blood during menstruation. Bride and groom who suffer from anemia are at risk of developing anemia during pregnancy. This will have a negative impact on the growth and development of the fetus in the womb and have the potential to cause complications in pregnancy and childbirth, and even cause the death of mother and child. The Maternal Mortality Rate (MMR) according to the 2015 Inter-Census Population Survey (in Indonesia known as SUPAS) was 305 per 100,000 live births and the main causes of maternal death were pre-eclampsia

and eclampsia (32.4%) and postpartum hemorrhage (20.3%) (Kemenkes, 2018)

When a woman does not prepare for her pregnancy properly, the risks of pregnancy that are often encountered include anemia which causes an increased risk of miscarriage, Intrauterine Growth Retardation (IUGR), premature birth, low birth weight, and bleeding that can cause death (Depkes, 2013)

The cause of anemia in general can be influenced by several factors including age, parity, education, knowledge, iron consumption, economic status, nutrition and diet (Arisman, n.d.) The knowledge and awareness of prospective brides about the importance of pre-conception nutrition is something that cannot be ignored (Winarsih, 2020)

One of the efforts to increase the knowledge and ability of individuals or families about nutrition can be done through counseling. Counseling is a form of approach used in nutritional care to help individuals and families gain a good understanding of themselves and the problems they face (Cornelia, 2013). The purpose of IEC in health services for prospective brides and grooms is to increase their knowledge, awareness, and care so that they can carry out healthy and safe reproductive functions and behaviors (Kemenkes, 2018)

According to the data from the UPTD nutrition report at the Wonogiri 1 Health Center in 2020, from the results of the Hb level examination, 45 pregnant women were found to be anemic, while the bride-to-be was anemic as many as

74 people. From the data on visits by prospective brides at the UPTD Puskesmas Wonogiri 1, from January 2021 to June 2021, 38 prospective brides with anemia were found. Some of the brides-to-be who were interviewed by researchers, some said that they had never taken blood-boosting tablets, did not like to eat vegetables and still consumed tea with their meals.

The purpose of this study was to determine the effect of nutritional counseling on knowledge of prospective brides in preventing anemia at the UPTD Puskesmas Wonogiri 1.

## RESEARCH METHOD

This type of research was quasi-experimental with a one-group pretest-posttest design. It is a research activity by observing respondents by giving a pretest before being given treatment, and giving a final test (posttest) after being treated (Arikunto, 2013). The research was conducted at the UPTD Puskesmas Wonogiri 1 in July 2021 – January 2022.

The population in this study was all prospective brides who had a premarital health check at the UPTD Puskesmas Wonogiri 1 from October 29, 2021 to November 29, 2021, totaling 25 people. The sample of this study was all prospective brides who came to check their health at the UPTD Puskesmas Wonogiri 1 from October 29, 2021 to November 29, 2021, totaling 25 people. Sampling in this research was to use a total sampling technique, namely taking the sample as a whole.

## RESULT AND DISCUSSION

### 1. Univariate Analysis

Univariate analysis was carried out on each variable from the research results. Analyzing descriptively each variable, namely: age, education, occupation, knowledge presented in the frequency distribution table.

**Table 1. Characteristics of respondents**

Number	Variable	Amount	
		N	%
1	<b>Age</b>		
	<20 years	2	8,0
	20-35 years	17	68,0
	>35 years	6	24,0
2	<b>Education</b>		
	Primary	6	24,0
	Secondary	15	60,0
	Bachelor	4	16,0
3	<b>Occupation</b>		
	Not working	4	16,0
	Private employee	16	64,0
	Self employed	4	16,0
	Civil Servant	1	4,0

Based on the table 1, the characteristics of respondents according to the age are the respondents aged 20-35 years as many as 17 people (68%), while the least respondents with age <20 years are 2 people (8%).

The characteristics of the respondents according to the education shows that the most respondents' education is secondary education as many as 15 people (60%), while the least is bachelor as many as 4 people (16%).

The characteristics of respondents according to the occupation were most of the respondents' jobs were as private employees as many as 16 people (64%), while the least respondent's occupation was civil servants as much as 1 person (4%).

The results of this study indicated that the majority of respondents married at the age of 20-35 years as many as 17 people (68%) and at least 2 people married at the age of <20 years as many as 2 people (8%). Age is one of the factors that affect knowledge. According to (Notoatmojo, 2014) Age affects a person's perceptive power and mindset, the older the age, the more perceptive power and mindset increase, so that the knowledge gained is getting better. Age also affects women's reproduction where at the age of 20-35 years is a healthy reproductive age and is psychologically stable, while at age <20 is an adolescent age whose reproductive organs are not ready to get pregnant and are still psychologically unstable.

The education level of the respondents in this study were mostly 15 people with secondary education (60%), while 4 people with higher education (16%). This shows that the average bride and groom will marry after graduating from high school (SMA/SMK). According to (Notoatmojo, 2014) Education is needed to obtain information, generally the higher a person's education, the easier it is to receive information. The more information entered, the more health information obtained.

In this study, most of the respondents' jobs were private employees by 16 people (64%). According to (Notoatmojo, n.d.)

Work will have an impact on family life and knowledge. By working, a person will earn income to meet their daily needs, including social needs through social media and seeking health information through the internet. From the work environment, a person can also gain knowledge directly or indirectly including.

**Table 2. Level of knowledge of respondents**

Level of Knowledge	Before Counselin g		After Counseling	
	N	%	N	%
Less	1	44,0	0	0
Adequate	1	44,0	1	68,0
Good	3	12,0	8	32,0
Total	2	100,	2	100,
	5	0	5	0

Based on the table 2, the knowledge level of respondents before nutrition counseling was carried out are respondents with insufficient knowledge, respectively, as many as 11 people (44.0%) and 3 people with good knowledge (12%). After nutrition counseling, 17 people (68%) has sufficient knowledge and 8 people (32%) has good knowledge.

The distribution of the average score of respondents' knowledge before and after being given nutritional counseling is described in the table below:

**Table 3. Average score of respondents' knowledge**

Knowledge	Value			
	Mean	SD	Minimum	Maximum
Pre tes	56,40	16,553	30	85
Post tes	75,60	10,239	60	100
Difference	19,20*			

Based on the table 3, it shows that the average knowledge of pre-test respondents is 56.40, a minimum score of 30 and a maximum value of 85. Meanwhile the post-test score is 75.60, a minimum value of 60 and a maximum value of 100. There is an increase in the average value of 19,20.

The results of this study indicated that there were differences in knowledge before and after nutrition counseling was carried out on the respondents. The average knowledge of respondents before nutrition counseling was 56.40 with a minimum value of 30 and a maximum value of 85. After nutrition counseling was carried out, the average knowledge of respondents was 75.60, with a minimum value of 60 and a maximum value of 100, so that there was a difference in the average value of 19.20.

The knowledge of the respondents before nutrition counseling was carried out, each of them as many as 11 people (44%) had less and sufficient knowledge,

while as many as 3 people (12%) had good knowledge. After nutrition counseling, there was an increase in the knowledge of the respondents as many as 17 people (68%) had sufficient knowledge and 8 people (32%) had good knowledge and none had less knowledge.

According to (Notoatmojo, 2014), one of the factors that influence a person's knowledge is information. Information obtained from formal and non-formal education can have a direct impact, resulting in changes or increases in knowledge. The provision of health information through the nutritional counseling method in this study significantly increased the knowledge of prospective brides in preventing anemia.

This is in accordance with the theory of (Cornelia, 2013) that one of the efforts to increase the knowledge and abilities of individuals or families about nutrition can be done through counseling. Counseling is a form of approach used in nutritional care to help individuals and families gain a better understanding of themselves and the problems they face. So that after counseling, it is hoped that individuals and families will be able to take steps to overcome their nutritional problems.

## 2. Bivariate Analysis

Bivariate analysis is an analysis to find out two variables that are suspected to be related or correlated. In this study, the variables are nutritional counseling variables and knowledge variables of the prospective bride.

Table 4. The Differences of Knowledge Before and After Nutritional Counseling

Knowledge	Value		p-value
	Mean	SD	
Before Counseling	56,40	16,553	0,000
After Counseling	75,60	10,239	
Difference	19,20*		

Based on table 4, it can be explained that the average value of respondents' knowledge before being given nutritional counseling was 56.40 and after being given nutritional counseling was 75.60. There was an average increase in the knowledge of 19.20. Based on the table above, it can also be explained from the results of the Wilcoxon signed rank test statistic that a *p-value* of 0.000 ( $p < 0.05$ ) was obtained. Thus, there was a significant difference in the knowledge of respondents in preventing anemia before and after nutritional counseling.

The results of this study are in line with Doloksaribu, (Doloksaribu & Simatupang, 2019) research on the effect of premarital nutritional counseling on the knowledge and attitude of premarital women in Batang Kuis District, namely the influence of premarital counseling on respondents' knowledge with a significant *p-value* of 0.001. This study also produces the same conclusion as the research of (Yuliana et al., 2021) that there is an influence on the level of knowledge of the bride and groom about reproductive health before and after the bride-to-be course is carried out.

## CONCLUSION AND SUGGESTION

Based on the results of the research and data analysis in this study, there was an effect of nutritional counseling on the knowledge of prospective brides in preventing anemia with a *p-value* of 0.000 ( $< 0.05$ ). In terms of providing information through nutritional counseling, this study significantly increased knowledge of prospective brides in preventing anemia.

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