

The Influence Of Preconceptional Nutrition Counseling On Knowledge And Attitude Of Women Of Reproductive Age

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Abstract.

Background : Health problems in the preconception period include anemia, obesity and chronic lack of energy. In Indonesia, cases of Chronic Energy Deficiency are caused by lack of nutritional intake such as energy and protein, so that the nutrients needed by the body are not fulfilled. To prevent the risk of Chronic Energy Deficiency in pregnant women before pregnancy, women of childbearing age must have good nutrition. Maternal nutritional status before pregnancy has a significant influence on the incidence of LBW. Knowledge of nutrition plays an important role in fulfilling one's nutritional adequacy. The level of knowledge will encourage a person to have optimal abilities in the form of knowledge and attitudes.

Objective : Knowing the effect of preconception nutrition counseling on the knowledge and attitudes of women of childbearing age.

Methods : Quasi experimental with one group pretest-posttest design. The sample in this study was some women of childbearing age who were married in the preconception period from July to September 2022 in Sanggar Buana Village, Seputih Banyak District, Central Lampung as many as 81 people, the sampling technique was purposive sampling.

Results : Most of them have knowledge of WUS before being given counseling that is enough 64.2% and after 85.2% have good knowledge. Attitudes before being given counseling were mostly negative 55.6% and afterward were positive 97.5%. There is an effect of preconception nutrition counseling on the knowledge and attitudes of women of childbearing age (*p* value 0.000).

Conclusions and Suggestions: There is an effect of preconception nutrition counseling on the knowledge and attitudes of women of childbearing age. Health services are expected to provide education and counseling, especially regarding preconception nutrition

Keywords: Counseling, Knowledge, Attitude

INTRODUCTION

Women have an important role in determining the quality of human resources because women have a role in pregnancy and childbirth. Nutrition in women of childbearing age is a special effort to pay attention to the nutritional status of expectant mothers in order to achieve a healthy family and quality offspring.

Women of Reproductive Age (WUS) are married or unmarried women aged 15-49 years. WUS aged 20-29 years are included in the early adult category. At this age, women have a 95% chance of getting pregnant (Dieny, 2019). WUS is assumed to be an adult woman who is ready to become a mother. Nutritional needs at this time are important because it is a period in preparing for pregnancy and breastfeeding. WUS as prospective mothers is a vulnerable group whose health status must be considered, especially their nutritional status. The quality of the next generation will be determined by the condition of the mother before pregnancy and during pregnancy. This is even clearer with evidence from several studies which have supported that the proper nutritional status of women

in the pre-conception period is a window of opportunity in preparing for the 1000 HPK period (First Day of Life) (Dieny, 2019).

In addition, nutritional status is also one of the keys to achieving health during conception, such as supporting optimal fetal growth and brain development, early prevention of high risk of pregnancy, birth defects, the birth of babies with low birth weight (LBW), and risk of disease. chronic in adulthood This is because health conditions during pregnancy create specific metabolic conditions for producing the placenta, fetal tissue, and the volume of blood provided for the growth and development of the fetus (Dieny, 2019).

On the other hand, nutritional problems in Indonesian women are still high. Health problems in the preconception period include anemia, obesity and chronic energy deficiency (CED). In Indonesia, cases of Chronic Energy Deficiency (CED) are mainly caused by a lack of nutritional intake, such as energy and protein, so that the nutrients needed by the body are not fulfilled. Chronic Energy Deficiency (CED) is a condition when a person experiences chronic malnutrition which causes health problems. KEK can occur in women of childbearing age (WUS) and pregnant women who have an upper arm circumference (LiLA) <23.5 cm² (Siti Isnaini, et al. 2022).

To prevent the risk of CED in pregnant women before pregnancy, women of childbearing age must have good nutrition, for example with LiLA not less than 23.5 cm. If the mother's LiLA before pregnancy is less than this number, the pregnancy should be postponed so that there is no risk of giving birth to LBW. As mentioned above, the weight of the baby born can be influenced by the nutritional status of the mother both before pregnancy and during pregnancy. Maternal nutritional status before pregnancy also plays a significant role in achieving maternal nutrition during pregnancy. Maternal nutritional status before pregnancy has a significant influence on the incidence of LBW. Mothers with poor nutritional status before pregnancy have a 4.27 times the risk of giving birth to LBW babies compared to mothers who have good (normal) nutritional status (Paramata, Yeni and Marselia Sandalayuk, 2019).

Low Birth Weight (LBW) is a condition when a baby is born weighing <2,500 grams. According to Riskesdas 2018, the prevalence of LBW is 6.2%. This will cause a big impact, namely organs not functioning properly, low levels of intelligence in children, growth and development disorders, and neurological disorders. In addition, the biggest impact of LBW is death. LBW contributes a high number to the Infant Mortality Rate (IMR) Dieny (2019). According to the 2020 Indonesia Health Profile, the most common cause of neonatal death is low birth weight (LBW) 32.5%. Other causes of death include asphyxia 27.4%, infection 34%, congenital abnormalities 11.4%, neonatal tetanus 0.3%, and others 22.5% (Indonesian Health Profile, 2020).

The prevalence of chronic energy deficiency (CED) in Indonesia according to the Indonesian Ministry of Health, 2013 is 24.2% in pregnant WUS and 20.8% in non-pregnant WUS. While in the 2018 Riskesdas, the prevalence of CED in Indonesia was 17.3% in pregnant WUS and 14.5% in non-pregnant WUS, and the prevalence of CED in non-pregnant WUS 15-19 years in the Riskesdas study reached 36.3%. This shows that there has indeed been a decrease in the prevalence of CED from 2013 to 2018, but the risk of this CED must still be considered considering the number is still high, namely > 10% (Riskesdas, 2018).

Various factors can affect a woman's nutritional status before pregnancy. The influencing factors are age, education, and nutritional status. Meanwhile, during pregnancy several influencing factors are the frequency of pregnancy, the degree of physical activity, complications of disease during pregnancy, psychological conditions and food intake (Doloksaribu, 2019).

Knowledge of nutrition plays an important role in fulfilling one's nutritional adequacy. The level of knowledge will encourage someone to have optimal abilities in the form of knowledge and attitudes. Lack of knowledge of nutrition will affect a person's understanding of concepts and principles as well as information related to nutrition (Doloksaribu, 2019).

Efforts to increase knowledge can be done by providing nutrition education. Nutrition education encourages a person in the form of knowledge and changes in attitude (Doloksaribu, 2019). This was stated in the results of Ratnaeni et al's research in (2021) in the Working Area of RSIA Sitti Khadijah I Muhammadiyah Makassar showing that there was a change in the knowledge of postpartum mothers after being given education. Where before education, the average knowledge of postpartum mothers was 10.3. After counseling, the average knowledge increased to 84.6. If at an early stage they already have knowledge about the danger signs of pregnancy, it is hoped that their vigilance during pregnancy can be increased (Ratnaeni et al, 2021).

Similar research was also conducted by Lusyana et al in (2019) in Batang Kuis District showing that there was a change in knowledge and attitudes regarding preconception nutrition after counseling was carried out regarding preconception nutrition in women of childbearing age at KUA Batang Kuis District, where prior knowledge was given in the form of counseling 12.60 and after being given intervention in the form of counseling there was an increase in the average score to 15.97 so that the average value of knowledge increased after counseling by 3.37. Meanwhile, the average attitude value before being given an intervention in the form of counseling was 23.70. After the intervention was given, the average attitude value increased to 27.00 so that the average attitude value increased after counseling by 3.30 (Doloksaribu, 2019).

Based on the 2018 Riskesdas, the prevalence of CED risk in the population of pregnant women aged 15-49 years, in Lampung Province is 13.62%. This figure has decreased compared to the 2013 Riskesdas data, which was 21.3%. The lowest CED risk prevalence was in Tulang Bawang and Pringsewu Regencies (9.5%) and the highest was in Central Lampung District (52.8%) (Health Profile of Lampung Province, 2019).

Sanggar Buana is a village located in Central Lampung Regency. According to village data, in 2020 there were 3 CED pregnant women and 39 women aged 15-49 years who experienced CED, 2021 CED cases in pregnant women increased to 5 people and at the age of 15-49 years reached 53 people. This shows that 23.80% of pregnant women experience CED, while for WUS there are 10.39% with lila <23.5 cm.

Based on a preliminary survey of the average age of marriage and nutritional status by measuring the upper arm circumference (LILA) of women of childbearing age in Sanggar Buana Village conducted by researchers on 13–18 June 2022, it was found that most women of childbearing age were in the age range of 20 - 35 years later, the researchers measured LILA and obtained data that out of 20 samples there were 10 (50%) women of childbearing age who had LILA measurements below 23.5 cm. Based on

the results of the description above, the researcher is interested in conducting research entitled "The Influence of Preconception Nutrition Counseling on the Knowledge and Attitudes of Women of Reproductive Age in Sanggar Buana Village, Seputih Banyak District, Central Lampung in 2022".

METHOD

Quasi experimental with one group pretest-posttest design. The sample in this study were 81 women of childbearing age who were married during the preconception period from July to September 2022 in Sanggar Buana Village, Seputih Banyak District, Central Lampung. The sampling technique was purposive sampling. The analytical method used is univariate and bivariate analysis with the Paired Samples Test.

RESULT

Table 1 Frequency Distribution of Knowledge of WUS Before Being Given Preconception Nutrition Counseling in Sanggar Buana Village, Kec. As white as Central Lampung in 2022

No	Knowledge	Frequency	Percentage
1.	Good	7	8,6
2.	Enough	52	64,2
3.	Less	22	27,2
	Total	81	100,0

Based on the table above, it can be seen that of the 81 respondents before being given preconception nutrition counseling, the majority had sufficient knowledge, 52 people (64.2%), 22 people (27.2%) had less knowledge and 7 respondents who had good knowledge (8.6%).

Table 2 Distribution of Knowledge Frequency of WUS After Being Given Preconception Nutrition Counseling in Sanggar Buana Village, Kec. As white as Central Lampung in 2022

No	Knowledge	Frequency	Percentage
1.	Good	69	85,2
2.	Enough	12	14,8
	Total	81	100,0

Based on the table above, it can be seen that of the 81 respondents who were given preconception nutrition counseling, the majority had good knowledge, 69 people (85.2%), and 12 people (14.8%) had sufficient knowledge.

Table 3 Frequency Distribution of WUS Attitudes Prior to Preconception Nutrition Counseling in the Village Buana Studio, Kec. As white as Central Lampung in 2022

No	Attitude	Frequency	Percentage
1.	Positive	36	44,4
2.	Negative	45	55,6
	Total	81	100,0

Based on the table above, it can be seen that of the 81 respondents before being given preconception nutrition counseling, the majority had a negative attitude as many as 45 people (55.6%), and as many as 36 people who had a positive attitude (44.4%).

Table 4 Frequency Distribution of Attitudes of WUS After Being Given Preconception Nutrition Counseling in Sanggar Buana Village, Kec. As white as Central Lampung in 2022

No	Attitude	Frequency	Percentage
1.	Positive	79	97,5
2.	Negative	2	2,5
	Total	81	100,0

Based on the table above, it can be seen that of the 81 respondents after being given preconception nutrition counseling, the majority had a positive attitude as many as 79 people (97.5%), and as many as 2 people who had a negative attitude (2.5%).

Table 5 Effect of Preconception Nutrition Counseling on WUS Knowledge in Sanggar Buana Village, Kec. As white as Central Lampung in 2022

Variable	Categori	Frequency		Mean		SD		P value
		Pre	Post	Pre	Post	Pre	Post	
Knowledge	Good	7	69	66,57	90,47	11,686	10,318	0,000
	Enough	52	12					
	Less	22	0					

Based on the table above, it can be seen that from the 81 respondents before being given preconception nutrition counseling, most of them had sufficient knowledge, as many as 52 people and after being given preconception nutrition counseling, most of them had good knowledge, as many as 69 people. The average level of knowledge before being given counseling was 66.57 and a standard deviation of 11.686 and the average level of knowledge after being given counseling was 90.47 and a standard deviation of 10.318. The statistical test results obtained a p value of 0.000, it can be concluded that there is an effect of preconception nutrition counseling on the knowledge of women of childbearing age, because there is a significant difference in the level of knowledge before and after being given counseling.

Table 6. Effect of Preconception Nutrition Counseling on WUS Attitudes in Sanggar Buana Village, Kec. As white as Central Lampung in 2022

Variable	Categori	Frequency		Mean		SD		P value
		Pre	Post	Pre	Post	Pre	Post	
Attitude	Positive	36	79	48,333	87,407	14,0868	13,7809	0,000
	Negative	45	2					

Based on the table above, it can be seen from 81 respondents before being given preconception nutrition counseling, most of them had a negative attitude as many as 45 people and after being given preconception nutrition counseling, most of them had a positive attitude as many as 79 people. The average attitude before being given counseling was 48.333 and a standard deviation of 14.0868 and the average attitude after being given counseling was 87.407 and a standard deviation of 13.7809. The results of the statistical test obtained a p value of 0.000, so it can be concluded that there is an

influence of preconception nutrition counseling on the attitudes of women of childbearing age, because there are significant differences in attitudes before and after being given counseling. So it can be concluded that there is an effect of preconception nutrition counseling on the knowledge and attitudes of women of childbearing age in Sanggar Buana Village, Seputih Banyak District, Central Lampung in 2022.

DISCUSSION

A. Knowledge of WUS before and after being given preconception nutrition counseling

From the results of the study, it can be seen that of the 81 respondents before being given preconception nutrition counseling, the majority had sufficient knowledge, 52 people (64.2%), 22 people (27.2%) had less knowledge and 7 respondents who had good knowledge (8, 6%). And after being given preconception nutrition counseling most of them had good knowledge as many as 69 people (85.2%), those who had sufficient knowledge were 12 people (14.8%) and those who had less knowledge were not found (0).

Knowledge is the result of "knowing" human sensing of a particular object. The sensing process occurs through the five human senses, namely the senses of sight, hearing, smell, taste and through the skin. Knowledge or cognitive is a very important domain for the formation of one's actions (over behavior) (Notoatmodjo, 2018).

The results of this study are in line with the results of Lusyana Gloria Doloksaribu's research (2019) which said that there was an increase in knowledge before and after being given counseling which from the results of the study showed that most of the respondents before being given counseling were mostly knowledgeable enough 53.3% and after being given counseling some large knowledgeable well 70.0%.

According to the researchers' assumptions, the results of the study show that counseling is very useful for increasing knowledge, counseling or health education is effective in providing information and health education, especially about preconception nutrition. Someone who has never experienced pregnancy certainly doesn't understand much about the nutritional needs that must be met for the baby and the mother. By providing preconception nutrition counseling, it is hoped that women of childbearing age will receive information and health education so that during pregnancy they can maintain their health by meeting the nutritional needs of pregnant women and do not experience anemia or CED.

B. Attitudes of WUS before and after being given preconception nutrition counseling

From the results of the study it can be seen that of the 81 respondents before being given preconception nutrition counseling, the majority had a negative attitude as many as 45 people (55.6%), and as many as 36 people who had a positive attitude (44.4%). And after being given preconception nutrition counseling, most of them had a positive attitude as many as 79 people (97.5%), and those who had a negative attitude were 2 people (2.5%).

Attitude is a person's closed response to a certain stimulus or object, which already involves the opinion and emotion factors concerned (happy-unhappy, agree-disagree, good-not good, and so on). Newcomb, one of the social psychologists stated that attitude is a readiness or willingness to act, and not an implementation of certain motives. In other words, the attitude function is not yet an action (open reaction) or activity, but a behavior predisposing factor (closed reaction) (Notoatmodjo, 2018).

The results of this study are in line with the results of Lusyana Gloria Doloksaribu's research (2019) which said that there was a change in attitude before and after being given counseling which from the results of the study showed that most of the respondents before being given counseling were mostly good 60% and after being given counseling most were good 100%.

According to the researchers' assumptions, from the results of the study, we can conclude that counseling can change attitudes that were previously negative into positive attitudes. someone who is well-informed does not guarantee that he will have a positive attitude. Women of childbearing age must be able to absorb, process and understand the information obtained. The positive attitude in question is the harmony between knowledge and the attitude of the respondent himself. Samples that still have a negative attitude towards certain statements at the end of the study can be caused by wrong or inaccurate interpretations of these attitude statements. With this change in attitude, it is hoped that women of childbearing age will understand preconception nutrition well.

C. Effect of Preconception Nutrition Counseling on WUS Knowledge

From the research results it can be seen that the results of statistical tests obtained a p value of 0.000, it can be concluded that there is an effect of preconception nutrition counseling on the knowledge of women of childbearing age, because there is a significant difference in the level of knowledge before and after being given counseling.

The increase in knowledge of the mother under the age of two could be due to exposure to information from various information media, for example counseling. Information is one factor affecting knowledge. The more often a person gets information from various media, the person's knowledge can increase. Information about nutrition provided by health workers increased WUS knowledge about preconception nutrition (Notoatmodjo, 2018).

The results of this study are in line with the results of Lusyana Gloria Doloksaribu's research (2019) which says that there is an effect of preconception nutritional counseling on knowledge with a p value. value 0.001).

According to the researchers' assumptions, the results of the study showed that women of childbearing age after being given counseling about preconception nutrition had better knowledge and showed an influence between counseling and knowledge. Counseling activities given to WUS are two-way communication interpersonally in a calm atmosphere, so that WUS' minds will become more open to their nutritional problems. The increase in the knowledge of women of childbearing age about preconceptional nutrition in this study was due to the fact that the information obtained in counseling could be understood and understood by women of childbearing age so that there was a change in knowledge about preconceptional nutrition before and after being given counseling.

D. Effect of Preconception Nutrition Counseling on WUS Knowledge

The results of the statistical test obtained a p value of 0.000, so it can be concluded that there is an influence of preconception nutrition counseling on the attitudes of women of childbearing age, because there are significant differences in attitudes before and after being given counseling.

Attitude is the second domain after knowledge in the level of behavior change. Mothers in the treatment group experienced a significant increase in nutritional knowledge. If it is related to the theory of behavior change, then the attitude towards the mother is appropriate because it has also experienced an increase. Attitudes can be realized if the information obtained is in accordance with one's experience. Information about nutrition that WUS obtains through media counseling by midwives makes new knowledge for WUS, but does not change attitudes because the content of the information is not in accordance with WUS experience. The information provided during counseling takes place in one direction, so that the number of messages or information that can be understood and learned cannot be measured (Notoatmodjo, 2018).

The results of this study are in line with the results of Lusyana Gloria Doloksaribu's research (2019) which says that there is an effect of preconception nutritional counseling on attitudes with a p value. value 0.001).

According to the researchers' assumptions, the results of the study showed that women of childbearing age after being given counseling about preconception nutrition behaved better and showed an influence between counseling and attitudes. Changes in attitudes in women of childbearing age regarding preconceptional nutrition in this study were because women of childbearing age already had good knowledge of preconceptional nutrition from the results of counseling so as to make women of childbearing age change their attitudes from negative to positive. In addition, changes in the attitude of women of childbearing age are also based on the amount of information obtained so that their knowledge becomes good and is followed by a change in attitude.

CONCULSION

The distribution of the frequency of WUS knowledge before being given counseling about preconception nutrition, most of them had sufficient knowledge 64.2% and after that they had good knowledge 85.2%. The frequency distribution of WUS attitudes before being given counseling about preconception nutrition was mostly negative 55.6% and 97.5% positive afterward. There is an effect of preconception nutrition counseling on the knowledge and attitudes of women of childbearing age (p. value 0.000).

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