



Prevention of Stunting Through Intervention during the Preconception Period for Prospective Brides

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Abstract : This The nutritional status of the prospective bride or pre-marital woman for three or six months during the pre-conception period will determine the condition of the baby being born. The prerequisites for perfect nutrition during the pre-conception period are the key to the birth of normal and healthy babies as one of the specific nutrition intervention efforts to prevent stunting cases. This study aims to examine the effect of counseling intervention methods using pocket books and leaflets on increasing knowledge, attitudes and behavior regarding preconceptional nutrition of the prospective bride and groom. Methods: This study uses a design *Quasi-Experimental with one group before and after intervention design*. Result: Based on the results of the bivariate test, it is known that there is a significant influence of the counseling method using pocket books and leaflets on increasing knowledge, attitudes and behavior regarding preconceptional nutrition of the prospective bride and groom. Conclusion: Intervention of counseling methods using pocket books and leaflets has an effect on increasing knowledge, attitudes and behavior about the preconceptional nutrition of the prospective bride and groom

Keyword : *preconception period, prospective bride, intervention, stunting*

INTRODUCTION

The results of the 2021 Indonesia Nutrition Status Survey stated that the percentage of stunting in Aceh Province exceeded the national figure, namely 33.2%, while the stunting prevalence rate in West Aceh District was 27.2% (Ministry of Health RI, 2021). The preconception period is the time span from three months to a year before conception. Ideally there should be sufficient time when the ovum and sperm are mature, that is, about 100 days before conception (Sumarmi, 2017; Dieny & Rahadiyanti, 2019; Patimah, 2021). The nutritional status of women of childbearing age (WUS) or pre-marital women for three or six months during the pre-conception period will determine the condition of the baby being born. Perfect nutritional requirements during the preconception period are the key to the birth of normal and healthy babies (Susilowati & Kupriyanto, 2016).

The results of a study conducted by Backhausen et al. (2014) in Europe and America, women planning pregnancy tend to adopt healthier preconception behaviors, including folic acid intake, smoking cessation, and reducing alcohol consumption. The results of a relatively similar study were carried out by Stern et al. (2016) who studied 258 pregnant women in Denmark found that women with planned pregnancies more likely to take folic acid (57% versus 2%) and reduce alcohol consumption (20% versus 31%). However, the ideal conditions for preparing for pregnancy in women in Europe and America are inversely proportional to women in developing countries. Research by Evens et al., (2015) found that pregnancy planning is not the main concept for women in South Africa and Malawi. A study conducted by Goli et al. (2015) found that early marriage causes women to experience acute anemia, poor nutritional status for both mother and child, and high maternal and child mortality status

Marriage preparation is not only to provide household knowledge to the bride and groom. No less important is life education after marriage, including nutrition interventions to reduce stunting prevalence at the household level (Fauziatin et al., 2019). Stunting prevention education can be carried out for both brides and grooms (Simanjuntak & Wahyudi, 2021). The responsibility for a child's nutritional status on the 1000th day of birth is not only a burden for the mother, but also requires the father's contribution.

Although previous research has discussed the importance of preconception nutrition education for the bride and groom, and preconception nutrition education interventions significantly increase the knowledge, attitudes and behavior of the bride and groom regarding preconception nutrition, in previous studies the average respondent was the bride and groom, the responsibility responsible for the nutritional status of children at 1000 days of birth even before 1000 KH, namely during the pre-conception period it is not only a burden for the mother, but also the contribution of the father. leaflet on increasing knowledge, attitudes and behavior regarding preconceptional nutrition of prospective brides (women and men).

NEED OF THE STUDY.

The high prevalence of stunting in Aceh Province indicates that Aceh is experiencing serious public health problems (Ministry of Health, 2018). To address the problem of stunting, the government has launched two stunting prevention intervention frameworks, namely (1) specific nutrition interventions and (2) sensitive nutrition interventions. This research is based on the consideration of the importance of studying interventions to reduce the prevalence of stunting in Aceh, especially specific nutrition interventions. Specific nutrition intervention strategies are carried out through preconception nutrition education to prospective brides before the pregnancy program is carried out. Preconception education is very important to address maternal and child health problems, such as the problem of maternal mortality caused by pregnancy complications, nutritional problems, including for stunting prevention. Specific specific interventions to be carried out during the incubation period of cases of stunting, by re-focusing nutrition interventions in an integrated and integrated manner, namely, (1) interventions for premarital or prospective bride and groom target groups with interventions providing preconception nutrition education; (2) reproductive health; (3) anemia and catin health screening (IMT, LILA);

RESEARCH METHODOLOGY

The methodology section outline the plan and method that how the study is conducted. This includes Universe of the study, sample of the study, Data and Sources of Data, study's variables and analytical framework. The details are as follows;

3.1 Population and Sample

The subjects in this study were 20 prospective brides (women and men) in West Aceh District. This study aims to analyze the effectiveness of counseling and counseling intervention methods using pocket books and leaflets on increasing knowledge, attitudes and behavior regarding preconceptional nutrition of the prospective bride and groom. Written consent from respondents prior to data collection

3.2 Data and Sources of Data

For this study using primary data. data were collected 2 times, the first data was from pre-test activities using a questionnaire containing knowledge, attitudes and preconceptional nutritional behavior in prospective brides and the second data was taken from post-test activities which were carried out after the respondents were given educational interventions using leaflets and pocket book

3.3 Theoretical framework

The subjects in this study were 20 prospective brides (women and men) in West Aceh District. This study aims to analyze the effectiveness of counseling and counseling intervention methods using pocket books and leaflets on increasing knowledge, attitudes and behavior regarding preconceptional nutrition of the prospective bride and groom. Written consent from respondents prior to data collection.

This study was ethically approved by the Research Ethics Committee of the Faculty of Nursing, University of North Sumatra. This study used a Quasi-Experimental design with one group, before and after intervention design, or one group pre and post test design. The sample was determined using a consecutive sampling technique.

The sample in this study was 20 prospective brides (women and men) in the district. West Aceh Countries and conclude that relationship of exchange rate and share prices varies across economies of different countries. So there may be both possibility of

This study used a preconception nutrition education intervention program, the interventions provided included: Pre-Intervention Activities (Pre-test). Before being given an intervention in the form of counseling and preconception nutrition counseling, the subject was first given an explanation about the research to be carried out. After being given clear information, the sample was asked to fill out an informed consent form as a sign of agreement to participate as a sample in the study, a pre-test was carried out using a questionnaire containing preconception nutrition. After that, the subject is screened. This screening aims to describe the nutritional status of catin women in Johan Pahlawan District, West Aceh Regency.

This screening includes: Measurement of Body Mass Index (BMI) using anthropometric tools (weight and height measurements) for all subjects and LILA measurements using LILA tape for female subjects. Furthermore, the researcher carried out pre-test activities on the subject. This pre test aims to determine the level of knowledge, attitudes and behavior. The intervention given to the sample is counseling about preconception nutrition. Each pre-marital woman was given 1 leaflet to make it easier for the sample to understand the material presented. Intervention Preconception Nutrition Education was given to the subject. For the first intervention, the counseling method intervention was given to the subject in groups using the preconception nutrition pocket book, the counseling method intervention was given 1 (one) time during the study, the second intervention was given with the counseling intervention method, which was carried out individually or in pairs, the intervention method was Counseling was given 2 (two) times during the study using pocket books and leaflets.

After being given interventions in the form of counseling and preconception nutrition counseling 3 (three) times. where at the end of the third counseling session the researcher carried out a post-test or measurement of the knowledge and attitudes of the sample using the same questionnaire as the questionnaire before being given the intervention. This post-test activity aims to determine the impact of implementing preconception nutrition education in increasing catin's knowledge, attitudes and behavior regarding preconception nutrition. post-test.

3.4 Statistical tools and econometric models

The detail of methodology is given as follows.

3.4.1 Descriptive Statistics (univariate analysis)

Categorical variable data is presented with frequency (n) and percentage (%). Numerical variable data that are normally distributed are presented with the average standard deviation and data that are not normally distributed are presented with the median (minimum-maximum).

3.4.2 Bivariate Analysis

The normality test was analyzed using Shapiro. The Wixolcon test was used to determine the effectiveness of preconception nutrition education

IV. RESULTS AND DISCUSSION

4.1 Results of Descriptive Statics of Study Variables

Table 4.1: Descriptive Statics (Univariate Analysis)

Characteristics	F	%
Age		
- < 20 Years	1	5
- 21 -35 years	19	95
Education		
- SMP	1	5
- SMA	14	70
- PT	5	25
Job Status		
- Work	13	65
- Doesn't Working	7	35
IMT		
- Normal	10	50
- Fat	5	25
- Obesitas	5	25
LILA Status		
- KEK	2	20
- Non KEK	8	80

Table 4.1 Characteristics of respondents according to age are categorized based on the ideal age for marriage and a good age for reproduction for prospective brides. From the table above, it is known that the respondents. The results showed that most of the respondents had the ideal age for marriage, namely 21-35 years (95%). Education Respondents are at most high school level as many as 14 people (70%), at least have elementary education, namely 1 person (5%). Characteristics of work, most respondents chose a job as many as 13 people (65%). Characteristics based on the BMI of the respondents showed that there were still 5 people (25%) who had obesity BMI status and 5 people (25%) were obese BMI status. The LILA status of the bride and groom respondents showed that there were still 20% of the brides who experienced SEZ.

Table 4.2: Average Value of Preconception Nutrition Knowledge, Attitude and Behavior score of prospective brides before and after Intervention

Variable	Value				
	Mean	SD	Min	Max	
Knowledge	- Before Intervention	13	1.25	10	15
	- After Intervention	17,1	1.38	12	19
Attitude	- Before Intervention	31,6	2,52	28	34
	- After Intervention	38	1.52	38	40
Behavior	- Before Intervention	27,1	2.83	24	34
	- After Intervention	38	1.12	37	40

Table 4.2 shows that Based on the table above, it can be seen that the average knowledge value of the respondents before the intervention was given was 13 and after being given the intervention in the form of counseling and counseling there was an increase in the average score to 17, the average score of the attitude of the respondents before the intervention was 31.6 After being given the intervention. an increase in the average score to 38, the average score of the respondent's behavior before the intervention was given was 27.1 g, there was an increase in the average score to 38

Table 4.3: Knowledge, Attitudes and Behavior of Preconceptional Nutrition in prospective brides

Variable		Before Intervention		After Intervention	
		N	%	N	%
Knowledge	- Good	7	35	19	95
	- Not Good	13	65	1	5
Attitude	- Positive	8	40	20	100
	- Negative	12	60	0	0
Behavior	- Good	7	35	16	80
	- Not Good	13	65	4	20

From the table above, it is known that the respondents' knowledge before being given an intervention was the most in the poor category as many as 13 people (65%), after being given the intervention 95% of the respondents had good knowledge. The attitude of the respondents before being given the intervention was good behavior 40% after being given the intervention 100% of the respondents had a good attitude and the behavior of the respondents before being given the intervention was good behavior 35% %, after being given the intervention 80% of the respondents had good behavior

Table 4.4: Differences in Knowledge, Attitudes and Behavior before and after the Intervention (Bivariate Analysis)

Variable		N	Mean	Pvalue
Knowledge	Before Intervention	20	0	0.001
	After Intervention	20	6,50	
Attitude	Before Intervention	20	0	0.005
	After Intervention	20	4,50	
Behavior	Before Intervention	20	0	0.003
	After Intervention	20	4	

Based on Table 4.4 it can be seen that the average value obtained by respondents regarding knowledge of preconception nutrition before being given an intervention was 0 and after being given an intervention the average value of respondents regarding knowledge about preconception nutrition increased to 6.5. Based on the wicolxon test results, the Pvalue = 0.001 is lower than = 0.05 (Pvalue = 0.0001 < = 0.05), The average value obtained by respondents regarding attitudes about preconception nutrition before being given an intervention was 0 after being given educational interventions, counseling and counseling the average value of respondents regarding attitudes about preconception nutrition increased to 4.5. Based on the results of the wilaxocon test, Pvalue = 0.005 and this is less than = 0.05 (Pvalue = 0.0005 < = 0.05) and catin preconceptions in Johan Pahlawan District, West Aceh Regency. The average obtained by respondents regarding behavior regarding preconception nutrition before being given was 0 n after being given the intervention the average value of respondents regarding behavior regarding preconception nutrition increased to 4. Based on the results of the Wilaxocon test, Pvalue = 0.003 and this is less than = 0.05 (Pvalue = 0.0003 < = 0.05), so it can be described that there is a significant influence of preconceptional nutrition education counseling and counseling methods with media pocket books and leaflets on increasing knowledge , attitudes and behavior regarding prospective brides nutrition.

The results showed that at the final measurement all respondents experienced an increase in knowledge, attitudes and behavior about preconception nutrition compared to the initial measurement (pre-test). The difference in knowledge, attitudes and behavior about preconception nutrition at the beginning of the measurement with the final measurement (post-test) shows that there is an effect of applying counseling and counseling methods using pocket books and leaflets on knowledge, attitudes and behavior about preconception nutrition in prospective brides and grooms.

This study is in line with research conducted by Pratiwi Hariyani Putri, et al (2021) there is a significant difference between the knowledge and attitudes of premarital women before and after being given education with media booklets and health care pocket books for prospective brides, in line with Sriwiyanti's research (2022), that there are the effect of providing nutrition education with booklet media on the knowledge and attitudes of young women. Statistical tests were carried out using the Paired Samples T-test, p value = 0.000 showed that there was an effect of providing nutrition education through the media booklet on the level of knowledge about stunting (p = 0.000

Attitude is the regularity of feelings, thoughts, behavior of a person in social interaction. And is an evaluation of various aspects of the social world. Social psychology researchers place attitude as an important thing in social interaction, because attitude influences many things about behavior and as a central issue that can influence a person's behavior. A mother who has poor knowledge and attitudes about nutrition will greatly affect her nutritional status, because good knowledge is related to providing a balanced menu selection (Elisa, 2017).

The nutritional status of pregnant women greatly affects the state of health and development of the fetus. Growth disturbances that occur in the womb can cause low birth weight so that they have a higher risk of becoming stunted (Fikawati, 2018). The importance of knowledge about nutrition for pregnant women and how to prepare the right food can be obtained from health workers (midwives) during classes for pregnant women. Class for pregnant women is a means of learning together about health for pregnant

women in the form of face-to-face in groups that aims to increase knowledge and skills of mothers regarding pregnancy, prenatal care, childbirth, postpartum, and newborns. With classes for pregnant women, mothers can find out about nutritional arrangements during pregnancy which directly increases mother's knowledge about stunting prevention (Quoted from Suryani, 2019).

Related research has been studied by Susanti (2019) in Polinggona District, namely looking at the relationship of Health Education on stunting prevention with power point media and leaflets on 67 participants consisting of women of childbearing age, pregnant women, and mothers of toddlers in Polinggona District. The results of this counseling were very enthusiastic participants who took part in the counseling with a long question and answer session between the service team and service participants and in the feedback session the participants' questions preconceptional nutrition education counseling and counseling methods with media pocket books and leaflets on increasing knowledge, attitudes and behavior regarding catin preconception nutrition in Johan Pahlawan District, West Aceh Regency

Dea Zara Avila, et all (2021), booklet and WA groups, nutritional balance education has a significant effect on Consumption Patterns and Weight of Preconception Women's Intervention which has a major effect on Consumption Patterns and Weight of Preconception Mothers. Methania Nanda Augustine (2001) the use of an android-based nutritional pocket book can improve preconception mastery of nutrition in prospective brides in Gresik Regency and is better than the use of an ordinary pocket book. Doloksaribu (2019) There was an increase in the average knowledge and attitude of the respondents after being given the intervention. Yunit wulandari (2020) There is an effect of giving a Preconception Care Book on increasing the Knowledge and Self-Efficacy of prospective brides. Arvina Dian Wahyu Permatasari (2020). Provision of pocket books as a medium for nutrition counseling has an effect on increasing the knowledge and attitude of the prospective bride and groom. And the results of Pratiwi Hariyani Putri's research1 Education using booklet media influences preconceptional nutritional knowledge, attitudes and intake of macronutrients. There were differences in the levels of energy and protein adequacy after the intervention in the intervention and control groups.

I. ACKNOWLEDGMENT

Researchers would like to thank the Head of the Kantor Urusan Agama (KUA) Johan Pahlawan.

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