

Conference Paper

The Effect of Audiovisual Counseling of Conception Period and Nutrients to the Nutrient Improvement Motivation on Pregnant Mothers at Primary Health Center Girisubo Gunungkidul Yogyakarta in 2015

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Abstract

Malnutrition on pregnant mothers is the highest health problem in the world. From a hundred and forty-two pregnant mothers at primary health center Girisubo, 73 cases (51.4%) had chronic energy deficiency, and 26 cases (18.3%) had anemia on trimester I and III. The purpose of this study was to investigate the effect of audiovisual counseling of conception period and nutrients to the nutrient improvement motivation on pregnant mothers at the primary health center of Girisubo Gunungkidul Yogyakarta in 2015. The study employed the True Experimental Design with pretest-posttest control group design. The research population was 35 pregnant mothers. The samples were 30 people taken through simple random sampling. The samples were divided into two groups. Fifteen people were in the experiment group, and 15 people were in the control group. The data analysis used Wilcoxon and Mann-Whitney U-test. The pregnant mother's nutrient improvement motivation on experiment group shows that 73.3% of respondents were in medium category in pretest and this number increased to 80% in posttest for good category. The Wilcoxon test obtained p-value 0.000. The result on the experiment group shows that 86.6% were in medium category in pretest and 53.3% were in medium category in posttest with p-value 0.001. There is an effect of audio visual counseling of conception period and nutrients to the nutrient improvement motivation on pregnant mothers at Primary Health Center Girisubo Gunungkidul Yogyakarta in 2015. Audio visual media could be used in counseling as an effort to improve pregnant mother's motivation to care for pregnancy.

Keywords: counseling, audiovisual, conception, nutrients, and pregnant mothers

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1. Introduction

Malnutrition is the highest health problem in the world, especially in developing countries (Agriculture Organization (FAO), 2009). Nutritional problems can be seen through indicators of nutritional status assessment of pregnant women, from the results of weight

monitoring during pregnancy with a gain of 10-12 kg weight, measurement of Left Upper Left Arm (LULA) using LULA bands with the provisions of LULA more than 23.5 cm. If the LULA is less than 23.5 cm, it means that the mother is chronically energized (CED), and the measurement of Hemoglobin (Hb) level, to detect the presence of anemia in a pregnant woman with the provision of Hb > 11 mg/dl (DepKes RI, 2005).

Data from Household Iodine Salt Survey results, the prevalence of pregnant women who experienced SEZ in South Sulawesi was 17.5%, West Java was 14.30%, including 8% Cirebon and DKI Jakarta was 13.91% (Risksdas, 2010). The prevalence of pregnant women in Yogyakarta in 2011 with CED was 4.86%, increasing compared to 2010 of 14.41%, the highest was in the city of Yogyakarta 22.69% and Gunungkidul 15.44% (DinKes DIY, 2011).

Low nutrient intake during pregnancy can result in the mother giving birth to low birth weight infants (LBW), such as birth weight under 2500 grams. Infants born with LBW have a 35% higher chance of dying than birth weight above 2500 grams (Mutalazimah, 2011). The low nutritional status among others is influenced by the lack of knowledge and socio-economic community.

Counseling provided by health workers will improve one's knowledge. Advice will be interesting when using media, including audio, visual, and audiovisual. According to Zakaria in Kumboyono (2011), the use of audio-visual media in health counseling will help clarify the information conveyed, because it is more interesting, interactive, overcoming the limits of space, time and the human senses (Kumboyono, 2011).

Counseling using the media to make pregnant women motivated to meet the intake of nutritional needs in helping the fetus keeps on growing well during the period of pregnancy (Aryastuti, 2012). Based on research results by Yohana Maria (2009), it disclosed that health promotion using audio-visual media could improve the knowledge, perceptions, and attitudes of a person (Yohana, 2009).

Counseling optical audio of conception and nutrition in pregnant women explains about the process of growth stage and development of the fetus in the uterus during pregnancy period started from understanding until childbirth. The optical audio also reveals that the nutritional needs at each stage of growth and development of the fetus so it can cause motivation for pregnant women to improve nutritional fulfillment. Interviews with some pregnant women in Girisubo during ANC visits proved that more than 50% had less motive in meeting dietary needs during pregnancy due to concerns about consuming certain foods. Such matters are fearful that a baby is born and complicates labor. The data is supported by data owned by Girisubo Health Center that is data of pregnant women who experienced CED with LULA < 23,5 cm from January to September 2014 as many as 73 cases (51,4%), anemia HB < 11 mg / dl in Trimester I And III as many as 26 cases (18.3%) of 142 pregnant women who did the examination (Puskesmas Girisubo, 2015).

Based on the description above, the researcher wanted to know the effect of Audio Visual Extension Couple Conception and Nutrition Against Motivation of Increasing Nutrition In Pregnant Women At Girisubo Gunungkidul Health Center 2015.

2. Methods

The design of this research used the experimental design of True Experimental Design with Pretest-Posttest Control Group Design. A cross-sectional time approach is a study that studies the dynamics of correlation between risk factors and effects.

The population in this study were all pregnant women who examined Girisubo Community Health Center 2014-2015 with 35 respondents. Researchers used random sampling, in which sampling is done randomly and pay attention to specific criteria. How to do is to sweep by choosing a number from a list of names at random. So the sample for the experimental group (pregnant women who get counseling using audiovisual media) as many as 15 people, and control group (pregnant women who get advice using media leaflet) as many as 15 people. The sample determination was calculated based on the number of population and according to the provision that the experimental study using experimental group and control group, the sample amount of each group is between 10 s / d 20 (Sugiyono, 2010).

The data collection tool used was the questionnaire. Data analysis techniques used frequency distributed tables of percentages. In this univariate analysis, researchers used the following formula:

$$M = \frac{\sum x}{N}$$

Information :

M: Average

X: Individual values

N: Number of individuals in the distribution

Bivariate analysis was conducted to determine the effect of conception and nutritional audiovisual extension to the motivation to improve nutrition in pregnant women at Girisubo Gunungkidul Health Center. Data were analyzed using computerized aid, ordinal data scale and should not be normally distributed. Data analysis were used for a comparative test of two paired data that was Wilcoxon test from data of motivation improvement result of nutrient in pregnant mother pre and post-test in each experiment and control group. While for two unpaired data that were different from motivation increase of nutrition in experiment group and control, a test of the Man-Whitney U Test was used.

3. Results

The results of 30 respondents at Girisubo Community Health Center in 2015 were obtained as follows:

4. Discussion

After the data were analyzed and looked at the results obtained from a study conducted on 10 and 24 June 2015 on the influence of conception and nutritional counseling

TABLE 1: Frequency Distribution of Motivation Improving Maternal Nutrition Before and After Performed AudioVisual Counseling Period of Conception and Nutrition In Experiment Group at Girisubo Gunungkidul Health Center in 2015.

The motivation for Increasing Nutrition in Experiment Group	Pre		Post	
	F	%	F	%
Good	2	13.3%	12	80%
Enough	11	73.3%	3	20%
Less	2	13.3%	-	-
Total	15	100%	15	100%

Data source: Primary data (2015)

TABLE 2: The motivation of Nutrition Enhancement of Pregnant Women Before and After Performed AudioVisual Counseling Period Conception and Nutrition In Experiment Group at Girisubo Gunungkidul Health Center in 2015.

The motivation for Increasing Nutrition in Pregnant Women	Mean		Asymp.Sig. (p-value)
	Before	After	
	70.80	83.47	0.000

TABLE 3: Frequency Distribution of Motivation Improved Nutrition of Pregnant Women Before and After Performed Audio-Visual Education Conception and Nutrition Period In Control Group at Girisubo Gunungkidul Health Center in 2015.

The motivation for Increased Nutrition in Control Groups	Pre		Post	
	F	%	F	%
Good	1	6.7%	7	46.7%
Enough	13	86.6 %	8	53.3%
Less	1	6.7 %	-	-
Total	15	100%	15	100%

Data source: Primary data (2015)

TABLE 4: The motivation of Nutrition Enhancement of Pregnant Mothers Before and After Performed AudioVisual Education Conception and Nutrition Period In Control Group at Girisubo Gunungkidul Health Center in 2015.

The motivation for Increasing Nutrition In Pregnant Women	Mean		Asymp.Sig. (p-value)
	Before	After	
	65.80	75.80	0.001

on the motivation to improve nutrition in pregnant women at Girisubo Health Center, Gunungkidul Yogyakarta Year 2015 can be seen as follows:

TABLE 5: Differences Motivation Improving Nutrition Before And After Performed *AudioVisual* Conception and Nutrition Education In the Experiment Group and Control Group InGirisuboGunungkidul Health Center in 2015,

Motivation is given counseling.	n	Mean Before	Asymp.Sig (p-value)	Mean After	Asymp.Sig (p-value)
Experiment	15	19.80	0,007	20.47	0,001
Control	15	11.20		10.53	

4.1. Motivation in the experimental group before and after the counseling of conception and nutrition in pregnant women in 2015

The results of the research on 15 respondents obtained the motivation to improve nutrition, the pretest most of the respondents categorized enough 73.3%. Before being given audio-visual counseling, respondents already had good enough motivation in improving nutrition during pregnancy. Respondents that were mostly 80% of them were homemakers could arrange all the needs of daily food consumption. As a housewife, in addition to cooking, the mother also performs other activities. Work on pregnant women with burdens or activities that were too heavy would affect the growth and development of the fetus in the womb because of the relationship of the fetoplacental axis and retroplacental circulation which was a unity. If there were a disturbance in one of them, it would pose a risk to the mother of malnutrition or CED and Anemia while they were in the fetal LBW (Kusmiyati, Yuni, & dkk, 2009). While after being given counseling using audiovisual, respondent motivation increased to be useful as much as 80%.

In the pretest and post-test, it's obtained 80% of the average motivation. The motivation of pregnant women to consume milk was good enough at the beginning of pregnancy. For pregnant women, milk is a mandatory menu that must be destroyed to meet the nutritional needs of the baby, especially at 13 weeks of gestation. At 13 weeks of pregnancy, the fetus undergoes the formation of skeletons or bones. In the week before and the next weeks of calcium will be ossified or absorbed very quickly until the bones become harder. Pregnant women are advised to meet the needs of calcium to perfect the formation of the fetus during the period of pregnancy. However, there are still pregnant women who do not like milk, so they do not consume milk on the grounds of nausea and vomiting. Calcium sources re not only from milk but so pregnant women who do not like milk can also meet the needs of calcium through other food sources. Calcium is essential because, in addition to bone, calcium is also needed to prevent preeclampsia or high blood pressure. Based on the nutritional adequacy rate in 2004, the consumption of calcium foods recommended for pregnant women is as much as 950 mg per day. The primary sources of calcium are milk and its processed products, shrimp and sardines

4.2. Motivation in the control group before and after the counseling period of conception and nutrition in 2015

Based on the results of research on 15 majorities of respondents, it's obtained that the percentage of nutritional improvement motivation in pretest with enough category 86.6% and the post-test has enough category 53.3%. This is by the work of respondents, most of which 53.3% are private. Busy occupation makes the respondent has enough motivation before and after given counseling using leaflet.

4.3. The difference of motivation to improve pregnant mother's nutrition in the experimental group and control group after counseling conception and nutrition year 2015

Audiovisual education on the results of this study affects the motivation to improve nutrition. Researchers distributed questionnaires about motivation with nutrition fulfillment materials nine statements, nutritional status five reports, and nutritional needs of 11 reports.

The results of the experimental group obtained that pretest average of 70.8 had enough motivation. After the counseling, motivation increased to 83.47, so it could be categorized well. The results of the control group, the motivation before the average leaflet given 65.80 insufficient categories. Whereas after being given a leaflet, the average value increased to 76.80 in another category.

Based on the above explanation, data analysis used Wilcoxon and Mann-Whitney U-Test test. Wilcoxon test results, in pretest and posttest experimental group, it's obtained

P value 0.000, indicating that there was a difference of motivation before and after given audiovisual. In the pretest and posttest control group, it's obtained p-value 0.001, showing there was a difference of motivation before and after given leaflets. Calculation for two unpaired data used Mann-Whitney U-Test test, resulting in p-value equal to 0.001 with mean posttest value in experiment group 20,47 and control 10.53. The p-value <0.05 could be concluded that H_0 was rejected and H_a was accepted, meaning that there was a significant influence on Audio Visual Conception and Nutrition counseling on the motivation of pregnant mother nutrient improvement at Girisubo Health Center 2015. 2015. Although both audiovisual media and leaflets influenced motivational improvements, audiovisual media had a higher impact than the media of pamphlets. This happened because using audio-visual information was more readily accepted than the leaflet.

Motivation is a tendency that arises in a person consciously or unconsciously perform actions with a specific purpose or efforts that cause a person or group of people moved to do something because they want to achieve the desired goal (Poerwadarminta, 2006). So motivation will create a change in energy. So it will deal with psychiatric symptoms, emotions, and emotions to act and do something. All that encouragement is due to the purpose of need, and desire. When he needs for nutrition for pregnant women increases, this is due to the high intake of nutrients required by the mother and fetus.

This study used audiovisual media with themes of conception and nutrition in pregnant women by 18 minutes of duration. This video explained about pregnant women who were malnourished, the process of growth and development of the fetus in the womb, as well as nutritional needs needed for pregnant women. At the time of the research, because the media was relatively new, most of the respondents had a great curiosity to the video content and saw the video until it was finished. Respondents listened seriously to some respondents who cried spontaneously as they were touched by a video explaining the period of conception.

One of the research that supported this study was research from Garini (2004), "Influence of VCD intervention of infant care method closely to mother knowledge of low birth weight baby at RSUD Ciawi Bogor." Research provided intervention in the form of showing videos and demonstrations on respondents. The results of the study there was a significant influence between VCD intervention with the level of knowledge ($p = 0.05$). Dissemination of information, the use of other health education media such as booklets, posters, leaflets in research and health education had been widely practiced and showed an increase in knowledge (Garini, 2004).

According to Roesli in Adriani (2010), media leaflets could be used as a comparative medium to convey health promotion counseling, because media leaflets were also an effective medium for delivering messages in verbal and written form. This was supported by the results of research conducted by Adriani (2010), showing that health promotion media leaflets were also useful to improve one's knowledge (Andriani H., 2010).

Research Rinik Eko Kapti (2010), entitled "Audio-visual Effectiveness as a health education media to increase knowledge and attitude of mother in management of children with diarrhea in two hospitals of poor city" using Quasi-Experimental design with independent variable of audio-visual media effectiveness and dependent variable of mother's knowledge and attitude in management of infant diarrhea. The result was an increase of knowledge and belief after counseling between control and intervention there was a significant difference that is knowledge $p = 0.01$; $A 0.05$, and attitude $p = 0.36$; $A 0.05$ (Kapti, 2010).

Other studies were from Tram et al. (2003) which showed that after being given a health education the knowledge and attitude of the intervention, group differed significantly with the control group (Tram, 2003).

Based on the above discussion, it can be concluded that there was an influence of motivation in improving nutrition in pregnant women. The audiovisual counseling of the conception and nutrition period in this study had a considerable impact to increase the motivation as well as knowledge to pregnant women to improve nutrition. Increasing motivation after treatment was the result of providing health education with audiovisual media.

Thus audiovisual media as an effective health education media was used to provide increased knowledge and motivation to pregnant women and change the mother's attitude for the better.

5. Limitations of Research

The author only examined the motivation to improve the nutrition of pregnant women after being given counseling but did not monitor in detail how efforts to improve the nutrient run, and the results of the initiative, because researchers have limited time and energy in monitoring.

6. Conclusion and Suggestion

6.1. Conclusion

1. The motivation of respondents insufficient category to improve nutrition in the experimental group before being given counseling with audiovisual media increased to be right after being offered counseling. Test Wilcoxon, p-value $0.000 < 0.05$ there was a difference in pretest and posttest.
2. The motivation of respondents in the category enough to improve nutrition before being given counseling with media leaflets increased to be right after given advice. Test Wilcoxon p-value value $0.001 < 0.05$ there is a difference in pretest and posttest.
3. The influence of audiovisual extension of conception and nutritional time to motivation to improve nutrition in pregnant women. Posttest resulted with Mann Whitney U-Test test, the average in the experimental group was higher. The resulting value p-value $0.001 < 0.05$.

6.2. Suggestion

Pregnant women are expected to be more active in the following counseling to improve knowledge about health, help motivate themselves to become a healthy society, smart and safe. For health workers, they are advised to use audiovisual media in providing counseling to provide motivation better and attract the target so that the message delivered adequately.

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