

UTILIZATION OF ILLUSTRATED BOOKLET EDUCATIONAL METHODS FOR EARLY DETECTION OF RISK FACTORS IN PREGNANCY

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ABSTRACT

Low public knowledge and awareness to check pregnancy to health workers causes many risk factors complications that accompany pregnancy while pregnant women are required to do pregnancy checks during their pregnancy period at least 4 times, namely 1 time trimester I, 1 time trimester II, and 2 times trimester III. This study aims to determine the effect of Intervention Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care on early detection of risk factors in pregnancy. The type of research used in this study is quasi-experimental (pseudo-experiment) with Non Randomized pre-test-post-test control group design. The sampling technique is Exhaustive sampling totaling 60 people. Where there are 2 groups (Intervention and Control) each group totaling 30 respondents. The hypothesis in this study is that there is an effect of the Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care on improving acting situations, increasing motivation for personal autonomy and increasing social support for husbands and families of pregnant women at the Kioko Health Center. The results showed that there were differences and influences of situations acting knowledge ($p = 0.046$) attitudes ($p = 0.014$), personal autonomy of knowledge ($p = 0.005$) while attitudes of personal autonomy ($p = 0.059$), and social support of husband and family knowledge ($p = 1$) attitudes ($p = 1$) there was no difference and influence before and after getting the intervention. The conclusion of this study is that there is an influence of the Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care on improving the situation of acting pregnant women, there is an influence of the Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care on increasing the motivation of personal autonomy of pregnant women and there is no influence of the Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care on the support of husbands and families of pregnant women

Keywords: Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care, Early Detection Of Risk Factors In Pregnancy

INTRODUCTION

In an effort to reduce maternal mortality and child mortality, the Ministry of Health sets indicators of the percentage of puskesmas carrying out classes for pregnant women and the percentage of puskesmas carrying out orientation of the Childbirth Planning and Prevention of Complications (P4K) Program (Alomi et al., 2018).

The need for efforts to develop the quality of women, especially through accelerating the reduction of maternal mortality rate (MMR) that is integrative and synergistic by increasing their knowledge and awareness, because MMR is one of the indicators of public health status. According to the World Health Organization (WHO) report in 2015 MMR in the world is 303,000 people or around 216/100,000 live births (KH) (Yulyani & Daryanti, 2017).

To achieve the accuracy of Antenatal Care visits as expected, it needs to be supported by several factors, including: knowledge, attitudes, husband support and demographic factors (cost, distance of home and culture) (Nursalam, 2011) (Sari & Kusparlina, 2017). (Tamaka et al., 2013) in (Mulyana, 2017) states that the lack of utilization of ANC by pregnant women is related to many factors, one of which is lack of support from family members. In line with (Friedman et al., 2008) in (Sharif et al., 2021) if individuals get family support, self-confidence will increase and motivation to face every problem will increase.

Based on data from the North Buton Regency Health Office, the number of pregnant women is 1,755 people with MMR 4 people with the cause of death is the lack of knowledge of pregnant women so that at the time of childbirth there is a lot of bleeding and pregnant women are lazy to check their pregnancy (Family Health Section DINKES KAB. North Buton, 2017).

Based on data from pregnant women at the Bonegunu Health Center, there were 86 pregnant women, risk factors were 4 people with the category of too old / with the age of ≥ 35 years and too young / with the age of ≤ 20 years.

Based on data at the Kioko Health Center as many as 88 pregnant women, the risk factors were 10 people with the category of chronic energy deficiency (SEZ), too old / with the age of ≥ 35 years, too young / with the age of ≤ 20 years, too close / with a distance of < 2 years and too short / height ≤ 145 cm (MCH Data Report of Bonegunu Health Center and Kioko Health Center January-April, 2018).

Through the picture above, the government has taken an anticipatory step to reduce the high MMR, by intervening in the Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care as one of the guidebooks in the class of pregnant women related to increasing healthy pregnancy in pregnant women (Iqbal & Asniar, 2021). This pregnant women class in addition to containing antenatal class material, pregnant women are given additional information about the situation of acting, personal autonomy and husband and family support (Y. Sugiarti, 2014).

Based on the results of testing the effect of the situation of acting pregnant women in the first trimester on early detection of high risk of pregnancy, there are differences in the situation of acting respondents before and after treatment, and based on the results of testing the effect of personal autonomy of pregnant women in the first trimester on early detection of high risk of pregnancy, there are differences in the situation of acting respondents before and after treatment (D. Sugiarti & Wardati, 2012).

Antenatal Care (ANC) immediately in early pregnancy is an important factor for early detection of risky pregnancies, which in turn can prevent MMR and Infant Mortality Rate (AKB). During pregnancy there is an increase in blood cell production by up to 50%. This is not comparable to the volume of red blood cells contained in the body which is only 18%. The formation of red blood cells in pregnant women that are too slow also causes a shortage of red blood cells or anemia.

The danger of anemia for pregnant women will experience a lack of red blood cells will not only affect pregnant women, but the fetus they contain. Among them can cause the mother to experience premature partus (babies are born early), shock during labor and bleeding after labor (post partum hemorrhage)

which can also cause the mother to lose her life. In addition, blood pressure checks are also routine checks. If during pregnancy blood pressure increases to an abnormal extent it can be deadly for the fetus. Pregnancy-induced hypertension causes preeclampsia, eclampsia causes seizures, so that damage to the placenta can occur and endanger the blood supply to the fetus (Juzaima, et al, 2017).

Based on the background discussion stated above, the researcher is interested in examining "Utilization of Illustated Booklet Educational Methods for Early Detection of Risk Factors in Pregnancy".

METHOD

The type of research used in this study is quasi-experimental (pseudo-experiment) with a Non-Randomized pre-test-post-test control group design design which aims to determine the influence of pregnant women's classes, improving the situation of acting, motivation, personal autonomy and support of husbands and families of pregnant women on early detection of risk factors in pregnancy at Bonegunu Health Center and Kioko Health Center in Bonegunu District, North Buton Regency

This study used two groups, namely the intervention group and the control group. The design of this study is as follows:

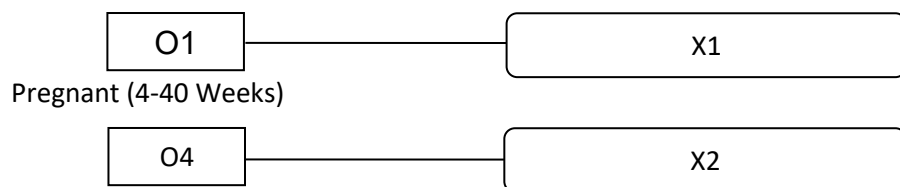


Figure 3.1. Research Design

Information:

O1: Pre-test for intervention groups related to acting situations, personal autonomy and husband and family support before being given *the Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care*

O4 : Pre-test for control group related MCH Book

X1 : Intervention *Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care* in intervention groups. *Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care* is a guideline for providing information about antenatal classes with additional information on acting situations, personal autonomy and husband and family support, through a question and answer lecture method with 2 meetings for pregnant women who have attended classes for pregnant women.

X2 : Received *antenatal care services* at the Puskesmas in the Control group. Antenatal care counseling is the provision of information consisting of: early detection of pregnancy risk factors, pregnancy care, childbirth and postpartum. Obtained by mothers when participating in *antenatal care counseling*

The variables of this study consist of dependent variables (bound) and independent variables (free).

1. Dependent variables

- Early detection of risk factors in pregnant women

2. Independent Variables

- The situation of acting

- Personal autonomy
- Husband and family support

3.Data Collection Method

The data collection methods used in this study are as follows:

Observation (observation), is a planned procedure that includes seeing and recording certain numbers and activities that have to do with the problem under study.

b. Questionnaire, is a method of data collection by providing a number of questions to respondents to answer.

4.Analysis Method

Data analysis using the SPSS program, starting in two stages

a. Univariate Analysis

Describe the characteristics of the response with the frequency distribution table

c. Bivariate Analysis

Bivariate analysis to determine the effect of the Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care on health behavior, acting situations, personal autonomy and support of husbands and families of pregnant women, using a t-test with a meaning limit (alpha value) of 5%. To see the results of the meaningfulness of statistical calculations used a meaning limit of 0.05. Rejection of the hypothesis if p value ≤ 0.05 means there is a significant difference, while failure to reject the hypothesis if p value > 0.05 means there is no meaningful difference.

This test was used to look at differences between before the intervention Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care (pre-test), and after the intervention Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care (post-test) on health behavior, situation acting, personal autonomy and support of husbands and families of pregnant women towards early detection of risk factors in pregnancy and control groups. The stages that must be carried out first are a normality test, after knowing the results are normal, testing is carried out with an independent t test. If the results are abnormal, non-parametric testing is carried out, namely the Mann Whitney test.

RESULTS AND DISCUSSION

A. Univariate Analysis

Table 1. General characteristics of respondents in the intervention group (Puskesmas Kioko) and control group (Puskesmas Bonegunu) in North Buton Regency in 2018

Characteristics of Respondents	Interventio n Group		Control Group	
	n	%	n	%
Age Group				
17 – 19	5	16,7	1	3,3
20 – 34	21	70,0	27	90,0
35 – 43	4	13,3	2	6,7

Pregnancy spacing		2	6,7	1	3,3
2 Year		7	23,3	2	6,7
< 2 Year		15	50,0	19	63,3
> 2 Year					
Education level					
The end SD		2	6,7	4	13,3
The end SMP		12	40,0	4	13,3
The end SMA		12	40,0	9	30,0
Bachelor		4	13,3	13	43,3

Source: Primary Data 2018

Based on table 1, the characteristics of respondents according to the age group with the highest number of respondents at the age of 20-34 years, namely 27 respondents (90.0%) in the control group (Puskesmas Bonegunu), while the age group with the least number of respondents at the age of 17-19 years is 1 respondent (3.3%) in the control group (Puskesmas Bonegunu).

The pregnancy distance with the highest number of respondents was a pregnancy distance of >2 years, namely 19 respondents (63.3%) in the control group (Puskesmas Bonegunu) while the least number of respondents with a pregnancy gap of 2 years was 1 respondent (3.3%) in the control group (Puskesmas Bonegunu). The education level with the highest number of respondents was 13 respondents (43.3%) with undergraduate education in the control group (Puskesmas Bonegunu) while the least number of respondents was 2 respondents (6.7%) with the level of education graduated from elementary school in the intervention group (Puskesmas Kioko).

Table 2. Characteristics based on the number of respondents with increased knowledge in the intervention and control groups for statement of acting situations, personal autonomy and husband and family support about the Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care during pre-test and post-test in Bonegunu sub-district in 2018

No.	Statement	Group Intervensi				Group Control			
		Pre-Test		Post-Test		Pre-Test		Post-Test	
		n	%	n	%	n	%	n	%
1	When doing a pregnancy check, the mother does not need to pay attention to the surrounding situation	9	30	30	100	10	33	20	67
2	Tradition and cultural factors influence the mother's intention to have a prenatal check-up	21	70	29	97	17	57	17	57
3	The distance of the mother's home to the health facility does not affect the mother's desire to do a pregnancy check	18	60	19	63	3	10	13	43
4	Household chores make mothers rarely do pregnancy checks	27	90	30	100	28	93	24	80

5	The wife does not need the husband's decision to meet her needs during pregnancy	17	57	30	100	23	77	12	40
6	The husband's permission greatly influences the decision of pregnant women to conduct a complete examination at a health worker	29	97	29	97	26	87	25	83
7	The husband does not need to attend the group meeting of pregnant women that the mother participated in during pregnancy	12	40	30	100	11	34	17	57
8	The husband should take the time to be alone more often, for example a morning walk, etc	28	93	30	100	28	93	29	97
9	Even though the body of pregnant women undergoes weight changes, spots appear on the face, the husband still loves and assures the mother to remain beautiful	28	93	30	100	27	90	27	90
10	The husband should not smoke when with the mother so as not to interfere with the health of the mother and the fetus she is carrying	30	100	30	100	29	97	30	100

Based on table 2 with the number of respondents as many as 30 in each intervention group (Puskesmas Kioko), the highest increase was in statement 1 because it increased by 21 respondents, while the control group (Puskesmas Bonegunu) the highest increase was in statements 1 and 3 because both increased by 10 respondents

Based on table 2 with the number of respondents as many as 30 in each intervention group (Puskesmas Kioko), the lowest increase was in statement 3 because it only increased by 1 respondent, while the control group (Puskesmas Bonegunu) the lowest increase was in statements 8 and 10 because both increased by 1 respondent

Table 3 Characteristics of respondents based on normal biomedical practices and examinations conducted in the intervention group (Puskesmas Kioko) and control (Puskesmas Bonegunu) during pre-test and post-test in North Buton Regency in 2018

No.	Hasil Pemeriksaan	Kelompok Intervensi				Kelompok Kontrol			
		Pre-Test		Post-Test		Pre-Test		Post-Test	
		n	%	n	%	n	%	n	%
1	Memeriksa jumlah Hb	17	56,7	18	60,0	8	26,7	12	40,0
2	Menimbang BB teratur	27	90,0	28	93,4	28	93,4	30	100
3	Mengukur tekanan darah	28	93,4	28	93,4	30	100	30	100
4	Pemeriksaan perut (TFU)	28	93,4	28	93,4	30	100	30	100
5	Suntik TT	23	76,7	24	80,0	25	83,4	28	93,4

Sumber: Data Primer 2018

Based on table 3, it shows the number of respondents who checked the highest amount of Hb in the intervention group (Puskesmas Kioko), namely 18 respondents (60.0%) after the post-test, while the number of respondents who checked the least amount of Hb in the control group (Puskesmas Bonegunu) during the pre-test was 8 respondents (26.7%). Respondents who weighed the highest number of regular BB in the control group (Puskesmas Bonegunu) were 30 respondents (100%) after the post-test while the number of respondents who weighed the least regular BB in the intervention group (Puskesmas Kioko) during the pre-test was 27 respondents (90.0%).

Respondents who measured blood pressure with the highest number in the control group (Puskesmas Bonegunu) were 30 respondents (100%) during the pre-post-test while the number of respondents who measured blood pressure the least in the intervention group (Puskesmas Kioko) during the pre-post-test was 28 respondents (93.4%).

The respondents who did the abdominal examination (TFU) with the highest number in the control group (Puskesmas Bonegunu) were 30 respondents (100%) during the pre-post-test while the number of respondents who did the abdominal examination (TFU) the least in the intervention group (Puskesmas Kioko) during the pre-post-test was 28 respondents (93.4%). Respondents who injected TT with the highest number in the control group (Puskesmas Bonegunu) were 28 respondents (93.4%) after the post-test while the number of respondents who injected TT the least in the intervention group (Puskesmas Kioko) during the pre-test was 23 respondents (76.7%).

B. Bivariate Analysis

The results of the normality test of differences in the intervention group (Puskesmas Kioko) and the control group (Puskesmas Bonegunu) for the variables of the situation acting, personal autonomy and husband and family support showed that the data were not normally distributed so that the analysis of differences in the intervention group and control group to analyze the score of the acting situation, personal autonomy score and husband and family support score using a non-parametric test, namely the paired T test (two independent samples tests).

1) The Effect Of The Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care On Situations Acting

a. Based on knowledge

Table 4 Knowledge scores of respondents to the situation of acting respondents in the intervention group (Puskesmas Kioko) and control group (Puskesmas Bonegunu) during pre-test, post-test in Bonegunu sub-district in 2018

Statistical Value	Knowledge Score		p value
	Pre-Test	Post-Test	
Intervention Group			
n	30	30	p = 0,046
Mean	1,13	1,00	
SD	0,346	0,000	
SE	0,063	0,000	
Control Group			
n	30	30	p = 0,157
Mean	1,20	1,07	
	0,407	0,254	

SD	0,074	0,046
SE		

Based on table 4 shows that the score (mean) of respondents' acting situation knowledge in the intervention group (Puskesmas Kioko) when the pre-test was higher at 1.13 compared to after the post-test which was 1.00 with the results of statistical tests obtained $p = 0.046$ ($p < 0.05$) showed that there was a significant difference in the average score (mean) of respondents' acting situation knowledge. While in the control group (Puskesmas Bonegunu) when the pre-test was higher at 1.20 compared to after the post-test which was 1.07 with statistical test results obtained a value of $p = 0.157$ ($p > 0.05$) showed that there was no significant difference in the average score (mean) of knowledge of the respondents' acting situation.

Table 5 Differences and effectiveness of respondents' situational knowledge scores in the intervention group (Puskesmas Kioko) and control group (Puskesmas Bonegunu) after the post-test in Bonegunu sub-district in 2018

Value Statistics	Post-test	
	Intervention Group	Control Group
n	30	30
Mean	1,00	1,07
p value	0,154	

Based on table 5 shows that there is a difference in respondents' knowledge scores in the intervention group (Puskesmas Kioko) and the control group (Puskesmas Bonegunu), the results of statistical tests after the post-test obtained a value of $p = 0.154$ ($p > 0.05$) which shows that there is no effectiveness of the average knowledge score of respondents between the intervention group (Puskesmas Kioko) and the control group (Puskesmas Bonegunu).

b. Based on attitude

Table 6 Attitude scores of respondents to the situation of acting respondents in the intervention group (Puskesmas Kioko) and control group (Puskesmas Bonegunu) during the pre-test, post-test in Bonegunu District in 2018

Statistical Value	Attitude Score		p value
	Pre-Test	Post-Test	
Intervention Group			
n	30	30	p = 0,014
Mean	1,80	2,00	
SD	0,407	0,000	
SE	0,074	0,000	
Control Group			
n	30	30	p = 0,029
Mean	1,37	1,67	
SD	0,490	0,479	
	0,089	0,088	

SE

Based on table 6 shows that the score (mean) of respondents' acting situation attitude in the intervention group (Puskesmas Kioko) after the post-test is higher at 2.00 compared to the pre-test which is 1.80 with statistical test results obtained value $p = 0.014$ ($p < 0.05$) indicating that there is a significant difference in the average score (mean) of respondents' acting situation attitude. while the score (mean) of the respondents' acting situation attitude in the control group (Puskesmas Bonegunu) after the post-test was higher at 1.67 compared to the pre-test which was 1.37 with the results of the statistical test obtained $p = 0.029$ ($p < 0.05$) indicating that there was a significant difference in the average score (mean) of the respondents' acting situation attitude.

Table 7 Differences and effectiveness of respondents' acting situation attitude scores in the intervention group (Puskesmas Kioko) and control group (Puskesmas Bonegunu) during the post-test in Bonegunu District in 2018

Value Statistics	Post-test	
	Intervention Group	Control Group
n	30	30
Mean	2,00	1,67
p value	0,001	

Based on table 7 shows that there are differences in respondents' attitude scores in the intervention group (Puskesmas Kioko) and the control group (Puskesmas Bonegunu), the results of statistical tests after the post-test obtained a value of $p = 0.001$ ($p < 0.05$) which shows that there is an average effectiveness of respondents' attitude scores between the intervention group (Puskesmas Kioko) and the control group (Puskesmas Bonegunu).

2. Effect of Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care on personal autonomy

a. Based on knowledge

Table 8, Personal autonomy knowledge scores of respondents in the intervention group (Puskesmas Kioko) and control group (Puskesmas Bonegunu) during pre-test, post-test in Bonegunu District in 2018

Statistical Value	Knowledge Score		p value
	Pre-Test	Post-Test	
Intervention Group			
n	30	30	p = 0,005
Mean	1,27	1,00	
SD	0,450	0,000	
SE	0,082	0,000	
Control Group			
n	30	30	p = 0,157
Mean	1,30	1,43	
	0,466	0,504	

SD	0,085	0,092
SE		

Based on table 8 shows that the score (mean) of respondents' personal autonomy knowledge in the intervention group (Puskesmas Kioko) during the pre-test was higher at 1.27 compared to after the post-test which was 1.00 with the results of statistical tests obtained $p = 0.005$ ($p < 0.05$) indicating that there was a significant difference in the average score (mean) of respondents' personal autonomy knowledge. While in the control group (Puskesmas Bonegunu) after the post-test was higher at 1.43 compared to the pre-test which was 1.30 with the results of statistical tests obtained $p = 0.157$ ($p > 0.05$) showed that there was no significant difference in the average score (mean) of respondents' personal autonomy knowledge.

Table 9 Differences and effectiveness of respondents' personal autonomy knowledge scores in the intervention group (Puskesmas Kioko) and control group (Puskesmas Bonegunu) during the post-test, in Bonegunu sub-district in 2018

Value Statistics	Post-test	
	Intervention Group	Control Group
n	30	30
Mean	1,00	1,43
p value	0,000	

Based on table 9 shows that there are differences in respondents' knowledge scores in the intervention group (Puskesmas Kioko) and the control group (Puskesmas Bonegunu), the results of statistical tests after the post-test obtained a value of $p = 0.000$ ($p < 0.05$) which shows that there is an effectiveness of the average knowledge score of respondents between the intervention group (Puskesmas Kioko) and the control group (Puskesmas Bonegunu).

b. Based on Attitude

Table 9 Personal autonomy attitude scores of respondents in the intervention group (Puskesmas Kioko) and control group (Puskesmas Bonegunu) during pre-test, post-test in Bonegunu sub-district in 2018

Nilai Statistik	Skor Sikap		p value
	Pre-Test	Post-Test	
Kelompok Intervensi			
n	30	30	p = 0,059
Mean	1,80	1,97	
SD	0,407	0,183	
SE	0,074	0,033	
Kelompok Kontrol			
n	30	30	p = 1
Mean	1,57	1,57	
SD	0,504	0,504	

SE	0,092	0,092
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Based on table 9 shows that the score (mean) of respondents' personal autonomy attitudes in the intervention group (Puskesmas Kioko) after the post-test was higher at 1.97 compared to the pre-test which was 1.80 with statistical test results obtained a value of $p = 0.059$ ($p > 0.05$) showing that there was no significant difference in the average score (mean) of respondents' personal autonomy attitudes. While there was a control group (Puskesmas Bonegunu) the same during the pre-test and post-test, namely 1.57 with statistical test results obtained a value of $p = 1$ ($p > 0.05$) showing that there was no significant difference in the average score (mean) of respondents' personal autonomy attitudes.

Table 10 Differences and effectiveness of respondents' personal autonomy attitude scores in the intervention group (Puskesmas Kioko) and control group (Puskesmas Bonegunu) during the post-test, in Bonegunu District in 2018

Value Statistics	Post-test	
	Intervention Group	Control Group
n	30	30
Mean	1,97	1,57
p value	0,000	

Based on table 10 shows that there are differences in respondents' attitude scores in the intervention group (Puskesmas Kioko) and the control group (Puskesmas Bonegunu), the results of statistical tests after the post-test obtained a value of $p = 0.000$ ($p < 0.05$) which shows that there is an effectiveness of the average respondent attitude score between the intervention group (Puskesmas Kioko) and the control group (Puskesmas Bonegunu).

3. Effect of Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care on husband and family support

a. Based on Knowledge

Table 11, Knowledge scores of respondents' husband and family support in the intervention group (Puskesmas Kioko) and control group (Puskesmas Bonegunu) during pre-test, post-test in Bonegunu sub-district in 2018

Statistical Value	Knowledge Score		p value
	Pre-Test	Post-Test	
Intervention Group			
n	30	30	p = 1
Mean	1,00	1,00	
SD	0,000	0,000	
SE	0,000	0,000	

Control Group			
n	30	30	p = 0,317
Mean	1,03	1,00	
SD	0,183	0,000	
SE	0,033	0,000	

Based on table 11 shows that the score (mean) of respondents' husband and family support knowledge in the intervention group (Puskesmas Kioko) was the same during the pre-test and post-test, which was 1.00 with the results of the statistical test obtained $p = 1$ ($p > 0.05$) indicating that there was no significant difference in the average score (mean) of the respondent's husband and family support knowledge. While in the control group (Puskesmas Bonegunu) higher during the pre-test which was 1.03 compared to after the post-test with statistical test results obtained a value of $p = 0.317$ ($p > 0.05$) showed that there was no significant difference in the average score (mean) of knowledge support of the respondents' husbands and families.

Table 12 Differences and effectiveness of respondents' husband and family support knowledge scores in the intervention group (Puskesmas Kioko) and control group (Puskesmas Bonegunu) after the post-test, in Bonegunu sub-district in 2018

Value Statistics	Post-test	
	Intervention Group	Control Group
n	30	30
Mean	1,00	1,00
p value	1	

Based on table 12, showing no difference in respondents' knowledge scores in the intervention group (Puskesmas Kioko) and the control group (Puskesmas Bonegunu), the results of statistical tests during the post-test obtained a value of $p = 1$ ($p > 0.05$) which showed that there was no effectiveness of the average knowledge score of respondents between the intervention group (Puskesmas Kioko) and the control group (Puskesmas Bonegunu).

b. Based on Attitude

Table 13 Scores of respondents' husband and family support attitudes in the intervention group (Puskesmas Kioko) and control group (Puskesmas Bonegunu) during pre-test, post-test in Bonegunu sub-district in 2018

Statistical Value	Attitude Score		p Value
	Pre-Test	Post-Test	
Intervention Group			
n	30	30	p = 1
Mean	2,00	2,00	
SD	0,000	0,000	
SE	0,000	0,000	

Control Group			
n	30	30	p = 0,157
Mean	1,93	2,00	
SD	0,254	0,000	
SE	0,046	0,000	

Based on table 13 shows that the score (mean) of the respondent's husband and family support attitude in the intervention group (Puskesmas Kioko) was the same during the pre-test and post-test, namely 2.00 with the results of the statistical test obtained a value of $p = 1$ ($p > 0.05$) showing that there was no significant difference in the average score (mean) of the respondent's husband and family support attitude. While in the control group (Puskesmas Bonegunu) was higher after the post-test which was 2.00 compared to the pre-test which was 1.93 with the results of statistical tests obtained $p = 0.157$ ($p > 0.05$) showed that there was no significant difference in the average score (mean) of the respondents' husband and family support attitudes.

Table 14 Differences and effectiveness of respondents' husband- and family support attitude scores in the intervention group (Puskesmas Kioko) and control group (Puskesmas Bonegunu) during the post-test, in Bonegunu sub-district in 2018

Value Statistics	Post-test	
	Intervention Group	Control Group
n	30	30
Mean	2,00	2,00
p value	1	

Based on table 14 shows no difference in respondents' attitude scores in the intervention group (Puskesmas Kioko) and the control group (Puskesmas Bonegunu), the results of statistical tests after the post-test obtained a value of $p = 1$ ($p > 0.05$) which showed that there was no effectiveness of the average respondents' attitude scores between the intervention group (Puskesmas Kioko) and the control group (Puskesmas Bonegunu).

a) Influence Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care against the situation act

1) Based on knowledge

Based on the results of statistical tests, there was a decrease in the average score (mean) of respondents' acting situation knowledge during the pre-test to post-test in the intervention group (Puskesmas Kioko) after learning using manuals in pregnant women's classes or directly to

each individual, while the results of statistical tests obtained $p = 0.046$ ($p < 0.05$) showed that there was a significant difference in the average score (mean) of acting situation knowledge respondents at the time of pre-test and post-test so it can be concluded that there is an effect of the Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care on increasing knowledge of acting situations.

Likewise, in the control group (Puskesmas Bonegunu) there was a decrease in the average score (mean) of knowledge of the respondents' acting situation during the pre-test to post-test. The results of the statistical test obtained a value of $p = 0.157$ ($p > 0.05$) showed that there was no significant difference in the average score (mean) of respondents' acting situation knowledge at the time of pre-test and post-test so that it can be concluded that there is no effect of the Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care on increasing knowledge of acting situations.

There was a difference in respondents' knowledge scores in the intervention group (Puskesmas Kioko) and the control group (Puskesmas Bonegunu), the results of statistical tests after the post-test obtained a value of $p = 0.154$ ($p > 0.05$) which showed that there was no effectiveness of the average knowledge score of respondents between the intervention group (Puskesmas Kioko) and the control group (Puskesmas Bonegunu).

Behavior that occurs begins with a person's experiences and external factors both physical and non-physical so that experiences and environments can be known, perceived, believed and cause motivation to act because of increased knowledge (Notoatmodjo, 2013 in Sugiarti, 2012). This research is in line with research conducted by Mohamadirizi, et al (2013) in Usman (2015) which states that providing health education through e-learning can significantly increase maternal knowledge. In line with research conducted by Pani, Widya (2013) stated that the control group average knowledge score of respondents decreased to 1.64%.

2) By attitude

The results of the statistical test showed that there was an increase in the average score (mean) of respondents' acting situation attitudes during the pre-test to post-test in the intervention group (Puskesmas Kioko) after learning using manuals in pregnant women's classes or directly to each individual, because the results of statistical tests obtained a value of $p = 0.014$ ($p < 0.05$) showed that there was a significant difference in the average score (mean) attitude of the situation acting respondents during the pre-test and post-test so that it can be concluded that there is an influence of the Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care on improving the attitude of the situation to act.

Increased average score (mean) attitude of respondents' acting situation during pre-test to post-test in the control group (Puskesmas Bonegunu). The results of the statistical test obtained a value of $p = 0.029$ ($p < 0.05$) showed that there was a significant difference in the average score (mean) of respondents' acting situation attitudes during the pre-test and post-test so that it can be concluded that there is an influence of the Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care on improving the attitude of acting situations.

There were differences in respondents' attitude scores in the intervention group (Puskesmas Kioko) and the control group (Puskesmas Bonegunu), the results of statistical tests after the post-test obtained a value of $p = 0.001$ ($p < 0.05$) which showed that there was an effectiveness of the average respondents' attitude scores between the intervention group (Puskesmas Kioko) and the control group (Puskesmas Bonegunu).

Behavior that occurs begins with a person's experiences and external factors both physical and non-physical so that experiences and environments can be known, perceived, believed and cause motivation and intention to act because increasing knowledge eventually occurs the realization of these intentions in the form of behavior (Gusman et al., 2021).

In line with research conducted by Pani, Widya (2013) stated that after the intervention the knowledge score of respondents in the prenatal plus class counseling in the intervention group there was an increase in knowledge by 32.68% and the attitude score in the intervention group increased by 13.11%, significantly increasing the mean value of the knowledge and attitude score of pregnant women ($p = 0.000 < 0.005$).

b) The effect of the Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care on personal autonomy

1) Based on Knowledge

Based on the results of statistical tests that have been carried out, it was found that there was a decrease in the average score (mean) of respondents' personal autonomy knowledge during the pre-test to post-test in the intervention group (Puskesmas Kioko) after learning using manuals in the class of pregnant women and directly to each individual, while the results of statistical tests obtained a value of $p = 0.005$ ($p < 0.05$) showed that there was a significant difference in the average score (mean) knowledge of respondents' personal autonomy during the pre-test and post-test, so it can be concluded that there is an influence of the Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care on increasing knowledge of personal autonomy. While in the control group, a value of $p = 0.157$ ($p > 0.05$) was obtained which showed that there was no difference in the average score (mean) of respondents' personal autonomy knowledge at the time of pre-test and post-test which showed no significant, so it can be concluded that there was no effect of the Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care on respondents' personal autonomy knowledge.

The knowledge score of respondents in the intervention group (Puskesmas Kioko) and the control group (Puskesmas Bonegunu), the results of statistical tests after the post-test obtained a value of $p = 0.000$ ($p < 0.05$) which showed that there was an average effectiveness of respondents' knowledge scores between the intervention group (Puskesmas Kioko) and the control group (Puskesmas Bonegunu). Fishbein & Ajzen (1975) that subjective norm (Subjective Norm) is the extent to which a person has the motivation to follow people's views on the behavior he will do (normative belief) (Sugiarti, 2012).

In line with research from (Indrawati & Puspitaningrum, 2016) which shows there is a difference in knowledge between pre-counseling (LCD) and post-counseling (LCD) about increasing knowledge of high-risk pregnant women with media-based counseling. In line with research conducted by (H. L. Fitriani et al., 2020) which states that there is a significant increase in knowledge about changes in pregnant women in group trials after being given health education about high-risk pregnancy with a value ($p = 0,000 < 0.05$) which means health education about high-risk pregnancy is effective for increasing knowledge of pregnant women.

2) By attitude

Based on statistical tests, it shows that there is an increase in the average score (mean) of respondents' personal autonomy attitudes during the pre-test to post-test in the intervention group (Puskesmas Kioko) after learning using manuals in pregnant women's classes or directly to each individual, because the results of statistical tests obtained a value of $p = 0.059$ ($p > 0.05$)

showed that there was no significant difference in the average score (mean) of personal autonomy attitudes respondents at the time of pre-test and post-test but from the results of statistical tests are not significant, so it can be concluded that there is no effect of the Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care on increasing personal autonomy. while in the control group (Puskesmas Bonegunu). The results of the statistical test obtained a value of $p = 1$ ($p > 0.05$) which showed that there was no difference in the average score (mean) of respondents' personal autonomy attitudes at the time of pre-test and post-test which showed insignificant, so it can be concluded that there was no influence of the Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care on respondents' personal autonomy attitudes.

The attitude scores of respondents in the intervention group (Puskesmas Kioko) and the control group (Puskesmas Bonegunu) were obtained that the results of statistical tests after the post-test obtained a value of $p = 0.000$ ($p < 0.05$) which showed that there was an average effectiveness of respondents' attitude scores between the intervention group (Puskesmas Kioko) and the control group (Puskesmas Bonegunu). The influence of personal autonomy with the ability to detect early pregnancy risk factors, in Indonesia, especially mothers whose personal freedom is still limited where a wife in making decisions is still very dependent on the husband so that to behave wife requires certain provisions (Sugiarti, 2012).

In line with research from Devi, Nuke Indrawati, et al (2016) which shows that there is no difference between pre-counseling attitudes (LCD) and post-counseling attitudes (LCD) about increasing attitudes of high-risk pregnant women with media-based counseling

c) The effect of the Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care on husband and family support

1) Based on Knowledge

Based on the results of statistical tests, it was found that there was no increase or decrease in the average score (mean) of knowledge support of respondents' husbands and families during the pre-test to post-test in the intervention group (Puskesmas Kioko) after being given learning using manuals in pregnant women's classes or directly to each individual, while the results of statistical tests obtained a value of $p = 1$ ($p > 0.05$) showed that there was no significant difference. The average score (mean) of respondents' personal autonomy knowledge at the time of pre-test and post-test, so it can be concluded that there is no effect of the Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care on increasing personal autonomy knowledge. While in the control group (Puskesmas Bonegunu). The results of the statistical test obtained a value of $p = 0.317$ ($p > 0.05$) which showed that there was no difference in the average score (mean) of respondents' personal autonomy knowledge at the time of pre-test and post-test which showed insignificant, so it can be concluded that there was no effect of the Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care on the knowledge of support of respondents' husbands and families.

In the knowledge scores of respondents in the intervention group (Puskesmas Kioko) and the control group (Puskesmas Bonegunu), the results of statistical tests during the post-test obtained a value of $p = 1$ ($p > 0.05$) which showed that there was no effectiveness of the average knowledge score of respondents between the intervention group (Puskesmas Kioko) and the control group (Puskesmas Bonegunu). During pregnancy, mothers really need support from their husbands and even families so that mothers feel loved and given attention. This research is in accordance with

research conducted by Pani, Widya, 2013 which stated that in the control group the average knowledge score of respondents decreased to 1.64%.

2) By Attitude

Based on the results of statistical tests, it showed that there was no increase in the average score (mean) of the respondents' husband and family support attitudes during the pre-test to post-test in the intervention group (Puskesmas Kioko) after learning using manuals in pregnant women's classes or directly to each individual, because the results of statistical tests obtained a value of $p = 1$ ($p > 0.05$) showed that there was no significant difference in the average score (mean) Respondents' husband- and family support attitudes during the pre-test and post-test, so it can be concluded that there is no effect of the Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care on increasing the support attitude of husbands and families. While in the control group (Puskesmas Bonegunu). The results of the statistical test obtained a value of $p = 0.157$ ($p > 0.05$) which showed that there was no significant difference from the support attitude of the respondent's husband and family at the time of pre-test and post-test, so it can be concluded that there was no effect of the Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care on the support attitude of the respondent's husband and family.

Respondents' attitude scores in the intervention group (Puskesmas Kioko) and control group (Puskesmas Bonegunu), statistical test results after the post-test obtained a value of $p = 1$ ($p > 0.05$) which showed that there was no effectiveness of the average respondent attitude score between the intervention group (Puskesmas Kioko) and the control group (Puskesmas Bonegunu). This can be caused by the road conditions and the distance between some pregnant women's houses and the Puskesmas which is quite far so that even though husband or family support is given to pregnant women to do pregnancy checks, pregnant women do not go to check their pregnancy because considering the road conditions and the distance is quite far. In line with research conducted by (Rakhmadian, n.d.) in (N. Fitriani & Susanti, 2021) with the title of knowledge and attitudes about high-risk pregnancy in women of childbearing age in the work area of Muara Fajar Health Center before and after counseling. The results stated that the level of difference in pre and post counseling attitudes was not found to be different.

CONCLUSION

There is an effect of the Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care on improving the situation of acting pregnant women, There is an effect of the Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care on increasing the motivation of personal autonomy of pregnant women There is no effect of the Illustrated Booklet Educational Methods On Women's Knowledge Of Prenatal Care on increasing the support of husbands and families of pregnant women

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