The Influence of Booklet Print and Leaflet Print Media to Improve Reproductive Health Knowledge in Adolescent

Rita Rena Pudyastuti

Department of Nursing Ambon, Maluku Polytechnic of Health Ministry, Indonesia

Abstract**—***Reproductive health as a woman's ability to utilize reproductive organs and regulate their fertility can undergo pregnancy and childbirth safely and have a baby without any risk, well health mother and baby born and return to health within normal limits. This study want to determine the appropriate print media to improve adolescent reproductive health knowledge. This study used a quasi-experimental method, using a pretest and posttest control that was chosen to compare the results of the evaluation before and after health education interventions with similar criteria of respondents. The analysis used to determine the effect of the print media booklet and leaflet on health knowledge reproduction of adolescent. Testing the null hypothesis with a significance level of p <0.05. This research was conducted at SMPN 20 Ambon. The Subject was students of class VIII as many as 60 students. The results showed: There are no significant differences in the use of print media booklets and leaflets on adolescent reproductive health knowledge (2.04> 0.490 <2.76). It is suggested to be continued for further research on the use of print booklets and leaflets media effectively in improving reproductive health knowledge.*

Keywords— Print booklets, leaflets printed media, adolescent reproductive health knowledge.

I. INTRODUCTION

Teenager was one of large segment in the population. Number of teenagers covering 20% of world population, and these 85% live in developing countries (WHO, 1998 cit Dehne and Riedner, 2001). Adolescence is one of the stages of growth and development of children from conception, babies, toddlers, teenagers, young adults, adults and so on in the life cycle development. Adolescence is a time of special because this time is the final stage of maturation socio-biological human being, growth and development of rapid and maturation of the secondary sexual occurred at that stage implies widely on aspects of physical, psychological, and social causing special problems of adolescents including reproductive health problems (Trastotenojo, 1995).

Adolescents as the largest age group of the population in Indonesia, need the focus of attention and strategic interventions for the development of human resources. According to WHO (1998) issue of reproductive health is the responsibility of us all, including young men and women because they take an active role in it. Several international studies have shown that the participation of men and women in addressing reproductive health issues shows that more effective results (Gordon, 1995; Mbizvo and Bassett, 1996). Roles and responsibilities teenage son or daughter applies in international (universal) as set out in the Conference on Population and Development in Cairo at 1994 and adolescents is one of the groups that potentially have the knowledge an international conference on women in 1995 that the development of counseling and reproductive health services for adolescents recognized as a key factor in reducing teen pregnancy. Men must be taught to respect the dignity and to share responsibility with women in terms of sexuality and reproduction.

In accordance with the observations of reproductive health education, researchers typically use the lecture method. According to Umar (2000), the effective of print media used is leaflet and booklets. The media is more easily to be understood because the material conveyed through writing and also with pictures. The results of the research may be the basis for policy making in teenager business as a preventive effort to save the future generation. The objective of this study was to determine the appropriate print media to improve adolescent reproductive health knowledge in teenagers.

II. RESEARCH METHODS

This study use quasi experiment desain, pretest and posttest control design that were chosen to compare the results of the evaluation before and after the intervention of reproductive health education. The analysis used to determine the effect of the print media booklet and print media Leaflet on adolescent reproductive health knowledge with T- test. P null hypothesis test with significance level p <0.05

The research was conducted at SMP N 20 Ambon. The study begins with a preliminary survey and subsequent research permits. The population were students of class VIII SMPN 20 were determined criteria are willing to follow the treatment and who have never participated in reproductive health training by health officer or NGOs. Samples size of this research are 60 students. The data collection was divided into two phases: pretest and posttest phase. In gathering data on the first meeting, the researchers fed a pretest to the class A (group Booklet) and pretest class B (group Leaflet). Meeting II and III, Grade A reproduction of Education study material with Booklet and B class students learn the material by using Leaflet reproductive education. At the fourth meeting of the students of class A and class B students discuss reproductive educational materials among students in each group. Researchers provide post test to Class A and Class B with the same problem.

III. RESULTS

Research on the Influence of Booklet and Leaflet Media Print on Adolescent Reproductive Health Knowledge at SMP Negeri 20 Ambon using a questionnaire format is progressing well and the results are as follows:

Tabel 1. Distribution Pretest Score At Class VIII A

No	Score	Frequency	Percent (%)	Cummulative Percent
1	10	2	6,7	6,7
2	12	4	13,3	20
3	13	3	10	30
4	14	2	6,7	36,7
5	15	2	6,7	43,3
6	16	5	16,7	60
7	17	7	23,3	83,3
8	18	3	10	93,3
9	19	1	3,3	96,7
10	20	1	3,3	100
	Total	30	100	

Table 1. explained that the majority of students have the score 17 amounted to 7 people (23.3%), while the smallest frequency there are two scores of 19 and 20 are numbered 1 (3.3%).

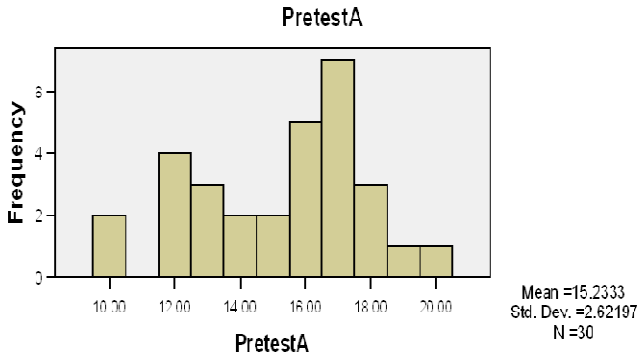

Fig.1: Class VIII A histogram pretest

In the image histogram above, known mean score and standard deviation 15.2333 2.62197, with a sample size of 30 students.

Tabel 2. Post Test Score Distribution At VIII A Class

No	Score	Frequency	Percent (%)	Cummulatif Percent
1	14	3	10	10
2	15	4	13,3	23,3
3	16	2	6,7	30,0
4	17	4	13,3	43,3
5	18	3	10	53,3
6	19	5	16,7	70
7	20	6	20	90
8	21	2	6,7	96,7
9	22	1	3,3	100
	Total	30	100	

Table 2 explained that the majority of students have this score 20 numbered 6 (20%), while the smallest frequency is twofold score 22 totaling 1 (3.3%).

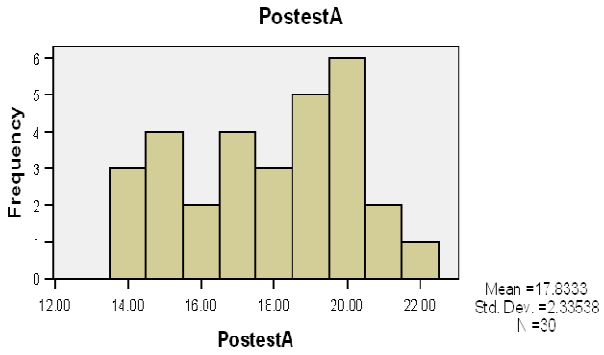

Fig.2: Histogram of VIII A Class Posttest (Leaflet)

In the image histogram above, known mean score and standard deviation 17.8333 2.33538, with a sample size of 30 students.

Tabel 3. Pre Test Score Distribution of VIII B Class

No	Score	Frequency	Percent (%)	Cummulatif Percent
1	11	2	6,7	6,7
2	12	3	10	16,7
3	13	2	6,7	23,3
4	14	3	10,0	33,3
5	15	2	6,7	40
6	16	7	23,3	63,3
7	17	4	13,3	76,7
8	18	4	13,3	90
9	19	2	6,7	96,7
10	20	1	3,3	100
	Total	30	100	

Table 3. explained that most students earn score 16 amounted to 7 people (23.3%), while the smallest frequency is twofold score 20 totaling 1 (3.3%).

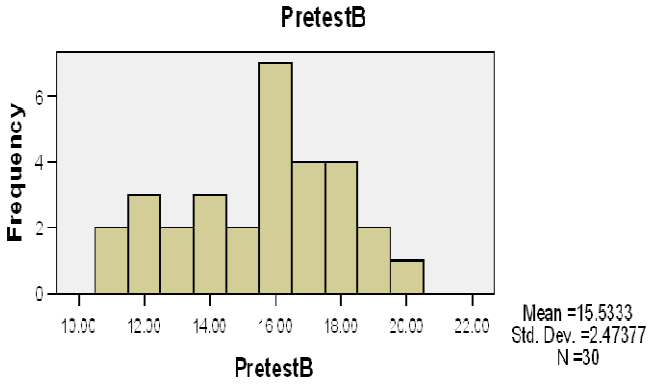

Fig.3: Histogram of VIII B Class Posttest (Leaflet)

In the image histogram above, known mean score and standard deviation 15.5333 2.47377, with a sample size of 30 students.

Table 4. Post test Score Distribution of VIII B Class

No	Score	Frequency	Percent (%)	Cummulatif Percent
1	14	1	3,3	3,3
2	15	5	16,7	20
3	16	3	10	30
4	17	7	23,3	53,3
5	18	7	23,3	76,7
6	19	1	3,3	80
7	20	2	6,7	86,7
8	21	1	3,3	90
9	22	2	6,7	96,7
10	23	1	3,3	100
	Total	30	100	

Table 4. Explained that students earn score of 17 and 18 amounted to 7 people (23.3%) while the frequency of the smallest four that score 14,19,21, and 23 are numbered 1 (3.3%).

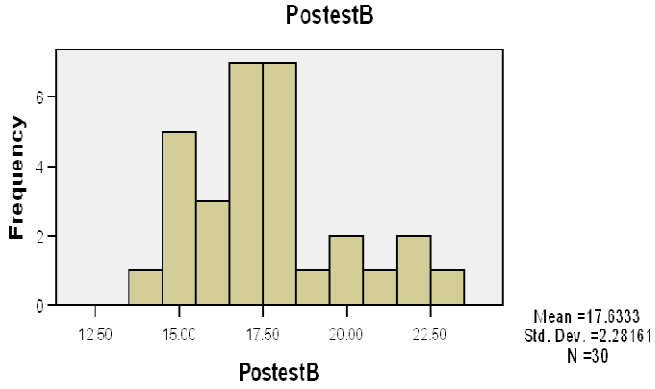

Fig.4: Histogram of VIII A Class Posttest (Booklet)

In the image histogram at the top, of the scores found mean score 17.6333 and standard deviation 2.28161, with a sample size of 30 students.

Table 5. PostTest Score Distirbution (Booklet) Of VIII A Class

No	Score	Frequency	Percent (%)	Cummulatif Percent
1	14	3	10	10
2	15	4	13,3	23,3
3	16	2	6,7	30
4	17	4	13,3	43,3
5	18	3	10	53,3
6	19	5	16,7	70
7	20	6	20	90
8	21	2	6,7	96,7
9	22	1	3,3	100
	Total	30	100	

According to the table 5. Thus, the majority of students have this score 20 numbered 6 (20%), while the smallest frequency is twofold score 22 totaling 1 (3.3%).

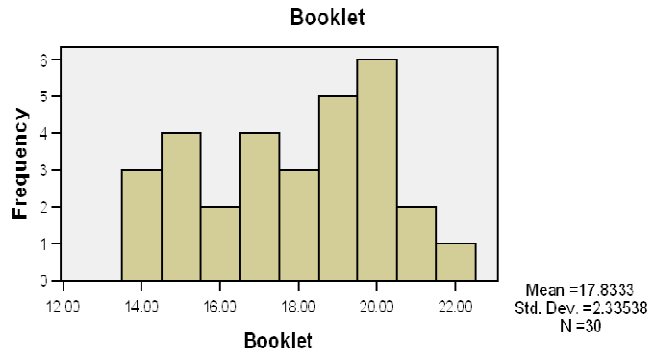

Fig.5: Histogram posttest (BOOKLET) VIII A Class

In the image histogram above, known mean score and standard deviation 17.8333 2.33538, with a sample size of 30 students.

Table 6 Post test Score Distribution (Leaflet) of VIIIB Class

No	Score	Frequency	Percent (%)	Cummulatif Percent
14	1	3,3	3,3	3,3
15	5	16,7	16,7	20
16	3	10	10	30
17	7	23,3	23,3	53,3
18	7	23,3	23,3	76,7
19	1	3,3	3,3	80
20	2	6,7	6,7	86,7
21	1	3,3	3,3	90
22	2	6,7	6,7	96,7
23	1	3,3	3,3	100

Based on Table 6 it can be explained student gets a score of 17 and 18 amounted to 7 people (23.3%) while the frequency of the smallest four that score 14,19,21, and 23 are numbered 1 (3.3%).

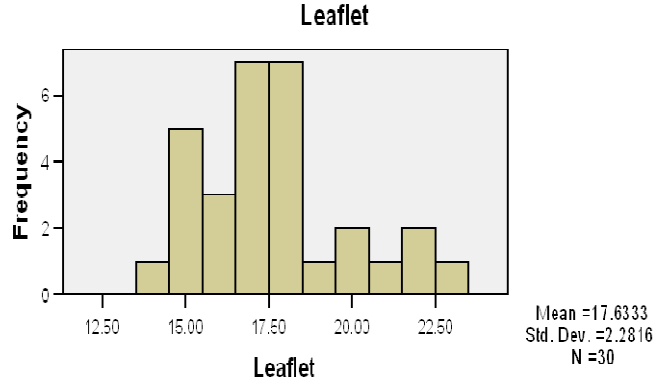

Fig.6: Posttest (Leaflet) Histogram of VIII B Class

In the image histogram above, known mean score and standard deviation 17.6333 2.28161, with a sample size of 30 students.

Test Results Statistics

1. Test

Table 7. Results of T-Test Statistic (t Pretest – Posttest) VIIIA Class

PAIRED SAMPLES STATISTICS

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PretestA	15,2333	30	2,62197	,47870
	PostestA	17,8333	30	2,33538	,42638

Posttest mean difference indicates that the class A on reproductive health knowledge is better than the pretest.

Table 8. Paired Samples Test

		Paired Differences					*t*	*df*	*Sig.*
		Mean	*Std. D*	*SE*	*95% CI*				
					Lower	*Upper*			
Pair 1	*PretestA - PostestA*	-260,000	231,338	,42236	-346,383	-173,617	-6,156	29	,000

Based on statistical tests on the above, table shows that the pre-test and post-test results of class A on reproductive health knowledge is as follows:

The output displays the mean pretest and posttest grade A is -2.6, the standard deviation of the mean error standard 2.31338 and 0.42236. Differences in the two lowest -3.46383 -1.73617 while the highest distinction. The result of the test t = -6.156 with df = 29, and the significance of 0,000. Based on the t table for df = 29, the figure of 2.04 for the significant level of 5% and a significance level of 2.76 to 1%. With t0 = -6.156 means greater than tt (mathematical minus sign in this case is ignored) on a significance level of 5% and 1% significance level (2.04 <6.156> 2.76, which means null hypothesis is rejected. In conclusion there are significant differences between pretest and posttest of "A" grade students about reproductive health knowledge. While the mean difference shows that the post-test class A on reproductive health knowledge is better than the pre-test.

2. Test Results Test Statistic t test Pretest - Posttest Class B

Table 9 .Results of T-Test Statistic (t Pretest – Posttest) VIIIB Class

		Mean	*N*	*Std. Deviation*	*Std. Error Mean*
Pair 1	*PretestB*	155,333	30	247,377	,45165
	PostestB	176,333	30	228,161	,41656

Posttest mean difference indicates that the class B about reproductive health knowledge is better than the pretest.

Table 10. Paired Samples Test

		Paired Differences					*t*	*df*	*Sig. (2-tailed)*
		Mean	*Std. Deviation*	*Std. Error Mean*	*95% Confidence Interval of the Difference*				
					Lower	*Upper*			
Pair 1	*PretestB - PostestB*	-210,000	248,235	,45321	-302,693	-117,307	-4,634	29	,000

Based on statistical tests on the above table shows that the results of pre-test and post test class A on reproductive health knowledge is as follows:

Output displays mean pretest and posttest grade A is -2.1, the standard deviation of the mean standard error 2.48235 and 0.45321. Differences in the two lowest -3.02693 -1.17307 while the highest distinction. The result of the test t = -4.634 with df = 29, and the significance of 0,000. Based on the t table for df = 29, the figure of 2.04 for the significant level of 5% and a significance level of 2.76 to 1%. With t0 = -4.634 means greater than tt (mathematical minus sign in this case is ignored) on a significance level of 5% and 1% significance level (2.04 <4.634> 2.76, which means null hypothesis is rejected. In conclusion there are significant differences between pretest and posttest graders B about reproductive health knowledge. While the mean difference indicates that the class B posttest on knowledge

2. Test Results Test Statistic t Booklet – Leaflet

Table 11. Results of T-Test Statistic (t Booklet – Leaflet) VIIIA Class

PAIRED SAMPLES STATISTICS

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Booklet	17,8333	30	2,33538	,42638
	Leaflet	17,6333	30	2,28161	,41656

The test results showed a mean both have almost the same value of reproductive health education booklet print media showed a mean of 17.8333 and reproductive education with a leaflet print media 17 63 333.

Tabel 12 Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the				
					Lower	Upper			
Pair 1	Booklet - Leaflet	,20000	223,453	,40797	-,63439	103,439	,490	29	,628

Based on statistical tests on the above table shows that the results of the use of the print media booklets and leaflets class A on reproductive health knowledge is as follows:

The output displays the mean pretest and posttest class A is 2.0, the standard deviation of the mean of error standard 2.23453 and 0.40797. Differences in the two lowest -0.63439 1.03439 while the highest distinction. The test results with the test t = 0.490 df = 29, and the significance of .628. Based on the t table for df = 29, the figure of 2.04 for the significant level of 5% and a significance level of 2.76 to 1%. With t0 = 0.490 tt is smaller than the significance level of 5% and 1% significance level (2.04> 0.490 <2.76, which means null hypothesis is accepted. In conclusion there is no significant difference between the use of print media booklets and leaflets in improving knowledge of reproductive health. This is confirmed from the test results that showed a mean both have almost the same value

IV. DISCUSSION

According Arsyad (2000), the mass media can be regarded as a learning medium to obtain information and broaden knowledge because it contains a message of simple to highly complex message. Education is the basis of the formation of knowledge, attitude and psychomotor an important mission of education (Tirtarahardja, 2001). The results of this study indicate the using of the print media booklet affect student scores obtained at the time of the posttest on reproductive health. Which showed a mean posttest is 17.8333 whereas pretest mean 15.2333 at the time. Statistical test by using paired samples t-test statistics indicate that there are significant differences between pretest and posttest A grade students about reproductive health knowledge. With t0 = 6.156 tt is smaller than the significance level of 5% and 1% significance level of 2.04 <6.156> 2.76, which means null hypothesis is rejected. This means there is a significant difference in the use of print media booklet on adolescent reproductive health knowledge between pretest and posttest.

These results can be interpreted that reproductive health education using booklet print media strongly influence

the knowledge of students in SMPN 20 Ambon because the print media in particular booklet is packed with very simple in terms of language and interesting. This is also emphasized by Arsyad (2000) that mass media can be regarded as a learning medium to obtain information and broaden knowledge for content message simple to complex messages. According Suliha, et al (2001) there are several kinds of learning tools, one of which is Leaflet. Leaflet a simple learning tool because it is easily made, easily obtained materials, written or drawn in a simple, yet meet the needs of teaching, easy to understand and do not cause misunderstandings.

This opinion is supported by the results of this study indicate that the use of the print media leaflet affect scores obtained by students at post test on reproductive health. Which showed a mean posttest are 17.6333 while in the mean time pre test 15.5333. Statistical test by using paired samples t-test statistics indicate that there are significant differences between pre-test and post test students in grade A on reproductive health knowledge. With t0 = 4.634 tt is smaller than the significance level of 5% and 1% significance level (2.04 <4.634> 2.76, which means null hypothesis is rejected. This means there is a significant difference in the use of media to print leaflets reproductive health knowledge junior adolescent between pretest and posttest the results can be interpreted that reproductive health education using leaflets printed media greatly influence the knowledge of students in SMPN 20 Ambon because the print media in particular leaflet packed with very simple in terms of language and attractive able to increase the score obtained when the posttest. This is also emphasized by Arsyad (2000) that the mass media can be regarded as a learning medium to obtain information and broaden knowledge for content message simple to complex messages.

Based on the hypothesis in this study show that: Knowledge of reproductive health by using the print media and print media booklet leaflet was able to increase the score on the posttest moment, but between the print media does not show any significant differences in other words not answer research questions. This means there is no significant difference in the use of print media booklets and leaflets on adolescent reproductive health knowledge in teenagers.

According to Umar (2000) effective print media used was leaflets and booklets. The media is more easily understood by teens because besides the material conveyed through writing but also with image. This opinion is supported by the results of this study indicate that the use of print media leaflet affect the score obtained by the students at the time of the posttest on reproductive health. Which showed a mean posttest is 17.8333 whereas mean pretest is 17.6333 at the time. Statistical test by using paired samples t-test statistics showed that there was no significant difference between the uses of print media booklets and leaflets the print media against the reproductive health knowledge for students of classes VIII. With t0 = 4.634 tt is smaller than the significance level of 5% and 1% significance level, 2.04> 0.490 <2.76, which means null hypothesis is accepted.

These results can be interpreted that the reproductive health knowledge by using the print media and print media booklet leaflet able to increase the score on the posttest moment, but between the print media does not show any significant differences in other words not answer research questions**.**

V. CONCLUSION

Reproductive health knowledge by using the print media and print media booklet leaflet was able to increase the score on the posttest moment, but between the print media does not show any significant differences in other words not answer research questions. This means there is no significant difference in using print media booklets and leaflets on adolescent reproductive health knowledge

VI. SUGGESTION

1. Health Department of Ambon City is expected to create training programs and reproductive education for junior high school students in Ambon city.
2. Department of Education and Sports of Ambon is expected to cooperate with the relevant agencies on the development of the health education curriculum for junior high school students in Ambon city.
3. The Department of Education and Sports Ambon City able to clinch booklets and leaflets about reproductive health for adolescents for junior high school then distributed to junior high schools in Ambon city.
4. In order to proceed further researches on the use of print media booklets and leaflets effectiveness in improving reproductive health knowledge.

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