

THE INFLUENCE OF LEAFLETS AND FLIPCHARTS ON INCREASING KNOWLEDGE, ATTITUDES AND PRACTICES OF THE COMMUNITY IN THE PREVENTION OF SCHISTOSOMIASIS IN LINDU SUBDISTRICT, SIGI REGENCY, CENTRAL SULAWESI

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ABSTRACT

Schistosomiasis is a parasitic disease caused by worm infections belonging to the class trematode. Moreover, the disease zoonotic most commonly ignored, however, schistosomiasis is still exceed based on health ministry of Republic of Indonesia, which is 1%. Leaflets and flipcharts were used as media in this study. Moreover, the purpose of the study was to analyze the influence of leaflets and flipcharts so that it would increase knowledge, attitude and practice. The research method used quasi-experiment with pre-test and post-test, sample selection by random sampling which were 123 respondents (for intervention villages each 41 respondents and 41 respondents in the control group). Kruskal Wallis was used in this study due to data was not normally distributed. After obtaining the data, it showed that before leaflet intervention pretest knowledge was 51.2%, attitude was 53.7% and practice was 58.5%, in the intervention group knowledge of flipcharts was 58.5% attitudes was 61.0% and practice was 17.1%, for control at pretest knowledge was 39.0%, attitude was 63.4% and practice was 41.5%. The finding are still relatively low compared to after intervention. So that, the head of the family should have high knowledge and self-awareness when working and always clean and healthy living behavior so that schistosomiasis cases can be prevented.

KEYWORDS: Knowledge, Attitude, Practice, Leaflet, Flipcharts, and Schistosomiasis.

INTRODUCTION

Schistosomiasis is a parasitic disease caused by worm infections belonging to the class of trematodes, genus *Schistosoma*. This disease is zoonotic the most neglected disease. The source of transmission of schistosomiasis is not only in humans but mammals can be infected as well. Furthermore, schistosomiasis also known as bilharziasis taken from the name of the pathologist Theodore Maximillian Biliharz, schistosomiasis is still considered a public health problem in many developing countries in the tropics and subtropics. In developing countries such as Africa, Asia (China, Japan, Philippines, Indonesia, Vietnam, Laos, Thailand, Cambodia) and South America. Nigeria has the largest number of cases of schistosomiasis around the world.¹ The World Health Organization (WHO) estimates that deaths from schistosomiasis disease reach 200,000 people every year, throughout the world. Worms are *Schistosoma* easily found in Indonesia and in Southeast Asian countries, approximately 220-240 million people in the world are infected with *Schistosoma*, and around 700-790 million people are at risk of Schistosomiasis and the prevalence varies annually, depending on the character of the focus of epidemiology.³ Schistosomiasis in Indonesia is only found in Central Sulawesi, namely in the highlands of Lindu, Napu and Bada. Next, the data of

schistosomiasis have been obtained in Lindu Health Center in 2014 showed that *Schistosoma japonicum* were 52% (1.60%). In 2015, there were 21 positive people with *Schistosoma japonicum* Sp (0.74%). In 2016 and 2017 the number of positive *Schistosoma japonicum* Sp increased "to 24 people (0.93%) and 21 people (0.8%).

In 2016, people were affected by schistosomiasis was Langko Village, which was positive for 5 people (1.32%) followed by Tomado Village 7 people (1.22%). Puroo village 5 people (0.99%). Anca Village 4 people (0.88%). And the village of Ollu is 2 people (0.32%).⁷ This figure shows that the handling of the Schistosomiasis problem is still not maximal and therefore the Central Sulawesi Governor Decree Number 440/763 / DINKESDA-G.ST / 2016 was issued. Then, the case of schistosomiasis still exceeds the Indonesian Ministry of Health's threshold value of 1%. Media or teaching aids in health promotion can also be interpreted as a tool that facilitates or helps to promote health efforts in the form of writings and images that can be seen, heard or kissed to help disseminate information.⁹ One of the things that can support the achievement of better health education is the use of media as a support for the role of health promotion education. Using oral to convey health messages is not enough for researcher and health professionals. However, it also requires facilities or tools to channel messages from the explanation of health experts, commonly referred to as the media. Without the media, extension officers will have difficulties and require a lot of extra energy to convey health messages, so media or tools are needed to assist in the process of the activity. The selection of leaflet and flipchart media in this study was based on geographical factors from the location of the research location and infrastructure in the study area that were less supportive for using media that needed electricity, so leaflets and flipcharts were chosen to carry out the health promotion. Leaflets are a piece of paper folded in half (4 pages) and leaflets contain more writing than the picture and the flipcharts are sheets of paper containing large images and complete information on each sheet that can be turned on a hanger.^{10,11}

In other words, the existence of such health promotion is expected to have an impact on changes in health behavior from the target. Based on the description of the background above, the researchers were interested in raising the title of: the influence of leaflets and flipcharts on increasing knowledge, attitudes and practices of the community in the prevention of schistosomiasis in Lindu Subdistrict, Sigi Regency, Central Sulawesi

Research Methodology

The design of Quasi-experiment (Quasi Experiment) was used, namely the design of the approach (Nonequivalent [Pre-Test and Post-Test) Control - Group Design). Moreover, in this design; the experimental group (N1) (N2) and control (N3) were selected without random placement procedures. In the group, both were carried out pre-tests-tests and post, only groups (N1) and (N2) were treated.³⁴

This experimental study used 3 villages consisting of 2 villages which became the intervention group and one village became the control group. Furthermore, the intervention group would be given

information on how to prevent schistosomiasis through media leaflets and flipcharts while for the control group there was no treatment. Then, N1 received an intervention with a leaflet, N2 received an intervention with flipcharts and N3 in the control group did not receive any intervention. Next, measurement of variables in this study was carried out 3 times, namely before the intervention was measured knowledge, attitudes and practices (Pre-test) and one week after the intervention measured the knowledge, attitudes and practices in the second stage (post-test1) and two weeks after the intervention the measurements were taken on the knowledge, attitude and practice of the third stage (post-test2) then the results would be compared.

Study Population and Samples

1. Population

Population is a collection of individuals or objects or phenomena that can potentially be measured as part of research.³⁵ The target population in this study was the head of the family in Lindu District, Sigi Regency. Data based on BPS in 2015 were 2664 male and female 2364 people total 5028 souls³⁶, the head of the family is 1748 HH from 5 villages in the District of Lindu. (Tomado village = 312 families, Anca village = 176 families, Langkoo village = 186 households, Puroo village = 578 households and Ollu village = 496 households).

2. The Sample

Sample is a portion of the object taken from the whole of the representative population. Therefore the sample is part of the characteristics that exist in the population. The sample from this study is a portion of the number of family heads in the Lindu Subdistrict area which consists of treatment groups and control groups obtained by the formula:

a. Sample size.

The sample is the sample in this study is the head of the family in Lindu sub-district, the determination of the size of the sample is done by the formula Lame show:

Description:

n = Number of samples for each group

σ = Standard deviation

$Z_{1-\alpha/2}$ = Z score at 1 - α / 2 confidence level 95%: 1.96

$Z_{1-\beta}$ = standard normal number for test 90%: 1.282

$\mu_1 - \mu_2$ = Estimated difference in average knowledge, attitudes and practices

before and after intervention from previous studies with values before 2.1 and after 2.

The sample size in this study were: 37 samples of family heads. By calculating the drop out in the sample, then a reserve of $(10\% \times 37) = 3.7$ is added so that the sample is 41 family heads for each sample. Then the total number of samples for 3 groups (intervention and control) is 123 samples of family heads.

b. Sampling technique.

The research used simple random sampling. Subjects have the same opportunity to be selected as subjects in the study or each individual can become a sample without considering the characteristics or stratification of the individual. This was done based on samples that were considered to meet the inclusion and exclusion criteria and the geographical location of the District of Lindu. The total sample was 123 family heads with 41 family heads for each village. The research sample was divided by utilizing existing villages. Subjects were chosen randomly or by means of lotteries. Moreover, the intervention group leaflets was Anca Village. The flipcharts intervention group was Langko Village and the control group was Tomado Village^{37.38.39}

RESULT AND DISCUSSION

A. Analysis of the effect of leaflets and flipcharts on increasing knowledge, attitudes and practices of the community in the prevention of schistosomiasis.

1. Differential test Pretest between leaflets, flipcharts and control groups

This analysis was made to see the results before the intervention (Pretest) on each of the study variables both in the intervention group and the control group. The research analysis was carried out by comparing groups of more than 2 groups to test whether each group has a difference with the average value, first with the data normality test and homogeneous from the data variant. Then, the test used was the one-way anova test for data that was homogeneously distributed, while for the data that was not normal using the test cruciball wallis H⁴⁴.

Table 4.8. Different test results Pretest on leaflets, flipcharts and controls.

No	Variable	Group	Mean Rank	P Value
1	Knowledge	Leaflets	49.27	0.017
		Flipcharts	66.60	
		Control	70.13	
2	Attitudes	Leaflet	60.87	0.763
		Flipcharts	59.88	
		Control	65.26	
3	Practices	Leaflet	60.52	0.823
		Flipcharts	60.68	
		Control	64.79	

Table 4.9. Results Different test posttest 1 between leaflets, flipcharts and control groups

No	Variable	Group	Mean Rank	P Value
1	Knowledge	leaflet	54.29	0.010
		Flipcharts	75.55	
		Control	56.16	
2	Attitudes	leaflet	83.26	0.000
		Flipcharts	76.38	
		Control	26.37	
3	Practices	leaflet	54.62	0.59
		Flipcharts	71.55	
		Control	59.83	

Table 4.10. Results Differential test posttest 2 intergroup leaflets, flipcharts and control group

No	Variable	Group	Mean Rank	P Value
1	Knowledge	leaflets	53.21	0.006
		Flipcharts	76.16	
		Control	56.63	
2	Attitudes	leaflets	85.61	0.000
		Flipcharts	72.48	
		Control	27.91	
3	Practices	leaflets	52.79	0.077
		Flipcharts	71.01	
		Control	60.20	

The test results in the table above can be seen in the knowledge variable when the pretest has obtained the value $p = 0.017 < \alpha = 0.05$, posttest 1 $p = 0.010 < \alpha = 0.05$, and posttest 2 $p = 0.006 < \alpha = 0.05$ this indicates that there is a significant difference between the knowledge of respondents to prevention of schistosomiasis between the three intervention and control groups.

The test results in the table above can see in the attitude variable when the pretest has been obtained $p = 0.763 > \alpha = 0.05$, this indicates that there is no significant difference between the attitudes of respondents to prevention of schistosomiasis during the pretest between the three groups, posttest 1 $p = 0.000 < \alpha = 0.05$, and posttest 2 $p = 0.000 < \alpha = 0.05$, this indicates that there are significant

differences between the attitudes of respondents to prevention of schistosomiasis between the three intervention and control groups.

The test results in the table above can see in the practice variable when the pretest has been obtained the value $p = 0.823 > \alpha = 0.05$, this indicates that there is no significant difference between the attitudes of respondents to prevention of schistosomiasis during the pretest between the three groups, posttest 1 $p = 0.059 > \alpha = 0.05$, and posttest 2 $p = 0.077 > \alpha = 0.05$ this indicates that there is no significant difference between the practice of respondents to prevention of schistosomiasis between the three intervention and control groups.

2. Analysis of data on knowledge, attitudes and practices of the community in the prevention of schistosomiasis before and after treatment of leaflets, flipcharts and controls.

a) Knowledge, attitudes and practices of respondents in the intervention group and control group were measured 3 times, namely before treatment (Pretest) and two measurements after the intervention (posttest 1 and posttest 2).

The results of the knowledge test in the group used paired t test because the data were normally distributed, measurements in the treatment group and the control group were carried out to aim at knowing the initial conditions to the extent of the respondents' knowledge.

Table 4.13 differences in knowledge, in the prevention of schistosomiasis before and after treatment (posttest 1 and posttest 2) leaflets in Langko village.

No	Knowledge	mean	SD	P value	Ket
1	Pre test	12.48	4.7	0.000	There are differences
	Posttest 1	16.34	3.7		
2	Posttest 1	16.34	3.7	0.462	No difference
	Posttest 2	16.90	3.2		
3	Pre test	12.48	4.7	0.000	There are differences
	Posttest 2	16.90	2.7		

The results showed the average knowledge for the leaflet intervention group at the beginning with the value of pretest and posttest 1 $p = 0.000 < \alpha = 0.05$ can be interpreted that there were differences in knowledge before and after intervention leaflets on the head of the family, and posttest 1 and posttest 2 the value of $p = 0.462 > \alpha = 0.05$ can be interpreted that there is no difference in knowledge before and after the leaflet intervention on the head of the family then the pretest and posttest 2 get the value $p = 0.000 < \alpha = 0.05$. and after the intervention of leaflets on the head of the family.

Table 4.17 differences in knowledge, in the prevention of schistosomiasis before and after treatment (Pretest, posttest 1 and posttest 2) flipchart in the village of Anca.

No	Knowledge	mean	SD	P value	Ket
1	Pre test	14.90	3.145	0.000	There are differences
	Posttest 1	17.88	2.052		
2	Posttest 1	17.88	2.052	0.033	No difference
	Posttest 2	18.39	1.773		
3	Post test	14.90	3.145	0.000	There are differences
	Posttest 2	18.39	1.773		

The measurement results in the flipcharts treatment group showed that the average knowledge of pretest and posttest 1 value $p = 0.000$ means that $< \alpha = 0.05$ can be interpreted that there is a difference in knowledge before and after the intervention sheet for the family head, for posttest 1 and posttest 2 gets the value $p = 0.033$ meaning that $p > \alpha = 0.05$ can be assumed that there is no difference in knowledge after treatment for measurement of posttest 1 and posttest 2. And for the results of the pretest and posttest 2 test get the value $p = 0.000$ means value $p < \alpha = 0.05$ can be assumed that there is a difference in knowledge before Pretest and after treatment (posttest 2).

Table 4.22 differences in knowledge, in the prevention of schistosomiasis in the control group (Pretest, posttest 1 and post test 2).

No	Knowledge	mean	SD	P value	Ket
1	Pre test	15.07	3.259	0.009	There is a difference
	Posttest 1	16.68	1,890		
2	Posttest 1	16.68	1,890	0,000	There is a difference

	Posttest 2	17.20	1,874		
3	Pre test	15.07	3,259	0.001	There is a difference
	Posttest 2	17.20	1,874		

And the test results in the control group, the results of the statistical test of the different test between pretest and posttest 1 get the value $p = 0.009 < \alpha = 0.05$ meaning that $p < \alpha$ can be assumed that there is a difference between before the intervention (pretest) and after intervention (Posttest 1), then for the second stage of testing in the posttest 1 and posttest 2 get the value $p = 0.000 < \alpha = 0.05$ means that $p < \alpha$ can be assumed that there are differences at the time of measurement after the intervention posttest 1 and at the time of measurement to two posttest 2 and for the measurement of pretest and posttest 2 got $p = 0.001 < \alpha = 0.05$ which means that $p < \alpha$ can be assumed that there is a significant difference between before the intervention (Pretest) and after intervention at the stage 2 measurement (posttest 2).

b) Analysis of differences in community attitudes in preventing schistosomiasis before and after treatment of leaflets and flipcharts.

Table 4.15 differences in attitudes in the prevention of schistosomiasis before and after treatment (Pretest, posttest 1 and posttest 2) leaflets in Langko village.

No	Attitudes	mean	P value	Ket
1	Pre test Posttest 1	20.50	0.000	There is a difference
2	Posttest 1 Posttest 2	3.00	0.025	No difference
3	Pretest Posttest 2	20.50	0.000	There is a difference

The results of the study on the attitude variable for the leaflet intervention group at the beginning of the pretest and posttest 1 got the value $p = 0.000 < \alpha = 0.05$ so that it could be concluded that there were differences in community attitudes in the prevention of schistosomiasis with leaflet intervention, and on posttest 1 and post measurements test 2 got the value of $p = 0.025 < \alpha = 0.05$ so that it could be concluded that there were differences in community attitudes in the prevention of

schistosomiasis with leaflet intervention in the measurement of posttest 1 and posttest 2. and then on the measurement of pretest and posttest 2 got $p = 0.000 < \alpha = 0.05$ and it can be assumed that there are differences in people's attitudes in preventing schistosomiasis with leaflet intervention in the measurement of Pretest and posttest 2

Table 4:20 attitudes towards the prevention of schistosomiasis before and after treatment (pretest, posttest 1 and post test2) flipchart in the village Anca

No	Attitudes	mean	P value	Ket
1	Pre test Posttest 1	20.07	0.000	There is a difference
2	Posttest 1 Posttest 2	8.50	0.000	There is a difference
3	Pre test Posttest 2	20.47	0.000	There is a difference

The results of the attitude variable test on the flipcharts group showed an average attitude when measuring pretest and posttest 1 got a value of $p = 0.000 < \alpha = 0.05$ so that it could be concluded that there were differences in the attitude of anca villagers in preventing schistosomiasis before and after intervention back to the measurement of pre-test and post-test 1. After that measurements were taken again post test 1 and post test 2 and thus got a value of $p = 0.000 < \alpha = 0.05$ so that it could be concluded that there were differences in community attitudes in preventing schistosomiasis with intervention flipcharts measurement of posttest 1 and posttest 2, then in the pretest and posttest 2 test the value of $p = 0.000 < \alpha = 0.05$ means that $p < \alpha$ so that it can be assumed that there are differences in community attitudes in preventing schistosomiasis with flipcharts intervention in pre test measurements and posttest

Table 4.25 differences in attitudes in the prevention of schistosomiasis (Pretest, posttest 1 and posttest 2) in the control group in Tomado Village.

No		mean	P value	Ket
1	Pretest Posttest 1	10.00	0.060	No Differences
2	Posttest 1 Posttest 2	12.06	0.089	No Differences
3	Pretest Posttest 2	19.17	0.000	There is difference

The test results of attitude variables in the control group saw the extent to which the attitudes of the community in preventing schistosomiasis, the results showed pre-treatment and post-test 1 results with mean = 10.00 by getting $p = 0.060 > \alpha = 0.05$ means $p > \alpha$ and it can be concluded that there is no difference in community attitudes (control) in preventing schistosomiasis in the first and second measurements (pretest and posttest 1). After the first measurement was carried out, testing the attitude variables in the second stage, namely posttest 1 and posttest 2 by producing a mean value = 12.06 with $p = 0.089 > \alpha = 0.05$ means that $p > \alpha$ that there were no differences in community attitudes towards the prevention of schistosomiasis in the control group in the measurement stages 2 and 3 (posttest 1 and posttest 2), then after the measurement of posttest 1 and posttest 2 was done again with measurements at the beginning (pretest) and the third measurement was posttest 2 by getting mean = 19.17 by producing a value of $p = 0.000 < \alpha = 0.05$ means that $p < \alpha$ can be assumed that there are differences in people's attitudes in the prevention of schistosomiasis by the control group in the measurement before intervention and the third measurement (pre test and posttest 2)

c) Analysis of differences in community practices in the prevention of schistosomiasis before and after treatment of leaflets and flipcharts

Table 4.16 differences in practice in preventing schistosomiasis before and after treatment (Pretest, posttest 1 and posttest 2) leaflets in Langko village.

No	Practices	Mean	P Value	Ket
1	Pre test Posttest 1	15.07	0.000	There is difference
2	Posttest 1 Posttest 2	1.00	0.317	No difference
3	Pre test Posttest 2	15.19	0.000	There is difference

The results of the research tests on the practice variables showed the average practice for the leaflet intervention group at the beginning of the pretest and posttest 1 with the value $p = 0.000 < \alpha = 0.05$ so that it could be concluded that there were differences in community practices in preventing schistosomiasis through leaflet intervention, and for posttest 1 and posttest 2 get the value of $p = 0.317 > \alpha = 0.05$ so that it can be concluded that there is no difference in community practice in preventing schistosomiasis then testing for pre-test and post-test 2 by getting $p = 0.000 < \alpha = 0.05$ so that it can concluded that there were differences in community practices in the prevention of schistosomiasis before and after leaflet intervention.

Table 4.21 test the analysis of differences in community practices in the prevention of schistosomiasis before and after the intervention sheet back in the village of anca.

No	Practices	mean	P value	Ket
1	Pre test Posttest 1	19.67	0.000	There is difference
2	Posttest 1 Posttest 2	2.00	0.102	No difference
3	Pre test Posttest 2	19.89	0.000	There is difference

The results of the research tests on the practice variables showed the average practice for the flipchart intervention group at the beginning of the pretest and posttest 1 with a value of $p = 0.000 < \alpha = 0.05$ so that it could be concluded that there were differences in community practices in the prevention of schistosomiasis before and after the intervention then, in the posttest 1 and posttest 2 stages, the value $p = 0.102 > \alpha = 0.05$ means that $p > \alpha$ so that it can be concluded that there are no differences in community practices in prevention of schistosomiasis before and after leaflet intervention, and then in the pre-test and posttest 2 produces a value of $p = 0.000 < \alpha = 0.05$ so that it can be concluded that there are significant differences before and after the flipchart intervention in the community practice in preventing schistosomiasis in the measurement of pretest and posttest 2

Table 4.26 Test the analysis of differences in community practices in the prevention of schistosomiasis (Pretest, posttest 1 and posttest 2) in the control group in Tomado Village.

No	Practices	mean	P value	Ket
1	Pre test Posttest 1	17.10	0.009	There is difference
2	Posttest 1 Posttest 2	00.00	1.000	No difference
3	Pre test Posttest 2	17.10	0.009	There is difference

The practice variable test results in the control group looked at the extent to which the community practices in preventing schistosomiasis, the results of the study showed pre-treatment and post-test 1 results with mean = 17.10 by obtaining $p = 0.009 < \alpha = 0.05$ means $p < \alpha$ and can be summarize that there are differences in community practice (control) in preventing schistosomiasis in the first and

second measurements (pre-test and post-test 1), after the initial testing phase is back again with the second stage of testing, posttest 1 and posttest 2 and get the mean value = 0.00 with a value of $p = 1,000 > \alpha = 0.05$ means that $p > \alpha$ and can be concluded that there is no difference in community attitudes (control) in preventing schistosomiasis in the second and third measurements (posttest 1 and posttest 2), and after that the testing phase was done again in the pretest with posttest 2 which got a mean = 17.10 with a value of $p = 0.009 < \alpha = 0.05$ meaning $p < \alpha$ so that it can be concluded that there are significant differences before and after the practice of rural communities who are in control in preventing schistosomiasis in the measurement of pretest and posttest 2.

d) Analysis of differences in influence between leaflets, flipcharts and controls in the prevention of schistosomiasis

The research analysis was carried out by comparing groups of more than 2 to test whether each group had a difference with the average value, the test used was the test crucibal wallis H because the group in this research was more than 2 groups and the data were disputed abnormally.

From the results of the pretest test the knowledge variable in the leaflet group got a mean of 49.29, then in the mean sheet group 66.60 and for the control group the mean value was higher than the treatment group with is; mean = 70.13 with the value $p = 0.017 < \alpha = 0.05$ means $p < \alpha$ so that it can be concluded that there are significant differences before treatment in the intervention and control village communities in preventing schistosomiasis in the pre-test measurements.

The results of the pretest on the attitude variable in the leaflet group got a mean of 60.87, then in the mean sheet group 59.26 and for the control group the mean = 65.26 with the value $p = 0.763 > \alpha = 0.05$ means that $p > \alpha$ so that conclusions can be drawn that there were no significant differences before and after the measurement of the attitude of the village community in intervention and control in preventing schistosomiasis in the pre-test measurements.

And for the practice variable in the leaflet group got a mean value of 60.52, then in the mean flipcharts group 60.68 and for the control group got the mean = 64.79 with the value $p = 0.823 > \alpha = 0.05$ means $p > \alpha$ so that it can be concluded that there is no significant differences before and after measurements in the intervention and control village community practices in the prevention of schistosomiasis in the pre-test measurements.

From the results of the posttest 1 test on the knowledge variable ; the leaflet group got a mean of 54.29, then in the flipcharts group showed that the mean 75.55 and for the control group mean = 56.16 with the value of $p = 0.010 < \alpha = 0.05$ means that $p < \alpha$ so that it can be concluded that there are differences significant after intervention on the second measurement on the knowledge variable of the intervention and control villagers in preventing schistosomiasis in the Posttest measurement 1.

The results of the posttest 1 on the attitude variable in the leaflet group obtained a mean of 83.26, then in the flip sheet group the mean was 76.38 and for the group The control obtained a mean = 26.37 with a value of $p = 0.000 < \alpha = 0.05$, which means that $p < \alpha$, so it can be concluded that there were significant differences after treatment in the posttest 1 measurement by the village community intervention and control attitude in preventing schistosomiasis in post measurements test 1.

And for practice variables in the leaflet group got a mean of 54.26, then in the flipcharts group mean 71.55 and for the control group got the mean = 59.83 with the value $p = 0.059 > \alpha = 0.05$ meaning that $p > \alpha$ so that it could be concluded that there was no significant difference after measurement in the practice of village intervention and control in prevention of schistosomiasis in posttest measurements 1.

The test results in the posttest 2 knowledge variables of the leaflet group obtained a mean value of 53.21 and for the reverse sheet group the mean = 76.16 and for the control group with mean = 56.63 with p values = $0.006 < \alpha = 0.05$ means that $p < \alpha$ so that it can be concluded that there are significant differences after measurement of knowledge of the intervention and control village communities in preventing schistosomiasis in post test measurements 2.

Test results for attitude variables in the leaflet group with mean = 65.61 and in the flipchart group with mean = 72.48 and the control group mean = 27.91 with a value of $p = 0.000 < \alpha = 0.05$ means $p < \alpha$ so that it can be concluded that there are significant differences in the measurement of public attitudes after the intervention and control villages in the prevention of schistosomiasis in the posttest measurement 2.

And for the variable, the practice in the leaflet group got a mean of 52.79, then in the mean flipcharts group 71.01 and in the control group mean = 60.20 with the value $p = 0.077 > \alpha = 0.05$ meaning that $p > \alpha$ so that it could be concluded that there were no significant differences after measurement in practice village community intervention and control in the prevention of schistosomiasis in post-test measurement 2.

The results of this study are in line with research conducted by Tessa Dierks (2018) who conducted research in the Netherlands, which concluded that there was a difference between the level of knowledge of men in decision-making efforts (p - value = 0.001). the results of the study are in line showing that the increase in knowledge after reading leaflets.

CONCLUSIONS

1. The results of the study on the community (head of the family) against the prevention of schistosomiasis using leaflet intervention methods to improve attitudes, practice and knowledge with the following results: knowledge during pretest and posttest $p = 0.000 < \alpha$, posttest 1 and posttest 2 $p = 0.462 > \alpha$ and pretest and posttest 2 $p = 0.000 < \alpha$, attitude of pretest and posttest 1 $p = 0.000 < \alpha$, posttest 1 and posttest 2 $p = 0.025 < \alpha$, pretest and posttest 2 = $0.000 < \alpha$, the practice

of pretest and posttest 1 = 0.000 < α , posttest 1 and posttest 2 p = 0.317> α , pre test and posttest 2 p = 0.000 < α . In the flipcharts intervention village, knowledge of pretest and posttest 1 p = 0.000 < α then posttest 1 and posttest 2 p = 0.033> α and at pretest and posttest 2 p = 0.000 < α , attitude of pretest and posttest 1 p = 0,000 < α , posttest 1 and Posttest 2 p = 0,000 < α and pretest and posttest 2 p = 0,000 < α , practice of pretest and posttest 1 p = 0,000 < α , posttest 1 and posttest 2 p = 0.102> α , and pretest posttest 2 p = 0.000 < α , and the control group at the pretest posttest 1 p = 0.009 < α , then posttest 1 posttest 2 p = 0.000 < α and pretest posttest 2 p = 0.001 < α , attitude of pretest and posttest 1 p = 0.060> α , posttest 1 posttest 2 p = 0.089> α and pretest posttest 2 p = 0.000 < α , pretest and post practice test 1 p = 0.009 < α , then post 1 posttest 2 p = 1,000> α , pretest and posttest 2 p = 0.009 < α .

2. From the results of the difference in influence between leaflets and flipcharts in getting a difference in knowledge, attitudes and practices in the prevention of schistosomiasis in the district of Lindu, the district of Sigi, Central Sulawesi, has been better through flipchart media.

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