Differences In Influence Of The Use Of Media Health Promotion Video And Booklets Concerning Praconception Of Knowledge And Attitudes Of Female And Pre-Marriedpairs.

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Abstract. Preconception care is needed to ensure that the FemaleAge Pairs (PUS) have prepared themselves for the health of the mother and fetus. The aim was to determine the difference in the effect of the use of video health promotion media and preconception booklets on knowledge and attitudes of fertile aged couples. This type of research is a quasi-experimental study with a pretest-posttest two group design with a sample (EFA) of 50 pairs. Quota sampling technique consists of 10 PUS representatives per region. Validity test using Pearson Product Moment correlation with r count> 0.576 and instrument reliability using Alpha Cronbach with alpha results> 0.6. The results of the data normality test for knowledge and attitudes with the Kolmogorov Smirnov Normality Test with a significance value for knowledge of 0.200> 0.05, the data is normally distributed while the attitude is 0.002 <0.05, the data is not normally distributed in value. For knowledge, a paired t test was carried out with a value of 0.000 (p <0.005) with a CI of 95%, so statistically there was a significant difference in the mean of knowledge, then for attitudes a non-parametric analysis was carried out using the Wilxocon test with a value of 0.000 (p <0.005) with CI 95 % then statistically there is a significant difference in the mean attitude. The result of the mean difference between post and pre-treatment knowledge using a booklet of 6.84 (14.96-8.12) while the treatment using video 2.92 (12.44-9.52), there is a difference between booklet and video of 3, 92 in changing respondents' knowledge. The mean difference between pre and post treatment attitudes using booklets was 12.8 (28.88-16.08) while the treatment using video was 4.8 (23.84-19.04), there was a difference between health promotion using booklets and videos by 8 in change the attitude of the respondent. Health promotion using booklets is statistically more dominant than using videos both in changing respondents' knowledge or attitudes. The use of booklets to prepare for pregnancy can be used as early as possible in PUS.

Keyword   : Videos, Booklets, Preconception, Female Age Pairs(PUS).

1.   INTRODUCTION

The pre-conception period is the period before pregnancy, preconception women are assumed to be adult women or women of childbearing age who are ready to become mothers, where the nutritional needs at this time are different from those of children, adolescents, or the elderly.**[1][2].**

Ages 15-49 years old, for women who are considered to be in the reproductive period, women who are currently married at that age are encouraged to organize and plan their pregnancy to prevent problems that can arise due to poor pregnancy and birth arrangements.[3].

Unwanted pregnancies in America account for 50% of all pregnancies. Most pregnancies are diagnosed after a period of organogenesis. Exposure to the environment, chronic and acute illness suffered by the mother, and exposure to teratogens can negatively affect the fetus in the early weeks of pregnancy. Causative factors in the form of chronic disease conditions and bad lifestyle behavior can be corrected before the Fertile Age Couples (PUS) plan a pregnancy. Therefore the health status of EFA before pregnancy is very important[4].

The incidence of unplanned pregnancy in Indonesia ranged between 1.6% and 5.8% in 2012, in West Java Province 22.8% with 18.2% ending in abortion. Kota Tasikmalaya itself, the incidence of unwanted pregnancy is 0.4%[5].

The concept of pre-conception care has been introduced to developing countries since 20 years ago, and it is proven that pre-conception care can affect fetal well-being and pregnancy outcomes, but the importance of this care is not comparable to its implementation in the field, sometimes this program has not received more attention. In 2015 the Indonesian government began to launch the First 1000 Days of Life (HPK) program with one of its emphasis on the pre-conception period.[5].

The Centers for Disease Control and Prevention and the Preconception Health and Health Care Initiative in 2012 has developed goals and guidelines for preconception care for EFA with a focus on 3 areas, namely screening, health promotion and health interventions. Screening is in the form of taking medical history data and examining PUS health such as reproductive health history, consumption of cigarettes and alcoholic beverages, drug use, history of STI disease and teratogenic examination in PUS. Health education efforts in the form of TT immunization, consumption of folic acid, weight status and activity level[6][7].

Health education and health promotion are efforts to increase knowledge which in the end is expected to be able to form good behavior towards preconception care. Considering the importance of health promotion in changing public health behavior and the amount of funds spent on these activities, the use of mass media should be considered. Media Health education in this globalization era can be in the form of print or digital media[8]

2.   RESEARCH METHODE

Pre-experimental quantitative research design one group pre and post test. The study population was all couples of childbearing age who would / had registered their marriages at the KUA to take part in the pre-marriage upgrading of 3,492, based on the quota sampling technique, to determine the sample size using a formula where the requirements were the

result of a combined standard deviation of 2.84, the difference Group mean: 2, significance level 5%, Zα = 1.960 and error rate β = 10%, Zα = 1.282 (90% power). From the calculations, N1 = N2 = 21.16, to avoid loss to follow up, the number of respondents was added by 10% for each group to 25 people per group. Determination of the number of respondents from 10 Religious Affairs Offices (KUA) in Kawalu, Tamansari, Indihiang and Cibeureum Districts, Tasikmalaya City, West Java, Indonesia.

To obtain data using a questionnaire both to assess knowledge and attitudes of pre and post EFA in providing information. The previous knowledge and attitude questionnaire will be tested for validity and reliability in CilangkapPasirbatangManonjaya area at 20 PUS. The results were tested using the perason product moment test and the Cronbach Alpha. The result of the decision of the validity test using the Pearson product moment is that r count is greater than r table (0.576) for 38 eight questions and statements. Reliability test using the Alpha model and the test decision for reliability is: Alpha> 0.60 table then the variable is said to be reliable. All questions and statements alpha> 0.60. Media Booklets and Videos that have been made have been consented to obtain expert judgment from Lecturers of Master of Health Graduates Specializing in Health Promotion, Gadjah Mada University, Yogyakarta. Time between pre to post test for 1 month.

The steps for collecting research data are from 1. Preparation (making videos in collaboration with the IT Radar TV Team, preparing instruments, preparing for licensing administration, preparing for places at the Integrated Service Post (POSYANDU or Independent Practice Midwives / BPM) 2. Implementation (selecting respondents with PUS status who plans, pregnancy, provides information and informed consent, makes time contracts, takes address and contact data (telephone numbers and whatsapp), conducts pre-tests, provides information on the use of booklets and videos, makes arrangements for the second meeting / visit to do the post test 1 month later.

3.   RESULT

The research data were collected for 2 months with 50 respondents in the KUA working area of Tasikmalaya City. Collecting data through the Independent Practice Midwives given the closeness to the cadres and PUS.

Graph 1. Distribution of Mother Respondents by age:
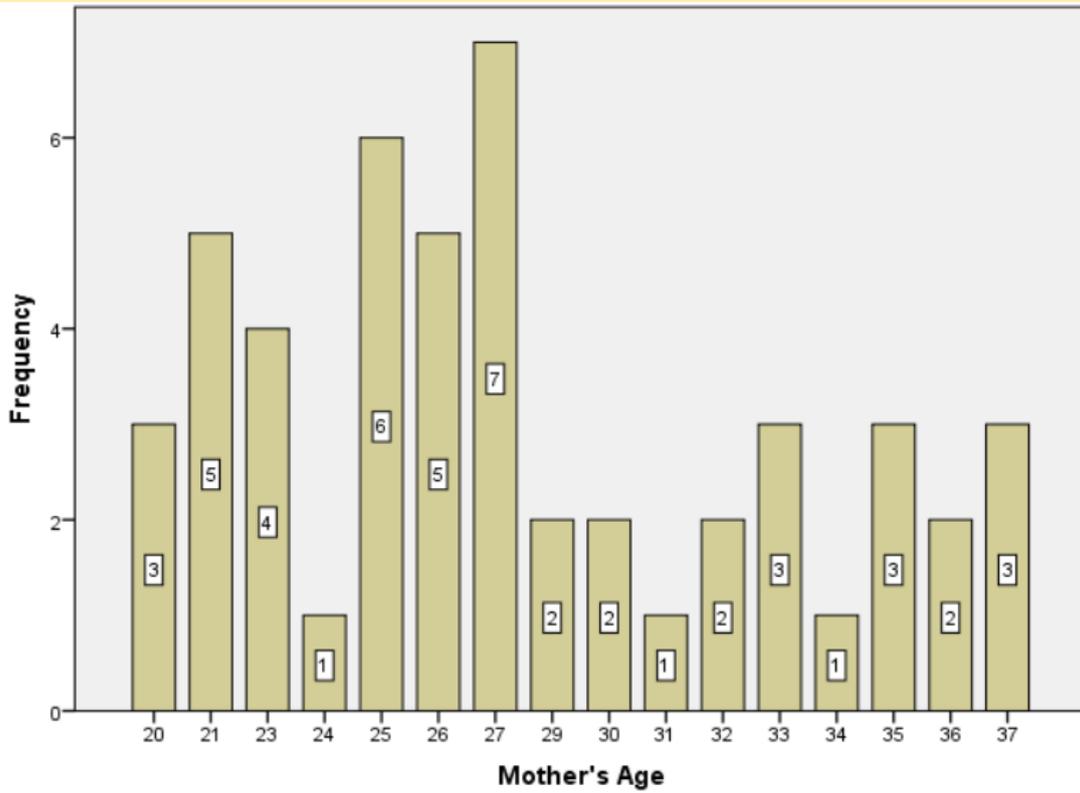
Based on Graph 1 above, the age of the most mothers is 27 years old (7%) and the least age is 24, 31 and 34 years..

Graph 2. Distribution of Husbands Respondents based on age
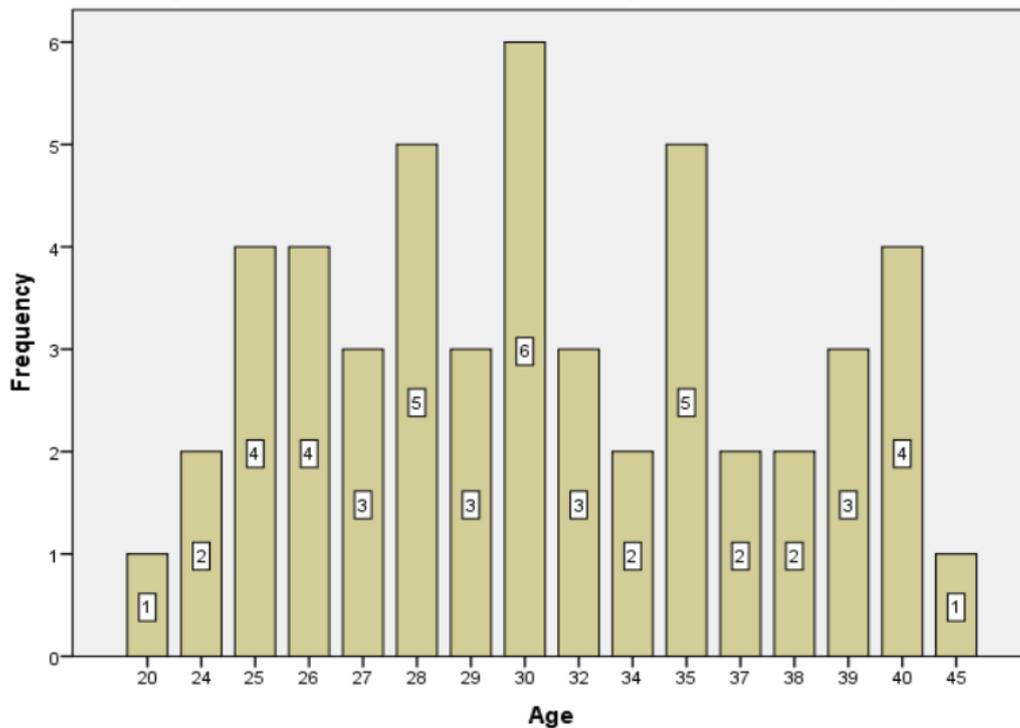
Based on Graph 2 above, the husband's age is at most 27 years old (7%) and the least age is 24, 31 and 34 years.

Table 1.
Characteristics of Respondents

Characteristics		Wife		Husband	
		Amount	Presentations (%)	Amount	Presentation (%)
Education	Not School	1	2	-	-
	Elementary	13	26	6	12
	Junior High School	10	20	9	18
	Senior Hight School	19	38	28	56
	College	7	14	7	14
Smoking Habits	Yes	-	0	44	88
	Not	50	100	6	12
Exercise Habits	Yes	6	12	7	14
	Not	44	88	43	86
Fastfood Eat	Yes	10	20	10	20
	Not	40	80	40	80
Drug Consumption	Yes	-	-	-	-
	Not	50	100	50	100
Checkting with a midwifey	Yes	4	8	Ya	4
	Not	46	92	Tidak	46

Based on Table 1 above, the most wives' education is graduated from high school (38%), while the most husband's education is graduated from high school (56%), the husband's smoking habit is 88%, while all female respondents do not smoke, most of the respondents do not do sports both wives (88%), and husbands (86%), most respondents do not have the habit of eating fast food both to their wives and husbands (80%), all respondents do not have the habit of consuming drugs (100%), most respondents not used to doing health checks (92%).

Table 2
Distribution of Respondents Based on Knowledge Before and After Health Promotion

Knowledge		Pre		Post	
		Frequency	Percent	Frequency	Percent
Valid	Less	40	80,0	8	16,0
	Sufficient	6	12,0	11	22,0
	Good	4	8,0	31	62,0
	Total	50	100,0	50	100,0

Based on table 2. above, the respondents' knowledge before health promotion was carried out was in the poor category (80%) while after health promotion the most were in the good category (62%).

Table 3 Distribution of Respondents Based on Attitudes Before and After Health Promotion

Attitude		Pre		Post	
		Frequency	Percent	Frequency	Percent
Valid	Less	23	46,0	17	34,0
	Good	27	54,0	33	66,0
	Total	50	100,0	50	100,0

Based on table 3 above, the attitudes of respondents before the health promotion were carried out were mostly supportive attitudes as much as 54%, while after health promotion was carried out the most supportive attitudes were as much as 66%.

Table 4.
Descriptive Statistical Data of Pre and Post Treatment Knowledge

Univariate Analysis Statistical Data		Pre Treatment	Pre Treatment
N	Valid	50	50
	Missing	0	0
Mean		8,82	13,70
Std. Error of Mean		,358	,390
Median		9,00	14,00
Mode		8	15
Std. Deviation		2,529	2,757
Variance		6,396	7,602
Range		10	11
Minimum		4	7
Maximum		14	18
Percentiles	25	7,00	12,00
	50	9,00	14,00
	75	10,00	16,00

Based on table 4 above, the respondent's knowledge value prior to health promotion has a mean value of 8.82, while the value of knowledge after health promotion has a mean value of 13.70.

Table 5.
Descriptive Statistical Data of Pre and Post Treatment Attitudes

		Pre Treatment	Pre Treatment
N	Valid	50	50
	Missing	0	0
Mean		17,56	26,36
Median		17,00	28,00
Mode		15	30
Minimum		10	15
Maximum		26	30

	25	15,00	24,50
Percentiles	50	17,00	28,00
	75	21,00	30,00

Based on table 5. above, the respondent's attitude value before health promotion has a mean value of 17.56 while the attitude value post health promotion has a mean value of 26.36.

Table 6.

Normality Test for Difference in Knowledge Pre and Post Treatment

Knowledge	Intervention	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Pre Treatment	booklet	,128	25	,200[*]	,943	25	,171
	video	,140	25	,200[*]	,958	25	,377
Post Treatment	booklet	,190	25	,021	,927	25	,074
	video	,094	25	,200[*]	,972	25	,688

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

Table 7.

The results of the Paired Sample T Test, on normally distributed data (Knowledge)

Paired Samples Test

Knowledge		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre Treatment - Post Treatment	-4,880	3,879	,549	-5,982	-3,778	-8,896	49	,000

In table 6. above the Kolmogorov Smirnov Normality Test, a significance value of 0.200 is obtained, meaning that the p value is> 0.05, then the data is normally distributed, then paired_t_test is carried out with the results in table 7 obtained a significance value of 0.000 (p <0.005) with 95% CI then Statistically, there is a significant difference in the mean of pre and post health promotion knowledge on extension interventions with booklets and videos.

Table 8.

Normality Test for the Difference in Attitude Pre and Post Treatment

Attitude	Intervention	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Pre Treatment	booklet	,223	25	,002	,920	25	,051
	video	,118	25	,200[*]	,970	25	,643

Post Treatment	booklet	,331	25	,000	,706	25	,000
	video	,205	25	,008	,916	25	,041

*. This is a lower bound of the true significance.

a.   Lilliefors Significance Correction

Table 9.

Wilcoxon Test Results, the data is not normally distributed (Attitude)

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between Sikap Sebelum Perlakuan and Sikap Setelah Perlakuan equals 0.	Related-Samples Wilcoxon Signed Rank Test	,000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

Table 10

Descriptive Statistics of Knowledge and Attitudes of Pre and Post Treatment Results

Measured Variables	PerlakuanEksperimen	N	Mean	Std. Deviation	Std. Error Mean
Knowledge Pre Treatment	booklet	25	8,12	2,315	,463
	video	25	9,52	2,584	,517
Knowledge Post Treatment	booklet	25	14,96	1,670	,334
	video	25	12,44	3,070	,614
Attitude Pre Treatment	booklet	25	16,08	3,451	,690
	video	25	19,04	3,857	,771
Attitude Post Treatment	booklet	25	28,88	1,509	,302
	video	25	23,84	4,836	,967

In table 10 above, the mean difference between post and pre-treatment knowledge using a booklet of 6.84 (14.96-8.12), while the treatment using video is 2.92 (12.44-9.52), there is a difference between booklets. with video 3, 92 in changing the respondent's knowledge. The mean difference between pre and post treatment attitudes using booklets was 12.8 (28.88-16.08) while the treatment using video was 4.8 (23.84-19.04), there was a difference between health promotion using booklets and videos by 8 in change the attitude of the respondent.

4.   DISCUSSION

leh the significance value of 0.000 (p <0.005) with a 95% CI then statistically there is a significant difference in the mean attitude before and after health promotion, namely counseling through booklets and videos. The results of the above analysis are in accordance with the role of multimedia in theory, which is used to increase or increase knowledge which is then expected to change people's attitudes and behavior. The results of this study are in accordance with the results of a previous systematic review by [18] [19] [20] concerning the effect of video media on behavior change with the result that the media has succeeded in changing behavior but for long-term changes such as the case of drug dependence is not proven to have an effect. The results of the study [21] indicated that there was an effect of health education about HIV / AIDS with video drama media on the level of knowledge (P = 0.000) and attitudes of adolescents (0.016) in HIV / AIDS prevention in SMA N 2 Boyolali. The results of research on the use of booklet and video media in this study are the same as other studies regarding the results in increasing knowledge and attitudes [21] [22].

The results showed that the difference between the mean post and pre-treatment knowledge using a booklet of 6.84 (14.96-8.12) while the treatment using video was 2.92 (12.44-9.52), there was a difference between booklet and video 3. , 92 in changing the respondent's knowledge. The mean difference between pre and post treatment attitudes using booklets was 12.8 (28.88-16.08) while the treatment using video was 4.8 (23.84-19.04), there was a difference between health promotion using booklets and videos by 8 in change the attitude of the respondent. As a conclusion, health promotion using booklets in this study is statistically more dominant than using video both in changing respondents' knowledge or attitudes. The results of research by Silvia in 2017 showed that there were differences in knowledge before and after being given health education about the dangers of smoking through booklets (p = 0,000) and poster media (p = 0.017). There were differences in attitudes before and after being given health education about the dangers of smoking through the media booklet (p = 0.000) and there was no difference in attitude before and after being given poster media (p = 0.946). The results of the comparative test of health education with booklet and poster media showed that there were differences in the effect of health education on the dangers of smoking with booklet and poster media on knowledge (p = 0,000) and attitudes (p = 0,000) [23]. Based on the theory, there are factors that affect learning outcomes with booklets, there are several things, including the booklet itself, environmental factors or conditions as well as the individual condition of the patient. Therefore, in its use, it is necessary to consider the psychological abilities of the patient and also the environmental factors where the patient is located. In addition, it is necessary to know the weaknesses that exist, because sometimes the information in the booklet is out of date. And in a certain instructional purpose the booklet is not appropriate to use [17]. Films or videos are media that can present factual or fictional messages that can be informative, educational or instructional [24]. Films or videos are excellent learning aids, videos and films can overcome the lack of skills in reading and language acquisition, overcome visual limitations, videos and films are very good at explaining a process by using slow repetition of movements to clarify descriptions and

illustrations, captivating attention, stimulate and motivate the target group, videos and films are excellent for presenting theory and practice, saving time for explanations [25].

5.   CONCLUSION

There is a significant difference in the mean knowledge before and after health promotion, namely counseling through booklets and videos, there are significant differences in the mean attitude before and after health promotion, namely counseling through booklets and videos and health promotion using booklets in this study is more statistically dominant than using video both in changing the knowledge or attitude of respondents.

The use of promotional media for booklets and videos can be used by health workers to increase the knowledge and attitudes of PUS so that they are better prepared to plan their pregnancy.

6. DAFTAR PUSTAKA

[1]   Rahman, D. Rahmayani, A. T. Razak, and S. Aminudin, "Asosiasi Pengetahuan Dan Sikap Wanita Pra Konsepsi Tentang Kapsul Gizi Mikro Terhadap Kepatuhan Mengkonsumsi Di Kota Makassar," 2013.

[2]   S. V. Dean, Z. S. Lassi, A. M. Imam, and Z. A. Bhutta, "Preconception care: Closing the gap in the continuum of care to accelerate improvements in maternal, newborn and child health," *Reprod. Health*, vol. 11, no. Suppl 3, pp. 1–8, 2014.

[3]   N. Tahir, A. R. Thaha, U. N. Bagian, G. Fakultas, K. Masyarakat, and U. Hasanuddin, "Faktor Risiko Kejadian Obesitas Pada Wanita Prakonsepsi Di Kota Makassar Obesity Risk Factors in Women Even Preconceptions in Makassar," vol. 000.

[4]   C. Nypaver, M. Arbour, and E. Niederegger, "Preconception Care: Improving the Health of Women and Families," *Willey*, vol. 61, no. 3, pp. 356–64, 2016.

[5]   S. Pranata and F. Sadewo, "Kejadian Keguguran, Kehamilan Tidak Direncanakan Dan Pengguguran Di Indonesia," *Bul. Penelit. Sist. Kesehat.*, vol. 15, no. 2, 2013.

[6]   M. R. Waggoner, "Motherhood Preconceived: The Emergence of the Preconception Health and Health Care Initiative," *J. Health Polit. Policy Law*, vol. 38, no. 2, pp. 345–371, Apr. 2013.

[7]   J. Shawe, D. Patel, M. Joy, B. Howden, G. Barrett, and J. Stephenson, "Preparation for fatherhood: A survey of men's preconception health knowledge and behaviour in England," *PLoS One*, vol. 14, no. 3, p. e0213897, Mar. 2019.

[8]   S. Sunarti and A. Anis, "The Motivation of Married Women in Fertile Age Couples (FAC) in Using Intrauterine Device (IUD) as Contraception Method in Subdistrict Sukorejo Blitar," *J. Ners dan Kebidanan (Journal Ners Midwifery)*, vol. 4, no. 1, pp. 040–046, 2017.

[9]   I. BPS 2015, "Kelompok Umur di Indonesia," 2015.

[10] I. DISDUKCAPIL JABAR, "Tingkat Pendidikan berdasarkan Umur," 2020.

[11] I. BNN, "Merokok Dan Napza," 2013.

[12] T. Pengetahuan Wanita Usia Subur Tentang Ovulasi Dalam Rangka Program

Kehamilan Di Desa Jenggrik Kecamatan Kedawung Kabupaten Sragen and T. Prahesti AKBID YAPPI Sragen, "Level Of Knowledge About Women Ages Lush Ovulatory Program In Order To Pregnancy District In The Village Jenggrik Kedawung District Sragen," *IJMS-Indonesian J. Med. Sci.*, vol. 3, no. 2, 2016.

[13] S. V. Dean, Z. S. Lassi, A. M. Imam, and Z. A. Bhutta, "Preconception care: Closing the gap in the continuum of care to accelerate improvements in maternal, newborn and child health," *Reproductive Health*, vol. 11. BioMed Central Ltd., 26-Sep-2014.

[14] F. Shirmohammadi, N. Nekuei, P. Bahadoran, and G. Montazery, "Preconception care in therapeutic abortion applicants.," *J. Educ. Health Promot.*, vol. 6, no. 1, p. 65, Aug. 2017.

[15] Center for Desease Control and Prevention, "Morbidity and Mortality Weekly Report Recommendations and Reports Recommendations to Improve Preconception Health and Health Care-United States A Report of the CDC/ATSDR Preconception Care Work Group and the Select Panel on Preconception Care Centers for," vol. 55, 2006.

[16] S. W. Wardani, T. H. Madjid, and S. P. Dewi, "Pendidikan Kesehatan Dengan Buklet Untuk Meningkatkan Pengetahuan Dan Sikap Mengenai Deteksi Dini Kanker Serviks," *Midwife J.*, vol. 2, no. 02, pp. 38–49, 2016.

[17] S. Notoatmojo, *Metodologi Penelitian Kesehatan*. 2014.

[18] R. Grist, A. Croker, M. Denne, and P. Stallard, "Technology Delivered Interventions for Depression and Anxiety in Children and Adolescents: A Systematic Review and Meta-analysis," *Clin. Child Fam. Psychol. Rev.*, pp. 1–25, Sep. 2018.

[19] T. D. Meyer, R. Casarez, S. S. Mohite, N. La Rosa, and M. S. Iyengar, "Novel technology as platform for interventions for caregivers and individuals with severe mental health illnesses: A systematic review," *J. Affect. Disord.*, vol. 226, pp. 169–177, Jan. 2018.

[20] R. Mounsey, M. a. Vandehey, and G. M. Diekhoff, "Working and non-working university students: anxiety, depression, and Grade Point Average.," *Coll. Stud. J.*, vol. 47, no. 2, pp. 379–389, 2013.

[21] D. Setyawati, "Pengaruh Pendidikan Kesehatan Tentang Hiv/Aids Dengan Media Video Drama Dan Ceramah Terhadap Tingkat Pengetahuan Dan Sikap Remaja Dalam Pencegahan Hiv/Aids Di Sma N 2 Boyolali Publikasi," 2016.

[22] W. F. Utami, "Pengembangan Media Booklet teknik kaitan untuk siswa kelas," *eprint.journal.UMY*, vol. 15, no. 29, pp. 7577–7588, 2018.

[23] silvia putri Dharmastuti, "Pengaruh Pendidikan Kesehatan Tentang Bahaya Merokok Melalui Media Booklet Dan Poster Terhadap Pengetahuan Dan Sikap Siswa Smp N 2 Tasikmadu," *J. Kesehat. Masy.*, p. 18, 2017.

[24] D. E. R. Lihidayatulloh, Muji Setyo Laili, Shinta Kristianti, "Perbedaan antara pendidikan kesehatan menggunakan media leaflet dan video terhadap pengetahuan ibu tentang," *Perbedaan Antara Pendidik. Kesehat. Menggunakan Media Leafl. Dan Video Terhadap Pengetah. Ibu Tentang Toilet Train. Pada Anak Usia Todler(1 – 3 Tahun) Di Desa Sumberjo Kecamatankandat Kabupaten Kediri*, 2011.

[25] A. K. Anam, "Efektifitas Penggunaan Smart Box Education Dalam Pemberian

Penyuluhan Kesehatan Pada Pasien Gangguan Persyarafan Di Poli Syaraf," vol. 002, no. 2, 2019.