

INCREASING PREGNANT WOMEN'S KNOWLEDGE AND ATTITUDE ABOUT SAFE COSMETICS THROUGH BOOKLETS

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ABSTRAK MEDIA BOOKLET MENINGKATKAN PENGETAHUAN DAN SIKAP IBU HAMIL MENGENAI KOSMETIK YANG AMAN DALAM KEHAMILAN

Latar Belakang : Ibu hamil merupakan konsumen dari segmen pasar kosmetik di Indonesia. Ibu hamil perlu mendapat pengetahuan mengenai kewaspadaan terhadap bahan berbahaya pada kosmetik ibu hamil melalui media promosi kesehatan.

Tujuan : Untuk mengetahui pengaruh media booklet terhadap pengetahuan dan sikap ibu hamil mengenai kosmetika yang aman bagi Ibu Hamil

Metode : Desain Penelitian ini adalah *post test only control group desain*. Kelompok intervensi diberikan booklet kosmetika yang aman dalam kehamilan. Pengetahuan dan sikap diukur melalui post tes menggunakan kuesioner. Penelitian ini melibatkan 54 sampel yang dibagi ke dalam kelompok intervensi dan kontrol .

Hasil : Semua responden (100%) yang diberikan booklet mempunyai pengetahuan yang baik. Sebagian besar responden (70,4%) yang diberikan booklet, mempunyai sikap positif. Berdasarkan uji *Chi Square*, menunjukkan bahwa terdapat pengaruh antara pemberian Booklet dengan pengetahuan dan sikap ibu hamil mengenai kosmetika yang aman bagi ibu hamil (*P value* <0,001)

Kesimpulan : Booklet kosmetik yang aman bagi ibu hamil efektif dalam meningkatkan pengetahuan dan sikap ibu hamil.

Saran : Penelitian selanjutnya perlu dilakukan dengan sampel yang lebih besar dengan desain *Randomized Controlled Trial* untuk meningkatkan kualitas bukti penelitian. Variasi dalam metode penyampaian booklet perlu diteliti untuk meningkatkan retensi pengetahuan dan sikap ibu hamil.

Kata Kunci : Booklet, Ibu hamil, Kosmetik yang aman, Pengetahuan, Sikap

ABSTRACT

Background: Pregnant women are consumers of the cosmetic market in Indonesia. They need to be aware of vigilance against harmful ingredients in pregnant women's cosmetics through health promotion media.

Purpose: To determine the effect of booklet media in helping pregnant women gain knowledge and attitude regarding safe cosmetics.

Method: This study is a post-test control group design. The intervention group received a booklet about safe cosmetics during pregnancy. Knowledge and attitudes were measured through a post-test using a questionnaire. This study included 54 samples divided into intervention and control groups

Result: All respondents (100%) given the booklet had good knowledge. Most respondents (70.4%) had a positive attitude. Based on the Chi-Square test, there was an effect between giving booklets with knowledge and attitudes about safe cosmetics (*P-value* <0.001).

Conclusion: Booklets that contained information about safe cosmetics for pregnant women effectively increased knowledge and attitudes.

Suggestion: Further research needs to be carried out with a larger sample with randomized controlled trial design. Variations in delivering booklets are also necessary to increase knowledge retention and attitudes of pregnant women.

Keywords: Attitude, Booklet, Knowledge, Pregnant women, Safe cosmetics

INTRODUCTION

Cosmetic products have become a primary need today. Cosmetics consumption in Indonesia has increased by around 20%. There was a four-fold increase in the national economic growth in 2012. The cosmetics sector is prioritized in the 2015-2035 National Industrial Development Master Plan (RIPIN). In 2018, the number of cosmetic industries was around 760 companies, with additional 153 new companies in 2017 (Kemenperin, 2018). Meanwhile, in 2020 the cosmetic industry will be included in the pharmaceutical, chemical and traditional medicine sectors, which will increase by around 5.58% (Ministry of Industry, 2020).

Pregnant women are one of the cosmetic consumer market segments in Indonesia. According to Trivedi et al. (2017), pregnant women must pay attention to the risks. Based on research, solutions containing salicylic acid should be used with caution due to their higher absorption rate. Trichloroacetic acid is associated with low birth weight. Likewise, there is little evidence of the safety of using fillers in pregnancy.

A cross-sectional study conducted in a gynecological clinic and 4 community pharmacies involved 128 pregnant and non-pregnant women. Based on the findings, 55% of respondents stated that cosmetics might have risks for pregnancy and 65% of mothers expected to have counseling regarding cosmetics during pregnancy. Based on these findings, the researchers recommended that every health worker should be able to provide counseling regarding the benefits and risks of using cosmetics during pregnancy (Marie et al., 2016).

Giving information regarding hazardous ingredients in cosmetics for pregnant women must be balanced with alternative solutions and safe ingredients. Kazemi et al. (2018) stated that spreading information about healthy lifestyles could improve the health quality of pregnant women and their babies.

Media booklets are educational media designed as visual media. This media can be printed and distributed to the public to convey health messages. This study aims to determine the effect of media booklets on gaining pregnant women's knowledge and attitudes about safe cosmetics during

pregnancy.

Studies on safe cosmetic booklets are limited and have never been conducted in Klaten Regency, especially in South Klaten Health Center.

RESEARCH METHODOLOGY

The independent variable in this study was a booklet about safe cosmetics. The dependent variable in this research was knowledge and attitude. This study involved a sample of pregnant women divided into the intervention group of 27 people, and the sample from the control group was also 27 people. Design This study is a post-test-only control group design. The intervention group was given a safe cosmetic booklet for pregnant women, while the control group was not given a booklet. Without intervention, the control group was still given a booklet after completing the study.

Knowledge and attitude variables were measured through a questionnaire. The researchers compiled the questionnaire and tested for validity on pregnant women with the same characteristics and were carried out at Puskesmas Klaten Tengah. The post-test was carried out after the participants read the booklet. A safe cosmetic booklet consists of the definition of cosmetics, various types of cosmetics, cosmetic requirements, criteria for cosmetic products that are declared safe, several harmful chemical substances to pregnant women, tips for choosing safe cosmetics, and natural ingredients that can help brighten the skin. Data collection was carried out in August 2020.

The inclusion criteria of this study were pregnant women who were willing to participate in this study, were cooperative and fully aware, had no mental disorders, and could read and write. Categorical data analysis used chi-square, while numerical data analysis used Mann Whitney test and t-test. This study has obtained ethically appropriate information from KEPK Universitas Aisyiah Yogyakarta number 1341/KEP-UNISA/VIII/2020.

RESULT

The following table shows the frequency distribution of the respondents' characteristics.

Table 1

Frequency Distribution of Respondents' Characteristics

Variable	Control		Intervention		Value p*)
	n=27	%	n=27	%	
Age					
< 20	0		2	7.4	0.518
20-35	21	77.8	25	92.6	
> 35	6	22.2	0		
Parity					
Primigravida	10	37	25	92.6	0.000
multigravida	16	59.3	2	7.4	
Grande Multigravida	1	3.7	0		

*) Kolmogorov-Smirnov Test

Based on age characteristics, the p-value was >0.05. Thus, the two groups deserve to be compared. The majority of respondents were aged

20-35 years, with 77.8% in the control group and 92.6% in the intervention group. The following table shows the results of the categorical test.

Table 2
Categorical Test

Variable	Category	Intervention		Control		p* Value
		n	%	n	%	
Knowledge	Good	27	100	10	37	<0,001
	Average	0	0	12	44.4	
	Poor	0	0	5	18.5	
Attitude	Positive	19	70.4	7	25.9	<0,001
	Negative	8	29.6	20	74.1	

*) Chi-Square Test

Based on Table 2, all respondents given the booklet had good knowledge about safe cosmetics for pregnant women. Most respondents given a booklet (70.4%) had a positive attitude about safe cosmetics for pregnant women. The Chi-Square test analysis showed an influence between booklet sharing and the knowledge and attitudes of pregnant women regarding safe cosmetics for them (P-value <0.001).

The researchers conducted a numerical data test to determine the mean score and the difference in the mean before and after the intervention. Here is

the table of differences in knowledge scores and attitudes of pregnant women about safe cosmetics for them.

Based on the difference in knowledge scores and attitudes, the average knowledge score of the intervention group was 92.6, while the average knowledge score of the control group was 65.2. The mean difference in attitude between the intervention and control groups was 8.1. The Mann-Whitney test and T-test showed a significant difference in the intervention group's mean knowledge and attitude scores and the control group (P-value <0.05).

Table 3

Differences in Knowledge Scores and Attitudes of Pregnant Women regarding Safe Cosmetics

Variable	Intervention	Control	p* Value
Median Knowledge	89	67	
Min-Max	(77-100)	(11-100)	0,000*)
Average \pm s.b	92.6 \pm 8.1	65.2 \pm 21.4	
Attitude Average \pm s.b	87.9 \pm 7.6	79.8 \pm 8.7	
Mean Difference (CI95%)	8.1 (3.6-12.6)		0,001**)

*) *Mann-Whitney Test*

***) *T-Test*

DISCUSSION

The results showed an influence between the booklets and the attitudes of pregnant women regarding safe cosmetics for pregnant women. All respondents in the intervention group were in a good category, while in the control group in a good category, were only 37%. A booklet is a low-cost and easy-to-use health promotion media and can provide information based on evidence-based.

The booklet compiled by the researchers was delivered in simple language equipped with picture illustrations. According to Reberte et al. (2012), making booklets must be prepared with a participatory and communicative approach and pay attention to easy-to-digest vocabulary and attractive illustrations.

According to Claus et al. (2017), studies using booklet media showed their effectiveness in increasing short and long-term knowledge. An RCT study conducted by Abbasi et al. (2017) involving 153 pregnant women proved that educational software and booklets were equally effective in increasing pregnant women's knowledge about labor pain management.

In further research, booklets can be used as complementary media in carrying out counseling to increase the knowledge score of pregnant women. Mohamadirizi et al. (2014) involved 100 pregnant women and compared e-learning training methods with booklets. As a result, pregnant women who participated in e-learning training had a higher knowledge level than ones given booklets. However, there is a need for sufficient facilities, such as knowledge of computers, infrastructure and telecommunications.

The respondents' characteristics showed that most respondents were 20-35 years old (77.8%) in the control group and 92.6% in the intervention group. Dehghani et al. (2017) conducted survey

research in Iran. They found that the average high consumption of cosmetics was at the age of 20-29 years old, while the lowest average consumption was at 49 years old and over. In Indonesia, Putri (2017) conducted a survey involving 195 respondents, finding that most cosmetic users were aged 20-26 years old.

Most of the intervention group showed a positive attitude (70.4%) in this study, while the control group was only 25.9%. The result proved that the booklets affected the attitudes of pregnant women towards safe cosmetics.

Attitude is closely related to the principle of compatibility and the concept of behavior. The principle of compatibility can predict certain behaviors and be implemented with specific targets and specific times. Attitude is related to intention. The intention is an individual's motivation to change behavior. Intention shows how much effort an individual wants to make to perform a behavior (Edith & Chinwe, 2017).

Attitude can also predict the behavior that someone will adopt. The extent to which attitudes predict behavior depends on the degree of correspondence, a domain of behavior, the strength of attitudes and personality factors. In attitude theory, motivation and opportunity are needed to make judgments in determining behavior (Haddock & Maio, n.d.).

Media booklets are often used in research to improve knowledge, attitudes and behavior. Oliveira et al. (2018) research using a single-blind RCT design was conducted on 91 people in the intervention group and 94 people in the control group. Their study took place in Brazil. Media booklets increased knowledge, attitudes and behavior regarding regional food consumption. The results showed that educational booklets efficiently increased pregnant women's knowledge, attitudes,

and practices about using local food.

Based on the difference in mean attitudes, the difference between the intervention and control groups was only 8 points. According to Adib-Hajbaghery & Faraji (2016), booklet media could influence people's knowledge if designed properly. However, this method may be less effective when booklets are only read because there is no guarantee for active and in-depth reading.

This research was conducted using a quasi-experimental method, so no randomization was carried out. There is still a possibility of bias in this study, where confounding factors were not controlled. Further research is needed to improve the method of RCT (Randomized Controlled Trial). Also, in this study, the booklet media was not combined with other health education methods. In further research, booklet media can be given during counseling so that there is a significant increase in knowledge and attitudes. Abbasi et al. (2017), in an RCT study of 126 gestational diabetes patients, conducted face-to-face training using a booklet. The results showed that the intervention could improve the health of mothers and babies.

CONCLUSION

Based on the findings, booklets about safe cosmetics for pregnant women effectively increased the respondents' knowledge and attitudes. The knowledge variable showed a good category, as much as 100%, while the control category was only 37%. The positive attitude increased to 70.4% in the attitude variable compared to the control, 25.9%. Thus, booklets also affected the attitudes of pregnant women regarding cosmetics that are safe for them.

SUGGESTION

The researchers recommend further research with a larger sample by designing a randomized controlled trial to improve the quality of research evidence. Variations in the method of delivering booklets need to be investigated to increase knowledge retention and attitudes of pregnant women.

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