THE EFFECT OF HEALTH PROMOTION THROUGH BOOKLEY MEDIA (IUD BOOKLET) ON KNOWLEDGE AND ATTITUDES ABOUT IUD CONTRACEPTION IN WOMEN OF CHILDBEARING AGE

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ABSTRACT

Background: The number of active family planning participants for women of childbearing age in Pariaman City was 1.016 with the types of contraceptives, namely injections 329 people (32.4%), pills as many as 318 people (31.2%), implants as many as 157 (15.5%), and IUD as many as 212 (20.9%), indicating that IUD contraceptive users were still low compared to other contraceptives in non-MKJP.

Purpose: This study aimed to determine the effect of health promotion through bookley media on knowledge and attitudes about IUD contraception in women of childbearing age in the working area of Naras Health Center, Pariaman City.

Method: The type of research used was pre-experimental (pre-post test design one group). The sample in this study were women of childbearing age in the Naras Health Center Work Area, Pariaman City, amounting to 36 people, taking samples using the accidental sampling technique using the paired t test.

Results: The results of the study obtained the average knowledge before (5.19) and after (7.22), while the average attitude before (28.67) and after (33.64). The results of the paired t test obtained \( p \) value = 0.000 < 0.05 which indicated that there was an effect of health promotion through bookley media on knowledge and attitudes about IUD contraception in women of childbearing age in the work area of the Naras Health Center, Pariaman City.

Conclusion: There is an influence of health promotion through bookley media on knowledge and attitudes about IUD contraception in women of childbearing age in the work area of Naras Health Center in Pariaman City.

Suggestion: This research was expected to be an alternative choice of health intervention for health promoters in conveying information about IUD contraception.

Keywords: Bookley (IUD Booklet), knowledge, attitude.

INTRODUCTION

Indonesia's population growth has increased from time to time. To control the population, the government of the Republic of Indonesia launched the Family Planning Program (KB). According to the World Health Organization (WHO) in 1970, family planning is an action that helps married couples to avoid unwanted pregnancies, get highly desirable births, regulate the interval between pregnancies, control the time of birth in relation to the age of the husband and wife and determine the number of children and families. In implementing family planning programs, the government recommends that the community, especially mothers, use appropriate contraceptives so that they can contribute to improving the quality of the population (1).

The Indonesian Health Pofil in 2017 stated that, Indonesia has a population of 261,890,872 people. Government programs to reduce the speed of population growth can be carried out with the Family Planning movement and the use of contraceptives. The family planning movement is carried out to build a prosperous family to create optimal human resources. Family planning programs are one of the most effective ways to improve family safety, health and safety of mothers, children, and women (2).

According to the 2018 RPJMN survey, contraceptive use among Indonesian married women fell from 60.9% in 2016 to 59.7% in 2017 and in the results of the 2018 Program Accountability Performance Survey (SKAP) rose to 60%. The use of modern contraception among married women aged 15-49 years is 57% and has not reached the national target set by the 2015-2019 Strategic Plan, in 2018 which is 61.1% (3).

Government policy on family planning currently leads to the use of long-term contraceptive methods (MKJP). The Intra Uterine Device (IUD) is one of the most effective and safest long-acting contraceptives compared to other contraceptives such as the pill. IUD contraception is very effective in suppressing maternal mortality and controlling population growth, with an effectiveness rate of up to 99.4% IUDs for a period of 3-5 years (hormone type) and 5-10 years (copper type) used. The IUD contraceptive device is inserted into the uterus of a different shape consisting of plastic (Polyethylene) (2). In Saifuddin's 2006 research mentioned the advantages of IUD contraceptives are effective immediately after installation is a long-term method (eight years protection and does not need to be replaced), the acceptor should not be remembered when he should have re-birth control, no hormonal side effects, no impact on breast milk volume and can be installed immediately with birth or after abortion.

IUD is one type of non-hormonal contraceptive and includes long-acting contraception that is ideal in reducing pregnancy. The advantage of using an IUD is that it only requires one installation for a long period of time at a low cost, safe because it does not have a systemic effect that circulates throughout the body, does not affect milk production and fertility quickly returns after the IUD is removed. However, there are also many factors that influence mothers in determining the contraceptive method to be used. According to Purba (2009) there are several factors that influence the choice of contraceptive method used, namely predisposition factors (age, education, number of children, knowledge, attitudes), supporting factors (availability of contraceptives, distance from home to health facilities, travel time, and costs), and driving factors (health workers). The level of knowledge and education of mothers in this case is very influential on the use of IUD birth control (4). The level of education will affect the insight and knowledge of the mother. The lower the mother's education, the access to information about birth control, especially IUDs, will decrease, so that mothers find it difficult to make effective decisions about which contraceptives to choose by mothers (5).

The results of the data that have been obtained, show that IUD contraceptive users are still low compared to other contraceptives in non-MKJP. The low use of IUD contraceptives is caused by various factors, one of which is knowledge. Lack of knowledge about IUD contraception where understanding, benefits, side effects, the right time for insertion, makes birth control acceptors afraid to use IUDs. The need for increased counseling or promotion programs regarding IUD contraceptives is expected to increase WUS (Women of Childbearing Age) knowledge about understanding, side effects, benefits, and the right time for installation. This counseling is expected to increase public knowledge about IUD contraceptives so that the number of IUD birth control participants will also increase (6).

According to Notoatmodjo (2018), knowledge is the process of sensing humans to certain objects because most of human knowledge is obtained through the eyes and ears. One way to acquire knowledge is through health promotion which is an effort made to provide knowledge as a basis for behavior change that can improve the health status.
of individuals, families, groups and communities through learning activities (8).

Health promotion in a general sense is any planned effort to influence others, whether individuals, groups, or communities so that they do what is expected by health promoters. And these limits implied elements of input (goals and educators of education), process (planned effort to influence others), and output (doing what is expected). The expected outcome of a health promotion or health education is a health behavior or behavior to maintain and promote health that is conducive to the goals of health promotion (3).

Extension factors, materials, methods and media or tools can be used to achieve success in health promotion. One of the most effective print media of health promotion is the booklet. Booklet is a medium to convey health messages in the form of writing and images. Booklets as channels, tools, facilities and supporting resources to convey messages must adjust to the content of the material to be delivered (9). The presentation of the booklet using images and colors gives it an attractive look. Booklets are almost similar to books made in various forms of attractive designs with information content presented briefly and clearly (1).

The results of Purnamasari's research (2021) show that providing midwife counseling with booklet media about IUD contraception is effective in increasing the knowledge of primigravida mothers at Nirmala Suri Sikoharjo Hospital. There are also research results by Istriqomah, et al (2016), found that there is a significant difference in the level of knowledge of women of childbearing age about IUD contraception after being given health promotion using leaflet media (6). There are also the results of Sari's research (2019) found that there is an influence on providing counseling about IUD contraception with audio-visual media (11). The results of Amelia's research (2020) show that there is an influence of video media counseling to increase knowledge and attitudes about Intra Uterine Devices (IUD) contraceptives in couples of childbearing age (12). There are also the results of Sari's research (2016) showing that there is a relationship between knowledge and maternal attitudes in choosing long-term contraceptive methods in WUS (13).

**RESEARCH METHODS**

This research uses a type of quantitative research with a Pre-experimental research design (pre-post test design one group). The design of this study used one group, previously conducted a pre-test to measure the knowledge and attitudes of women of childbearing age and then given intervention through booklet media on women of childbearing age in the work area of the Naras Health Center in Pariaman City and then carried out a post test.

The population in this study was all women of childbearing age in the working area of Naras Health Center in Pariaman City.

The sampling technique in this study is by means of Accidental sampling, with a total sample of 36 people.

- Inclusion criteria 1). Married women of childbearing age 2). Can follow any type of birth control, except IUD and 3) birth control Husband is not MOP.
- Exclusion criteria 1). Not present at the time of the study 2). Not willing to be a respondent.

The research instrument used in this study is a questionnaire, the questionnaire used consists of three parts, namely containing demographic data, questions to find out knowledge and statements to find out respondents' attitudes about IUD contraception.

Data were analyzed univariately and bivariately. Univariate data represent the frequency distribution of sample characteristics of knowledge, age, education, and occupation. Numerical data analysis includes standard deviation, mean value, at 95% CI and for categorical includes sum and percentage, while bivariate is aimed at testing the significance of the effect of booklet media use on increasing knowledge and attitudes about IUD contraception in women of childbearing age. Before bivariate analysis, data normality test was carried out using the Shapiro test, obtained normally distributed data.

**RESEARCH RESULTS**

**Univariate Analysis**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Min-Max</th>
<th>C195%</th>
</tr>
</thead>
<tbody>
<tr>
<td>age</td>
<td>31.64</td>
<td>21 - 42</td>
<td>29.94;33.94</td>
</tr>
</tbody>
</table>

Table 1 shows that the average WUS is 32 years old with an SD of 5.03 years. The youngest WUS age is 21 years old and the oldest is 42 years old. It is believed that 95% of the average age of WUS is in the range of 29.94 to 33.94 years.
Table 2
Characteristics of Respondents Based on Education and Occupation

<table>
<thead>
<tr>
<th>Variable</th>
<th>F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMP</td>
<td>1</td>
<td>2.8</td>
</tr>
<tr>
<td>SMA</td>
<td>22</td>
<td>61.1</td>
</tr>
<tr>
<td>PT</td>
<td>13</td>
<td>36.1</td>
</tr>
<tr>
<td>Work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not working</td>
<td>26</td>
<td>72.2</td>
</tr>
<tr>
<td>Work</td>
<td>10</td>
<td>27.8</td>
</tr>
</tbody>
</table>

Table 2 shows that most women of childbearing age (61.1%) have high school education (61.1%) and most jobs (72.2%) are unemployed.

Table 3
Average knowledge before and after health promotion using booklet media

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Min-max</th>
<th>C1</th>
<th>95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge Before</td>
<td>36</td>
<td>5.19</td>
<td>1.925</td>
<td>2–9</td>
<td>4.54 ;</td>
<td>5.85 ;</td>
</tr>
<tr>
<td>Knowledge After</td>
<td>36</td>
<td>7.22</td>
<td>1.807</td>
<td>3–7</td>
<td>6.61 ;</td>
<td>7.83 ;</td>
</tr>
</tbody>
</table>

Table 3 shows the average knowledge score of women of childbearing age after health promotion interventions using booklets on IUD contraception from 5.19 to 7.22, with SD from 1.925 to 1.807. The minimum value is from 2 to 3, while the maximum value is from 9 to 10. It is believed that 95% of WUS knowledge averages from a range of 4.54 to 5.85 to 6.61 to 7.83.

Table 4
Average attitude before and after health promotion using booklet media

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Min-max</th>
<th>C1</th>
<th>95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude Before</td>
<td>36</td>
<td>28.67</td>
<td>2.986</td>
<td>22–35</td>
<td>27.66 ;</td>
<td>29.68 ;</td>
</tr>
<tr>
<td>Attitude After</td>
<td>36</td>
<td>33.64</td>
<td>2.554</td>
<td>27–39</td>
<td>32.77 ;</td>
<td>34.50 ;</td>
</tr>
</tbody>
</table>

Table 4 shows the average attitude score of women of childbearing age after health promotion interventions using booklets on IUD contraception of 4.97 from 28.67 to 33.64, with SD from 2.986 to 2.554. The minimum score is from 22 to 35, while the maximum value is from 27 to 39. It is believed that 95% of WUS attitudes average from the range of 27.66 to 29.68 to 32.77 to 34.50.

Bivariate Analysis

This study was conducted data normality test with shapiro because the sample amounted to less than 50 people. The test results show normally distributed data. This analysis was conducted to see the effect of health promotion on knowledge and attitudes before and after the intervention. Normality data indicates normally distributed data tested using paired t test.

Table 5
The effect of booklet media use on knowledge and attitudes about IUD contraception in women of childbearing age

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Δ Mean</th>
<th>Sig. (2-Tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>36</td>
<td>7.22</td>
<td>2.03</td>
<td>0.000</td>
</tr>
<tr>
<td>Attitude</td>
<td>36</td>
<td>33.64</td>
<td>4.97</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Based on table 5, the average knowledge differentiation before and after was 2.03 while the average attitude differential before and after was 4.97, obtained p value = 0.000 ≤ 0.05, then H0 was rejected using a confidence level of 95%. This shows that there is an influence of the use of booklet media on knowledge and attitudes about IUD contraception in fertile women in the Working Area of Naras Health Center in Pariaman City.

DISCUSSION
Characteristics of Women of Childbearing Age (WUS) in the Working Area of Naras Health Center in Pariaman City

This study showed that the average age of women of childbearing age was 32 years with SD 5.03 years. The youngest age is 21 years old and the oldest age is 42 years old, it is believed that the average age of women of childbearing age is in the range of 29.94 to 33.94 years, while education shows that women of childbearing age are mostly high school educated, this is in line with Ajizah research (2020) the characteristics of respondents based on education in the intervention group of some people are high school and the work of most women of childbearing age is not working (14). This is in line with Indarwati's research (2018) of 265 respondents, most of which are as many as 185 people are not working (15).

Based on the results of Sari's research (2015), it is known that some people aged 30 years and under prefer non-MJKP contraceptives (Long-
Term Contraceptive Methods) while women aged 30 years and over prefer MJKP contraceptives. This happens for reasons of birth control itself, for women who are over 30 years old have the goal of birth control to terminate pregnancy. In addition, women with a high level of education prefer MJKP contraceptives. This can happen because of the consideration that highly educated women have a good insight or understanding of the benefits and risks of choosing safe and long-term contraceptives (16). Based on research conducted by Subiyatun et al., (2012) that women who have jobs will prefer MJKP because of the demands of their work (17).

Knowledge of Women of Childbearing Age (WUS) in the Working Area of Naras Health Center in Pariaman City About IUD Contraception

This study increased knowledge before the intervention which was 5.19 and after the intervention which was 7.22. This is in line with Punamasari's research (2021) after counseling with the help of booklets on IUD contraception, there was an increase in maternal knowledge marked by many mothers who have good and very good knowledge. This researcher's assumption is due to the ability of diverse ways of thinking possessed between one mother and another. This makes a difference in how to understand the information provided by the researcher, but overall there is a difference in the average knowledge before and after the respondents after being given an intervention using booklet media (10).

The results of Hidayatulloh's research (2017) showed that health education affects mothers’ knowledge about IUD birth control, respondents' knowledge has increased about IUD birth control after receiving health education in Plosorejo Hamlet, Jagir Village, Sine District, Ngawi Regency (18). The results of the study (Putri et al., 2019) showed an increase in knowledge after being given an intervention with booklet media, with a significant value on knowledge $p = 0.000$. The results of the data analysis obtained mean that there is an influence of the use of booklet media on pregnant women’s knowledge about exclusive breastfeeding using the Wilcoxon Sign Test (19).

Anderi (2017) showed that there was an increase in cadres' knowledge scores and skills after being given training. Average knowledge and attitude scores improved after nutrition counseling by volunteers (20). The results of Nasution's research (2022) show that the majority of WUS knowledge about Fluor Albus before being given Health Education at the Patumbak Health Center in 2021 is lacking, the majority of WUS knowledge about Fluor Albus after being given Health Education at the Patumbak Health Center in 2021 is the majority good. So it can be concluded that there is an influence of Health Education on WUS Knowledge about Fluor Albus at the Patumbak Health Center in 2021 (21).

Apriani's research (2015) states that good knowledge will produce a positive and long-lasting attitude, but on the contrary if the knowledge is lacking, the attitude will be negative (22). This is according to research conducted by Indrawati (2018) that respondents who have good respondents will have a positive attitude (23). According to Notoatmojo (2018), knowledge is the result of human senses or the result of knowing a person about objects through the senses they have. By itself, the time of sensing to produce knowledge is greatly influenced by the intensity and perception of objects. Some of a person’s knowledge is acquired through the sense of hearing and the sense of sight.

According to Notoatmojo (2018) Knowledge is the result of knowing and this occurs after someone senses a certain object. This sensing occurs through the five human senses, namely the senses of sight, hearing, smell, taste and touch. Most human knowledge is acquired through the eyes and ears.

Attitudes of Women of Childbearing Age (WUS) in the Working Area of Naras Health Center in Pariaman City About IUD Contraception

This study saw an increase in attitudes before the intervention which was 28.67 and after the intervention which was 33.64. This is in line with Amelia's research (2020) showing that there are differences in mothers' attitudes before and after counseling. Mothers who receive counseling are expected to understand more about the information provided, so as to increase mothers' knowledge and attitudes about counseling materials, namely Intra Uterine Devices (IUD) contraceptives (12). This is also in line with Notoatmojo (2018) which states that one of the factors that affect knowledge is information. The new information a person receives will provide a new cognitive foundation for the formation of this knowledge. The assumption of this study is due to the ability of various ways of thinking possessed between one mother and another. This makes a difference in how to understand the information provided by researchers, but overall when viewed from the results of data processing, there are differences in average attitudes before and after intervention using booklet media.
The results of Wardani’s research (2019) showed that there was a significant influence between counseling and respondents’ attitudes in choosing a post-placental IUD (24). According to Notoadmodjo (2018), attitude is a reaction or response of someone who is still closed to a stimulus or object. Willis (2009) suggests that the success of counseling is closely related to the counselor’s attitude in providing information such as; Have a sense of empathy, warmth, positive appreciation (respect), anxiety control, and communication patterns. According to Fadhillah (2020) quoted by Fitri (2018), changing attitudes can be done by coaching through health education, because it can increase knowledge so that it can respond to attitudes leading to better behavior (25).

### The Influence of Booklet Media on the Knowledge and Attitudes of Women of Childbearing Age About IUD Contraception

Based on the results of the study, there are data on knowledge and attitudes using the paired t-test obtained a value of \( p = 0.00 \leq 0.05 \) using a confidence level of 95%, then Ha accepted means that there is an influence on the use of booklet media on knowledge and attitudes about IUD contraception in fertile women in the Working Area of the Bentiring Health Center in Bengkulu City. This is in line with Mursida’s research (2016) Wilcoxon’s analysis shows that at the level of significance value is obtained for PHBS knowledge and PHBS attitudes so that there is a significant influence of health education with booklet media on increasing knowledge and attitudes about PHBS in students at SMP Negeri I Palibelo. There are also the results of Utariningsih’s research (2018) there is an increase in knowledge after being given a booklet and there is also an increase in attitudes (8).

According to Rosa’s research (2019), the results of statistical analysis show that health education with booklet media is more effective than leaflet media to increase knowledge and attitudes so that there is an influence of health education with booklet media on increasing knowledge and attitudes in third trimester pregnant women about exclusive breastfeeding at the Gedongtengen Health Center Yogyakarta City in 2019 (26). The results of Dwi Sugiarti’s (2022) research were analyzed using Wilcoxon to determine the effect of booklets on knowledge and paired t-tests to determine the effect of booklets on respondents’ blood pressure (3).

Al Gafi’s research (2020) shows that booklet media affects knowledge and attitudes about cigarettes in students at SMA Negeri 13 Medan. This influence can be seen through the average value of students’ knowledge and attitudes before being treated with booklet media obtained 4.95 and 29.81 after being treated with booklet media to 8.38 and 40.00 which means that students’ knowledge and attitudes increased after being treated with booklet media (27).

### CONCLUSION

There is an influence on the average knowledge and attitudes of women of childbearing age before and after being given education using bookledy media about IUD contraception in the work area of the Naras Health Center in Pariaman City.

### SUGGESTIONS

Women of childbearing age need to increase knowledge about IUD birth control by attending counseling held by health workers and seeking information about IUD birth control at nearby health service places, such as maternity clinics, Private Practice Midwives (BPS), Puskesmas, and Hospitals.

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