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The Role of Audio Visual Education in Contraceptive Use in 48-Hour Postpartum Women

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The 48-hour postpartum period is the ideal time to choose contraception because ovulation can occur 34 days postpartum for mothers who are not breastfeeding optimally. Audio-visual contraceptive education is provided during pregnancy to facilitate contraceptive use during the 48-hour postpartum period. This study aims to determine the relationship between knowledge levels after audio-visual education and contraceptive use during the 48-hour postpartum period. It also aims to identify contraceptive method use during the 48-hour postpartum period. This study is a pre-experimental study with a one-group post-test only design involving 30 pregnant women in the third trimester with a gestational age of ≥ 36 weeks, selected through consecutive sampling. The intervention was provided in the form of audio-visual education. Knowledge levels were measured using a questionnaire after the intervention. Postpartum contraceptive use was identified using medical records. The relationship between knowledge levels after the intervention and contraceptive use during the 48-hour postpartum period was measured using a chi-square test, yielding a p-value of 0.002, indicating a significant association between knowledge after the audio-visual education intervention and contraceptive use during the 48-hour postpartum perio. One of the key components of the Childbirth Planning and Complication Prevention Programme (P4K) is education about contraception during pregnancy. Family planning counselling and contraceptive methods during pregnancy can increase mothers' awareness of contraceptive use.

Keywords: ***Audiovisual, contraceptive education, postpartum contraception, 48-hour postpartum period***

INTRODUCTION

Contraception immediately after childbirth is very important for maintaining the health of the mother and baby, as it can reduce abnormal births and high-risk pregnancies (Kemenkes, 2021). Contraception should be used immediately after childbirth, or within 48 hours after childbirth. Family planning within 48 hours of the postpartum period is considered important because a woman's fertility recovery process after childbirth is unpredictable. Even in mothers who do not breastfeed their babies, ovulation can occur thirty-four days after giving birth (Anwar et al., 2023).

The success rate of PP family planning in Indonesia in 2022 was around 45.02%, but in 2023 it was only 40.1%. In 2023, the success rate of postpartum family planning in East Java Province is still 44.1%. The use of PP family planning during the patient's stay (within 48 hours of the postpartum period) in East Java is only 15% (Kemenkes, 2023). At RSUD Bhakti Dharma Husada, the success rate of postpartum family planning in 2022 was only 38%, and in 2023 only 15%. One of the strategies to increase the achievement of postpartum family planning at Bhakti Dharma Husada Surabaya Hospital is to provide audio-visual education.

One of the reasons for the low use of postpartum contraception is the lack of understanding among mothers about the importance of contraception. Mothers' knowledge about contraception must be improved. The level of individual knowledge varies because the intensity of attention and perception of objects greatly influences it (Notoatmodjo, 2010). Education during pregnancy is a potential strategy to enhance this understanding. The World Health Organization (WHO) proposes that family planning counselling should be part of maternal and child health visits during pregnancy, childbirth and postpartum (Mruts et al., 2022). Couples should discuss the use of postpartum contraception from the time of pregnancy.

The current technological developments provide a great opportunity to utilise audio-visual media as an educational tool. This media is considered capable of enhancing understanding in a more engaging, practical, and accessible manner. The use of video as a family planning consultation tool can increase knowledge about contraception because it can improve right brain function through visualisation of images, colours, movements, and sounds. In addition, videos can create a longer memory of the information conveyed (Rahayu et al., 2020). Maternal education about contraception must be improved.

However, there is still limited research specifically examining the impact of audio-visual education about contraception provided during pregnancy on contraceptive choice during the postpartum period, particularly within 48 hours after childbirth. This period is particularly critical because most mothers are already in healthcare facilities. Postpartum mothers who have returned home from healthcare facilities often forget to use contraception due to being busy caring for their babies (Kemenkes, 2021).

The purpose of this study was to determine the relationship between the level of knowledge after audio-visual education and the use of contraception during the 48-hour postpartum period at Bhakti Dharma Husada Hospital in Surabaya, and to identify the use of contraceptive methods during the 48-hour postpartum period at Bhakti Dharma Husada Hospital in Surabaya. The findings of this study are expected to serve as a basis for developing better techniques for teaching postpartum contraception.

METHODOLOGY

This pre-experimental study used a one-group posttest-only design. The study was conducted at Bhakti Dharma Husada Hospital in Surabaya from 9 February to 15 March 2025. The study involved pregnant women in their third trimester who had passed 36 weeks of pregnancy when undergoing ANC at Bhakti Dharma Husada Hospital in Surabaya. Consecutive sampling was used to collect a sample of 30 respondents. The minimum sample size required is calculated based on Dell's sample size, which is.

$$n = \frac{\log \beta}{\log \rho}$$

$$n = \frac{\log 0{,}05}{\log 0{,}9}$$

$$n = 28{,}4.$$

Explanation:
n= sample size
β= margin of error 5% (0.05%)
ρ= probability of success 90% (0.9)

Respondents were provided with audio-visual education on contraception that could be used immediately after childbirth. Respondents were given audio-visual education on contraception with an attendance list as documentation. The audio-visual video was played only once, lasting 4 minutes and 24 seconds, covering the definition of postpartum contraception, its purpose, various contraceptive methods that can be used within the 48-hour postpartum period, along with their usage methods, advantages and disadvantages, as well as the indications and contraindications for using these contraceptive methods. The video was played using an 11-inch tablet to pregnant women in the third trimester with a gestational age of ≥ 36 weeks, accompanied by the researcher. The instrument used to measure the level of knowledge after the audio-visual education was a questionnaire. The questionnaire used had been tested for validity and reliability. In addition, medical records are also used to identify the contraception chosen by respondents within 48 hours postpartum.

The data analysis method used in this study was the chi-square test. The chi-square test was conducted to measure the relationship between respondents' knowledge levels after receiving audio-visual education and contraceptive use within 48 hours of the postpartum period.

RESULT AND DISCUSSION

This study aims to determine the effect of audio-visual education on contraceptive choice among mothers after childbirth, particularly within the first 48 hours of the postpartum period. To this end, several important data were collected and analysed. These include an overview of the respondents' characteristics, their level of knowledge after receiving education, and the relationship between this knowledge and their decision to use contraception. Additionally, the most commonly chosen type of contraception was also analysed. All results are presented in tabular form for easier understanding.

Table 1. Frequency distribution of characteristics of third trimester pregnant women with gestational age ≥ 36 weeks at Bhakti Dharma Husada Surabaya Hospital.

Characteristic	Frequency (f)	Percentage (%)
Age		
< 20 years old	4	13,33%
20-35 years old	17	56,67%
>35 years old	9	30%
Education		
Elementary school	2	6,67%
Junior high school	5	16,66%
Senior high school	21	70%
Higher education	2	6,67%
Occupation		
Housewife	23	76,67%
Civil servant	0	0%
Employee	7	23,33%
Others	0	0%
Gravid		
Primigravida	8	26,67%
Multigravida	21	70%
Grandemulti	1	3,33%

Table 2. Frequency distribution of knowledge level of third trimester pregnant women with gestational age ≥ 36 weeks at Bhakti Dharma Husada Surabaya Hospital

Knowledge level	Frequency (f)	Percentage (%)
Good	21	70%
Fair	6	20%
Less	3	10%
	30	100%

Table 3. The relationship between the level of knowledge with the use of contraception in the 48-hour postpartum period at Bhakti Dharma Husada Hospital Surabaya

Knowledge level	Used Contraception	Was not Used Contrception	Total	*p value*
	f(%)	f(%)	f(%)	
Good	18(60%)	3(10%)	21(70%)	0,002
Fair	2(6,67%)	4(13,33%)	6(20%)	
Less	0(0%)	3(10%)	3(10%)	
	20(66,67%)	10(33,33%)	30(100%)	

Table 4. Contraceptive use in the postpartum period 48 hours after audio-visual education at Bhakti Dharma Husada Hospital Surabaya

Contraception Method	Frequency	Percentage
IUD	11	55%
Implan	1	5%
Tubektomi	8	40%
	20	100%

Discussion of demographic characteristics of respondents

Most respondents were aged 20–35 years (56.67%), with the highest level of education being senior high school (70%). The most common occupation among respondents was housewife (76.67%), with the most common parity status being multigravida (70%). A person's knowledge is influenced by several factors. Darsini et al., (2019) found that both internal and external factors influence respondents' knowledge. Age is one of the internal factors influencing respondents' knowledge, while external factors include education, occupation, experience, and interests. Within the 20-35 age range, individuals tend to be more receptive to and better at processing new information. They are at an optimal stage in terms of cognitive ability to understand and remember information. This aligns with research findings stating that a person's thinking and work abilities become more mature with age (Lestari, 2021). A person's comprehension and thinking patterns improve with age, so the knowledge they acquire becomes better. Additionally, education is necessary to obtain information that can improve the quality of life (Darsini et al., 2019). Education can also influence a person's behaviour, as someone with a higher level of education is more likely to obtain information (Darsini et al., 2019). It is possible that the work a person does will open up more opportunities for them to gain knowledge. According to research conducted by (Deviana, et al., 2023), there is the relationship between occupation and The Long-Term Contraception Methods. Compared to primiparous mothers, multiparous mothers have more experience with contraception, including the methods used and the side effects caused. Mothers with more children are also more likely to

use contraceptive methods. A study conducted by Sandari (2024) found a significant relationship between parity and IUD selection. A study conducted by (Pardosi et al., 2021) found that parity or the number of children respondents had could influence their decision to use contraception. Women who have at least one child are more likely to use contraception than women who do not have children.

Discussion of the relationship between knowledge after education and contraceptive choice during the 48-hour postpartum period

There are 70% of respondents had a good level of knowledge after receiving audio-visual education. These results indicate that after receiving education, most respondents had a good level of knowledge. Audio-visual media is a type of promotional media that combines sound and moving images. Audio-visual media allows the audience to receive messages well and effectively. This is because videos, or audio-visual media, have vivid and easy-to-understand images, which make them more interesting and not boring. Watching and listening make respondents more interested, resulting in better knowledge (Amelia et al., 2020). Notoatmodjo (2010) also explains that with the advancement of technology, health education is now delivered using engaging media such as videos and PowerPoint presentations. This is done to capture the audience's attention.

This experiment shows the p-value of $0.002 < \alpha$ (0.05), indicating a significant relationship between the level of knowledge after audio-visual education and the use of contraception during the 48-hour postpartum period at Bhakti Dharma Husada Hospital. Knowledge is the basis of action. Good knowledge will make someone aware and interested in using safe and effective contraceptives. This is in line with research conducted by Patmahwati. et al. (2023), there is a relationship between a mother's desire to use Long-Term Contraceptive Methods (MKJP) after childbirth and family planning counselling using audio-visual media for pregnant women in the third trimester. Pregnant women gain a better understanding of the benefits and effectiveness of contraceptive use, which gives them greater confidence to decide to use one of these methods after giving birth.

Discussion of contraceptive use in the postpartum period 48 hours after audio-visual education at Bhakti Dharma Husada Hospital Surabaya

The most widely used contraceptive method among respondents during the 48-hour postpartum period was the IUD (55%). 40% of respondents chose MOW, and 1% chose implants. This study involved mostly women of childbearing age between 20 and 35 years old who had given birth more than once. Based on the results of the study, the majority of postpartum mothers chose IUDs as their method of contraception. Of the 20 postpartum mothers who chose to use contraception within 48 hours, 11 (55%) used IUDs. This

indicates that contraception is necessary to maintaince the interval between pregnancies for two to four years to prevent pregnancy. The use of an IUD postpartum is considered effective in delaying pregnancy until the recommended time period. The insertion of long-acting reversible contraception before discharge from hospital is associated with a reduced risk of pregnancy. This intervention may be an effective contraceptive strategy for postpartum women (Provinciatto, 2025).

Postpartum IUD insertion can be performed from the first ten minutes of the postpartum period up to forty-eight hours after childbirth (Kemenkes, 2021). This option allows mothers to immediately obtain long-term protection without having to return to a healthcare facility after the postpartum period.

Several factors, including age, education level, occupation, and number of children, influence the choice of contraceptive method. This is in line with This is in line with the research by Mukhdarina et al., (2025), which found a relationship between age, level of knowledge, and education and the use of implants. Women with higher education are more open to new ideas and changes to obtain proportional health services, according to Jasa et al. (2021), because they are fully aware of the benefits of the services. The choice of contraceptive method is also influenced by the respondent's occupation. As stated by Jasa et al. (2021), a person's employment status can affect a mother's interest in using MKJP. Additionally, financial conditions can influence a mother's ability to purchase contraceptive devices.

The benefit of contraception is the prevention of unwanted pregnancies, which can reduce maternal mortality and morbidity. The most effective contraceptives should be emphasised as much as possible to reduce medical complications associated with unwanted pregnancies (Kemenkes, 2021).The effectiveness of IUDs in preventing pregnancy reaches 99%. Existing research shows that out of 1,000 women using IUDs, only 6–8 women experience pregnancy in the first year (Kemenkes, 2021).

Although education has been provided, some respondents continue to refuse immediate contraceptive use. This is caused by psychological, cultural, and service-related factors. Fear, anxiety, or negative past experiences with family planning methods may lead them to reject immediate adoption, even if they are informed.

Thus, the postpartum IUD has proven to be the preferred choice in this study. This also reflects that the audio-visual contraceptive education provided during pregnancy has proven effective. However, the presence of respondents who did not choose contraception indicates that there are other factors influencing postpartum mothers' decisions in selecting contraception.

CONCLUSION

In conclusion, this study shows that there is a significant relationship between the level of knowledge of mothers after receiving audio-visual education and their decisions to use contraceptives

within the first 48 hours after giving birth. Education delivered through audio-visual media can help mothers make appropriate and quick decisions about their reproductive health after childbirth.

Interestingly, among the various contraceptive methods available, the most commonly chosen method by postpartum mothers within 48 hours was the IUD. Researchers assume that many respondents view the IUD as a practical, long-term option that does not interfere with breastfeeding. Additionally, its ability to be inserted immediately after childbirth makes the IUD increasingly popular, especially among mothers who wish to postpone their next pregnancy for a considerable period of time. The implementation of audiovisual education on postpartum contraception should be integrated into routine antenatal care, involve partners and families, ensure the availability of contraceptive services, and be adapted to local sociocultural contexts."

A limitation of this study is that it did not include a baseline measurement of respondents' knowledge prior to the audiovisual education. The study also involved a relatively small sample size of only 30 respondents, which may limit the generalizability of the findings to a broader population. Future research is recommended to employ a pre–post design with a larger sample size in order to provide more comprehensive and representative results.

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