Research Article

The Relationship Between Knowledge and Perceptions of Oral Contraceptive Use Among Housewives Using Audiovisual-Based Education

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ABSTRACT

Demographic issues in Indonesia have long been associated with rapid population growth, prompting the development of family planning (KB) programs to improve public health and welfare. However, disparities in contraceptive use remain, including in Gianyar Regency, where oral contraceptive utilization is uneven. This study aimed to analyze the effect of audiovisual media on housewives' knowledge and perceptions regarding oral contraceptive use. A quantitative pre-experimental design with a one-group pre-test–post-test approach was employed. The study was conducted in Banjar Puaya, Gianyar, with 38 respondents selected from a population of 74 using Cohen's formula. Data were collected using questionnaires and analyzed using the Wilcoxon test. Results showed that before the intervention, most respondents had poor knowledge and perception (44.7%). After the intervention, there was an improvement, with the majority reaching a moderate category for knowledge (55.3%) and perception (47.4%). Statistical analysis indicated a significant effect of audiovisual media on both knowledge and perception ($p = 0.000$; $p < 0.05$). The findings suggest that audiovisual media are effective in enhancing understanding and shaping more positive perceptions of oral contraceptive use.

INTRODUCTION

Demographic issues in Indonesia have been a longstanding concern since the colonial period, marked by rapid population growth that has contributed to increasing population density and poverty.[1] Various population control efforts have been implemented, ranging from transmigration programs to the introduction of the Family Planning (KB) program in the 1950s as a strategy to improve public health and societal welfare.[2] During the New Order era, the family planning program achieved notable success in reducing fertility rates through a centralized approach; however, it also attracted criticism for disproportionately placing the responsibility for contraceptive use on women. In the post-reform era, family planning policies were decentralized, granting greater authority to local governments while simultaneously creating disparities in program outcomes across regions.[3]

Data from the Bali Provincial Central Statistics Agency (2024) indicate that the number of oral contraceptive users reached 32,808, with the highest concentration in Gianyar Regency (6,859), whereas utilization remains relatively low in certain areas such as Br. Puaya. These disparities are influenced by variations in resource availability, educational attainment, and socio-cultural characteristics within communities.[4] Globally, family planning programs play a crucial role in reducing fertility and maternal mortality, with estimates suggesting that up to 30% of maternal deaths related to pregnancy and childbirth complications can be prevented through effective contraceptive use.[5]

Oral contraceptives represent one of the most widely used methods due to their convenience, accessibility, and user-controlled nature, accounting for approximately 17% of active family planning participants in Indonesia.[4] Nevertheless, their effectiveness is highly dependent on users' knowledge and perceptions.[6] Negative perceptions—such as the belief that oral contraceptives may cause infertility or increase cancer risk—remain prevalent and are often driven by limited or inaccurate information.[7] Previous studies have demonstrated that higher levels of knowledge are strongly associated with more positive perceptions and sustained contraceptive use.[8, 9]

In the context of health education, audiovisual media have been shown to be effective in enhancing comprehension and information retention compared to conventional methods.[10] Such media present information in a more concrete, engaging, and accessible manner, thereby helping to reduce misconceptions and improve public confidence in oral contraceptive use.[11, 12] Therefore, the use of audiovisual media represents a relevant strategy to improve housewives' knowledge and perceptions regarding oral contraceptives. Accordingly, this study aims to analyze the effect of audiovisual media on housewives' knowledge and perceptions as part of efforts to strengthen sustainable family planning programs in Gianyar Regency.

METHODS

This study used a quantitative method with a pre-experimental, one-group pre-test–post-test design. The design aimed to measure the effect of an audiovisual media intervention by comparing conditions before and after the intervention. The study focused on assessing changes in knowledge, perceptions, and behaviors of housewives regarding the use of oral contraceptives after they received education via audiovisual media. The study received ethical clearance from the Kartini Bali Health Polytechnic ethics committee (approval number: not specified). NO: 049/KEPK/DI/PKKB/2026

This research was conducted in Banjar Puaya, Sukawati, Gianyar Regency, in January–February 2026. The study population comprised all housewives of reproductive age (18–49 years), totaling 74. The sample size was determined using Cohen's calculation for a paired t-test design, assuming $\alpha = 0.05$, 80% power, and an effect size of 0.5, with a 40% adjustment for dropout, resulting in 38 respondents. Inclusion criteria were housewives residing in the study area, willing to participate in the educational sessions, and able to communicate effectively; exclusion criteria were respondents who did not complete the questionnaire or who had cognitive impairments.The research instrument consisted of a questionnaire to measure knowledge and perceptions before and after exposure to audiovisual media.

RESULT

Table 1. Frequency Distribution of Respondents' Characteristics

Characteristics	Frequency (f)	Percent (%)
Religion		
Islam	8	21.1
Cristian	7	18.4
Chatholic	4	10.5
Hindu	17	44.7
Buddhism	2	5.3

Age		
<20	5	13.2
21-30	20	52.6
31-40	10	26.3
>41	3	7.9
Education		
SD	5	13.2
SMP	10	26.3
SMA	15	39.5
PT	8	21.1
Duration of contraceptive		
1-2 th	25	65.8
3-4 th	10	26.3
>5 th	3	7.9
Contraceptive information		
I don't Know	15	39.5
Tv/Radio	15	39.5
Social Media	8	21.1
Total	**38**	**100.0**

Table 5.1 shows that the majority are Hindu (17 individuals; 44.7%), most are 21–30 years old (20; 52.6%), most have a high school education (15; 39.5%), most have used family planning for 1–2 years (25; 65.8%), and 15 individuals (39.5%) obtain information about family planning through TV/radio.

Table 2. Distribution of Knowledge and Perceptions in Puaya Village

Variable	Frequency (f)	Percent (%)
Knowladge Before		
Poor	8	21.1
Fair	17	44.7
Good	11	28.9
Very Good	2	5.3
Knowladge After		
Fair	8	21.1
Good	21	55.3
Very Good	9	23.7
Perception Before		
Poor	8	21.1
fair	17	44.7
Good	11	28.9
Very Good	2	5.3

Perception After		
Fair	7	18.4
Good	18	47.4
Very Good	13	34.2

Based on Table 5.2, before the intervention the largest group of respondents had poor knowledge (n = 17, 44.7%) and poor perception (n = 17, 44.7%). After the intervention, the largest group of respondents had adequate knowledge (n = 21, 55.3%) and adequate perception (n = 18, 47.4%).

Table 5.3 Analysis of the Effects of Audiovisual Media on Knowledge and Perceptions

Variable	Negatif ranks	Positif ranks	Ties	*p-value*
Knowladge Before and After	0	27	11	0.000
Perception Before and After	0	29	9	0.000

Based on the normality test, the data were not normally distributed; therefore, the Wilcoxon test was used for hypothesis testing. Based on Table 5.3, for the knowledge variable, the negative ranks = 0, meaning no respondents showed a decrease in knowledge after the intervention; the positive ranks = 27, indicating 27 respondents whose knowledge increased after the intervention; and ties = 11, indicating 11 respondents had equal pre-test and post-test scores. The Wilcoxon test yielded a p-value of 0.000, so it can be concluded that the intervention had a significant effect on knowledge. Furthermore, the negative rank value of 0 confirms that no respondents experienced a decline in knowledge following the intervention. This indicates that the interventions did not have a negative effect on respondents' knowledge, but instead tended to preserve or enhance their existing knowledge.

DISCUSSION

Respondent characteristics showed that the majority were Hindu housewives (44.7%), indicating that religious and cultural values may influence attitudes toward and acceptance of family planning programs. However, these influences do not act in isolation but interact with respondents' level of knowledge and access to information. This aligns with research showing that socio-cultural factors and knowledge play a role in health decision-making.[13] Regarding age, the predominance of the 21–30-year group (52.6%) reflects an active reproductive-age cohort that is more receptive to information, although behavioral change still depends on the quality of their understanding.[14]

The education level of the respondents, the majority of whom have a high school education (39.5%), indicates an adequate level of comprehension but may still result in gaps in interpreting health information. Therefore, audiovisual media are important because they can simplify complex information and make it easier to understand.[15]

Moreover, the duration of contraceptive use—predominantly 1–2 years (65.8%)—indicates

that respondents' experience is still limited, so their perceptions are likely shaped by external information. This is reinforced by research stating that adequate knowledge plays a role in shaping beliefs and behaviors regarding medication use and health interventions.[16] The predominance of television and radio as information sources (39.5%) indicates that audiovisual media remain the primary source of health information. However, the effectiveness of these media depends heavily on the quality of the messages they convey. Studies show that appropriate audiovisual media can significantly improve knowledge and attitudes.[17]

Housewives' knowledge and perceptions of oral contraceptives are the result of the interaction of various factors, such as age, education, experience, and sources of information.[18] Therefore, educational interventions should be designed comprehensively, taking into account respondents' characteristics. The use of contextual, needs-based audiovisual media has proven to be an effective strategy for increasing understanding and shaping positive perceptions of oral contraceptive use.[19]

The results showed that before the intervention, the largest proportion of respondents fell into the "poor" category for both knowledge and perception (44.7%), indicating that housewives' understanding of oral contraceptive use remains limited. This situation is thought to be due to limited exposure to accurate information and to educational methods that have been ineffective in reaching the target audience.[20] After the audiovisual intervention there was an improvement, marked by a shift to the "moderate" category for knowledge (55.3%) and perception (47.4%), indicating that audiovisual media can convey information more systematically, engagingly, and accessibly.

This increase is largely attributable to the advantages of audiovisual media, which can stimulate multiple senses and thus enhance comprehension and information retention compared with conventional methods.[21] The observed change in perceptions also indicates a close relationship between increased knowledge and the formation of more positive attitudes toward the use of oral contraceptives.[22] Nonetheless, the majority of respondents remained in the "moderate" category, suggesting that the intervention has not yet been fully effective. This is likely influenced by the limited duration of the intervention and by differences in individual characteristics, such as education level and prior experience with contraceptive use.[23]

These findings confirm that audiovisual media are an effective educational strategy for increasing housewives' knowledge of and perceptions about oral contraception. In addition to enhancing understanding and retention, these media also contribute to improved attitudes and health-related decision-making.[24]

The results indicated that the audiovisual media intervention had a significant effect on increasing homemakers' knowledge and perceptions regarding the use of oral contraceptives, as evidenced by the predominance of positive ranks for knowledge (27 respondents) and perceptions (29 respondents), and by the absence of decreased perceptions (negative ranks = 0). This effectiveness is supported by audiovisual media's ability to present information systematically, engagingly, and clearly through visual and auditory stimulation, thereby enhancing information retention and comprehension.[25]

However, some respondents exhibited no change (ties), indicating that the intervention's effectiveness was uneven and influenced by factors such as ceiling effects, health literacy, cognitive ability, prior experience, and individual psychosocial factors.[26] Statistical tests yielded a p-value of 0.000 ($p < 0.05$) for both variables, confirming that the intervention had a significant effect, consistent with previous findings that audiovisual media are effective in improving knowledge, attitudes, and perceptions regarding contraceptive use.[27] Overall, audiovisual media can be considered an effective educational

strategy, although its implementation should be sustained and tailored to individual characteristics to achieve the greatest impact.[28]

CONCLUSION

The respondents were predominantly Hindu housewives, aged 21–30 years, with a high school education, who had used family planning for 1–2 years and obtained information via audiovisual media such as television or radio, indicating good potential to receive educational interventions. The results showed that the audiovisual media intervention significantly improved knowledge and perceptions, as evidenced by score increases among most respondents and by the Wilcoxon test ($p = 0.000$, $p < 0.05$). Thus, audiovisual media are effective at increasing knowledge and shaping more positive perceptions of oral contraceptive use.

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