IMPACT OF COUNSELING USING VIDEO MEDIA ON UNDERSTANDING OF HEALTHY PREGNANCY PLANNING AMONG WOMEN OF CHILDBEARING AGE

(Dampak Konseling Menggunakan Media Video Terhadap Pemahaman Perencanaan Kehamilan Yang Sehat Pada Wanita Usia Subur)

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Abstract

Introduction: The risk of termination of pregnancy, which can lead to adverse health outcomes, can be minimized through proper pregnancy planning. Women of childbearing age play a crucial role in this process, requiring effective educational interventions. This study aims to examine the effect of video-based counseling on the knowledge of healthy pregnancy planning among women of childbearing age in Satra Village, Klungkung Regency. Method: This pre-experimental study employed a one-group pretest-posttest design to evaluate changes in knowledge before and after the intervention. The study involved 58 respondents selected through proportional random sampling. A structured questionnaire was utilized as the research instrument to assess participants' knowledge levels before and after the intervention. The normality of the data was tested using Kolmogorov-Smirnov, which revealed non-normal distribution (p < 0.05). Consequently, the Wilcoxon Signed Rank Test was employed for bivariate analysis. Results: The median pre-test knowledge score was 58.00, increasing to 84.00 in the post-test, indicating a significant improvement. The Wilcoxon Signed Rank Test yielded a Z value of -6.522 and a p-value of 0.000 (p < 0.05), confirming a statistically significant difference in knowledge levels after video-based counseling. Conclusion: The findings demonstrate that video media is an effective tool for improving knowledge about healthy pregnancy planning, offering clear and accessible information. It is recommended that Community Health Centers integrate video-based approaches into broader health education initiatives. Future research could benefit from incorporating larger samples, control groups, and longitudinal designs to assess sustained behavioral impacts.

Keywords: Healthy Pregnancy Planning; Knowledge Improvement; Video-Based Counseling; Women of Childbearing Age

Abstrak

Pendahuluan: Risiko terminasi kehamilan, yang dapat menyebabkan dampak kesehatan yang merugikan, dapat diminimalkan melalui perencanaan kehamilan yang tepat. Perempuan usia subur memainkan peran penting dalam proses ini, sehingga membutuhkan intervensi edukasi yang efektif. Penelitian ini bertujuan untuk mengkaji pengaruh konseling berbasis video terhadap pengetahuan perencanaan kehamilan yang sehat pada perempuan usia subur di Desa Satra, Kabupaten Klungkung. Metode: Penelitian pra-eksperimental ini menggunakan desain pretes-postes satu kelompok untuk mengevaluasi perubahan pengetahuan sebelum dan sesudah intervensi. Penelitian ini melibatkan 58 responden yang dipilih melalui pengambilan sampel acak

proporsional. Kuesioner terstruktur digunakan sebagai instrumen penelitian untuk menilai tingkat pengetahuan peserta sebelum dan sesudah intervensi. Normalitas data diuji menggunakan Kolmogorov-Smirnov, yang menunjukkan distribusi non-normal (p < 0,05). Oleh karena itu, Uji Peringkat Bertanda Wilcoxon digunakan untuk analisis bivariat. Hasil: Median skor pengetahuan pra-tes adalah 58,00, meningkat menjadi 84,00 pada pasca-tes, menunjukkan peningkatan yang signifikan. Uji Wilcoxon Signed Rank menghasilkan nilai Z sebesar -6,522 dan nilai p sebesar 0,000 (p < 0,05), yang mengonfirmasi adanya perbedaan tingkat pengetahuan yang signifikan secara statistik setelah konseling berbasis video. Kesimpulan: Temuan ini menunjukkan bahwa media video merupakan alat yang efektif untuk meningkatkan pengetahuan tentang perencanaan kehamilan yang sehat, karena menawarkan informasi yang jelas dan mudah diakses. Disarankan agar Puskesmas mengintegrasikan pendekatan berbasis video ke dalam inisiatif pendidikan kesehatan yang lebih luas. Penelitian selanjutnya dapat memperoleh manfaat dari penggabungan sampel yang lebih besar, kelompok kontrol, dan desain longitudinal untuk menilai dampak perilaku yang berkelanjutan.

Kata Kunci: *Perencanaan Kehamilan yang Sehat; Peningkatan Pengetahuan; Konseling Berbasis Video; Perempuan*

1. INTRODUCTION

Pregnancy is a natural and significant phase in a woman's life; however, it is also a time when various health complications can arise, necessitating careful management and preparation (Husna et al., 2021). To ensure the well-being of both the mother and fetus, a healthy pregnancy must be meticulously planned. This preparation includes essential steps such as receiving immunizations against Tetanus Toxoid (TT), maintaining proper nutrition, and monitoring hemoglobin levels three to four months prior to conception. Furthermore, screening for pre-existing conditions—such as diabetes mellitus, epilepsy, cardiovascular diseases, chronic hypertension, and infectious diseases like hepatitis, HIV, toxoplasmosis, and rubella—is critical, as these conditions can be exacerbated by pregnancy (Kemenkes, 2021).

Despite the importance of pregnancy preparation, many prospective mothers neglect these crucial steps, exposing themselves to unintended pregnancies, complications, loss of reproductive health rights, and even increased risks of maternal mortality due to domestic violence (Toivonen et al., 2017). Alarmingly, of the 85 million pregnancies worldwide, approximately 40% are unplanned, with 38% resulting in abortion, miscarriage, or unintended births (Omani-Samani et al., 2019).

A preliminary investigation conducted at the Klungkung I Health Center in 2021 revealed concerning statistics regarding high-risk pregnancies. According to data from Maternal and Child Health (KIA) midwives, the percentage of pregnant women classified as high risk was 111.11%, with a staggering 94.95% categorized as high risk 4. The situation worsened in 2022, with health personnel identifying a resti rate of 136.46%, compared to 126.04% in high-risk cases. Notably, Satra Village in Klungkung Regency reported the highest incidence of resti pregnancies in 2022, with community resti at 233.33% and health worker resti at 200%. A preliminary study in Satra Village involving interviews with ten women of childbearing age revealed alarming gaps in knowledge about childbirth preparation: only 30% answered all eight questions correctly, while 40% answered five correctly, and another 30% answered just two.

Health complications during pregnancy can classify women as high risk, necessitating increased care and attention. The Maternal and Infant Mortality Rate (MMR) serves as a critical indicator of the effectiveness of health initiatives (Robson & Waugh, 2013). One effective strategy to mitigate the rising rates of maternal and infant mortality is through education and effective pregnancy planning. Increased awareness and education about preconception health measures are essential to reduce the risk of complications during pregnancy, labor, and the postpartum period (Lang et al., 2017).

Video media has emerged as a powerful tool for health education. Research by Putri (2022) demonstrated that educational content delivered via TikTok positively influenced the attitudes and knowledge of women of childbearing age regarding pregnancy preparation. Similarly, Kurniawati (2012) found that video media was more effective than traditional leaflet media in educating expectant mothers about managing pregnancy-related concerns. Azis and Susiarno (2023) further corroborated these findings, showing that video media significantly enhanced the knowledge and attitudes of prospective brides and grooms regarding healthy pregnancy planning compared to leaflet media.

In light of these findings, this research aims to investigate the differences in knowledge about healthy pregnancy planning among women of childbearing age in Satra Village, Klungkung Regency, before and after counseling using video media. This study is grounded in the critical need for

information on healthy pregnancy planning, supported by literature and preliminary study results.

2. RESEARCH METHOD

This study employed a pre-experimental design with a One Group Pre-Post Test approach. The research involved a two-phase assessment of knowledge regarding healthy pregnancy planning among Women of Childbearing Age (WUS). Initially, a pretest was administered to assess the baseline knowledge of the participants (O1). Following the pretest, the researcher provided counseling using video media, which was designed to enhance the participants' understanding of healthy pregnancy planning.

The counseling sessions were structured to include the playback of a 6-minute and 34-second educational video, which was created by the author with the assistance of a video editor. The video was presented twice during a single meeting session, with a 20-minute break between viewings. This break was strategically implemented to allow participants time to digest the information presented and engage in informal discussions about the content, thereby reinforcing their understanding. During the break, participants were encouraged to reflect on the video and ask questions, which facilitated a more interactive learning environment. The video content was carefully crafted to ensure clarity and relevance to the target audience. It covered essential topics, including: 1) the definition of Women of Childbearing Age (WUS); 2) the fertile period and its significance; 3) physiological changes during pregnancy; 4) key components of healthy pregnancy planning; 5) factors influencing knowledge about pregnancy planning; and 6) habits that can affect pregnancy outcomes. To ensure that the video was accessible and comprehensible, the language used was tailored to the educational level of the participants, avoiding technical jargon and employing straightforward explanations.

The counseling sessions were conducted by the author, with the support of two health center officers from the KIA and Nutrition program. The health center officers played a crucial role in facilitating the sessions, assisting with the distribution of materials, and providing additional explanations as needed. Their involvement helped to enhance the credibility of the intervention and ensured that participants received accurate and relevant information.

The accessible population for this study consisted of all Women of Childbearing Age (WUS) in Satra Village, Klungkung Regency, totaling 342 individuals, during the period from February to March 2024. To determine the appropriate sample size for this study, we employed the proportional random sampling technique, as outlined by Sugiyono (2016). The minimum sample size was calculated using the unpaired category analytical formula proposed by Dahlan (2011). Using this formula, we calculated the sample size to ensure adequate power to detect significant differences in knowledge about healthy pregnancy planning before and after the intervention. After applying the formula, a minimum sample size of 58 participants was determined to be sufficient for the study's objectives. The proportional random sampling technique was chosen to ensure that each participant had an equal chance of being selected, thereby enhancing the representativeness of the sample. This method also allows for the stratification of the sample based on specific characteristics, which can provide more nuanced insights into the knowledge levels of different subgroups within the population. In summary, a total of 58 women of childbearing age were selected as the sample for this study, ensuring a robust and representative analysis of the impact of video media counseling on their understanding of healthy pregnancy planning.

The instrument used for data collection in this study was a structured questionnaire designed to assess respondents' knowledge about healthy pregnancy planning. The questionnaire consisted of a series of written questions that covered key topics, including the definition of Women of Childbearing Age (WUS), the fertile period, the definition of pregnancy, physiological changes during pregnancy, essential components of healthy pregnancy planning, factors influencing knowledge about pregnancy planning, and habits that can affect pregnancy outcomes.

To ensure the validity and reliability of the research instrument, a pilot test was conducted prior to the main study (Sugiyono, 2016). The questionnaire was reviewed by a panel of experts in maternal and child health to confirm that the questions accurately reflected the research objectives and effectively measured the intended constructs. The content validity was assessed using the Content Validity Index (CVI), which yielded a score above the acceptable threshold of 0.8, indicating strong relevance of the items to the research objectives.

Additionally, the reliability of the questionnaire was evaluated using Cronbach's alpha, resulting in a coefficient of 0.926, which demonstrates high internal consistency. In conjunction with the questionnaire, a 6-minute and 34-second educational video was utilized as a supplementary tool. The video, produced in high definition (1280 x 720 pixels) with a 16:9 aspect ratio, included an engaging introduction, a conversational segment explaining key concepts related to healthy pregnancy planning, and visual aids to enhance understanding. The video covered critical topics such as the definition of WUS, the fertile period, physiological changes during pregnancy, and essential factors for effective pregnancy planning. The use of video as an educational medium is supported by existing literature, which suggests that audiovisual materials can significantly enhance learning outcomes by improving retention and comprehension. The interactive nature of the video, combined with its informative content, was designed to engage participants and facilitate a deeper understanding of healthy pregnancy planning.

By employing both a validated questionnaire and an effective educational video, this study aims to provide a comprehensive assessment of the impact of video media counseling on the knowledge of women of childbearing age regarding healthy pregnancy planning. This dual approach strengthens the validity and credibility of the research instrument and aligns closely with the study's objectives.

The data collection process began with clearly defining the research objectives, outlining the procedures, and obtaining informed consent from respondents to indicate their willingness to participate in the study. Following this, the data processing phase involved several key steps: editing, coding, scoring, tabulating, entering, and cleaning the data to ensure accuracy and reliability. Researchers processed the data obtained using SPSS 20.0 for Windows

For data analysis, both univariate and bivariate analyses were employed. Univariate analysis was conducted to summarize and describe the characteristics of the data, including calculating the mean, median, minimum and maximum values, and standard deviation for each variable. This analysis provided a foundational understanding of the knowledge levels among Women of Childbearing Age (WUS) regarding healthy pregnancy planning. Bivariate analysis was performed to assess the differences in knowledge before and after the intervention (counseling with video media). To

facilitate this analysis, the data was first subjected to a normality test using the Kolmogorov-Smirnov test. The choice of this test was based on the sample size of over 50 participants, which is appropriate for this method. The Kolmogorov-Smirnov test evaluates whether the data follows a normal distribution, with the criterion that a p-value greater than 0.05 indicates normal distribution, while a p-value less than 0.05 suggests non-normal distribution (Lucky, 2019).

In this study, the results of the normality test indicated that the data were not normally distributed, as evidenced by a significance value of 0.000 for the posttest knowledge variable ($p < 0.05$). Consequently, the Wilcoxon signed-rank test was selected as the appropriate statistical test for analyzing the differences in knowledge levels before and after the intervention. This non-parametric test is suitable for paired samples when the normality assumption is violated.

The significance level for the Wilcoxon test was set at $\alpha = 0.05$. The interpretation of the results revealed a p-value of 0.000, which is less than 0.05. Therefore, the null hypothesis was rejected, and the alternative hypothesis was accepted, indicating a significant difference in the level of knowledge among WUS after receiving counseling through video media.

3. RESULTS AND DISCUSSION
3.1 Result

Table 1: Frequency Distribution of Characteristics of Women of Childbearing Age (WUS)

Variable	Frequency	Percentage %
Education		
Basic	4	6,9
Middle	42	72,4
Higher	12	20,7
Total	**58**	**100**
Employment	9	15,5
Unemployed	49	84,5
Total	**58**	**100**

On the education variable, the basic education was meant by elementary and junior high school, the middle education was meant senior high school, and the higher education was meant received education in college.

According to Table 1, the majority of Women of Childbearing Age (WUS) in Satra Village possess a secondary education, with 42 respondents, representing 72. 4% of the total sample. Additionally, a significant proportion of these women are

employed, with 49 respondents (84. 5%) indicating they work.

Table 2: Descriptive Statistics and Wilcoxon Test Results of Knowledge Variables about Healthy Pregnancy Planning Before and After Counseling with Video Media in Women of Childbearing Age

Knowledge	n	Med ±Std	Max	Min	Z Value	P Value
Before (Pre-Test)	58	58±11,09	76	28	6.5	
						0,000
After (Post Test)	58	84±9,04	96	60	22	
Total	58					

Table 2 illustrates a notable increase in the median knowledge score among women of childbearing age. Before the counseling session that utilized video media, the median knowledge score was 58. 00, while after the session, it rose to 84. 00. The scores ranged from a minimum of 28. 00 to a maximum of 76. 00 prior to counseling. Post-counseling, the average knowledge score reached 83. 37, with a minimum of 60. 00 and a maximum of 96. 00 achieved by respondents.

Normality testing was performed using the Kolmogorov-Smirnov test (n > 50). The results indicated that the significance value for the knowledge variable before counseling (pre-test) was 0. 091, which is greater than α (0. 05), suggesting normality. In contrast, the post-counseling knowledge (post-test) displayed a significance value of 0. 000.

It is known that the median value of the post-test knowledge level is 84.00 and the median value of the pre-test knowledge level is 58.00. The Z value is -6.522 with a p value of 0.000 <0.05, which means that there is a significant difference in the level of knowledge after being given counseling through video media.

3.2. Discussion

The analysis of the characteristics of women of childbearing age in Satra Village, Klungkung Regency, revealed that a significant majority, 42 respondents (72.4%), had a secondary education background, and 49 respondents (84.5%) were employed. Prior to receiving video counseling, the median knowledge score of these women was 58.00, with an average score of 58.06, a minimum of 28, and a maximum of 76. Notably, 50% of respondents answered incorrectly regarding objective indicators, while 45.9% were misinformed about maintaining a healthy pregnancy. Additionally, 30.6% did not understand the definition of women of childbearing age, and 24.1% were unaware of habits that affect pregnancy.

These findings align with Wahyuni (2020), who posits that erratic and lengthy work schedules can limit individuals' access to health-related information. The lack of time to engage with health literature or attend counseling sessions can hinder effective pregnancy planning. Fitri (2018) further supports this notion, indicating that individuals with unpredictable work schedules often struggle to access official health resources.

It is evident that the limited knowledge among respondents prior to counseling can be attributed to their busy work lives, which restrict their ability to seek out and absorb important health information. However, after receiving video counseling, the average knowledge score increased significantly to 83.37, with a minimum of 60 and a maximum of 96. This improvement suggests that video media is an effective educational tool for enhancing knowledge about healthy pregnancy planning. The increase in knowledge can also be linked to the educational background of the participants, as 58.6% had secondary education. Sari (2018) emphasizes that education plays a crucial role in enabling individuals to access, comprehend, and evaluate complex health information. The study's findings support those of Simamora (2019), who demonstrated how video content might improve patient understanding.

The statistical analysis revealed a median posttest knowledge score of 84.00 compared to the pretest score of 58.00, with a Z value of -6.522 and a p-value of 0.000 (p < 0.05). This indicates a statistically significant difference in knowledge levels following video counseling. The results underscore the effectiveness of video media in conveying information related to healthy pregnancy planning. Videos can engage audiences through moving visuals and audio, creating a more immersive learning experience (Daryanto, 2017).

The findings of Wijayanti et al. (2020) corroborate this study, demonstrating that participants who initially lacked awareness about healthy

pregnancy planning experienced significant improvements in understanding after engaging with video content. This suggests that video counseling not only provides new information but also enhances comprehension and broadens perspectives on the subject matter.

4. CONCLUSSION

In Satra Village, Klungkung Regency, women of childbearing age exhibited a median knowledge score of 58.00 regarding healthy pregnancy planning before receiving video counseling, with a minimum score of 28 and a maximum score of 76. Following the intervention, their knowledge significantly increased, achieving a median score of 84.00, with a minimum of 60 and a maximum of 96. This substantial increase in knowledge indicates a statistically significant difference, as confirmed by the Wilcoxon signed-rank test ($p < 0.05$). Thus, it can be concluded that video counseling effectively enhances the understanding of healthy pregnancy planning among women of reproductive age in this community.

The effectiveness of video media in health education is well-documented in the literature, as visual aids can improve retention and comprehension of information (Mayer, 2009). Therefore, integrating video media into other health counseling programs is highly recommended. Health centers should utilize the findings of this study to enhance and optimize their counseling initiatives. To implement this integration practically, health centers can provide access to video materials in their facilities, develop health applications, or utilize online platforms that allow the public to access these resources easily.

Furthermore, it is essential for women of childbearing age to actively seek out video counseling resources or attend local counseling sessions. Health centers can play a pivotal role in this by incorporating video counseling into their programs, thereby broadening the reach of knowledge about healthy pregnancy planning and empowering women to make informed decisions regarding their reproductive health.

LIMITATION OF STUDY

While this study provides valuable insights, it is important to acknowledge its limitations. The sample size was relatively small and limited to one village, which may affect the generalizability of the findings. Future research should consider larger, more diverse populations to validate these results. Additionally, exploring the long-term retention of knowledge gained from video counseling would be beneficial. Future studies could also investigate the effectiveness of different types of video content or delivery methods to further enhance educational outcomes for women of childbearing age.

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