

**PRIMARY PREVENTION OF CERVICAL CANCER WITH VIDEO MEDIA FOR
POSYANDU CADRES****Pencegahan primer kanker serviks dengan media video pada kader posyandu****Ni Made Puspita Dewi^{1,2}, Ni Komang Erny Astiti^{1*}, I Nyoman Wirata¹, Ni Wayan Suarniti¹, Lely Cintari¹, Ni Made Dwi Purnamayanti¹**¹Department of Midwifery, Denpasar Health Polytechnic, Puputan st, Renon, South Denpasar, Dangin Puri Klod, Denpasar, Denpasar City, Bali Indonesia 80239;²Puskesmas I Denpasar Timur, Jl. Pucuk No.1, Sumerta, Kec. Denpasar Tim., Kota Denpasar, Bali 80236.*Corresponding author email: astitierny@gmail.com

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Abstract

Cervical cancer is one of the malignancies of the female reproductive organs with a long pathophysiology. Early detection with Visual Acetate Inspection (VIA) and Pap Smear can prevent poor prognosis. However, the evaluation of the coverage of the achievement of the program is still low. The study aimed to analyze the effectiveness of primary prevention education on cervical cancer using video media to increase the knowledge of *posyandu* cadres. Type of experimental research categorical paired. The sample was 56 *posyandu* cadres who were selected by purposive sampling. Knowledge data collection was done with pretest and posttest questionnaires. Data analysis was performed with Wilcoxon ($p=0.005$). The results showed an increase in the median value of knowledge pretest 65.00 to the posttest median of 85.00. Video media effectively increases the knowledge of *posyandu* cadres about the early detection of cervical cancer ($p=0.000$). Health education with video media proved effective in increasing the knowledge of *posyandu* cadres about the primary prevention of cervical cancer. It is hoped that this study can contribute to improving the ability of human resources in promotive efforts through interactive media-based health promotion.

Keywords: Cadres, cervical, cancer, knowledge, *posyandu*, video.

Abstrak

Kanker serviks merupakan salah satu keganasan organ reproduksi wanita yang memiliki patofisiologi cukup panjang. Deteksi dini dengan Inspeksi Visual Asetat (IVA) dan Pap Smear dapat mencegah prognosis yang buruk, akan tetapi ternyata evaluasi cakupan pencapaian program tersebut tergolong masih rendah. Tujuan penelitian menganalisis efektivitas edukasi pencegahan primer kanker serviks menggunakan media video terhadap peningkatan pengetahuan kader posyandu. Jenis penelitian eksperimental kategorik berpasangan. Sampel berjumlah 56 orang kader posyandu yang dipilih secara *purposive sampling*. Pengumpulan data pengetahuan dilakukan dengan kuesioner *pretest* dan *posttest*. Analisis data dilakukan dengan *Wilcoxon* ($p=0.005$). Hasil penelitian menunjukkan peningkatan nilai median pengetahuan *pretest* 65,00 menjadi median *posttest* 85,00. Media video efektif meningkatkan pengetahuan kader posyandu tentang deteksi dini kanker serviks ($p=0,000$). Pendidikan kesehatan dengan media video terbukti efektif meningkatkan pengetahuan kader posyandu tentang pencegahan primer kanker serviks. Diharapkan penelitian ini dapat berkontribusi untuk meningkatkan kemampuan

sumber daya manusia dalam upaya promotif dengan cara promosi kesehatan yang interaktif berbasis media.

Kata kunci: Kader, kanker, posyandu, serviks, video

INTRODUCTION

The incidence of cervical cancer is one of most prevalence in Indonesia and the number of cases recorded is the largest in the world. It has been ranked first among gynecological cases in women since 2009. Cervical cancer is the silent killer disease with a high risk in women aged 20-55 years (Singh et al., 2023). Its incidence in Indonesia in 2020 was recorded at 23.4 per 100,000 population with an average mortality of 13.9 per 100,000 population, this illustrates that every year 50 women die from cervical cancer. The 2018 Indonesian Basic Health Research showed that the prevalence of cancer in Bali Province was 2.3 per mile, a significant increase from the previous data in 2013 which was 2.0 per mile. Based on data from the Bali Provincial Health Office in 2016, cervical cancer is found in every region in Bali Province. The highest prevalence of cervical cancer cases is in the age range of 40-49 years (35%) (Utami, Mahendra, Widiyanti, & Sudiman, 2020).

Cervical cancer is a slow-growing malignancy, this leads to a lack of attention from women to this dangerous disease. Almost all patients who seek treatment at a central hospital in Bali have never had an early examination until they were diagnosed with cervical cancer (Utami et al., 2020). Early detection and prevention measures are very important for the community to know (Imelda & Santosa, 2020). Effective efforts that can be made to reduce risk factors for cervical cancer are through primary prevention (Antarsih & Kusumastuti, 2019). Primary prevention and control of cervical cancer is the delivery of information about risk factors and how to avoid them through early detection of precancerous lesions and immediate treatment (Rufaindah, 2015). The cervical cancer primary prevention program is part of a comprehensive program that can be carried out through counseling/promotion to the community (Nuranna & Purwoto, 2019). These activities should involve community empowerment that has the potential, ability and skills as a mediation between health workers and the community, namely *posyandu* cadres. *Posyandu* is a community-based health effort organized by the community with the support of health workers. Providing cadre knowledge related to cervical cancer needs to be done, to be disseminated to the community in their area.

Education on early detection of cervical cancer has been carried out routinely at *posyandu* activities to cadres and the community through conventional lectures in the form of flip sheets. However, this program was not proven to increase public awareness, especially women of childbearing age, to conduct early detection of cervical cancer through the Inspection Visual Acetate (IVA) and pap smear programs. This is known by the coverage of early detection through the IVA program in 2022 only reached 11.4% while the government target is 50%. Realizing the importance of early detection of cervical cancer, a more interactive intervention method is needed in an effort to increase the knowledge of *posyandu* cadres. The use of information technology with the video method is one of the interactive promotive efforts.

RESEARCH METHODS

Ethical approval

This research is registered in the ethical commission of the Denpasar Health Polytechnic with letter number LB.02.03/EA/KEPK/0154 /2023

Research design

This study was a paired categorical experimental. The study sample was 56 *posyandu* cadres who were calculated by paired categorical analytic sample calculation and selected based on purposive sampling. Primary data collection used a knowledge questionnaire in the form of pretest and posttest with a total of 20 questions consisting of definition components, risk factors and early detection through primary prevention. Statement items were scored using a Guttman scale.

Data collection

Pre-test was conducted before the cadres received the intervention. The cadre intervention was in the form of education with video media and two-way discussions related to the material. Through the video, material was conveyed about the definition of cervical cancer, causes of cervical cancer, risk factors for cervical cancer, signs and symptoms of cervical cancer, early detection of cervical cancer including methods, schedule objectives, benefits, targets who are required to do early detection, health services that carry out these services, conditions for early detection, benefits of early detection. The video is five minutes long with text, audiovisual and animation. The educational video was directly shown and watched by all respondents through a projector. The discussion process continued for 1.5 hours guided by health workers. A 30-minute break was then given and a post-test was conducted.

Statistical Analysis

Validity and reliability tests of the questionnaire have been carried out. Wilcoxon test was conducted to compare changes in knowledge of *posyandu* cadres before and after receiving the intervention.

RESULT AND DISCUSSION

Result

The distribution of respondents based on characteristics can be seen in Table 1. Table 2 shows the knowledge of *posyandu* cadres about primary prevention of cervical cancer before and after attending training through videos and interactive discussions.

Table 2 shows the results of the comparative analysis of the pre-test and post-test scores of *posyandu* cadres' knowledge. A total of 52 cadres obtained a posttest value greater than the pre-test but there were still 2 cadres who obtained a post-test value lower than the pre-test value and 2 cadres obtained the same value on the pretest and posttest. The results of the Wilcoxon test stated that intervention through video media significantly increased the knowledge of *posyandu* cadres ($p < 0.01$).

Discussion

Some internal factors that can affect knowledge include age, education and occupation. According to (Nurjanah & Puspitaningrum, 2015) the level of education of *posyandu* cadres plays an important role in receiving information that will be passed on to the community. Education is a process of changing the attitudes and behaviors of a person or group as well as an effort to mature humans through teaching and training efforts. The higher the level of education, the more knowledge is obtained.

The type of individual's work affects the high and low motivation of a person, the type of work with an educational background will affect the knowledge and experience gained by the individual (Suparti & Riawati, 2017). A survey conducted by (Kusuma et al., 2021) states that in addition to education, there is one factor that influences the lack of knowledge and the role

of posyandu cadres, reported as many as 55.6% of cadres are housewives who take up time and energy. It was clarified by (Ganeshkumar, 2023) that working women and higher economic status had more awareness about cervical cancer and its screening and were more routine in cervical cancer screening, whereas married women and housewives had lower awareness scores about cervical cancer screening.

Based on pretest data, it is known that most cadres have insufficient knowledge about cervical cancer, especially on questions about the definition of cervical cancer, namely only 14% who answered correctly. In the question about the symptoms of cervical cancer, only 21% answered correctly, while knowledge about the requirements for women to do IVA tests, pap-smear and HPV vaccination only 18% knew. This data is similar to a study report conducted in Bostwana by (Mingo et al., 2012) which reported that of the 30 women surveyed, 10 had a precise understanding of the pap-smear test while 8 were only able to define the test, 8 had only heard of the test, and 4 had never heard of the pap-smear.

Lack of understanding about cervical cancer will result in women not performing early detection screening. Some reasons include feelings of anxiety or fear of the test results, feeling embarrassed and uncomfortable with the examination procedure to be carried out and lack of understanding and knowledge of the costs and places or facilities that serve the examination. According to (Mingo et al., 2012) many women did not understand the relationship between vaginal infections, HPV and cervical cancer. This low level of understanding indicates a lack of understanding of cervical health among women. Educational programs can increase awareness of general health terms but may not help women to understand risk factors and consequences. Based on research conducted by (Suparti & Riawati, 2017), it is known that several factors influence an individual's behavior in conducting early detection checks for cervical cancer. These factors are internal factors, namely knowledge, attitudes, motivation and external factors, namely mass media and the environment.

If cadres are knowledgeable and inactive, services and delivery of health information will be constrained. Government programs in an effort to reduce the incidence of cervical cancer through screening as a gold standard will be hampered (Sewa, Tumurang, & Boky, 2019). The lack of knowledge and skills of posyandu cadres in terms of academic and technical aspects of primary prevention of cervical cancer has an impact on the low coverage of cervical cancer screening and the high prevalence of cervical cancer. Cadres are required to provide optimal services at posyandu, it is necessary to adjust the knowledge and skills of cadres, so that they are able to carry out posyandu activities according to the norms, standards, procedures and criteria for its development (Megawati & Wiramihardja, 2019).

The statistical test results showed that most respondents obtained a post-test score greater than the pretest with a positive rank value of 52. A small proportion of respondents who have been educated with video media in this study still have less knowledge about primary prevention of cervical cancer. In a learning process, this is a normal thing to happen because the ability to absorb information for each individual is different, so it takes time to repeat the material that has been learned so that it can be remembered well (Tetelepta, Malawat, & Timisela, 2021). Most of the respondents (71%) in this study had a high school education background. (Ganeshkumar, 2023) mentioned that a higher proportion of female college graduates gave correct responses to all questions and statistical significance was observed in five questions. Education has a role in the process of human self-development, it is closely related to the reaction and decision-making.

Comparison of knowledge before and after intrvention through video media obtained the average value of knowledge of posyandu cadres increased to 85.45 ($p < 0.01$). These results indicate that education through video is effective in increasing the knowledge of posyandu

cadres about primary prevention of cervical cancer. According to (Zhang, Sit, Chan, & Angkabe, 2022) audiovisual methods with culturally sensitive short video design can increase positive attitudes towards cervical cancer screening. Norazizah, 2016), reported that increase in knowledge before and after conducting health promotion using video media rather than the power point method. Changes in knowledge in the power point media group increased by 2.85 points while for the video media group it increased by 3.20 points. According to research conducted by (Lubis, Zulhaida, & Syahri, 2015) education through audiovisual media playback has a significant effect on increasing cadre knowledge from 8.63 to 10.60.

The use of audiovisual media in health education provides several benefits such as stimulating the target's interest, overcoming the limitations of space, time, language, and sensory power in the process of receiving education, overcoming the passive attitude of the target, providing stimulation, experience and creating the same perception. This encourages the target's desire to know more, explore, and understand it which ultimately provides a positive understanding of the health message in question. Furthermore, the target will forward the message to others so that more targets are obtained (Putri, 2019).

This study also supports research conducted by (Tetelepta et al., 2021) which showed that most respondents had poor knowledge before treatment, and had good knowledge after treatment through audiovisual media. Audiovisual media is media that is able to stimulate the senses of sight and hearing simultaneously because it has sound and image elements. Through video technology media can clarify the message of a delivery by being able to see directly the meaning of the message conveyed in a layer, video can add a new dimension to learning. In videos, learners can get moving images and accompanying sounds, and can also feel the expressions that are poured (Ranni, Lestari, & Sari, 2020). In addition to accelerating the learning process, it is also able to increase the level of intelligence and change passive and static attitudes towards active and dynamic (Norazizah, 2016). In this study, providing education through video media with precision and clarity can increase the knowledge of posyandu cadres about primary prevention of cervical cancer.

CONCLUSION AND SUGGESTION

Conclusion

Education through video media proved effective ($p < 0.01$) in increasing the knowledge of posyandu cadres about primary prevention of cervical cancer.

Suggestion

Future researchers are expected to develop this research not only limited to education so that respondents can apply directly in everyday life and can influence the community in general and women of childbearing age in particular. And can develop education with a combination of other techniques that more effectively affect the knowledge and attitudes of both cadres and the community.

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Table

Table 1. Characteristics of study subjects

Characteristic	Frequency	Percentage
Age		
26-35	7	13
36-45	27	48
46-55	22	39
Total	56	100
Education		
Elementary	6	11
Middle	40	71
High	10	18
Total	56	100
Occupation		
Not working	17	30
Employee	19	34
Entrepreneur	20	36
Total	56	100

Table 2. Comparison of knowledge of posyandu cadres about primary prevention of cervical cancer before and after intervention

Knowledge	Mean	Positive ranks	Negative ranks	Ties	Z	P
Pre-test	63.21	52	2	2	-6.237	0.00
Post-test	85.45					