

The Effect of Cervical Cancer Education Through Audiovisual Materials and Flyers on the Intention to Undergo Iva Screening Among Women of Reproductive Age in the Makasar Health Center Area, East Jakarta

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Keyword:	Abstract
Audiovisual; Flyers; IVA Screening Intentions; Women of Childbearing Age; Cervical Cancer	Cervical cancer remains a major cause of mortality among women, while participation in Visual Inspection with Acetic Acid (IVA) screening in Indonesia remains suboptimal. This study aimed to compare the effects of cervical cancer education delivered through audiovisual materials and flyers on the intention of women of reproductive age to undergo IVA screening in the Makasar Community Health Center area, East Jakarta. A quantitative quasi-experimental design with a two-group pretest–posttest approach was employed. Using purposive sampling, 102 participants were equally allocated to the audiovisual and flyer groups. Intention was measured using a validated and reliable Likert-scale questionnaire. Because the data were not normally distributed, within-group changes were analyzed using the Wilcoxon signed-rank test, while differences between groups were examined using the Mann–Whitney U test. Most respondents (84.3%) had never undergone IVA screening. The mean intention score increased by 9.49 points in the flyer group, from 26.92 to 36.41, and by 16.76 points in the audiovisual group, from 26.57 to 43.33. Both interventions significantly increased screening intention ($p < 0.001$). However, the audiovisual group achieved a significantly higher mean rank than the flyer group (75.48 versus 27.52; $p < 0.001$). Therefore, audiovisual education was more effective and should be prioritized, with flyers serving as complementary educational materials.

INTRODUCTION

Cervical cancer remains a leading cause of mortality among women worldwide (Bruni et al., 2022; Huang et al., 2022; Z. Li et al., 2025; D. Singh et al., 2023; M. Singh et al., 2022; Yang et al., 2022; Zhang et al., 2024). Data from 2022 indicate that more than 350,000 deaths occurred among approximately 660,000 newly diagnosed cases, ranking cervical cancer as the fourth most common cause of cancer-related death among women according to the WHO (2025). Human papillomavirus (HPV) infection, which is transmitted primarily through sexual contact, is recognized as the main cause of precancerous cervical lesions, a condition that can be effectively prevented through early detection programs and sustained preventive campaigns.

In Indonesia, cervical cancer also represents a significant public health concern, ranking second only to breast cancer, with approximately 36,000 new cases and more than 21,000 deaths annually (Ministry of Health, 2024). In support of the WHO's "90–70–90" cervical cancer elimination targets for 2030, primary healthcare services in Indonesia utilize Visual Inspection with Acetic Acid (IVA) screening because of its procedural efficiency, affordability, and feasibility for widespread implementation. However, national IVA screening coverage remains substantially below the WHO target of 70–80%; participation among women aged 30–50 years has remained stagnant at approximately 12% (Agustino, 2024). Furthermore, cervical cancer

incidence increased from a ratio of 1.4 to 1.79 per 1,000 population between 2013 and 2018, accompanied by considerable regional disparities.

The low utilization of IVA screening is closely associated with time constraints among women in suburban areas and complex psychosocial factors influencing individual readiness to take preventive action (Anshari, 2026; Djalil & Safitri, 2025; Heltiani & Purwati, 2025; Manyanga, 2022; Masitah & Purwanti, 2026; Turkson-Fiawoo, 2025). Based on the Reasoned Action Approach (Fishbein, 2008), intention serves as a primary predictor of actual behavior; therefore, interventions that strengthen intention during the pre-action phase are essential to increase women's participation in IVA screening. Various studies have confirmed the influence of subjective norms, perceived behavioral control, and cognitive factors, such as perceived disease severity and perceived benefits of prevention, in shaping women's willingness to undergo screening, as described in the Health Belief Model framework.

Research also indicates that partner support, health literacy, and structured health education can significantly increase the likelihood of women of reproductive age accessing early detection services. Specifically, audiovisual-based education has demonstrated greater effectiveness than conventional counseling approaches in improving knowledge, perceived risk, and motivation to undergo screening. This finding has been supported by previous research, including meta-analyses highlighting the effectiveness of visual media and digital messaging compared with traditional counseling methods (Kim et al., 2025; S. Li et al., 2025; Pauley et al., 2023; Pérez-Wiesner et al., 2025; Romy & Nan, 2025).

Low IVA screening coverage is also evident within the service area of the Makasar Community Health Center (Puskesmas) in East Jakarta, where regional coverage reached only 39.02% in 2025. The Makasar Community Health Center itself recorded a coverage rate of 50.45%, with substantial variations across subdistricts: Halim Perdanakusuma achieved 108.72%, whereas Cipinang Melayu reached only 32.21% of the target population. This disparity highlights the need for systematic interventions using alternative educational approaches to improve participation among women of reproductive age, as conventional counseling alone has been insufficient to change screening intentions. Although improved health literacy is known to enhance women's understanding of and participation in cervical cancer prevention, most previous studies have relied on single educational media with limited outcome comparisons. Consequently, an empirical gap remains regarding quasi-experimental studies comparing the effectiveness of audiovisual media and flyers in increasing IVA screening intention at primary healthcare facilities. Therefore, this study was designed to evaluate the effects of flyers and audiovisual presentations on IVA screening intention among women of reproductive age in the service area of the Makasar Community Health Center (Puskesmas) in East Jakarta.

The gap in IVA screening coverage within the service area of the Makasar Community Health Center (Puskesmas) in East Jakarta reflects suboptimal implementation of cervical cancer prevention programs. Data from 2025 indicate that screening coverage in the area reached only 39.02%, representing the lowest coverage among administrative cities in DKI Jakarta. The Makasar Community Health Center itself achieved 50.45%, equivalent to 3,753 examinations. Significant variations were observed among subdistricts (kelurahan), ranging from 108.72% in Halim Perdanakusuma to only 32.21% in Cipinang Melayu. These figures remain below the WHO recommendation and the national target of 70–80%. This situation emphasizes the urgent need for more effective health education strategies to improve awareness and motivation among women of reproductive age, particularly in areas with low screening coverage, such as Cipinang

Melayu.

Based on this context, this study aimed to address four key aspects: the profile of IVA screening services among women of reproductive age in the Makasar Community Health Center's service area; the effectiveness of cervical cancer education using audiovisual media in increasing women's intention to undergo IVA screening; the influence of cervical cancer prevention education delivered through IVA flyers on screening intention; and the difference in effectiveness between audiovisual media and flyers in increasing IVA screening intention among women in the study area.

Broadly, this study aimed to examine the effects of audiovisual-based education and flyers on the intention of women of reproductive age in the Makasar Community Health Center's service area to undergo IVA screening. Specifically, the study aimed to identify the general profile of awareness and participation regarding IVA screening among women of reproductive age, evaluate the effect of audiovisual cervical cancer education on women's intention to access early detection services, and analyze the effectiveness of flyer-based education in increasing IVA screening intention within the same population. Theoretically, this study contributes to health promotion research, particularly regarding the utilization of educational media to optimize participation in Visual Inspection with Acetic Acid (IVA) screening, while expanding the application of the Health Belief Model and the Reasoned Action Approach in understanding preventive health behaviors. Practically, this research provides benefits for the Makasar Community Health Center (Puskesmas) in East Jakarta by supporting the development of more effective preventive education strategies, assisting healthcare workers in selecting appropriate educational media, increasing cervical cancer prevention awareness among women of reproductive age, and providing empirical evidence for future research regarding the relationship between health education tools and early detection practices.

This study focused on measuring the effects of educational interventions using audiovisual media and flyers as independent variables on cervical cancer prevention behavior, specifically IVA screening intention, among women in the service area of the Makasar Community Health Center, East Jakarta. The study population consisted of women of reproductive age who met the inclusion and exclusion criteria. External factors, including family support, availability of healthcare facilities, and sociocultural influences beyond the educational intervention, were not examined. Data collection was conducted within the operational area of the Makasar Community Health Center, East Jakarta, according to the established study period and research conditions.

METHOD

Research Type and Methods

This study employed a quantitative approach with a quasi-experimental design using pretest and posttest measurements across two intervention groups. The first group received cervical cancer education through IVA audiovisual media, while the second group received education using flyers. All respondents completed a pretest before the intervention and a posttest after the intervention using the same Likert-scale questionnaire. The data were used to assess changes in the intention to undergo IVA (Visual Inspection with Acetic Acid) screening and compare the effectiveness of the two educational media.

Table 1. Research Design

Group	Pre-Test	Intervention	Post-Test
Group 1	Measurement of IVA screening intention using a questionnaire	Cervical cancer education via audiovisual media	Measurement of IVA screening intention using a questionnaire
Group 2	Measurement of IVA screening intention using a questionnaire	Cervical cancer education via flyer	Measurement of IVA screening intention using a questionnaire

Research Time and Location

This study will be conducted in 2026 within the service area of the Makasar District Community Health Center (Puskesmas) in East Jakarta. The location was selected based on WHO (2024) recommendations stating that promotive-preventive research is best implemented in areas where health program outcomes are suboptimal. Additionally, the selection is supported by the availability of Inspection Visual with Acetic Acid (IVA) services and existing health promotion programs at the center, enabling the intervention to be carried out systematically.

Research Population and Sample

The study population comprises all women of childbearing age (WUS) registered within the service area of the Makasar Community Health Center, East Jakarta; in 2025, this population totaled 3,753 individuals. The minimum sample size was determined using the Lemeshow formula for two independent groups with a 95% confidence level and 80% statistical power calculated IVA G*Power 3.1.9.7 software. Parameters included an effect size (d) of 0.5, a significance level (α) of 0.05, statistical power ($1-\beta$) of 0.80, and a 1:1 sample ratio between groups, resulting in a minimum sample size of 51 respondents per group (102 respondents in total). Purposive sampling was employed to select respondents meeting specific characteristics aligned with the research objectives.

Inclusion criteria cover women of childbearing age (15–49 years) registered as patients or visitors at the Makasar Community Health Center who have never undergone or do not regularly undergo IVA screening; are willing to participate and fully complete the questionnaire; and have access to digital media. Exclusion criteria include women previously diagnosed with or currently undergoing treatment for cervical cancer; those with severe visual or hearing impairments; those who fail to complete the entire intervention sequence; those who do not fully complete the questionnaire or withdraw from the study; and those with cognitive impairments that would hinder their understanding of the educational materials. Research Instrument.

The research instrument consisted of a structured questionnaire using a five-point Likert scale (ranging from Strongly Agree = 5 to Strongly Disagree = 1), administered IVA Google Forms during the pretest and posttest stages. The independent variables audiovisual educational media and flyers were delivered directly as interventions without the use of the questionnaire; the content, duration, and method of delivery were standardized across both groups. The dependent variable intention to undergo the IVA (Visual Inspection with Acetic Acid) examination was measured using a questionnaire developed based on Fishbein's (2008) Reasoned Action Approach. This instrument encompassed five indicators: intention, plan, expectation, commitment, and effort, as presented in Table 2 below.

Table 2. Research Instrument

Variable	Instrument	Indicator	Sub-indicator	Total
IVA Screening Intention (Y)	IVA Screening Intention Questionnaire based on the Reasoned Action Approach	Intend	The individual's desire to perform a behavior	2
		Plan	Having a plan to perform the behavior within a certain time	2
		Expect	The individual's belief or likelihood of performing the behavior	2
		Will	Earnestness or determination to perform the behavior	2
		Will Try	The individual's readiness to try to perform the behavior	2
			Total Items	10

The research instrument underwent validity and reliability testing prior to use. Validity testing was conducted by comparing the calculated r-value (corrected item-total correlation) with the r-table value; an item was deemed valid if the calculated r-value exceeded the r-table value. The test results indicated that all items for the IVA examination intention variable (Y) had calculated r-values ranging from 0.887 to 0.980 exceeding the r-table value (0.361) with a significance level of 0.000 thereby confirming the validity of all items, as presented in Table 3.

Table 3. Instrument Validity Test Results

Variable	Item	r-calculated	Sig	r-table	Significance Level	Remarks
IVA Screening Intention (Y)	Y_1	0.947	0.000	0.361	0.05	Valid
	Y_2	0.972	0.000			Valid
	Y_3	0.948	0.000			Valid
	Y_4	0.973	0.000			Valid
	Y_5	0.980	0.000			Valid
	Y_6	0.887	0.000			Valid
	Y_7	0.952	0.000			Valid
	Y_8	0.973	0.000			Valid

Variable	Item	r-calculated	Sig	r-table	Significance Level	Remarks
	Y_9	0.929	0.000			Valid
	Y_10	0.892	0.000			Valid

Reliability testing was conducted using the Cronbach's Alpha coefficient; a questionnaire is considered reliable if the Cronbach's Alpha value exceeds 0.60. The test results indicate that the IVA screening intention variable (Y) has a Cronbach's Alpha value of 0.987 well above the 0.60 threshold demonstrating that the instrument possesses high internal consistency and is reliable for data collection, as presented in Table 4.

Table 4. Instrument Reliability Test Results

Variable			Cronbach's Alpha	Reliability Coefficient	Criteria
IVA Screening Intention (Y)			0.987	0.60	Reliable

Data Collection Techniques

Primary data were collected using a structured questionnaire measuring the intention to undergo IVA screening before (pretest) and after (posttest) the educational program. Prior to completing the questionnaire, respondents signed an informed consent form IVA Google Forms. The data collection process consisted of a pre-research phase in which the researcher visited the study site, interviewed the person in charge of the IVA program at the Makasar Community Health Center (Puskesmas), and developed audiovisual materials, flyers, and storyboards based on Health Belief Model components (perceived susceptibility, severity, benefits, barriers, cues to action, and self-efficacy) and a research implementation phase, where respondents completed the pretest questionnaire, received the intervention assigned to their group (audiovisual or flyer), and then completed the posttest questionnaire, with all data automatically documented IVA Google Forms. Secondary data were obtained from the Makasar Community Health Center profile, data on the number of women of reproductive age, IVA screening implementation reports, and other supporting documents that complemented the primary data.

Research Ethics

This study obtained ethical clearance from the Research Ethics Commission of Universitas Respati Indonesia (Number 126/SK.KEPK/URINDO/IV/2026, dated April 14, 2026). The ethical principles applied included informed consent (respondents received a consent form after being briefed on the study's objectives and procedures), voluntary participation (participation was voluntary, and respondents had the right to refuse or withdraw at any time without consequence), and confidentiality (the researcher guaranteed the confidentiality of respondents' identities and all data).

Data Analysis

Data processing involved the following stages: editing (checking for completeness and consistency of responses), structuring (grouping data according to research variables), entry (inputting data into the statistical processing system IVA Google Forms and exporting it to

Microsoft Excel/Google Sheets), and cleaning (detecting and correcting input errors). Univariate analysis was used to describe the frequency distribution and percentage of each research variable. Prior to the bivariate analysis, the data were tested for normality using the Kolmogorov–Smirnov test; data were considered normally distributed if the p-value was > 0.05 .

The bivariate analysis was conducted in two stages. First, the intention to undergo the IVA examination was compared before and after the intervention within each group using either the paired-sample t-test (for normally distributed data) or the Wilcoxon signed-rank test (for non-normally distributed data). Second, the intention to undergo the IVA examination was compared between the audiovisual group and the flyer group using either the independent-sample t-test (for normally distributed and homogeneous data) or the Mann–Whitney U test (for non-normally distributed data), with a 95% confidence level ($\alpha = 0.05$). A p-value < 0.05 indicated a significant difference, whereas a p-value > 0.05 indicated no significant difference.

RESULTS AND DISCUSSION

Research Results

This study was conducted at the Makasar Community Health Center (Puskesmas) in East Jakarta, covering the service areas of Cipinang Melayu, Halim Perdanakusuma, Kebon Pala, Makasar, and Pinang Ranti Urban Villages. Cipinang Melayu Urban Village was selected as the research site because it had the lowest IVA screening coverage (32.21%). The intervention was implemented in RW 01 (using flyer media) and RW 12 (using audiovisual media), while the instrument validity test was conducted in Pinang Ranti Urban Village. The study received ethical approval from the Research Ethics Committee of Universitas Respati Indonesia (Approval Number 126/SK.KEPK/URINDO/IV/2026).

Respondent Characteristics

The characteristics of respondents in both intervention groups showed similar patterns; the groups were dominated by women aged 35–49 years with a high school education, and all were married. Regarding occupation, the flyer group was dominated by private-sector employees, whereas the audiovisual group was dominated by civil servants (ASN/PNS). Detailed respondent characteristics are presented in Table 5.

Table 5. Characteristics of Respondents in the Flyer and Audiovisual Groups

Characteristic	Category	Flyer (n=51)	Audiovisual (n=51)
Usia	15–24 years	13 (25.5%)	0 (0.0%)
Usia	25–34 years	13 (25.5%)	15 (29.4%)
Usia	35–49 years	25 (49.0%)	36 (70.6%)
Educational Attainment	SMA	32 (62.7%)	24 (47.1%)
Educational Attainment	Diploma (D3)	11 (21.6%)	9 (17.6%)
Educational Attainment	Sarjana (S1)	8 (15.7%)	18 (35.3%)
Marital Status	Married	51 (100%)	51 (100%)
Marital Status	Not Married	0 (0.0%)	0 (0.0%)

Characteristic	Category	Flyer (n=51)	Audiovisual (n=51)
Occupation	Housewife	15 (29.4%)	14 (27.5%)
Occupation	Private Employee	20 (39.2%)	13 (25.5%)
Occupation	Self-employed	11 (21.6%)	8 (15.7%)
Occupation	Civil Servant	5 (9.8%)	16 (31.4%)

History of IVA Screening

The majority of respondents in both groups had never undergone IVA screening prior to the study, with a total of 86 out of 102 respondents (84.3%) having never been screened. This situation highlights that the utilization of early detection services for cervical cancer in the study area remains low, as shown in Table 6.

Table 6. Respondents' History of IVA Screening

Group	Never Screened	Previously Screened
Flyer (n=51)	40 (78.4%)	11 (21.6%)
Audiovisual (n=51)	46 (90.2%)	5 (9.8%)
Total (n=102)	86 (84.3%)	16 (15.7%)

Changes in Intention to Undergo IVA Screening

The mean score for the intention to undergo IVA screening increased in both groups following the intervention. The flyer group showed an increase of 9.49 points (from 26.92 to 36.41), whereas the audiovisual group demonstrated a larger increase of 16.76 points (from 26.57 to 43.33), as presented in Table 3. Correspondingly, the distribution of intention categories shifted significantly toward the high category post-intervention; in the flyer group, 33.3% of respondents reached the high category (up from 0%), while in the audiovisual group, 98.0% did so (Table 4). At the individual item level, both groups showed score improvements across all questionnaire items; however, the audiovisual group consistently achieved higher post-test scores than the flyer group on every item, particularly regarding the willingness to undergo the screening (item P7).

Table 7. Mean Pre-test and Post-test Scores for Intention to Undergo IVA Screening

Group	N	Mean Pretest	Mean Posttest	Δ Mean (Points)
Flyer	51	26.92	36.41	9.49
Audiovisual	51	26.57	43.33	16.76

Table 8. Distribution of IVA Screening Intention Categories (Pretest and Posttest)

Group	Category	Score (%)	Pre-Test n (%)	Post-Test n (%)
Flyer	Low	≤55	26 (51.0%)	0 (0.0%)
Flyer	Moderate	56–75	25 (49.0%)	34 (66.7%)
Flyer	High	>76–100	0 (0.0%)	17 (33.3%)
Audiovisual	Low	≤55	32 (62.7%)	0 (0.0%)

Group	Category	Score (%)	Pre-Test n (%)	Post-Test n (%)
Audiovisual	Moderate	56–75	19 (37.3%)	1 (2.0%)
Audiovisual	High	>76–100	0 (0.0%)	50 (98.0%)

Bivariate Analysis Results

The Kolmogorov-Smirnov normality test indicated that the entire research dataset was not normally distributed ($p < 0.05$); therefore, bivariate analysis was conducted using non-parametric tests specifically, the Wilcoxon Signed-Rank Test and the Mann-Whitney U test (Table 5).

Table 9. Data Normality Test Results

Variable	N	Kolmogorov-Smirnov	Sig.	Remarks
Pre Test IP Flyer	51	0.138	0.017	Not Normal
Post Test IP Flyer	51	0.127	0.040	Not Normal
Pre Test IP Audiovisual	51	0.154	0.004	Not Normal
Post Test IP Audiovisual	51	0.144	0.010	Not Normal

The Wilcoxon test results indicate that both flyer and audiovisual media had a significant influence on increasing the intention to undergo the IVA test ($p = 0.000$ for both groups). Furthermore, the Mann-Whitney test results show a significant difference in the impact of the two media ($p = 0.000$), with the mean rank of the audiovisual group (75.48) being substantially higher than that of the flyer group (27.52); this indicates that audiovisual media is more effective than flyers in increasing the intention to undergo the IVA test, as summarized in Table 10.

Table 10. Statistical Test Results on the Impact of Educational Media

Analysis	Test Value	Sig. (p)	Remarks
Pretest–Posttest (Wilcoxon)	Flyer $Z = -6.229$	0.000	Significant effect
Pretest–Posttest (Wilcoxon)	Audiovisual $Z = -6.233$	0.000	Significant effect
Flyer vs Audiovisual (Mann-Whitney)	Mean Rank: Flyer 27.52; Audiovisual 75.48	0.000	Significant difference found

The respondents' age profile predominantly in the 35–49 range aligns with the target demographic for cervical cancer early detection programs, given that hormonal activity during the reproductive years increases cervical susceptibility to HPV infection. However, reproductive age alone was insufficient to drive the utilization of early detection services, as the majority of respondents had never undergone an IVA (Visual Inspection with Acetic Acid) examination. While the respondents' educational background predominantly high school level suggests sufficient health literacy to comprehend the information provided, formal education alone did not spur service utilization without additional targeted education. All respondents were married,

consistent with the IVA program's target audience; meanwhile, the diversity of occupational backgrounds highlights the need for flexible, accessible educational media to reach groups with time constraints.

Flyers were shown to significantly influence the intention to undergo IVA screening ($p < 0.001$), resulting in a score increase of 9.49 points. This is likely because flyers present information concisely and structurally while allowing for retention and repeated reading, thereby serving as a reminder. These findings align with the Patient Education Materials Assessment Tool (PEMAT) concept proposed by Shoemaker et al. (2013), as well as research by Fajrin et al. (2025) and Dewi and Syafputri (2023), which demonstrated the effectiveness of print media such as booklets and leaflets in boosting knowledge and motivation regarding IVA screening. Nevertheless, the increase associated with flyers was lower than that of audiovisual media, suggesting that flyers are best positioned as a supporting medium.

Audiovisual media also significantly increased the intention to undergo IVA screening ($p < 0.001$), yielding a larger score increase of 16.76 points. This effectiveness is explained by Mayer's (2009) Cognitive Theory of Multimedia Learning, which posits that humans process information through simultaneous visual and auditory channels; thus, the combination of images, sound, and narration enhances attention, comprehension, and retention compared to print media. These findings are consistent with research by Abdullah et al. (2023) and Hutagalung et al. (2023) and Iriani et al. (2025), which demonstrate that educational videos are more effective than conventional approaches in increasing the interest and knowledge of women of reproductive age regarding cervical cancer screening.

A direct comparison between the two media reveals that audiovisual materials are significantly more effective than flyers ($p < 0.001$) in increasing the intention to undergo IVA screening. This advantage is attributed to the ability of audiovisual media to engage multiple sensory channels simultaneously, thereby conveying health messages in a manner that is more engaging, comprehensive, and easily understood compared to flyers, which rely solely on static visual information. These findings align with Notoatmodjo's (2014) health promotion concept, which posits that media capable of conveying messages interactively are more effective in shaping knowledge, attitudes, and health-related behavioral changes. Consequently, audiovisual media should be prioritized as the primary medium for cervical cancer early detection promotion programs, while flyers serve as a supporting medium to reinforce the messages conveyed IVA audiovisual content.

Study Limitations

This study has several limitations. First, it was conducted exclusively among women of reproductive age within the service area of the Makasar Community Health Center (Puskesmas) in East Jakarta; therefore, the results cannot be generalized to populations with different characteristics. Second, measuring intention IVA questionnaires carries a risk of respondent comprehension bias, although this was minimized through the use of valid and reliable instruments and by providing assistance during the completion process. Third, the study measured intention only within a relatively short period following the intervention, meaning it could not capture the actual transition to IVA screening behavior. Other factors such as personal experience, exposure to information from other media, family support, and the social environment could also influence the results, although their impact was minimized by providing identical educational materials and employing standardized implementation procedures across all intervention groups.

CONCLUSION

Based on the research findings regarding the effects of flyer and audiovisual educational media on the intention to undergo Visual Inspection with Acetic Acid (IVA) screening among women of reproductive age in the Makasar Community Health Center (Puskesmas) area, East

Jakarta, it can be concluded that the majority of respondents had never undergone IVA screening. Audiovisual educational media significantly increased the intention to undergo IVA screening among women of reproductive age, while flyer-based educational media also significantly improved screening intention. Although both educational media were effective, a significant difference was observed between the two approaches, with audiovisual media demonstrating greater effectiveness than flyers.

Based on these findings and conclusions, several recommendations are proposed to support the development of early cervical cancer detection programs using IVA screening. The Makasar Community Health Center (Puskesmas) in East Jakarta is advised to optimize health promotion activities related to cervical cancer prevention by prioritizing audiovisual media, as it demonstrated greater effectiveness in increasing the intention to undergo IVA screening. Implementation may include displaying educational videos in waiting areas, utilizing WhatsApp groups, conducting health education sessions during Posyandu (Integrated Health Post) activities, and providing flyers containing QR codes linked to educational videos to improve public access to information.

Healthcare workers are encouraged to actively provide education regarding the importance of IVA screening by utilizing audiovisual media as the primary communication method and supporting it with flyers as supplementary reading materials that women of reproductive age can review after educational sessions. Women of reproductive age are encouraged to improve their awareness and willingness to undergo routine IVA screening for early detection of cervical cancer and to participate in educational activities that support informed reproductive health decisions.

To obtain more comprehensive evidence, future research should involve larger sample sizes, include broader geographical areas, develop digital-based educational interventions, and incorporate additional variables, such as knowledge, attitudes, family support, self-efficacy, and actual IVA screening behavior.

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