

Educational Interventions to Increase Cervical Cancer Screening Participation Among Women: A Systematic Review

Intervensi Edukatif Dalam Meningkatkan Partisipasi Skrining Kanker Serviks Pada Perempuan : A Systematic Review

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Abstract

Background: One of the most effective strategies for preventing cervical cancer is screening. In developing countries, the implementation and utilization of cervical cancer screening programs remain low. Educational interventions represent one strategy to increase participation in cervical cancer screening. **Objective:** This review aimed to identify educational interventions used to increase participation in cervical cancer screening. **Methods:** The inclusion criteria comprised studies that employed educational interventions to increase participation in cervical cancer screening. Literature searches were conducted in three databases—PubMed, Scopus, and ProQuest—and one search engine, ScienceDirect, for publications from 2020 to 2025. This review followed the *Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)* guidelines. Methodological quality was assessed using the *JBICritical Appraisal Checklist for Randomized Controlled Trials (RCTs)*. **Results:** A total of 10 studies involving 3,882 women who participated in educational interventions for cervical cancer screening were included. All included studies reported that educational interventions—delivered through face-to-face or digital approaches, and based on behavioral theories, community-based education, and couple-based education—were associated with improvements in knowledge, attitudes, risk perception, self-efficacy, and participation in cervical cancer screening. Based on the *JBICritical Appraisal Checklist for RCTs*, most studies demonstrated moderate to high methodological quality. **Conclusion:** Couple-based education and counselling demonstrate high potential for implementation in Indonesia. This educational approach may help address cultural barriers and limited family support, which are known to hinder participation in cervical cancer screening.

Keywords: Cervical cancer; Educational interventions; Participation; Screening; Systematic review.

Abstrak

Latar Belakang: Strategi efektif untuk mencegah kanker serviks salah satunya adalah melalui skrining. Di negara berkembang, implementasi dan pemanfaatan program skrining kanker serviks masih rendah. Intervensi edukatif merupakan salah satu strategi untuk meningkatkan partisipasi dalam skrining kanker serviks. **Tujuan:** Tinjauan ini bertujuan untuk mengidentifikasi intervensi edukatif guna meningkatkan partisipasi dalam skrining kanker serviks. **Metode:** Kriteria inklusi meliputi penelitian yang menggunakan intervensi edukatif untuk meningkatkan partisipasi dalam skrining kanker serviks. Pencarian dilakukan dengan menelusuri tiga database, yaitu PubMed, Scopus, dan ProQuest, serta satu search engine, ScienceDirect, untuk publikasi tahun 2020 hingga 2025. Studi ini mengikuti pedoman *Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)*. Kualitas metodologi dievaluasi menggunakan *JBICritical Appraisal Checklist for RCT*. **Hasil:** Diperoleh 10 artikel dengan total 3.882 perempuan yang berpartisipasi dalam intervensi edukatif untuk skrining kanker serviks. Seluruh artikel yang dianalisis menunjukkan bahwa intervensi edukatif, baik melalui pendekatan tatap muka maupun teknologi digital, serta edukasi berbasis teori perilaku, berbasis komunitas, dan berbasis pasangan mampu meningkatkan pengetahuan, sikap, persepsi risiko, self-efficacy, dan partisipasi dalam skrining kanker serviks. Berdasarkan penilaian menggunakan *JBICritical Appraisal Checklist for RCT*, sebagian besar studi menunjukkan kualitas metodologi yang sedang hingga tinggi. **Kesimpulan:** Intervensi berbasis pasangan (couple-based education and counselling) menunjukkan potensi yang tinggi untuk diterapkan di Indonesia. Pendekatan edukatif ini berpotensi mengatasi hambatan budaya dan kurangnya dukungan keluarga yang menjadi faktor penghambat dalam skrining kanker serviks.

Keywords: Intervensi Edukatif, Kanker Serviks, Partisipasi, Skrining, Systematic Review.



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Introduction

Currently, cervical cancer ranks as the fourth most common cancer among women worldwide, with approximately 600,000 new cases and around 350,000 deaths reported in 2022. The highest incidence and mortality rates of cervical cancer occur in low- and middle-income countries (LMICs) [1]. Women living in LMICs bear a disproportionate burden of cervical cancer, as more than 80% of new cases and approximately 90% of cervical cancer–related deaths occur in these countries [2].

Countries worldwide are striving to accelerate the elimination of cervical cancer over the coming decades, with targets set for achievement by 2030. Effective strategies for cervical cancer prevention include screening, human papillomavirus (HPV) vaccination, and treatment of precancerous lesions [3]. Several screening methods are available for the detection and prevention of cervical cancer, including Pap smear cytology, HPV DNA testing, and visual inspection tests [4]. Screening for HPV infection and cervical dysplasia in women has been shown to substantially reduce the risk of cervical cancer–related mortality [5].

Despite the proven effectiveness of screening, cervical cancer screening coverage remains low, particularly in LMICs. The prevalence of cervical cancer screening is reported to be only 2% in India [6], 19% in sub-Saharan Africa [7], 4% in Cameroon [8], 7.3% in Ethiopia [9], 15.8% in Jordan [10], 6.2% in Bangladesh [11], and 7.8% in Indonesia [12].

Previous research by Han et al. (2021) demonstrated that the implementation of cervical cancer screening programs significantly reduced cervical cancer incidence and mortality in several high-income countries [13]. However, in developing countries, the implementation and utilization of cervical cancer screening programs remain limited. This is attributable to multiple barriers, including low awareness, stigma, negative perceptions of health screening and the causes of cervical cancer, low perceived risk, competing domestic priorities, shortages of trained healthcare personnel and other resources, high staff turnover, weak program implementation, and inadequate follow-up of screening programs [14]. Educational interventions have been widely used as strategies to increase participation in cervical cancer screening. These interventions include health education, theory-based education, couple-based counselling, community-based interventions, and technology-based support such as mobile health (mHealth). The primary aim of these interventions is to improve knowledge, foster positive attitudes, and increase intention to participate in cervical cancer screening [15–18]. Therefore, a systematic review is needed to identify various educational approaches that enhance women's participation in cervical cancer screening, thereby supporting healthcare professionals in developing more effective, evidence-based educational strategies. This study aimed to identify the effectiveness of educational interventions in increasing participation in cervical cancer screening among women.

Methods

Study Design

This systematic review was conducted to synthesize evidence on the effectiveness of educational interventions in increasing cervical cancer screening participation among women. Given the heterogeneity in study designs, intervention types, and outcome measures across the included studies, a meta-analysis was not performed. Therefore, a narrative synthesis approach was applied, as recommended under conditions of substantial methodological heterogeneity [19,20]. This review was developed and reported in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines [21]. Guided

by the PICOS framework, this review focused on women aged 18–65 years (P), evaluated the impact of educational interventions (I) compared with standard care (C), and assessed improvements in cervical cancer screening participation (O). The review included original studies with a randomized controlled trial (RCT) design (S).

Search Strategy

We searched three electronic databases—PubMed, Scopus, and ProQuest—and one search engine, ScienceDirect, to identify studies published between October 2020 and October 2025. The final search was conducted in October 2025. The search strategy was developed independently by the researchers. The search terms used in PubMed included ("cervical cancer") AND ("screening") AND ("education"), ("cervical cancer screening") AND ("mHealth"), and ("cervical cancer screening") AND ("intervention"). In ScienceDirect, the search terms were "cervical cancer" AND "screening" AND "education." In Scopus, the search terms included ("cervical cancer screening" OR "Pap smear" OR "HPV testing") AND ("digital education" OR "mobile health" OR "mHealth" OR "eHealth" OR "online education" OR "social media" OR "video education" OR "WhatsApp reminder") AND ("women"). The same search terms were applied in ProQuest. All retrieved articles were imported into Mendeley, and duplicate records were identified and removed before screening.

Inclusion and Exclusion Criteria

The inclusion criteria were as follows: (1) study participants were women aged 18–65 years; (2) the intervention consisted of educational interventions; (3) the comparison group received standard care; (4) studies were published in English; and (5) outcomes included participation in cervical cancer screening. Systematic reviews, qualitative studies, and studies that did not meet the inclusion criteria were excluded from this review.

Study Selection

All retrieved articles were imported into Mendeley, and duplicate records were removed. After de-duplication, the authors independently screened the titles and abstracts of articles that met the predefined inclusion criteria. Full-text articles that passed the initial screening were then assessed for eligibility. Two reviewers independently extracted data from the included studies. Disagreements were resolved through discussion, and when necessary, a third reviewer was consulted. The entire screening process was documented using the PRISMA 2020 flow diagram.

Data Extraction

Data extraction was conducted systematically using a standardized form developed by the research team. Extracted variables included study characteristics (e.g., author name and year of publication), participant characteristics (e.g., country and sample size), intervention characteristics (e.g., type of intervention, teaching method, duration, and contact frequency), measurement instruments, and study conclusions. Data extraction was performed independently by two reviewers. Any discrepancies were resolved through discussion until consensus was reached. No disagreements occurred during this process.

Quality Assessment

The methodological quality of the 10 randomized controlled trials (RCTs) was assessed using the JBI Critical Appraisal Checklist for RCTs. Overall, all included studies demonstrated good methodological quality and were categorized as having a low to moderate risk of bias.

Data Analysis

This review employed a holistic approach to determine the effectiveness of educational interventions in increasing cervical cancer screening participation among women. A narrative synthesis was conducted, including study descriptions, grouping, tabulation, and synthesis of evidence regarding the effectiveness of educational interventions in improving cervical cancer screening participation.

Results and Discussion

Results

Study Selection

The literature search conducted in PubMed, ScienceDirect, Scopus, and ProQuest identified a total of 5,257 records. After removing 109 duplicates, 5,148 articles underwent title and abstract screening. At this stage, 5,134 articles were excluded for not meeting the inclusion criteria. Following abstract screening, 14 articles were considered for full-text review. After a detailed assessment, four articles were excluded because they did not use a randomized controlled trial (RCT) design, were published as study protocols, or focused on non-communicable diseases rather than specifically on increasing participation in cervical cancer screening. Ultimately, 10 studies met all eligibility criteria and were included in the final data synthesis. The study selection process is illustrated in Figure 1.

Study Characteristics

Ten studies published between 2021 and 2025 were included in this review. The studies involved women aged 18–65 years, with sample sizes ranging from 34 to 1,564 participants. Among the included studies, two were conducted in Ethiopia and Iran, respectively, and one each in Nigeria, the Netherlands, Malaysia, Uganda, Hong Kong, and the United States. The studies employed a variety of educational intervention approaches, including face-to-face education, digital-based education, theory-based education, community-based education and social support, and couple-based education.

Quality Assessment

Following quality appraisal using the JBI Critical Appraisal Checklist for RCTs, all 10 included studies were assessed as having good methodological quality and were categorized as having a low to moderate risk of bias. All studies employed true randomization and appropriate statistical analyses. However, some potential sources of bias were identified, particularly related to limitations in blinding of participants and intervention providers. Therefore, the overall risk of bias across studies was considered low to moderate. All included studies used a randomized controlled trial (RCT) design to evaluate the effectiveness of various educational interventions in increasing cervical cancer screening participation among women.

Intervention Outcomes

Effectiveness of Face-to-Face Education

One study evaluated the effectiveness of group-based face-to-face health education delivered through presentations and group discussions. Abera et al. found that health education using presentations and group discussions effectively increased cervical cancer screening participation by 46.4%.

Effectiveness of Digital-Based Education

Three studies evaluated the effectiveness of digital-based educational interventions. Okunade et al. reported that mHealth interventions delivered via SMS were effective in increasing Pap smear screening participation among women by 43.5%. Hamdiui et al. demonstrated that culturally sensitive web-based education using videos effectively improved knowledge, positive attitudes, and intention to participate in cervical cancer screening. Similarly, H. R. Han et al. reported that a web-based educational intervention (e-CHECC-uP) effectively addressed barriers and increased cervical cancer screening participation by 55.6%.

Effectiveness of Theory-Based Educational Interventions

Three studies evaluated the effectiveness of theory-based educational interventions. Mohammad et al. reported that education based on Social Cognitive Theory effectively increased Pap smear screening participation among postpartum women by 67.9%. Bahrami et al. showed that theory-based education using the Health Belief Model combined with mobile-based strategies effectively promoted Pap smear participation. In line with these findings, Maleki et al. found that education based on a Social Marketing Approach effectively increased awareness, risk perception, and Pap smear participation among women by 31.6%.

Effectiveness of Community-Based Education and Social Support

Two studies evaluated the effectiveness of community-based education and social support interventions. Wong et al. demonstrated that multimedia education led by community health workers

effectively increased screening participation by 41.5% and improved readiness while reducing barriers to cervical cancer screening. Consistent with these findings, Wagner et al. reported that group education facilitated by peer advocates effectively increased cervical cancer screening participation by 66.7% among members of social networks and enhanced engagement in cervical cancer prevention advocacy.

Effectiveness of Couple-Based Education

One study evaluated the effectiveness of couple-based education. Ayanto et al. reported that couple-based education and counselling effectively increased knowledge, risk perception, and cervical cancer screening participation by up to 72.5%.

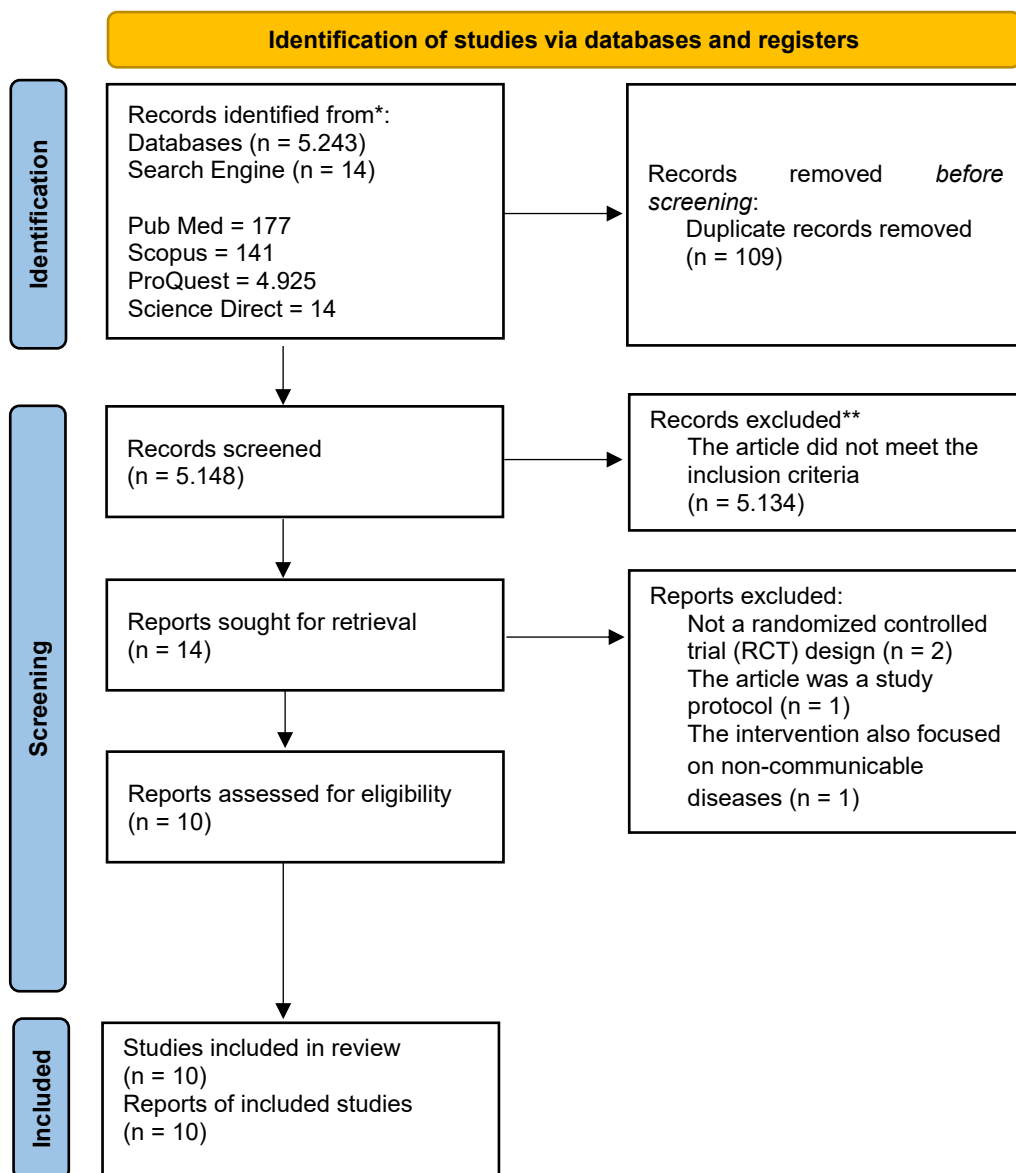


Figure 1. PRISMA Flow Diagram

Discussion

Overall, the findings of this review indicate that educational interventions can serve as an effective strategy to increase participation in cervical cancer screening. The results also demonstrate that improvements in knowledge, attitudes, risk perception, and social support can influence cervical cancer screening behavior. These findings are consistent with the Health Belief Model (HBM), which posits that increased knowledge and perceived risk through educational interventions can motivate individuals to participate in cervical cancer screening. The Health Belief Model focuses on how individuals perceive health threats and make decisions accordingly. This theory has also been adapted across diverse cultural contexts and has been shown to influence public health outcomes through health promotion and community-based prevention programs [22].

Table 1. Characteristics of Educational Interventions for Cervical Cancer Screening

Author (year)	Country	Sample	Type of Intervention	Teaching Method	Duration & Contact	Measurement Instruments	Conclusion
Okunade et al., 2021	Nigeria	N = 200	mHealth	SMS text messages containing health education and screening reminders	6 months (messages sent twice per month)	Structured questionnaire, verified through medical records and participant follow-up	The intervention was effective in increasing Pap smear screening participation among women by 43.5%
Abera et al., 2022	Ethiopia	N = 700	Health education (face-to-face)	PowerPoint presentations, images, information leaflets in the local language, peer group discussions, and consultations	3 days of presentations and group discussions; 6 months of consultation	Structured questionnaire; follow-up at 6 months	Increased cervical cancer screening participation by 46.4%
Hamdiui et al., 2022	The Netherlands	N = 1.564	Web-based education with culturally sensitive videos	Reading brochures and viewing online videos on cervical cancer screening	One online intervention session followed by completion of pre- and post-intervention questionnaires	Validated structured questionnaire	Effective in increasing knowledge, positive attitudes, and intention to participate in cervical cancer screening
Mohammad et al., 2022	Malaysia	N = 325	Social Cognitive Theory-based education with follow-up via WhatsApp	Phase 1: Face-to-face education; Phase 2: Weekly follow-up via WhatsApp	Duration: 12 weeks; Contact: one face-to-face session and four WhatsApp follow-ups	Validated questionnaires: 11 knowledge items, 11 attitude items, and the 14-item Self-Efficacy Scale for Pap Smear Screening Participation (SES-PSSP)	Effective in increasing Pap smear screening participation among postpartum women by 67.9%
Wagner et al., 2023	Uganda	N = 143	Peer-led group education facilitated by peer advocates	Seven weekly training sessions	Seven weekly group sessions with 6-month follow-up	Structured questionnaire	Effective in increasing cervical cancer screening participation by 66.7%
Ayanto et al., 2024	Ethiopia	N= 286	Couple-based education and counseling	Home visits by trained healthcare providers, followed by counselling and referral	6 months (3 months of intervention and 3 months of follow-up)	Validated structured questionnaire; screening participation verified through health records	Effective in increasing knowledge, risk perception, and cervical cancer screening participation by 72.5%
Wong et al., 2024	Hong Kong, China	N = 402	Multimedia intervention led by community health workers	Multimedia education, including health lectures, videos, and booklets on cervical cancer and screening	Duration: 3 months; Initial contact: one face-to-face session; Follow-up: three monthly telephone calls	Kuesioner terstruktur (tervalidasi)	Effective in increasing cervical cancer screening participation by 41.5%

Bahrani et al., 2025	Iran	N = 135	Theory-based education (Health Belief Model): face-to-face and mobile-based (Telegram)	Face-to-face: 12 sessions. Mobile-based (Telegram): videos, animations, PowerPoint presentations, and Q&A sessions	Duration: 4 weeks of intervention	Validated questionnaires, Health Belief Model-based questionnaire	Theory-based educational interventions, particularly mobile-based strategies, were effective in promoting Pap smear participation
H. R. Han et al., 2025	Amerika Serikat	N = 34	Web-based health literacy education (e-CHECC-uP)	Digital education (9 modules) and monthly telephone counseling by community health workers	Duration: 6 months	Health literacy and social support questionnaires	Effective in potentially overcoming barriers and increasing cervical cancer screening participation by 55.6%
Maleki et al., 2025	Iran	N = 93	Social Marketing Approach-based education (4P: Product, Price, Place, Promotion)	Pamphlets and promotional messages via SMS	Duration: 3 months (educational pamphlets and weekly SMS messages)	Online questionnaire	Effective in increasing awareness, risk perception, and Pap smear test participation among women by 31.6%

Table 2. Quality Assessment Using the JBI Critical Appraisal Checklist for Randomized Controlled Trials

JBI Critical Appraisal: Randomized Clinical Trial (RCT)	Okunade et al., 2021	Abera et al., 2022	Hamdiui et al., 2022	Mohammad et al., 2022	Wagner et al., 2023	Ayanto et al., 2024	Wong et al., 2024	Bahrani et al., 2025	H. R. Han et al., 2025	Maleki et al., 2025
Q1	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Q2	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
Q3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Q4	Y	Y	Y	Y	Y	Y	N	N	N	N
Q5	N	N	N	N	N	N	N	N	N	N
Q6	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
Q7	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Q8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Q9	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Q10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Q11	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Q12	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Q13	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Risk of Bias	Low	Moderate	Moderate	Low	Low	Low	Moderate	Moderate	Moderate	Moderate

Y = yes ; N = no

A study conducted by Ayanto et al. (2024) reported that couple-based educational interventions were effective in increasing knowledge, risk perception, and cervical cancer screening participation by up to 72.5%. This intervention actively involved husbands in educational and counselling sessions, thereby enhancing emotional support and shared decision-making related to cervical cancer screening participation [16]. Although husbands are often involved in their partners' general health matters, their involvement in cancer screening remains limited. While most husbands reported that screening decisions should be made jointly, in practice, they did not actively facilitate, encourage, or accompany their partners to cervical cancer screening services [23].

Another study by Abera et al. (2022) demonstrated that group-based face-to-face health education delivered through presentations and group discussions effectively increased cervical cancer screening participation by 46.4%. The educational intervention used PowerPoint presentations, images, information leaflets in local languages, peer group discussions, and client-centered consultations tailored to individual

needs [14]. Similarly, group education facilitated by peer advocates was found to be effective in increasing cervical cancer screening participation by 66.7% and enhancing engagement in cervical cancer prevention advocacy [18]. Health education has been shown to have a significant positive impact on global health-related attitudes and behaviors [24]. This is consistent with findings by Husna et al. (2020), which reported that health education on early detection of cervical cancer motivated women of reproductive age to change their attitudes from initially refusing screening to actively participating in early cervical cancer detection [25].

Digital and multimedia-based educational interventions varied widely across studies. mHealth interventions delivered via SMS were effective in increasing Pap smear screening participation by 43.5%, with text messages that included educational content and screening reminders [26]. Similarly, a study by Mohammad et al. (2022) found that education based on Social Cognitive Theory combined with follow-up via WhatsApp effectively increased Pap smear participation among postpartum women by 67.9% [17]. Another study by Wong et al. (2024) demonstrated that multimedia educational interventions led by community health workers were effective in increasing cervical cancer screening participation by 41.5% [27]. Web-based health literacy education (e-CHECC-uP) was also shown to be effective in overcoming barriers and increasing cervical cancer screening participation by 55.6% [28].

Additional digital interventions reported by Bahrami et al. (2025) showed that theory-based education using the Health Belief Model delivered through face-to-face sessions combined with mobile-based platforms (Telegram) effectively promoted Pap smear participation [29]. Maleki et al. (2025) found that interventions based on a Social Marketing Approach effectively increased awareness, risk perception, and Pap smear participation by 31.6% [30]. Furthermore, Hamdiui et al. (2022) reported that culturally sensitive web-based education using video content effectively improved knowledge, positive attitudes, and intention to participate in cervical cancer screening [31]. Health education programs can be further strengthened through digitalization and expanded content coverage, thereby increasing the effectiveness and reach of such interventions [24].

Overall, educational interventions were consistently reported to increase participation in cervical cancer screening. In addition, multiple studies demonstrated that educational interventions contributed to improvements in knowledge, attitudes, risk perception, and self-efficacy [16–18,28–31]. The narrative synthesis indicated that community-based interventions, couple-based education and counselling, and education grounded in Social Cognitive Theory were the three approaches associated with the most pronounced increases in cervical cancer screening participation compared with other interventions [16–18]. Beyond the type of intervention, women's health literacy levels were identified as an important factor influencing knowledge and preventive behaviors related to gynecological cancers [32]. Therefore, improving health literacy through effective and accessible educational interventions may enhance understanding, shift risk perceptions, and foster women's willingness to participate in cervical cancer screening.

Among all included studies, couple-based education and counselling reported the highest percentage increase in cervical cancer screening participation. Moreover, this approach was considered more realistic and contextually appropriate for implementation in Indonesia, given the role of partners in health-related decision-making and the sociocultural emphasis on family support. Consequently, couple-based education and counselling emerged as the intervention with the most notable combination of effectiveness and implementation feasibility in this review. This intervention was delivered through home visits by trained healthcare providers, using educational brochures, and consisted of three sessions: one individual session, one involving the husband, and one reinforcement session. The intervention was followed by counselling and referral, for a total duration of six months: three months of intervention and three months of follow-up. Partner involvement has been shown to increase knowledge, risk perception, and cervical cancer screening participation by up to 72.5% [16]. This couple-based approach has the potential to address cultural barriers and limited family support that hinder cervical cancer screening participation. However, within the patriarchal context prevalent in many regions of Indonesia, partner involvement in cervical cancer screening remains limited. Therefore, culturally sensitive approaches and the promotion of shared responsibility within families are needed to reinforce the message that cervical cancer screening is a collective family responsibility.

Nursing Implications

The findings of this review have direct implications for healthcare providers, policymakers, and practitioners in women's health, particularly in nursing practice. The couple-based education and counselling approach positions the family—especially married couples—as a unified unit in promoting behavioral change in women's health. Nurses play not only the role of individual educators but also of educators for couples.

This educational approach can be integrated into existing community health activities such as antenatal classes, Posyandu (integrated health service posts), and PKK (Family Welfare Movement) programs. The intervention emphasizes the role of partners as key supporters in health-related decision-making. Integrating this approach into routine services can expand the coverage of cervical cancer early detection, enabling more women to be identified and treated at an earlier stage, which ultimately contributes to reducing morbidity and mortality from cervical cancer.

Conclusion

This systematic review demonstrates that educational interventions are effective in increasing participation in cervical cancer screening. Educational interventions delivered through face-to-face approaches, digital technologies, behavioral theory-based education, community-based education, and couple-based education were shown to improve knowledge, attitudes, risk perception, self-efficacy, and participation in cervical cancer screening. The highest effectiveness was observed in interventions involving community engagement, couple-based education and counselling, and education based on Social Cognitive Theory. Overall, all included studies were assessed as having good methodological quality, with a low to moderate risk of bias based on the JBI Critical Appraisal Checklist for Randomized Controlled Trials (RCTs).

Couple-based education and counselling emerged as the most effective and realistic intervention for implementation in Indonesia. This approach actively involves partners and has been shown to significantly improve knowledge, risk perception, and cervical cancer screening participation, with participation increasing by up to 72.5%. Direct implementation of this intervention can help address cultural barriers and limited family support, which are known obstacles to cervical cancer screening. Although implementation challenges remain—such as patriarchal cultural norms in many regions of Indonesia and limited partner involvement in screening decisions—this evidence-based educational intervention represents a promising strategy for integration into primary healthcare programs in Indonesia to support efforts to reduce cervical cancer morbidity and mortality.

Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this article. The authors have no personal or financial relationships that could inappropriately influence the work reported in this study.

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