

Health Promotion Intervention for Increasing Cervical Cancer Awareness Screening: A Systematic Review

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ABSTRACT

Background: Cervical cancer is the second largest cause of death among women around the world, and the incidence is reportedly increasing, particularly in developing countries. Screening, as early detection is needed to decrease the rate of cervical cancer. Therefore, it requires health promotion to raise women's awareness of cervical cancer screening. This study aimed to review health promotion intervention to increase cervical cancer awareness screening.

Methods: This systematic review performed between January 2014 and November 2019 on research articles published through the database on PubMed and ProQuest. The research was limited to English language journal articles. Articles type by reviewing the abstracts and the titles. Potential abstracts were included, meanwhile irrelevant, and no full-text articles were excluded. Data were analyzed with narrative synthesis.

Results: In health promotion for increasing cervical cancer awareness, based on the review of six studies, screening needs to be carried out with combine methods. The health belief model is the most popular used framework for cervical cancer screening interventions. The present review also suggests that different health promotion interventions are effective in modifying cervical cancer screening behavior of women. It is preferable to use brochures, lectures, videos, leaflets, group discussions, and multimedia intervention.

Conclusion: Promoting cervical cancer and cervical cancer screening by using a combination of methods will give a better understanding and a better attitude towards screening.

Keywords: Awareness, Cervical Cancer, Health Promotion, Screening

INTRODUCTION

There were an estimated 528.000 new cases of cervical cancer that occurred in 2012. Cervical cancer is the fourth most common cancer in women and ranks seventh overall. The highest rate of cervical cancer is in Eastern Africa, and the lowest is in West Asia. About 85% of cervical cancer occurred in less developed areas. There were around 266.000 deaths from cervical cancer worldwide in 2012. Nearly nine out of 10 (87%) deaths from cervical cancer occurred in less developed areas. Mortality

varies between regions in the world, 2-30 per 100.000 cases found in West Asia, Western Europe, Australia / New Zealand, Melanesia, Middle, and East Africa. ^[1]

Cervical cancer is a common cancer in developing countries. Identification of cervical cancer at the early stages would make cervical cancer preventable and curable. ^[2] The research result revealed significant progress in promoting cervical cancer, which is using four strategies. Those strategies are: (a) Understanding psychosocial barriers, (b) community

education, (c) reduction of stigma, and (d) health education. [3-4]

Preventing cervical cancer in developed countries is facing a few challenges, such as raising women's awareness, knowledge, and increasing the ability of health services and the effectivity of monitoring and evaluation approaches. [5] In general, many developing countries report that women do not have sufficient knowledge of the risk factors and how to prevent cervical cancer. [6]

This study aimed to gain an effective health promotion models to increase women's awareness in cervical cancer screening. These findings can be used to guide health professionals in preventing cervical cancer and, eventually, reducing the mortality and morbidity rates around the world.

MATERIALS & METHODS

This research is a systematic review study by collecting articles that are relevant to the International Journal of Health Promotion Models in Cervical Cancer. This research was conducted by reviewing articles through Pubmed and ProQuest database from January 2014 to November 2019. The variables in this study consisted of the dependent variable cervical cancer awareness screening and the independent variable health promotion interventions. The online search engine was used in collecting data. Data collected is limited only to English articles and free full-text articles. The search was done in the title and abstract by entering keywords: Woman AND health promotion OR health service AND cervical cancer. Data analysis using Preferred Reporting Items for Systematic Review - Meta-Analyses (PRISMA) guidelines (Figure 1). [7]

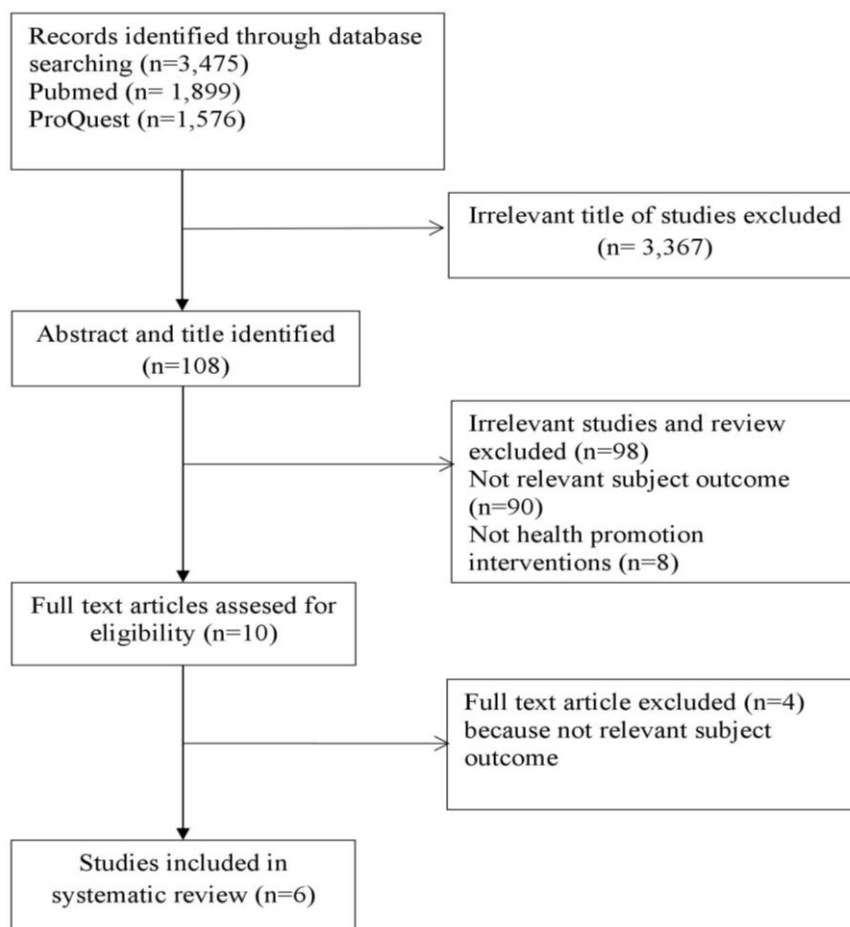


Figure 1: Prisma flow diagram

The selected articles are then filtered; the irrelevant titles of the study were excluded. Furthermore, unrelated abstracts and study designs, e.g., cross-sectional and experimental study, were excluded. For additional filtering, the selected full-text articles reviewed individually by all authors. In the end, six materials collected will be tabulated based on authors, year of publication, study design, and outcome. Data were analyzed by using a narrative synthesis of which articles were compared to each other. Then the conclusion was drawn thoroughly and providing recommendations at the end

RESULT

Identification of 3,475 articles done by reviewing the title of the articles, then the reviewed abstract, were reviewed in full-text form. Selection of studies conducted that excluded irrelevant studies to obtain six studies related to health promotion intervention for increasing cervical cancer awareness screening.

These six studies were analyzed and reviewed using narrative synthesis with paraphrases (Table 1).

Table 1: Systematic Review of health promotion intervention for increasing cervical cancer awareness screening

No	Authors, Years	Study Design	Outcome
1.	Kurt G, 2019 ^[8]	Interventional study	This study showed that in health promotion of cervical cancer, brochure + education, brochure-only, and invitation-only groups were effective in increasing the participation of women in cervical cancer screening. The difference between the groups was highly significant, which brochure and education were found to be effective than in both the brochure-only groups and the invitation-only groups
2.	Han et al., 2017 ^[9]	A cluster-randomized wait-list control design	This study showed that intervention conducted by a Community Health Worker (CHW) using brochure, training, and counseling through monthly telephone, could increase Korean American women participation in cervical cancer screening
3.	Ebu et al., 2019 ^[10]	A non-equivalent control-group design	This study suggested that health education by providing lectures, videos, leaflets, and doing group discussions may clarify women's misconceptions. These techniques build their self-efficacy toward cervical cancer and screening. This way, women's awareness about cervical cancer and its screening would be increased.
4.	Wong et al., 2019 ^[11]	Cluster randomized wait-list controlled trial	This study has found that in lower educated South Asian women, an intervention using a multimedia approach about cervical cancer proved to deliver information effectively.
5.	Valdez A, 2018 ^[12]	Randomized controlled trial	Low-income Latinas, who have no Pap test in the last two years, were randomly assigned to be intervened by a multimedia kiosk or control group. The intervention has shown to improve their knowledge about cervical cancer and more favorable attitudes towards screening behavior but did not significantly change the controlled group's behavior towards cervical cancer screening.
6.	John et al., 2017 ^[13]	The two-arm, quasi-experimental study	This study has found that an intervention called <i>Salud es Vida promotora</i> can effectively increase awareness of Latina farmworker women for screening cervical cancer.

Based on the six studies, it is clear that effective health promotion, to increase cervical cancer awareness screening, needs to be done in various ways. It is preferably in combination. The health belief model is the most popular used framework for cervical cancer screening interventions. The results of our study showed that in modifying cervical cancer screening behavior of women require different health promotion interventions. Brochures combine with education, health education by providing lectures, videos, leaflets, group

discussions, and multimedia intervention, are effective.

DISCUSSION

A few ways to promote cervical cancer knowledge and screening were found from the analysis done by authors. Among them is by invitation using a brochure + education, brochure-only, invitation-only, lectures, group discussion, and multimedia means. The following describes various means to promote cervical cancer effectively.

Three effective health promotion models to increase women's participation in Cervical Cancer Screening (CCS) were found in research done by Gonul Kurt and Aygul Akyuz (2019). The health promotion models were by using invitation, brochure, and a combination of brochures and education. Participants in the brochure + education group had a higher level of participation in Cervical Cancer Screening (CCS) through a Pap Smear Test. Compared to the brochure-only and invitation-only, the approach to educate women to participate in screening by providing the information during home visits was proved to be more effective.^[8]

In another research by Ebu, et al. (2019), an educational intervention was conducted in six weeks, consisted of lectures, discussions, videos, and leaflets. On average, each lecture took about 1 hour, and at the end of the session, participants were allowed to discuss, ask questions, and clarify any misconceptions about cervical cancer. Six weeks later, the participants were reassessed. The results show that there was an increase in knowledge about cervical cancer, and the participants had comprehensive information about screening. Health education also had proven to improve the perception of the seriousness of cervical cancer. It was enabling participants to evaluate the complications that could be caused by cervical cancer and how these could impact their well-being.^[10]

According to Valdez, A (2018), the educational interventions in the form of multimedia kiosks have a powerful impact on knowledge and favorable attitudes about cervical cancer, especially to get pap test screening. Compared to brochures about cervical cancer, more knowledge about pap tests and cervical cancer is provided in multimedia kiosks. The increase in knowledge and attitude towards pap tests is significantly different in the intervention group compared to the control group. From this study, it shows that Multimedia Kiosk is an effective intervention in providing education and promotion of screening for

cervical cancer in low-literacy Latinas. For screening behavior in Latinas, knowledge, and income levels were also found in this study as strong predictors. In general, both groups showed positive results on screening from the kiosk method. Limitations of this study, the sample is only taken based on the clinic, and the findings cannot be generalized to a larger population.^[12]

Meanwhile, research conducted by Wong et al. (2019), navigation assistance provided by CHW-led multimedia intervention are independent, have practical implications for increasing cervical cancer awareness, and able to assist women in overcoming cervical cancer screening access difficulties in South Asian Women. The research was conducted in two phases. During the first phase, the Community Health Worker is recruited and trained to raise their knowledge about cancer, self-efficacy, and competence in promoting cervical cancer screening. The second phase is the implementation of the CHW-led intervention. The trained CHW is going to deliver a powerpoint presentation that contains information about cervical cancer, from its definition until how to prevent them. Later on, the participants will watch a four minutes video to make them understand the disease more clearly. At the end of the session, participants will be given a booklet about cervical cancer and discuss it together with the CHW. CHW-led interventions have proved to increase ethnic minority women's motivation to use cancer preventive services and enhanced access to these services. CHW-led interventions are also a more cost-effective approach to increase cancer screening.^[11]

Previous study known CHW intervention was done using the brochure about cervical cancer screening, training, and counseling. It was delivered about 1,5-2 hours in a group meeting, and counseling was effective to increase cervical cancer screening among Korean-American women. The health literacy-focused CHW intervention could improve women's knowledge and participation in Pap Smear

screening. Also, CHW intervention could be potentially effective in different ethnic groups.^[9]

In another study found the educational group *Salud es Vida Promotora* intervention was effective in increasing cervical cancer knowledge. However, this intervention was not sufficient for the Latina immigrant population because these women assume that after receiving this intervention, they do not need the annual screening anymore. Because of this, they were told to return the following year after they have a Pap Smear test.^[13]

CONCLUSION

This study has found a few effective health promotion models for promoting awareness and participation in cervical cancer screening in women. Some research reported that using a combination of interactive and non-interactive methods was more effective in increasing participation towards screening in women. The result of our study showed that various health promotion interventions are effective in improving cervical cancer screening behavior women.

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