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Nursing interventions in the prevention of cervical cancer in primary health care: an integrative review

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Abstract.

Objective: *To describe Nursing interventions in the prevention of cervical cancer in Primary Health Care.*
Method: *An integrative review carried on between September and October 2018 with defined inclusion criteria and exclusion of the studies, strategies of search, extraction data and synthesis. The data were grouped according to the categorical thematic analysis.*
Results: *101 articles were retrieved, and 13 articles were selected for the final sample. After the initial reading of the included articles, the Nursing interventions were identified and grouped into four thematic categories, which were divided into Light-hard Technologies: Prevention by Vaccination, Screening and Comprehensive Care for Women, and Light Technology: Health Education.*
Final considerations: *These results may contribute positively to the epidemiological profile and to adequate assistance, proposing care models for the female population, as well as promoting women's autonomy and resilience in the defense of their rights.*

Keywords: *Uterine cervix neoplasms, Papanicolaou test, Nursing Care, Primary Health Care.*

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I. Introduction

Cervical cancer is the second most common type of cancer and the most prominent cause of mortality among women in developing countries. According to the World Health Organization, malignant tumors account for 25% of the causes of female mortality, 18% of which are cervical cancer. Almost 10% of aggressive cancers in women occur in the uterus, and about 30% of them arise from the cervix. Approximately one million women are affected annually by advanced cervical cancer the world, and 50% of cases lead to death **[1].**The reduction in incidence may be attributed to a combination of effective cervical cytology screening and human papillomavirus (HPV) vaccination **[2].**

The oncology cytology or Papanicolaou smear test is a highly effective screening test because, a Canadian population study showed that administering the Pap test helped reduce the incidence and mortality of cancer patients by 58% and 83%, respectively, among 1972 and 2006 **[3].**Cervical cancer is the second most prevalent type of cancer among women, being only lower than breast and colorectal cancer. It is the fourth leading cause of cancer mortality in Brazil. The latest data estimate new cases of cervical cancer at 16,370 until 2018, and the number of deaths at 5,430. For the year 2018, there will be estimated 8.43 new cases per 100,000 inhabitants in the State of São Paulo, and 10.05 new cases per 100,000 inhabitants in the City of São Paulo **[4].**

The determinants of cervical cancer are known: socioeconomic precariousness, early sexual intercourse, multiple sexual partners, smoking, inadequate intimate hygiene and ongoing use of oral contraceptives, as well as some sexually transmitted diseases such as infections by Human Papilloma Virus - HPV **[5].**

Most cervical cancer deaths occur in women who have never been screened or treated, as well as those who have had early sexual relations, a history of multiple sexual partners, and a high number of children. Strong evidence shows that the progression of cervical cancer in its later stages can be avoided by screening and treating pre-malignant lesions **[6].**

Social class has shown a strong association with cervical cancer worldwide, due to the less access to preventive exams, the difficulties of the treatment segment, as well as the lack of knowledge about the prevention of the disease **[7].** Women with low literacy, who live in geographical areas with little or no access to public health services, may present a morbidity and mortality profile due to growing cervical cancer **[8].**

Cervical cancer mortality is an important indicator of the impact of the population living conditions and the quality of health care for women **[3].**High mortality rates of the disease may indicate difficulties in health services in reaching patients, performing early diagnosis, treatment and adequate follow-up. Thus, all women should be educated about the importance of conducting the preventive test, and it is up to the health teams, especially to nurses, to establish monitoring, information and extension actions in this territory **[9].**

The assumption study is the theoretical reference of the micropolitics that defines the work as a social and technical practice, which produces products and relationships between people. Therefore, the nursing work must be committed to the social and health needs of women, who seek to consume health, to recover their health, and to develop their autonomy and resilience for life **[10].**Micropolitics presupposes that work is an alive act, that is produced by singular encounters of people, as well as through political relationships among patients, doctors, nurses and other care professionals. That is, there are powerful relationships among managers, workers and patients in the production of health work **[11].**

For care production, workers use technological toolboxes from dead labor (hard and soft technologies) and living labor (light technologies). Technologies are pieces of knowledge and their material and immaterial outcomes, which can be used according to the workers' demands in the production of health care **[10].** Micropolitics proposes that there are three types of toolboxes: hard technologies - propaedeutic and diagnosticproceduresand therapeutic, light-hard technologies- knowledge or care techniques and light technologies- worker-patient relations **[11].**

Thereby, this study is justified by the importance of nurses' interventions in the prevention of cervical cancer, considering that this professional may sew bonds with the women in their territory in primary health care. The knowledge of a range of technologies allows their critical interpretation and the proposition of new care lines, which can improve the quality of primary health care. Therefore, this article aims to describe nursing interventions in the prevention of cervical cancer in primary health care.

II. Method

An integrative review, from the research question: "What interventions have nurses developed in the prevention of cervical cancer in Primary Health Care?". Methodological steps were followed, by the definition of the inclusion criteria and exclusion of the studies: participants, phenomena of interest, context, types of studies, search strategies, data extraction and synthesis **[12].**

The search was carried out between September and October 2018, had as strategies: studies published in English, Portuguese and Spanish; in the period between 2013 and 2017. The search occurred in the Virtual Health Library, a portal of the Brazilian government that allows the retrieval of articles from different databases such as Lilacs (Latin American and Caribbean Center on Health Sciences Information), Medline (Medical Literature Analysis and Retrieval System Online) BDENF- Nursing Database (*Banco de dados de Enfermagem, in Portuguese language*).

To ensure a more focal and specific search, we used the following search strategy: (tw:(“papanicolaou test”)) OR (tw:(“uterine cervical neoplasms”)) AND (tw:(“nurses”)) AND (instance:"regional") AND (fulltext:("1") AND year_cluster:("2013" OR "2015" OR "2014" OR "2016" OR "2017"))]. Inclusion criteria were: studies on the nurses’ work related to the prevention and diagnosis of cervical cancer, which were carried out in the Primary Health Care area. Studies that did not fulfil these criteria were excluded.

The retrieved articles from the databases had their titles and abstracts read entirely, with the application of the established criteria, as described before. Results were analyzed by the Categorical Thematic Analysis technique, through the organization of the analysis, with the initial reading of the texts; coding, with intervention identification and typification in homogeneous units; thematic categorization, with the grouping of interventions according to their semantic similarity **[13].**Data were presented in a descriptive way, had their synthesis drawn as a graphic representation. Data were also categorized through the reference of the Micropolitics **[10].**This study did not need of research and ethical procedures, because it did not involve human beings in its execution.

III. Results

The article extraction occurred in the Virtual Health Library with the retrieval of 101 articles distributed in the databases: LILACS (15 articles), Medline (71 articles) BDENF - Nursing (15 articles).Thereby, among the retrieved studies, 88 articles were excluded, which did not fulfill inclusion criteria. After a careful analysis, 13 papers were included, those that responded to the proposed objective, as it is described in Table 1, below.

Table 1 - Final sample of articles of the integrative review. São Paulo, Brazil, 2018.

Title of study	Type of study	Country of origin	Reference
[Nursing education for prevention of cervical cancer]	Qualitative	Brazil	**[14]**
[Primary health care: cervical cancer prevention in nursing consultation]	Qualitative	Brazil	**[15]**
Knowledge and Beliefs Regarding Human Papillomavirus among College Nursing Students at the Minority-Serving Institution.	Qualitative	USA	**[16]**
Attitude and knowledge of Iranian female nurses about Human Papillomavirus infection and cervical cancer: a cross-sectional survey.	Quantitative	Iran	**[17]**
Qualitative Study of Provider Perspectives on Structural Barriers to Cervical Cancer Screening Among First Nations Women	Qualitative	Canada	**[18]**
[Women with Uterine Cervical Cancer: perception of nursing care]	Qualitative	Brazil	**[19]**
Exploring the current and potential role of the primary care nurse in the prevention of cancer: a mixed methods study	Mixed Method	United Kingdom	**[20]**
[Prevention of cervical cancer: an experience in a primary health care clinic]	Qualitative	Brazil	**[21]**
Professional conduct during breast and uterine/cervical cancer screening consultations	Quantitative	Brazil	**[22]**
Cervical cancer-related knowledge, attitudes, and practices of health professionals working in Brazil's network of primary care units.	Quantitative	Brazil	**[23]**
[Cervical Cancer and HPV: Women's Knowledge after Nursing Consultation]	Qualitative	Brazil	**[24]**
Control of cervical cancer: actions taken by nurses based on collective subject discourse	Qualitative	Brazil	**[25]**
[Cervical cancer prevention: primary health care nurses have taken action?]	Qualitative	Brazil	**[26]**

Source: Outcomes from the research.

The final sample consisted of nine articles with a qualitative approach, three with a quantitative approach and one with a mixed method. The studies were carried out in several countries: Brazil, United Kingdom, Canada, United States and Iran.

After the initial reading of the included articles, the Nursing interventions were grouped into four thematic categories divided into *Light-Hard Technology: Vaccination Prevention, Screening and Comprehensive Care for Women*, and in *Light Technology: Health Education*. Within the context of light-hard technologies, some interventions were grouped from the perspective of the Nursing's technical work. The Vaccination Prevention category describes the offering of vaccine to the target population and the guarantee of immunization coverage for reducing the HPV transmission**[16-17]**.

The Screening category refers to the interventions related to the actions of the collection of the cytopathological examination and house visits for women with altered exams, which need an immediate response and can guarantee the non-propagation of the neoplasia in affected women **[18,22].** Finally, the category of Comprehensive Care for Women points to the way health services are organized to meet the needs of women concerning the prevention of cervical cancer, and how care technologies are distributed and organized **[14-15,20-21,24].**

In the context of light technologies, in the perspective of therapeutic relationships and dialogic, the *Health Education* category refers to the educational activities in the territory of the clinic, that aim to empower the female population to take care of their health**[19,25-26]**.

IV. Discussion

Light-hard technologies are established through the interaction between clinical and epidemiological knowledge and their application by professionals at the moment of care**[10]**. Nursing professionals may recommend HPV vaccination for needy women, and the population needs to be informed about HPV and associated cancers as well as encouraging the most at-risk groups to receive the HPV vaccine**[16]**. Nurses develop an important role in immunization programs as they can provide public health education and their knowledge of HPV infection and immunization prevention. Therefore, they influence the success of the cervical cancer immunization program. HPV vaccines are expected to decrease the transmission of high-risk virus types and then to reduce the incidence of cervical cancer and other HPV-related diseases in developing countries**[17]**.Infections can be prevented for those without prior exposure, but the administration should occur before sexual activity begins. It is, therefore, necessary to improve health professionals' skills and the general public about HPV infection and vaccines**[17]**.

The actions of early diagnosis screening are fundamental to the prevention of complications related to women's health. Primary health care is the main entry point for women's care. The tasks of the primary care team are to provide comprehensive and ongoing attention to women's health needs, as well as to refer the critical cases to other levels of health care for longitudinal care. Like this, the consultation of screening and early detection of preexisting diseases, surveys of the patient's clinical and gynecological history may contribute to

the reduction of cervical cancer **[22]**.

Nurses and their team can conduct home visits for women and their follow-up who have not returned to take the results of the Pap smear test. In the same way, nurses can intervene in women's health activities, performing cervical screening, by Pap smear test, to screen the cervix. Nursing interventions should focus on sustainable testing in communities, establishing strategies for screening for cervical cancer, and new forms of screening that provide education for both women and health professionals **[18,23]**.

Generally, there is a spontaneous demand of women for the preventive examination without any programming to perform this procedure in the territory. Primary care teams have shown great difficulty in monitoring the coverage of the exam among their patients, as well as performing examinations for women who are within the age group at risk (from 25 to 64 years)**[26]**.

Through specific actions in the territory, nurses need to reorganize according to the attributes of primary health care and have a commitment in front of their efforts, taking responsibility for solving existing problems, breaking with old ways of working and dealing with the process health-disease in society. It is necessary to implement a policy of permanent education in health, to provide skills to nurses, aiming at promoting health, prevention of diseases especially focused on women's health **[14]**.

Nurses can contribute to a greater reach of the target population, with adequate health education, as a practice guided in the care of comprehensiveness of the subject. They can develop actions of prevention of cervical cancer, which are focused on the early detection of cervical intraepithelial lesions or cervical cancer through oncotic cytology**[15]**.

The Nursing process may strength the carrying out of the cytological examination. This process makes possible the construction of systematized and structured instruments, which later attached to the medical record will facilitate the follow-up of the multi-professional team through the existing annotations. Nursing practice steps such as implementation, planning, organization, execution, and evaluation, allows the directing of the actions to attend women needs**[21]**.

Light technologies are produced by the professional-patient encounter through listening, interest, bonds and trust **[10]**. Nurses can promote women's autonomy through health education, developing technologies for disease prevention, rehabilitation and health promotion. They can coordinate actions and programs of diseases control with public significance, such as cervical cancer. Primary health care clinics also have community's health workers to visit and summon up women for the Pap smear test realization **[25]**.

Nurses have the responsibility to conduct the health education process, which serves to subsidize the satisfactory patient's adherence to the service, facilitating the understanding and sensitizing them to the preventive examination, as well as healthy behaviors and safe **[25]**. The health education based on women's empowerment and autonomy may contribute to greater adherence to the Pap smear test collection**[26]**.

The Nursing interventions' intersection according to the Micropolitics are presented to the reader in a synthetic form in Figure 1, described below:

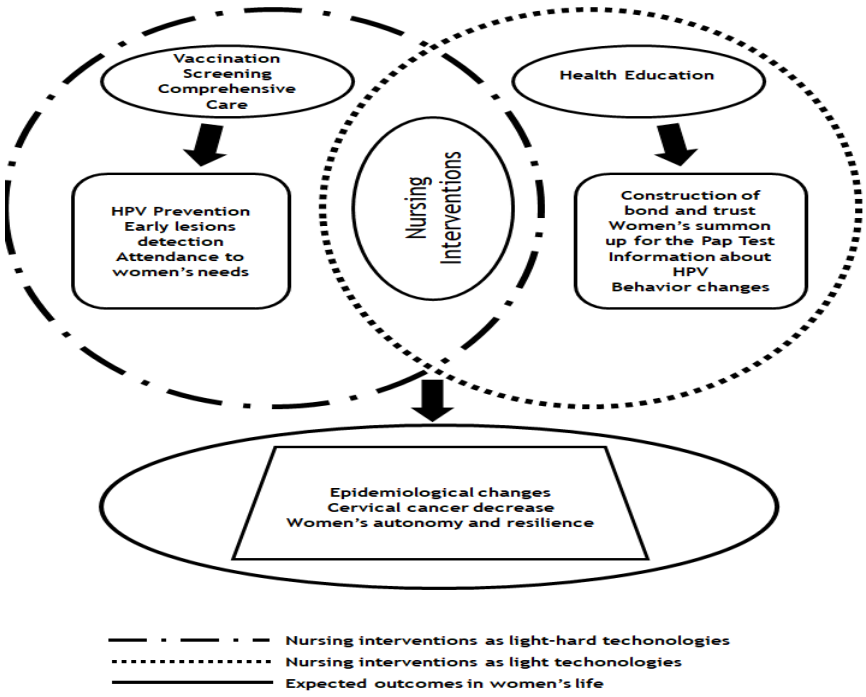

Figure 1 –Nursing interventions' intersection according to the micropolitics. São Paulo, 2018.

V. Final considerations

This review identified that nurses in primary health care could develop interventions for the prevention of cervical cancer based on light-hard technologies such as HPV vaccination, screening measures and the construction of comprehensive care for women. From the perspective of light technologies, nurses can contribute to the women's empowerment in the community through health education actions.

These outcomes point to the nurses' role in orienting women's self-care and providing a change of consciousness. The Nursing interventions discussed here may improve the epidemiological profile, with the decreasing incidence of cervical cancer, as well as, in contributing to adequate assistance to women, proposing care models for the female population, and furthermore, promoting women's autonomy and resilience in defending their rights.

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