

**Cervical cancer prevention in primary health care:
development of a technical product as a strategy for improving the quality of care**

*Prevención del cáncer de cuello uterino en la atención primaria de salud:
elaboración de una producción técnica como estrategia para la cualificación de la atención*

*Prevenção do câncer de colo uterino na atenção primária à saúde:
elaboração de uma produção técnica como estratégia para qualificação do cuidado*

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Abstract

Cervical cancer (CC) begins with intraepithelial changes that progress slowly and gradually. In most cases, the lesions are asymptomatic; however, when identified and treated early, they can be cured. Among the main strategies for cervical cancer prevention that can be implemented in the context of Primary Health Care (PHC) are cervical cytology screening and immunization against human papillomavirus (HPV). This report aims to describe the actions undertaken to improve the quality of care provided by healthcare professionals to women, focusing on cervical cancer prevention within the context of PHC in a Planning Area (PA) of the municipality of Rio de Janeiro, Brazil. This is an Intervention Project (IP) involving the development of a workshop as a proposed technical-technological product. Based on the experience, participants were observed to have broadened their perspectives on the topic and expressed different conceptions of care aimed at overcoming this challenge. This work is expected to contribute to transforming emerging concerns into concrete strategies for changing existing realities.

Descriptors: Primary Health Care; Women's Health; Uterine Cervical Neoplasms; Education; Nursing Care.

Resumen

El cáncer de cuello uterino (CCU) comienza con cambios intraepiteliales que progresan de manera lenta y gradual. En la mayoría de los casos, las lesiones son asintomáticas; sin embargo, si se identifican y tratan a tiempo, pueden curarse. Entre las principales estrategias para la prevención del cáncer de cuello uterino que pueden implementarse en el ámbito de la Atención Primaria de Salud (APS) se encuentran el cribado mediante citología cervical y la inmunización contra el virus del papiloma humano (VPH). Este informe tiene como objetivo describir las acciones emprendidas para mejorar la calidad de la atención que los profesionales de la salud brindan a las mujeres, centrándose en la prevención del cáncer de cuello uterino en el contexto de la APS, dentro de un Área de Planificación (AP) del municipio de Río de Janeiro, Brasil. Se trata de un Proyecto de Intervención (PI) que incluye el desarrollo de un taller como propuesta de producto técnico-tecnológico. A partir de esta experiencia, se observó que los participantes ampliaron sus perspectivas sobre el tema y expresaron diversas concepciones de atención orientadas a superar este desafío. Se espera que este trabajo contribuya a transformar las preocupaciones emergentes en estrategias concretas para modificar las realidades existentes.

Descriptoros: Atención Primaria de Salud; Salud de la Mujer; Neoplasias del Cuello Uterino; Educación Continua; Atención de Enfermería.

Resumo

O câncer de colo de útero (CCU) se inicia com alterações intraepiteliais que avançam de maneira lenta e progressiva e apresenta-se, na maioria dos casos, com lesões assintomáticas, quando identificadas e tratadas precocemente, chegam ao estágio de cura. Entre as principais estratégias de prevenção contra o CCU, e que possuem aplicabilidade no contexto da Atenção Primária à Saúde (APS), destaca-se o exame citopatológico de colo de útero e a imunização contra o HPV. O objetivo deste relato é descrever as ações realizadas para: qualificar o cuidado oferecido pelos profissionais de saúde às mulheres com foco na prevenção do câncer de colo uterino no contexto da APS em uma Área de Planejamento (AP) do município do Rio de Janeiro. Trata-se de um Projeto de Intervenção (PI) com a elaboração de uma oficina como proposta de produto técnico-tecnológico. Com base na experiência, foi percebido que os participantes da atividade ampliaram o olhar quanto a temática e apresentaram diferentes concepções de cuidado para superação desse desafio. Espera-se que esse trabalho possa contribuir para a transformações de novas inquietações em estratégias concretas para a mudança de realidades.

Descriptoros: Atenção Primária à Saúde; Saúde da Mulher; Neoplasias do Colo do Útero; Educação Continuada; Cuidados de Enfermagem.



Introduction

Cancer can be defined as a group of diseases characterized by changes in cellular growth, which becomes disordered, is no longer controlled by the body, and may affect different organs¹. Currently, cancer is considered a global public health problem, primarily driven by demographic and structural transitions and changes in culturally established behaviors occurring across countries².

Among the different types of cancer, cervical cancer (CC) stands out. This disease affects the lower portion of the uterus, which is in contact with the vaginal canal and is known as the uterine cervix¹. The natural history of cervical cancer begins with intraepithelial changes that progress slowly and gradually and may take 10 to 20 years to become clinically apparent. In most cases, these lesions are asymptomatic and, when properly identified and treated, can be cured³.

Among the main risk factors for cervical cancer is persistent infection with human papillomavirus (HPV), particularly subtypes associated with a high risk of malignant tumors. The most frequently identified oncogenic HPV types in cervical cancer are HPV 16 (53%), HPV 18 (15%), HPV 45 (9%), HPV 31 (6%), and HPV 33 (3%)¹.

Cervical cancer is preventable through HPV immunization, screening for precursor lesions, and early treatment of these lesions⁴. The main detection method currently used in Brazil is cervical cytology screening. This test enables the early detection of precursor lesions and aims to prevent disease progression³.

From an epidemiological perspective, cervical cancer ranks as the eighth most incident cancer worldwide in the general population, with more than 662,000 cases in 2022, behind other cancers such as lung, breast, and colorectal cancer, which rank higher in incidence. Regarding mortality, cervical cancer ranks ninth, accounting for approximately 349,000 deaths annually. In terms of five-year prevalence, Asia accounts for a substantial proportion of the global total (60.9%), followed by Africa 14.7%⁵.

In Brazil, cervical cancer ranked as the third most prevalent type of cancer among women in 2023, with an incidence rate of 15.38 cases per 100,000 women and a mortality rate of 4.51 deaths per 100,000 Brazilian women. Furthermore, the estimated number of new cervical cancer cases for each year of the 2023–2025 period was 17,010^{2,6}.

Cervical cytology, also known as the Papanicolaou test or Pap smear, is a cervical cancer prevention measure that is relatively inexpensive for the healthcare system and easy to implement in healthcare facilities, as it does not require highly sophisticated technological equipment. It therefore offers a favorable cost-benefit profile given the importance of screening⁷. According to Brazilian Ministry of Health guidelines, the test should be offered to all women and transgender men who have had sexual intercourse, regardless of whether they are sexually active at the time of testing. The recommended age range is 25–64 years, as high-grade lesions are more frequently observed in this age group⁸.

Primary Health Care (PHC) is therefore a strategic setting for implementing early identification strategies for

health problems, including cervical cancer. Women's healthcare at this level includes several interventions, such as consultations, cervical cytology screening, educational activities, preventive healthcare practices, and immunization⁹.

Regarding women's healthcare, weaknesses can be identified when care is considered beyond maternal and child health or issues related to sexual health. Other stages of women's lives, such as the climacteric period, are also often not treated as priorities¹⁰.

In this context, professional development is essential to improving healthcare delivery. The training of healthcare professionals, particularly those working within Brazil's Unified Health System (SUS), should be strengthened in the fields of science and technology to support the implementation of health interventions. Strategies are therefore needed to establish and legitimize continuing health education spaces, including flexible meeting arrangements and greater professional autonomy to improve the quality of care provided¹¹.

This study is justified by the need to improve professional strategies for expanding women's healthcare, particularly cervical cancer prevention, a preventable chronic health condition that can be addressed through services and interventions providing comprehensive care. It is also justified by the importance of strengthening PHC as a strategic setting for the early identification of health problems, including cervical cancer, which remains a major public health concern in Brazil.

Considering the sociopolitical and health context presented, this study addresses the following question: "How can healthcare professionals strengthen the care provided to women, focusing on cervical cancer prevention within Primary Health Care?" Accordingly, the objective is to improve the care provided by healthcare professionals to women, focusing on cervical cancer prevention within PHC in Planning Area (PA) 2.2 of the municipality of Rio de Janeiro, Brazil.

Methodology

To achieve the proposed objectives, this study involved the development of an Intervention Project (IP). An IP is a proposal addressing a topic of social and political relevance, based on a structured model designed to provide a new solution to an existing problem. Its purpose is to intervene in concrete, pre-existing situations and propose solutions to the problems under investigation in a practical, objective, and actionable manner^{12,13}.

Aiming to develop an effective IP, the main causes of the problem must be identified so that a solution can be devised or, at least, the problem can be mitigated. In this context, Problem Tree is a tool primarily intended to define the scope of the IP. It helps identify the causes and consequences of a problem, thereby preventing the problem from being obscured by interventions that address only its consequences¹³.

Accordingly, this study is an experience report on the implementation of an IP addressing the following problem: "Challenges arising from weaknesses in the care



provided by healthcare professionals to women, focusing on cervical cancer (CC) prevention within the context of Primary Health Care (PHC)".

The IP was intended for professionals working in healthcare facilities within a specific planning area of the municipality of Rio de Janeiro. The choice of this setting was justified by the fact that it was where I worked as a Family and Community Nursing resident throughout the two-year postgraduate program, as well as by its epidemiological profile, the low achievement of cervical cancer screening indicators, and the diversity of the area, which includes a large number of women within the recommended screening age range.

Activities designed to support professional development were implemented through a group meeting attended by representatives of different professional categories with an interest in the topic. The meeting took place in the auditorium of one of the Municipal Health Centers (MHCs) in the area, as this venue could more comfortably accommodate the expected number of participants. The date and time were agreed upon with the local manager to ensure that the activity would not disrupt the healthcare services provided to users that day.

The IP action plan was structured around a proposal and schedule for a technical-technological product (TTP) in the form of a scientific event organized as a workshop. The IP was developed through the following stages: (1) identification of the problem through the construction of a Problem Tree; (2) development of a proposal for a scientific workshop for healthcare professionals working in PA 2.2; (3) preparation of an invitation to publicize the event across all Primary Care Units (PCUs) in PA 2.2; (4) delivery of the workshop entitled "Caring to Live: Women's Healthcare Focusing on Cervical Cancer Prevention in Primary Health Care"; and (5) analysis and presentation of the results using the experience-report methodology.

It is worth noting that this study was not submitted for review by a Research Ethics Committee (REC), as the data presented were not obtained through direct interaction with participants. The information analyzed reflects an account constructed from the researcher's observations and perceptions during the experience, without direct data collection from participants. Accordingly, the study did not use individualized or identifiable information about those involved, thereby preserving their privacy and confidentiality.

Experience Report

The development of this event arose from a desire to reflect on what is essential: women's healthcare and the creation of a space for collective learning and transformation among healthcare professionals. Beyond establishing a formal setting for permanent health education, the intention was to slow down amid the intense pace of PHC work processes and sensitively reflect on the opportunities and challenges encountered in everyday practice.

In October 2025, the event entitled "Caring to Live: Women's Healthcare Focusing on Cervical Cancer Prevention in Primary Health Care" was held as the TTP proposed in this

study. The workshop began at approximately 8:30 a.m. Breakfast was served to encourage participants to interact before the other activities began. The participants were healthcare professionals from two occupational categories: community health workers (CHWs) and nurses. Most of the CHWs belonged to the team to which I was assigned during my residency. The nurses were predominantly residents and clinical preceptors.

Although the invitation had been extended to all professionals in the planning area, representatives from the different healthcare facilities were not present. Furthermore, no physicians or members of the facilities' multiprofessional teams attended. Consequently, all participants were professionals from the healthcare facility where the event took place. The room was then rearranged to form a circle, allowing all professionals to interact. Each participant introduced themselves by stating their name, professional category, and reference healthcare facility. This activity was intended to encourage closer relationships and facilitate exchanges among participants.

To initiate the discussion and stimulate reflection, the following question was posed: "What is the main challenge you identify in providing care to women regarding cervical cancer prevention in PHC?" Responses were collected through an open-ended question format to encourage participants to express themselves freely and capture the different accounts describing their everyday work experiences.

The questions used in this study were developed using the Mentimeter platform, a digital tool that enables real-time interaction between the presenter and the group by collecting opinions anonymously. For open-ended questions, the system can group similar responses, facilitating a critical assessment of participants' perceptions.

The responses indicated that approximately half of the participants referred to the difficulty of raising awareness among women. This observation may reflect the challenges healthcare professionals face in explaining the importance of cervical cancer screening through cervical cytology to service users. Other issues raised included difficulties in updating vaccination records, treatment adherence, and embarrassment about undergoing certain procedures.

Continuing with the proposed program, the activity entitled "Mapping Care" was conducted by the author using an interactive lecture and discussion format. It began with a brief overview of cervical cancer epidemiological data at the national and international levels. The main actions and strategies currently available in PHC for women's healthcare were then presented. Finally, the discussion addressed the differences between the two funding models currently in effect, including how indicators are calculated and the targets and parameters established. The benefits of evaluating good practices that broaden the focus beyond cervical cancer screening through cytology collection to encompass women's healthcare were also discussed, along with the implications for everyday work.

Following the initial presentation, participants engaged in a group discussion. This led to reflection on the



widespread lack of understanding regarding the purpose of screening and the habits that may delay sample collection. Notably, these doubts were not exclusive to service users; they were also present among healthcare professionals.

In this context, a barrier to greater participation in screening emerged, particularly regarding the timely provision of services: insufficient knowledge among healthcare professionals.

For the next activity, participants were divided into smaller groups to carry out the proposed exercises. Three groups of four or five participants were suggested, with heterogeneous compositions to encourage everyone's active participation and facilitate the exchange of different perspectives on healthcare work processes related to women's health.

The first exercise, entitled "Ideas in Motion," used an active-learning approach to identify positive and negative factors in the work processes involved in women's healthcare. The activity was guided by questions adapted from the SWOT matrix, and the responses were recorded on posters. The SWOT matrix is a strategic tool that examines internal and external factors to support the planning of a particular action. The term is an acronym for four English words: strengths, weaknesses, opportunities, and threats¹⁴.

Questions were developed to guide reflection, stimulate critical thinking, and encourage discussion of the topic. These included: "What does women's healthcare mean?"; "Which women seek cervical cytology screening?"; "Which women die from cervical cancer?"; and "What are the challenges in reaching service users?".

The discussions indicated that most groups considered raising awareness among both women and healthcare professionals, together with expanding opportunities for sample collection beyond previously scheduled appointments, to be important strengths of the care already provided by healthcare teams. Other strengths identified included the provision of contraceptive methods, sexual and reproductive health planning groups at healthcare facilities, and professional development to ensure the collection of high-quality laboratory samples.

Regarding practices identified as "opportunities" in the SWOT matrix, participants noted that extended and more flexible opening hours, available at some facilities through the Saúde na Hora program, as well as health education activities conducted by Family Health Strategy (FHS) teams, could improve the quality of women's healthcare.

Regarding the "weaknesses" identified, participants appeared uncomfortable acknowledging that the two main issues were the pressure of service demands in the daily work of PHC professionals and the fact that consultation rooms in healthcare facilities often provide an insufficiently welcoming environment for a procedure that most women find uncomfortable. It therefore became evident that offering cervical cytology collection opportunistically during consultations is more difficult when the original purpose of the appointment was not cervical cancer prevention.

Another threat identified was the difficulty some women experience when attending women's health

consultations and undergoing cervical cytology collection with male healthcare professionals. Participants' accounts also indicated that women may experience embarrassment and fear of sample collection, as well as fear of losing their jobs if they attend a healthcare facility. These factors create additional barriers to access.

In the second exercise, the groups remained in their previous subdivisions and were asked to develop a strategy to improve the quality of care provided to women in PHC. Their proposals were recorded on posters and structured using the 5W2H tool, which supports more objective project planning through seven basic questions: "What will be done?", "Why will it be done?", "Where will it take place?", "When will it be carried out?", "Who will be responsible?", "How will it be carried out?", and "How much will it cost?"¹⁵.

The discussions suggested that modifying the sample collection setting to create a more welcoming environment could have a substantial impact. Recommendations included placing signs on rooms where cervical cytology is collected to prevent potentially embarrassing situations and interruptions during consultations. Other suggestions included music therapy and providing personal hygiene products in healthcare facility restrooms to help reduce users' feelings of insecurity during sample collection and increase their comfort.

Consistent with the goal of creating a more welcoming environment for women, participants also emphasized the importance of measures to reduce fear of cervical cytology collection. Proposed actions included Integrative and Complementary Health Practices (ICHPs), particularly music therapy and aromatherapy, as well as items to humanize the procedure room, such as a designated place for users to leave their clothing and bags. Participants also suggested reducing the lighting during specific stages of the procedure.

Another proposal highlighted the importance of intersectoral collaboration, particularly through a joint initiative between a healthcare facility and a local school. The activity would begin with a lecture delivered by healthcare professionals on women's health, emphasizing the importance of self-care. This would be followed by an outreach clinic offering cervical cytology collection, mammography appointments, and vaccination.

It is important to emphasize that, although the groups did not follow the structure of the 5W2H tool exactly, all the proposals were feasible within the current realities of healthcare facilities. With minor adjustments, these measures could significantly expand the reach of strategies for women's healthcare.

The next activity, entitled "Weaving Paths of Care," aimed to share successful practices from the FHS unit with the highest screening coverage rate in the area. This information was obtained from a monitoring dashboard shared by the area coordination team and healthcare facilities to track cervical cancer screening coverage across the territory. The activity used an interactive lecture and discussion format and was led by an invited speaker.

Among the main factors contributing to the achievement of the target, participants highlighted the



importance of working in a model FHS unit with a smaller assigned population and a location within a favela, which facilitates the development of strong relationships between healthcare professionals and service users. In terms of work process management, close collaboration between management and healthcare teams, together with the establishment of clear and achievable objectives, appeared to motivate professionals and become an established part of the unit's working culture. The event concluded with an evaluation activity in which participants generated a word cloud using the Mentimeter platform in response to the question: "In one word, describe what this meeting contributed to your professional practice." Their responses highlighted feelings associated with gaining a clearer understanding of the topic, professional development, a broader perspective, and increased creativity.

Final Considerations

The activity was highly satisfactory, not only meeting the objectives proposed for the study but also

fostering a process of personal and professional growth that extended beyond the professional sphere. The lack of diversity among the professional categories represented was a concerning issue, given that the absence of multiple perspectives hinders critical and reflective discussion. This highlights a lack of alignment among the different areas of expertise involved in PHC, as the absence of diverse voices limits the collaborative development of solutions that affect work processes and the quality of services provided to the population. This situation reveals underlying priorities and working conditions and prompts reflection on how comprehensive, multiprofessional care can be delivered when the very individuals responsible for sustaining the care process remain fragmented.

The results achieved through this intervention project demonstrate that spaces for meetings and discussion can help change the course of problems that affect everyday practice. It is hoped that this work will encourage other professionals who seek to strengthen PHC and provide more comprehensive and humanized care for women.

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