



## COLLECTION OF ONCOTIC CYTOLOGY AMONG UNIVERSITY STUDENTS AND THE PERIODIC ADHERENCE TO THE EXAMINATION

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### ABSTRACT

**Objective:** Analyzing the importance and reasons that led students to perform oncotoc cytology collection within the university space and identify whether there was periodic adherence to the examination. **Method:** A descriptive and quantitative research carried out in August 2022 by applying an electronic questionnaire, together with a convenience sample of students and graduates participating in a health promotion and education project at a federal public university in the State of Paraná. The analyses were made by descriptive statistics to summarize and describe the data. **Results:** It was observed that the participants had an average age of 26 years old; 38.03% of the participants made the first collection of the exam through the project at the university; 94.37% felt motivated to continue collecting the exam periodically; and 66.20% reported having already taken the exam later; 77.46% answered that it is important to take the exam in a university space, because, besides self-care, they encourage other women to take the exam. **Conclusion:** It is concluded that the collection of oncotoc cytology in university students stimulates the promotion of women's health, bringing knowledge about the importance for early detection of cervical cancer and the need for periodic adherence to the examination.

**Keywords:** Uterine cervical neoplasms. Women's health. Papanicolaou test. Disease prevention. Health education.

### INTRODUCTION

Cervical cancer (CC) is a silent and slow-developing disease. Usually begins with the appearance of pre-malignant lesions that, if identified and treated at the right time, do not evolve into cancer. According to the National Cancer Institute's José Alencar Gomes da Silva (INCA) Early Detection Booklet, progressive intraepithelial transformations can progress to a malignant neoplasm in about 10 to 20 years<sup>(1)</sup>.

In the world, this type of cancer is the fourth most common among women, and in Brazil, the estimate for the three-year period 2023-2025 is 17,010 new cases with an estimated risk of 15.38 cases per 100,000 women, placing CC as the third most frequent cancer among women in the country. In the northern region, the highest incidence of the disease prevails with about 24 to 26 cases per 100,000 inhabitants, confirming the data that this disease affects, disproportionately, poorer regions<sup>(2, 3)</sup>.

Among the means of prevention available in Brazil, there is the vaccination against Human Papilloma Virus (HPV), which is provided by the Brazilian Unified Health System (SUS). The vaccine used is quadrivalent, which provides protection against types 6, 11, 16 and 18. The recommendation is a single dose for the target age group of the vaccine, which are girls and boys aged 9 to 14 years old, because its effectiveness is maximum when administered before the beginning of sexual life, that is, when individuals have not yet been exposed to the virus and there is no risk of infection<sup>(4,5)</sup>.

However, CC is the only female genital cancer that can be effectively prevented by an effective and inexpensive screening technique, namely through the Papanicolaou oncotoc cytology examination, which allows detection and treatment in the malignant pre-stage, still in the form of cervical intraepithelial neoplasia (CIN)<sup>(3)</sup>.

According to the American Cancer Society

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(ACS), in the United States (USA), cytological tests for detection of CC have been used for decades. The first oncotoc cytology test used was Pap smear and for more than a decade they have been using DNA testing for HPV, resulting in a substantial decrease in cases of CC in this country<sup>(6)</sup>.

In Brazil, the oncotoc cytology exam, Papanicolaou, is the gynecological examination used for CC screening. Similar to the guidelines established by ACS, which provides for screening in women aged between 25 and 65 years old, in Brazil this test should be offered to women aged between 25 and 64 years old who already have sex, and should be performed every three years, after two consecutive annual examinations with normal results<sup>(1,6)</sup>.

The main risk factor for the development of CC is persistent infection with HPV, especially HPV-16 and HPV-18, which are responsible for about 70% of cervical cancers. However, other risk factors may lead to CC, such as early onset of sexual activity, sexual involvement with multiple partners, multiple pregnancies, smoking, diseases such as diabetes, lupus, immunosuppression, among others. Primary prevention is deeply linked to the mitigation of exposure to these factors<sup>(1,7)</sup>.

Health education is a tool for the joint construction of knowledge through dialogue, as well as encouraging autonomy, popular participation and people's protagonism in caring for themselves. In this perspective, the university environment is a favorable space for the daily practice of actions on preventive care. Therefore, in this place, there is a young public with an active sexual life and health education can be an alternative to contribute to the increase of knowledge levels, attitudes and practices of women regarding the prevention of CC<sup>(7,8)</sup>.

The nurse has a fundamental role in health promotion and education, because, besides acting as the entrance door to SUS, it is he who sometimes performs the collection of the oncotoc cytology examination. It is the professional's responsibility to guide women about the risk factors that expose them to contact with the various types of HPV, so their performance should be humanized, with qualified and quality listening, Making the

women he serves take care of themselves and adopt healthier lifestyle habits<sup>(9)</sup>.

The offer of oncotoc cytology examination collection within the university space can be an effective strategy for CC screening, since one of the risk factors for the development of this type of cancer is the early onset of sexual activity and according to a survey of the National Health Survey (NHS) carried out in 2019, the average age for first sexual intercourse in the female population aged 18 years old or over was 18.1, an age that resembles the entry of young women to university<sup>(7,10)</sup>.

In this context, it is investigated: What were the motivations that led university students to collect the oncotoc cytology exam in a university space? Are these students aware of the importance of performing a periodic oncotoc cytology examination?

It is believed that the participation of university students and graduates in a project of health promotion and education in the university environment can arouse interest in self-care through the periodic performance of oncotoc cytology for CC prevention, sensitizing them to the periodic adherence to the examination.

In this perspective, the research is justified because CC is a public health concern in many countries, including Brazil. Understanding the motivations that lead university students to take the oncotoc cytology exam is fundamental to promote awareness about the importance of early detection and periodic adherence to the exam, contributing to the prevention of this type of cancer. From the results obtained, educational strategies or health programs can be developed to increase awareness and regular adherence to the oncotoc cytology examination, thus promoting the reproductive health of university students.

This study aims to analyze the importance and reasons that led students to perform oncotoc cytology examination within the university space and identify if there was periodic adherence to the exam.

## METHODOLOGY

This is a descriptive research, of quantitative

nature. The study was conducted in a federal public university of a medium-sized municipality, located in the north of the State of Paraná.

The sample of this research was composed by 71 students and graduates from undergraduate courses of the institution where the study was conducted and who had performed the oncotoc cytology exam, through a project of health promotion and education, started in 2015. The objective was to promote the health of university students through disease prevention, promotion and health education. The actions were focused on topics such as sexually transmitted infections (STIs), AIDS, cervical cancer, cancer and other oral diseases, postural habits and changing life habits. Psychological support and integrative therapies were also offered.

The project had the support of the Municipal Health Authority that provided its professionals, as well as materials and inputs for carrying out the actions. At first, guidance was provided through educational activities such as lectures, conversation rounds, and group dynamics and, subsequently, the oncotoc cytology exam collection was offered to all sexually active students, regardless of age. Subsequently, nursing consultations were conducted for the delivery of oncotoc cytology tests, being individually made to each student with a relevant approach and according to the result of the examination.

The inclusion criteria were: being a student or graduate of the university surveyed and have participated in the educational activities of the health promotion and education project of the institution, through the collection of the oncotoc cytology exam. The exclusion criteria were: students who did not meet the request to join the survey after three attempts and students who collected the exam in 2015.

The sample of the research was selected for non-probabilistic convenience, and composed by students who participated in the project. The sample calculation was performed from the total number of 120 students who had performed oncotoc cytology collection from 2016 to 2022. This sample was calculated considering the confidence level of 95%, maximum desired error of 5%, proportion of

the population of 60% and increase of 10% for possible losses in the process of collecting data from the survey. Thus, we obtained a total sample of 71 students and graduates who participated in the survey.

As a research instrument, the authors developed a structured questionnaire for variables such as sociodemographic data collection and oncotoc cytology examination data collection with direct multiple choice questions of fact and action. This tool was made available in Google Forms, to collect data online from students and graduates who had already participated in the project.

In the first stage, the researcher surveyed the contacts of students and graduates who participated in the health promotion and education project of the institution studied. In the second stage, the researcher contacted the students and graduates through a message sent by WhatsApp application and e-mail in which the research proposal was presented, terms, consent documents and instruments to the participants, Reviewing all the necessary guidelines and clarifications. In the third step, the researcher forwarded the link of the survey through a message sent by WhatsApp and e-mail, requesting that students or graduates indicate "agree" or "disagree" on the item regarding the Free and Informed Consent (FIC) and then asked them to answer the sociodemographic questionnaire and the research on the subject in question.

Data collection took place in August 2022. After data collection, they were compiled in a spreadsheet through a database (Microsoft Excel). For the analysis, this same database was used through descriptive statistics (absolute and relative frequency) to summarize and describe the data, and then was presented in table format to require a clear and objective visualization of the results presented.

The present research followed all ethical precepts, being submitted to the Committee of Ethics in Research with Human Beings of the Faculty of Apucarana (CEP-FAP) and approved under the number 5.476.655 and Certificate of Presentation for Ethical Appreciation (CAAE) 58758922.60000.5216.

## RESULTS

The sample consisted of 71 women aged from 20 to 45 years old and average 26 years old. Regarding the socioeconomic characteristics, most of them were women who declared themselves as white (69.01%),

Catholic (45.07%), single (67.61%), without children (84.51%), with higher education (43.66%), working full time (56.34%) and with family income between 3 and 4 monthly minimum wages (42.25%) (Table 1).

**Table 1.** Frequency distribution of sociodemographic characteristics. Paraná, Brazil, 2016-2022. (N= 71)

Sociodemographic Characteristics	n*	%**
Age range		
20--- 25	34	47.89
26--- 30	31	43.66
31--- 35	3	4.23
36--- 40	2	2.82
41--- 45	1	1.41
Race		
White	49	69.01
Brown	17	23.94
Black	2	2.82
Yellow	3	4.23
Religion		
Catholic	32	45.07
No religion	27	38.03
Evangelical	7	9.86
Others	5	7.05
Marital status		
Single	48	67.61
Single (stable union)	12	16.90
Married	10	14.08
Divorced	1	1.41
Children		
No	60	84.51
Yes	11	15.49
Education		
Incomplete higher education	27	38.03
Complete Higher Education	31	43.66
Incomplete Specialization	4	5.63
Complete Specialization	3	4.23
Incomplete Master's degree	4	5.63
Complete Master's Degree	2	2.82
Paid work		
I work full time	40	56.34
I don't work	18	25.35
Part-time work	13	18.31
Remuneration value		
Between 3 and 4 minimum wages monthly	30	42.25
Between 1 and 2 minimum wages monthly	28	39.44
Above 5 minimum wages monthly	8	11.27
Below minimum monthly wage	5	7.04

\* Absolute frequency

\*\* Relative frequency

Among the interviewees, 46 (64.80%) reported that the first collection of the preventive examination was performed before

they turned 20 years old. Regarding the place of the first collection, 30 (42.25%) revealed that it was carried out in a gynecological office

and 27 (38.03%) in the campaign held at the university. About the number of times that the exam was collected in the university space, 27 (38.03%) women answered that they harvested at least 2 times in the university. Regarding the

motivation for the next collections after the campaign at the university, 67 (94.37%) reported that they felt motivated to continue collecting the exam periodically (Table 2).

**Table 2.** Frequency distribution of data regarding the collection of preventive exams and the motivation to perform the exam periodically. Paraná, Brazil, 2016-2022. (N= 71).

Variables	n*	%**
At what age did you have your first preventive collection?		
≥18 years	30	42.26
19 years	16	22.54
20 years	8	11.27
≥ 21 years	15	21.13
I don't remember	2	2.82
Where did you carry out your first preventive collection?		
Gynecological Office	30	42.25
Campaign at the University	27	38.03
Basic Health Unit	14	19.72
After taking the preventive test during the campaign at the university, did you feel motivated to continue taking the exam periodically?		
Yes	67	94.37
No	4	5.63
How many times did you take the preventive exam at university?		
1 time	35	49.30
2 times	27	38.03
more than 3 times	5	7.04
3 times	4	5.63
Which professional carried out the preventive collection at the university?		
Nurse	42	59.15
I don't know	22	30.99
Doctor	6	8.45
Trainee	1	1.41

\* Absolute frequency

\*\* Relative Frequency

When asked why the collection of the exam at the university, most, 64 (90.14%) of the interviewees, answered that they thought it important to take this care with themselves; 21 (29.58%) reported never having taken this exam and found a good opportunity. Regarding the importance of preventive collection in the university campaign, 55 (77.46%) of the interviewees answered that they believe it is

important because, besides caring for themselves, they can now encourage other women (friends or family members) to perform preventive examination; 38 (53.52%) answered that they received other health care-related guidance and 28 (39.44%) reported that they received guidance on the importance of breast examination performed by them at home (Table 3).

**Table 3 –** Responses from the population regarding the reasons for collecting and the importance of the preventive exam at the university. Paraná, Brazil, 2016-2022. (N= 71).

Variables	n*	%**
Reasons for carrying out preventive collection at the university. #		
I think it's important to take care of myself;	64	90.14
I had never taken this exam, and I thought it was a good opportunity;	21	29.58
I was encouraged by friends/colleagues to take the exam;	11	15.49
It presented some symptoms such as discharge, itching, odor, bleeding, pain;	8	11.27

Why collecting the preventive exam at the university was important. #		
In addition to taking care of myself, I can now encourage other women (friends or family) to take preventive exams;	55	77.46
I received other guidance related to health care;	38	53.52
I received guidance on the importance of the breast examination performed by me at home;	28	39.44
I thought the campaign to collect preventive exams at the university was important, however, I had already received guidance at other health institutions where I had taken the exam previously;	25	35.21

\* Absolute frequency

\*\* Relative frequency

# Participants could mark more than one alternative.

Regarding the continuity of the examination after collection at the university, 47 (66.20%) reported having done the examination later, of these 24 (51.1%) reported that they performed

the next examination in a private gynecological office and 14 (29.80%) in a Basic Health Unit (BHU)/health post (Table 4).

**Table 4.** Responses from the population regarding the continuity of the exam and preventive collection locations. Paraná, Brazil, 2016-2022. (N= 71).

Variables	n*	%**
After collecting the preventative in the university campaign, did you take the preventative again in another health institution or campaign?		
Yes	47	66.20
No	24	33.80
If so, in which health institution or campaign did you carry out the last preventive collection?		
Private gynecological office	24	51.1
BHU/Health Center	14	29.8
Others	5	10.5
Didn't respond	4	8.5
Total	47	100

\* Absolute frequency

\*\* Relative frequency

## DISCUSSION

Although the age recommended by the Ministry of Health for the collection of oncotoc cytology is from 25 years old, we observed in this study that the age of the first collection of this test was prevalent among women under 20 years old (64.80%). This is a promising result, because although the incidence of cancer is higher in the elderly population, in recent years the number of cases among the young population has increased significantly<sup>(11)</sup>. The results regarding age are also in line with those of an ecological study on cervical cancer coefficients in the State of Paraná between 2006 and 2014, which identified an increase in the coefficients of examinations performed in the age groups from 15 to 19 years old and growth in the number of examinations with

altered results in this same age group<sup>(12)</sup>.

In another study, conducted between 2014 and 2015, at a public university in the State of Rio de Janeiro, with adolescents and young people aged 18 to 23 years old, found that most were sexually active, have recently performed the gynecological consultation and oncotoc cytology examination. In this study it was evident that a significant number of women under 25 years old still assume a risk behavior and did not demonstrate care for their sexual health, reinforcing the proposal that women under 25 should be sensitized to prevent sexually transmitted diseases, including HPV<sup>(13)</sup>.

Given this context, it is necessary that health services are fit and prepared with strategies and health actions to attract younger women, considering the need for awareness, guidance

and adherence to the examination, considering that knowledge about CC prevention and treatment is associated with greater adherence to the Pap smear<sup>(13)</sup>.

In a study conducted between 2012 and 2013 with 329 adolescents and young people from a public university in the city of Belém do Pará, it was found high frequency of cytological changes and HPV infection among women under the recommended age, emphasizing the importance of education and health promotion activities to diagnose early a possible progression to cancer<sup>(4,14)</sup>.

Thus, it is worth highlighting the importance of implementing and implementing prevention and health promotion policies, as well as screening for cervical lesions in women less than 25 years old, thereby preventing the progression of lesions that may evolve to CC<sup>(15)</sup>.

The university space, each year, receives a significant amount of young people and this environment is an appropriate place for educational actions to raise awareness about STIs, as well as HPV and its diseases, including the CC. Health education can help in the adoption of measures that contribute to the sexual self-care of young women and assist in the prevention of CC<sup>(13)</sup>.

It is noticed that the young women participants of this study were made aware about the importance of collecting the exam, since 94.37% of the participants said they felt motivated to continue taking the exam periodically; and 66.20% of the interviewees reported that, after collecting the preventive in the university campaign, they were examined later in another health institution. Given these variables, it is possible to affirm that the practice of offering the collection of the exam within a university space contributes to the awareness and autonomy of these young women with regard to self-care.

The Primary Health Care (PHC) is responsible for promoting the protection and promotion of health prevent diseases, diagnose, treat, rehabilitate and maintain the health of users. In addition to these actions, it is essential that the health team routinely perform activities outside of the walls, that is, outside the traditional health environment, to better

understand the social determinants that affect the population's health<sup>(16)</sup>.

According to the data of this study, 38.03% of the interviewees reported that the first collection of the exam was held within the university; 38.03% said they participated at least 2 times in the university campaign. These variables demonstrate that it is essential to promote educational activities directed at women and establish partnerships between health services, universities, schools and other institutions that can contribute to the awareness and prevention of cervical cancer, encouraging women to play a role in self-care and prevention of this disease<sup>(17)</sup>.

The nurse was the most remembered professional, cited by 59.15% of the interviewees when asked about which professional performed the collection of the examination. In this context, the nurse plays a key role in health promotion and disease prevention, including cervical cancer prevention. Given the focus on women's health, including after diagnosis and during treatment<sup>(18)</sup>, it is imperative that nurses implement active search strategies to ensure that the population performs oncotic cytology examination<sup>(19)</sup>.

In this perspective, it is essential that the nurse understands the main risk factors that induce in this process of development of CC, and that it should act both in primary prevention, with health education, as in secondary, performing screening for the diagnosis of precursor lesions before they become invasive, with the examination of oncotic cytology<sup>(20)</sup>.

The role of the nurse in collecting the oncotic cytology examination is very important, because, besides being a reference for collection of oncotic cytology, it also plays the function of resignifying the experiences of shame and fear that the woman may have experienced, through humanized and educational care, as well as encouraging the patient to return to search for the result<sup>(21)</sup>.

An effective way to raise awareness of disease diagnosis, treatment and cure is through health education. In this scenario, nurses should promote educational actions directed to these patients. Through these actions, it is possible to

provide information and clarify doubts about the importance of preventive examination<sup>(22)</sup>.

When asked about the importance of collecting preventive drugs at university, 77.46% of young women reported that they found it relevant and that, in addition to caring for themselves, they are now able to encourage other women, including friends and family, to perform the preventive examination. The awareness promoted by educational and preventive initiatives stimulates behavioral changes, encouraging the incorporation of healthy habits and the abandonment of harmful practices. This change in mindset not only brings direct benefits to the individuals involved, but also establishes a favorable environment for a positive effect that spreads throughout the community<sup>(23)</sup>.

Another research conducted by a team of Family Health Strategy in Porto Alegre between 2010 and 2013, identified that interventions of popular education in health in social and community environments, such as educational institutions and religious temples, contributes to women seeking improvement in self-care, including among others the collection of oncotic cytopathology examination<sup>(17)</sup>, demonstrating that health promotion and education activities help to form critical awareness in individuals. In addition, these strategies can encourage the active participation of individuals in their own choices, promoting critical reflection and contributing to the transformation of the reality of the social environment in which they are inserted<sup>(23)</sup>.

In this perspective, it is evident the need for education and health promotion actions regarding the relevance of CC prevention within the university environment, as well as the implementation of academic programs aimed at student health.

The present study has limitations to be highlighted, because the design of a cross-sectional study and the sampling for non-probabilistic convenience adopted, allows in the ease of access to the studied population, but does not allow a greater statistical accuracy on the population. In addition, the research was conducted at a single public institution of higher education, with specific data from a project of health promotion and education, not

allowing the generalization of the results, being necessary to conduct new studies in other educational institutions for new analyses, discussions and evidences.

## CONCLUSION

It is concluded that, with this study, it was possible to identify that the collection of oncotic cytology in university students stimulates the promotion of women's health, bringing knowledge about the importance for early detection of cervical cancer and the need for periodic adherence to the examination.

It is noticeable that the students and graduates, who participated in the project carried out in the university space, acquired knowledge and felt motivated as to the periodic adherence to the examination, and most of them performed the examination later in another health institution, demonstrating that, in addition to self-care, they felt motivated and sensitized to encourage other women to perform the examination.

By encouraging university students to prioritize their health and adhere to regular checkups, we are contributing to a healthier and safer future for these young women. Therefore, it is imperative to sensitize women to the importance of performing oncotic cytology examination, in order to encourage periodic adherence to the examination, through wide dissemination and support for these activities, aiming at the well-being and quality of life of university students and, consequently, all women.

The implications of this study for practice, based on the results presented, allow affirming that health promotion and education actions related to CC. And the provision of screening tests, such as oncotic cytology, within higher education institutions can contribute to the prevention of CC in young women, directly impacting the reduction of treatment and hospitalization costs for patients diagnosed with advanced cancer.

Therefore, it is suggested the implementation of primary and secondary prevention actions, such as the offer of HPV vaccines and screening tests, such as oncotic cytology in universities, so that young women



have the opportunity to participate in these actions, in a fast and accessible way, thus encouraging self-care and the habit of taking

tests and consultations periodically to prevent STIs that can bring risks and consequences for your health.

## COLETA DE CITOLOGIA ONCÓTICA ENTRE ESTUDANTES UNIVERSITÁRIAS E A ADESÃO PERIÓDICA AO EXAME

### RESUMO

**Objetivo:** analisar a importância e motivos que levaram as estudantes a realizar a coleta de citologia oncológica dentro do espaço universitário e identificar se houve adesão periódica ao exame. **Método:** Pesquisa descritiva, quantitativa, realizada em agosto de 2022, mediante aplicação de questionário eletrônico, junto a uma amostra por conveniência constituída por estudantes e egressas participantes de um projeto de promoção e educação em saúde de uma universidade pública federal do Estado do Paraná. As análises foram feitas por estatísticas descritivas para sumarizar e descrever os dados. **Resultados:** Observou-se que as participantes tinham média de 26 anos de idade; 38,03% das participantes fizeram a primeira coleta do exame por meio do projeto na universidade; 94,37% se sentiram motivadas continuar a coletar o exame periodicamente; e 66,20% referiram já ter realizado o exame posteriormente; 77,46% responderam ser importante realizar o exame em espaço universitário, pois, além do autocuidado, incentivam outras mulheres a realizar o exame. **Conclusão:** Conclui-se que a coleta de citologia oncológica em estudantes universitárias estimula a promoção da saúde das mulheres, trazendo conhecimentos sobre a importância para a detecção precoce do câncer do colo de útero e necessidade de adesão periódica ao exame.

**Palavras-chave:** Neoplasias do colo do útero. Saúde da mulher. Teste de Papanicolaou. Prevenção de doenças. Educação em saúde.

## TOMA DE LA MUESTRA DE CITOLOGÍA ONCÓTICA ENTRE ESTUDIANTES UNIVERSITARIAS Y LA ADHESIÓN PERIÓDICA AL EXAMEN

### RESUMEN

**Objetivo:** analizar la importancia y los motivos que llevaron a las estudiantes a realizar la toma de la muestra de citología oncológica dentro del espacio universitario e identificar si hubo adhesión periódica al examen. **Método:** investigación descriptiva, cuantitativa, realizada en agosto de 2022, mediante la aplicación de un cuestionario electrónico, junto a un muestreo de conveniencia constituido por estudiantes y graduadas participantes de un proyecto de promoción y educación en salud de una universidad pública federal del Estado de Paraná-Brasil. Los análisis fueron hechos por estadísticas descriptivas para resumir y describir los datos. **Resultados:** se observó que las participantes tenían un promedio de 26 años; 38,03% de las participantes hicieron la primera toma del examen a través del proyecto en la universidad; 94,37% se sintieron motivadas a continuar haciendo el examen periódicamente; y 66,20% referían haber realizado ya el examen posteriormente; 77,46% respondieron ser importante realizar el examen en espacio universitario, pues, además del autocuidado, animan a otras mujeres a realizar el examen. **Conclusión:** se concluye que la toma de la muestra de citología oncológica en estudiantes universitarias fomenta la promoción de la salud de las mujeres, aportando conocimientos sobre la importancia para la detección temprana del cáncer de cuello uterino y necesidad de adhesión periódica al examen.

**Palabras clave:** Neoplasias del cuello uterino. Salud de la mujer. Prueba de Papanicolaou. Prevención de enfermedades. Educación en salud.

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