

# Women's Knowledge about Papanicolaou Test

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*Conhecimento de Mulheres acerca do Exame Papanicolaou*

El Conocimiento de las Mujeres sobre el examen de Papanicolaou

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## ABSTRACT

**Introduction:** The Papanicolaou test allows the morphological analysis of the tissue to identify changes in isolated cells or in small groups. Given the difficulties faced by nurses, the low demand of women for health services to submit to screening preventive exams is a limitation of the study. **Objective:** To analyze scientific productions published in Brazil on women's knowledge about cervix cancer screening (CCS). **Method:** Integrative Literature Review. Scientific publications indexed at the LILACS, MEDLINE and BDENF databases were searched. The inclusion criteria were free, fully available original articles published in Portuguese and English from 2017 to 2021. **Results:** 71 articles were found, and after the exclusion criteria were applied, only 14 articles remained categorized into three thematic axes, the first addresses women's knowledge about CCS; the second, factors related to non-adherence and the third, the challenges nursing professionals face regarding the coverage for CCS. **Conclusion:** Low levels of information and poor communication contribute to non-adherence. Therefore, to maximize patient adherence, nursing professionals should change the approach to CCS.

**Key words:** Papanicolaou Test; Women's Health; Review; Health Behavior; Nurse Practitioners.

## RESUMO

**Introdução:** O exame preventivo do câncer do colo uterino (PCCU) permite a análise morfológica do tecido do colo do útero para identificação de alterações em células isoladas ou em pequenos grupos. Mediante as dificuldades enfrentadas pelo enfermeiro, a problemática deste trabalho é a baixa procura de mulheres por serviços de saúde para realizar o rastreamento com o exame preventivo. **Objetivo:** Analisar as produções científicas publicadas no Brasil sobre o conhecimento de mulheres acerca do PCCU. **Método:** Revisão integrativa da literatura. Para a construção do estudo, buscaram-se publicações científicas indexadas na base de dados LILACS, MEDLINE e BDENF. Os critérios de inclusão definidos para a seleção dos documentos foram artigos originais, nos idiomas português e inglês, disponíveis na íntegra, de acesso gratuito, publicados de 2017 a 2021. **Resultados:** Foram encontrados 71 artigos e, após serem aplicados os critérios de exclusão, apenas 14 artigos foram incluídos na amostra do estudo categorizados em três eixos temáticos: o primeiro apresenta o conhecimento sobre o PCCU, o segundo, os fatores relacionados à não adesão, e o terceiro, a cobertura para a realização do PCCU na prática da enfermagem. **Conclusão:** Os baixos níveis de informação e a má comunicação contribuem para a não adesão ao exame. Desse modo, para maximizar a adesão das pacientes, é recomendado que a equipe de enfermagem modifique a abordagem sobre a realização dos exames preventivos.

**Palavras-chave:** Teste de Papanicolaou; Saúde da mulher; Revisão; Comportamentos Relacionados com a Saúde; Profissionais de Enfermagem.

## RESUMEN

**Introducción:** El examen preventivo del cáncer del cuello uterino (PCCU) permite el análisis morfológico del tejido del cérvix para identificar cambios en células aisladas o en pequeños grupos. Ante las dificultades que enfrentan las enfermeras, el problema de este trabajo es la baja demanda de las mujeres de los servicios de salud para realizar despistajes con exámenes preventivos. **Objetivo:** Analizar las producciones científicas publicadas en el Brasil sobre el conocimiento de las mujeres sobre el PCCU. **Método:** Revisión integradora de la literatura. Para construir el estudio se buscaron publicaciones científicas indexadas en las bases de datos LILACS, MEDLINE y BDENF. Los criterios de inclusión definidos para la selección de documentos fueron artículos originales, en portugués e inglés, disponibles en su totalidad, de acceso gratuito, publicados entre 2017 y 2021. **Resultados:** Se encontraron 71 artículos, y tras aplicar los criterios de exclusión, solamente 14 artículos fueron considerados en la muestra del estudio categorizados en tres ejes temáticos: el primero presenta el conocimiento sobre el PCCU; el segundo, los factores relacionados a la falta de compromiso; y el tercero, la cobertura para la realización del PCCU en la práctica de la enfermería. **Conclusión:** Los bajos niveles de información y la mala comunicación contribuyen al incumplimiento del examen. Por lo tanto, para maximizar el compromiso de la paciente, se recomienda cambios en la forma en que el equipo de enfermería realiza los exámenes preventivos.

**Palabras clave:** Prueba de Papanicolaou; La salud de la mujer; Revisión; Conductas Relacionadas con la Salud; Enfermeras Practicantes.

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## INTRODUCTION

Cervical cancer is the third that affects women in Brazil at the most with high mortality rate, mostly in the age-ranges from 30 to 50 years old<sup>1</sup>. One of the determinant factors for its incidence and high risk is the infection by the Human Papilloma Virus (HPV), a viral group with more than 200 types, mainly the subtypes HPV-16 and HPV-18, accounting for more than 70% of cervical cancers<sup>2</sup>.

HPV infection can occur prior to premature beginning of sexual relations, multiple sexual partners and condomless sex. In addition, other factors can potentialize the risk of infections and contribute to the appearance of cancer precursor lesions<sup>3</sup>: tobacco use, poor diet and long-use oral contraception.

Papanicolaou test (or Pap smear) is essential for early detection of precursor lesions and recommended as regular practice for sexually active women, especially those between 25 and 64 years of age<sup>4</sup>. Periodical examination for this age range is a priority due to the high incidence of lesions. It is recommended to do the test every three years after two normal results one year apart. However, several social, economic and behavioral factors can affect the adherence, compromising the prevention and reducing the odds of survival when the disease is detected at advanced stages<sup>5</sup>.

The National Health System (SUS) provides cytopathological exam as part of the Primary Health Attention (APS) and policies of women's health to track, detect and treat cancer<sup>3</sup>.

Health Basic Units (UBS) play a key role in the fight against cervical cancer; multidisciplinary teams follow strategies to reduce the difficulties of access the users face with awareness campaigns, prevention and guidelines for women diagnosed and referrals to high complexity services to receive proper treatment<sup>6</sup>.

The quality of the services the UBS provide is essential to improve the adherence to the exams, especially in conjunction with Family Health Strategy whose staff know the population they serve, for instance, the nurses who, based in standard procedures, determine which women are able to do the test. They attempt to contact the women who do not attend the service to do the test, providing assistance and relevant information<sup>7</sup>.

The APS nurse is responsible for educational actions, stimulating the prevention of cervical cancer and is able to understand the difficulties women encounter to do the test and attempt to help them, creating a bond to guide and encourage them to adopt preventive and early cancer detection measures<sup>8</sup>.

Due to poor search for Pap smear at the North and Northeast States with adherence of no more than 60%<sup>5</sup>

and difficulties that nurses usually face, the research question to be responded was: "What are scientific-based evidences of women's knowledge about Pap smear?" Therefore, the objective of this study is to investigate scientific production on that theme through the strategy PICO of analysis of scientific findings.

Pap smear (Papanicolaou test) is important to early detect changes of cervical cells that can lead to cervical cancer. Women's understanding about the importance of the exam helps the prevention and early diagnosis of the disease. Debates about Pap smear are instrumental to promote women's health and expand their awareness about the necessity to care for their reproductive health and adopt proactive initiatives to prevent diseases.

This study is necessary to compile the recent literature about women's knowledge of Pap smear and possible failures of assistance and screening, in addition to highlighting the motives women have to not do the test regularly.

## METHOD

Integrative literature review utilized to summarize the findings from systematic, organized and comprehensive investigation according to the following stages: elaboration of the research question, literature search (sampling), data collection, critical appraisal of the studies included, discussion of the results and presentation of the review<sup>9</sup>.

Upon defining the theme and the research question, scientific literature indexed at the databases Latin American and Caribbean Health Sciences Literature (LILACS), Medical Literature Analysis and Retrieval System Online (MEDLINE) and "Base de dados de Enfermagem (BDENF)" with the following DeCS/ Mesh (Health Science Descriptors) in Portuguese and in English: *exame papanicolaou*/pap smear; *saúde da mulher*/women's health; *conhecimento*/knowledge; *adesão*/accession; *enfermagem*/nursing, and the Boolean operator "AND" for a detailed search of the articles.

The inclusion criteria were: fully available, open access, original articles published in Portuguese and in English from 2017 to 2021. Exclusion criteria were case reports, literature integrative review, dissertations and thesis.

A data collecting instrument created and adjusted by Ursi<sup>10</sup> was utilized to present the following information: authors, title, year of publication, country, journal, objective, method and synthesis of the results.

According to PRISMA, the components in different stages were utilized sequentially to ensure the representativeness of the articles and detailing the process of search and synthesis<sup>11,12</sup>.

The analytical study initiated with categorization, organization and summary of the results with Microsoft Office Excel 2019 spreadsheets, highlighting important issues based in the document validated by Ursi<sup>10</sup>. This stage required a systematic approach to evaluate the quality and characteristics of the studies. After reviewing the results, the data were analyzed and discussed in the light of scientific literature.

According to the rules of “*Associação Brasileira de Normas Técnicas (ABNT)*” the original ideas and concepts of the authors investigated were respected.

The approval by the Institutional Review Board (IRB) was waived because only deidentified and secondary data were utilized in compliance with Directives 466/12<sup>13</sup> and 510/16<sup>14</sup> of the National Health Council for studies with human beings.

## RESULTS

Table 1 shows the number of articles identified according to the descriptors utilized for the search at the databases.

Figure 1 portrays the flowchart with 71 articles, of which 45 have been excluded due to the following reasons: 18 literature reviews, 18 case reports and nine dissertations and thesis. 26 articles remained for reading and selection of those which met the study objective and after duplicate

articles were excluded, the final study sample consisted in 14 articles.

Chart 1<sup>15-28</sup>, adapted from the model created by Ursi<sup>10</sup>, lists the articles selected with the following information: author (s) and year of publication, title, journal, objective and type of study.

It shows that all the studies are descriptive, totaling 1,963 patients interviewed and nine nurses investigated to found the knowledge and adherence to Pap smear and describes the barriers to do the test.

The studies presented four main reasons for non-adherence: difficulty of access, lack of information, shame/embarrassment and delayed results (Chart 2).

The difficulties to do the Pap smear faced by nurses in the studies investigated is portrayed in Chart 3.

The 14 studies selected were divided in three categories, the first is the knowledge women have about Pap smear, the second, non-adherence and the third, the challenges nurses found to do Pap smear.

## DISCUSSION

### WOMEN'S KNOWLEDGE ABOUT PAP SMEAR

Most of the interviewees claimed they were aware of the exam, but nevertheless, great part of them were unable to define cervical cancer and when asked about the relevance of the test, they did not know its importance and finality<sup>17,20,24</sup>.

Table 1. Number of articles after searching the databases

Databases	Combination of descriptors with the operator 'AND'	References obtained	References selected
MEDLINE	Exame Papanicolau/ Pap smear AND Saúde da mulher/ women's health; AND Enfermagem/ nursing	17	5
	Exame Papanicolau/ Pap smear AND Conhecimento/ knowledge AND Enfermagem/ nursing	6	1
	Exame Papanicolau/ Pap smear AND Adesão/ Accession; AND Enfermagem/ nursing	10	2
LILACS	Exame Papanicolau/ Pap smear AND Saúde da mulher/ women's health; AND Enfermagem/ nursing	8	2
	Exame Papanicolau/ Pap smear AND Conhecimento/ knowledge AND Enfermagem/ nursing	10	1
	Exame Papanicolau/ Pap smear AND Adesão/ Accession; AND Enfermagem/ nursing	12	1
BDENF	Exame Papanicolau/ Pap smear AND Saúde da mulher/ women's health; AND Enfermagem/ nursing	5	1
	Exame Papanicolau/ Pap smear AND Conhecimento/ knowledge AND Enfermagem/ nursing	3	1
	Exame Papanicolau/ Pap smear AND Adesão/ Accession; AND Enfermagem/ nursing	0	0
	<b>Total</b>	<b>71</b>	<b>14</b>

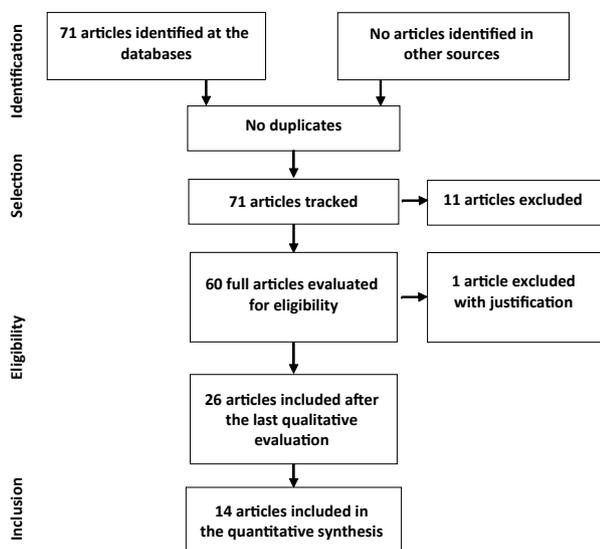


Figure 1. Flowchart PRISMA – selection of data

Source: Adapted from PRISMA<sup>11</sup>.

Women with few years of education and low income know less about the exam and risk factors, and are more susceptible to diseases, revealing the association of these variables<sup>24</sup>.

Educational and informative projects ensuring the access to information by any woman regardless of their school years is necessary to ensure the dissemination and understanding of these information. Health professionals should participate of these projects, bringing their knowledge to change women's attitudes and behavior<sup>19,20</sup>.

The inclusion of any woman regardless of their school years is instrumental for diversified and wide reach, in addition to health professionals involvement. Their participation ensures the reliability of the information disclosed but can help transform the attitudes and behaviors in relation to women's health.

Poor knowledge of Pap smear contributes to non-adherence to the exam. Many women do not know that cervical cancer is avoidable, and are unaware of screening tests, necessity to repeat vaginal smear, frequency of the exam and express concerns about the procedures, embarrassment, discomfort and privacy issues<sup>27</sup>.

The integration of health literacy in education projects helps women with accurate information in addition to strengthening the reliability of preventive practices. This type of approach, which includes education, accessibility and health professionals expertise, is essential to face the challenges and promote positive changes in women's health.

Discrepancies and concordance reflect the complexity of attitudes towards Pap smear and highlight the

importance of culturally, educational and accessible sensitive approaches to promote participation and awareness. Many women concur that Pap smear is part of self-care and female empowerment and understand that its regularity and frequency is a way to take over the control of their own health and prevent potential problems<sup>16,18,19,20,21</sup>.

#### FACTORS RELATED TO NON-ADHERENCE TO PAP SMEAR

The study conducted by Maciel<sup>25</sup> with public schools students revealed a significant percent of interviewees with active sexual life (76.1%), but 92.6% claimed they have ever did the test. After the educative campaign, the researchers found that the level of understanding of the interviewees about Pap smear is not disclosed among women.

Some women seek preventive consultation only in case of gynecological problems for curative purposes, revealing their poor knowledge of preventive actions. Unawareness of the importance of Pap smear results from few initiatives of promotion and prevention, leading to late diagnosis and possible worsening of the disease<sup>15</sup>.

This scenario portrays the difficulty of access in addition to distance from the clinic and unpredictability, underserved public transportation, difficulty to take a leave of absence from work or study, lack of equipment and professionals and of the exam at public health units close to the interviewees<sup>16,20,25</sup>.

Lack of patient-centered communication was identified as a problem of the APS systems, whose effects on cervical screening appear as low accessibility of services and low adherence; possibly the women may not fully understand the necessity of screening, what abnormal results mean or follow-up. They need to know specifically why, when and how frequently they should be screened, the risks of non-adherence and what abnormal results mean<sup>18,21,22</sup>.

The fragility of the APS systems as a whole result from deficiencies of cervical cancer screening as support to access, continued care, coordination and integrity<sup>23,28</sup>.

Health professionals must pay attention to myths and concerns as trivial as they may be and provide patient-centered care, explain the procedures and what they mean, encourage women to express their opinions and keep good relationships to improve the utilization of the services<sup>17,19,25</sup>.

For many Brazilian health services, the supply of material is arguable causing long queues, which eventually discourages women to do Pap smear<sup>20,22</sup>.

Educational programs should be implemented and strengthened in addition to preventive actions as encouragement to do Pap smear, attempting to reduce mortality rates and reach satisfactory levels of quality-of-life<sup>25</sup>.

Chart 1. Description of the articles analyzed

Title	Author/Year	Journal	Type of study	Objectives	N	Country	Results
<i>Percepção de mulheres acerca do exame de prevenção do câncer cérvico uterino</i>	Queiroz et al., 2017 <sup>15</sup>	<i>Temas em saúde</i>	Descriptive	Investigate women's perception about Pap smear for cervical cancer	20 women	Brazil	The investigation concluded that the participants perceive the test under a curative perspective as most of them seeks the service because of symptoms; shame and fear are the main feelings expressed and can contribute to non-adherence
<i>Vivenciando o exame papanicolau: entre o (não) querer e o fazer</i>	Acosta et al., 2017 <sup>16</sup>	<i>Revista de enfermagem UFPE online</i>	Descriptive	Analyze the perspective of the users of a family health unit about Pap smear for cervical cancer	22 women	Brazil	The perception of the cytology test is permeated by unawareness of its finality. There are many reasons to not do the exam and poor preventive actions. Shame, fear of pain during the exam and of the diagnosis interfere in the adherence
<i>Conhecimento das mulheres e fatores da não adesão acerca do exame Papanicolau</i>	Dantas et al., 2018 <sup>17</sup>	<i>Revista de enfermagem UFPE online</i>	Descriptive	Check women's knowledge about Pap smear procedure	40 women	Brazil	After analyzing 99 questionnaires, women's knowledge of Pap smear with better socioeconomic conditions and younger living in the neighborhood was better. It was also clear that many of them do the test but are unaware of the objective
<i>Percepção e adesão das mulheres quanto ao exame citopatológico</i>	Miranda et al., 2018 <sup>18</sup>	<i>Revista Nursing</i>	Descriptive	Understand how women perceive and adhere to the cytopathologic test	50 women	Brazil	Most of the women (46%) is 40 years of age or older. 88% responded they do the exam annually and understood the importance of preventing cervical cancer
<i>Câncer cérvico-uterino: conhecimento, atitude e prática sobre o exame de prevenção</i>	Melo et al., 2019 <sup>19</sup>	<i>Revista Brasileira de Enfermagem</i>	Descriptive	Evaluate women's knowledge, attitude and practice of cervical cancer prevention and investigate the relation with socioeconomic variables	500 women	Brazil	Prevalence of satisfactory knowledge, attitude and practice was 35.2%, 98% and 70.6%, respectively. Satisfactory knowledge was associated with not having children, family income of two minimum wages and Afro-Brazilian religion
<i>Preditores da não adesão periódica ao exame papanicolau</i>	Santos et al., 2020 <sup>20</sup>	Journal of health connections	Descriptive	Identify the obstacles of non-adherence to Pap smear	150 women	Brazil	Several factors were identified as predictors of non-adherence to Pap smear: low income, education, age-range, unawareness of the test, without spouse, tobacco, alcohol and drugs use, among others
<i>Conhecimento e prática de mulheres atendidas na atenção primária à saúde sobre o exame Papanicolau</i>	Silva et al., 2021 <sup>21</sup>	<i>Revista on-line de pesquisa</i>	Descriptive	Evaluate women's knowledge and practice of Pap smear assisted at Basic Health Attention units	320 women	Brazil	Nearly all the interviewees (311, 97.2%) were aware of the Pap smear, more than half of them (233, 72.8%) had poor knowledge about the test
<i>Exame papanicolau: olhar de usuárias de uma unidade de saúde da família frente à temática</i>	Saldanha et al., 2021 <sup>22</sup>	Brazilian Journal of Health Review	Descriptive	Investigate women's perception about different aspects of Pap smear	13 women	Brazil	13 women registered at the health unit were interviewed. As it is a test involving the sexuality and exposure of the body, the analysis revealed feelings of shame, fear, agitation and anxiety

to be continued

Chart 1. continuation

Title	Author/Year	Journal	Type of study	Objectives	N	Country	Results
<i>Projeto de intervenção para elevar a adesão ao exame citopatológico durante o internato em saúde coletiva</i>	Lopes et al., 2021 <sup>23</sup>	Brazilian Journal of Health Review	Descriptive	Explore why women living in the area of action of the Health Family Unit of Altiplano II do not submit to Pap smear	91 women	Brazil	Continuous and whole health literacy is essential to expand women's awareness who do not attend the Health Family Unit of Altiplano II to do Pap smear
<i>Desafios e aceitação do exame papanicolaou da mulher reclusa</i>	Teixeira et al., 2021 <sup>24</sup>	<i>Revista Conhecimento em Ação</i>	Descriptive	Analyze the adherence of incarcerated women to Pap smear	69 women	Brazil	Poor access to health services in prisons, lack of information about the test and low-esteem
<i>Busca ativa para aumento da adesão ao exame Papanicolaou</i>	Maciel et al., 2021 <sup>25</sup>	<i>Revista de enfermagem UFPE online</i>	Descriptive and exploratory	Describe the implementation of active search of users as strategy to increase the number of Pap smears	10 women	Brazil	660 women were eligible to do the test, 148 were invited but only ten attended at the scheduled date. The reasons why the goals of cytopathological test coverage were not being met are complex and intricate
<i>Atuação do enfermeiro na prevenção do câncer do colo do útero em Unidades de Saúde</i>	Dias et al., 2021 <sup>26</sup>	Journal of Health & Biological Sciences	Descriptive and exploratory	Investigate the nurse's role in preventing cervical cancer at the Basic Health Attention units in the municipality of Espinosa, Minas Gerais	9 nurses	Brazil	Nursing actions targeted to cervical cancer prevention are health literacy and collection of samples for cytopathological test. Actions are planned and organized within the work flow of the team's routine earlier established
<i>Adesão ao exame de prevenção do câncer do colo do útero entre universitárias em Belém, Pará, Brasil</i>	Silva, M. et al., 2022 <sup>27</sup>	Research, Society and Development	Descriptive	Evaluate whether college students submitted to Pap smear	371 women	Brazil	College students younger than 24 years of age, in stable union, at advanced stages of medical graduation whose first sexual intercourse happened before 18 years old are more prone to submit to Pap smear. Nearly half of them failed to respond whether they did the test regularly, the main reason is difficulty to schedule the exam
<i>Fatores que influenciam a baixa adesão do Exame Papanicolaou nas Unidades Básicas de Saúde no Município de Redenção-PA</i>	Nascimento et al., 2022 <sup>28</sup>	Research, Society and Development	Descriptive	Analyze the motives for low adherence to Pap smear at Health Basic Units	308 women	Brazil	The adherence to the exam was 75% but 23.46% did not submit to the test in the last three years. In addition, 20.38% claimed they only do the test when some symptom appears and 15.38% did not do the test

## CHALLENGES NURSING PROFESSIONALS FACE IN RELATION TO PAP SMEAR

Findings of the program to improve the access and quality of health primary attention (PMAQ-AB) revealed a comprehensive coverage for the entire Health Basic Network in the country (93.3%). However, the coverage of the North Region was 74%<sup>27</sup>. Not submitting to screening may be related to personal issues as fear and embarrassment but unawareness of its importance and not willing to do it are relevant motives as well<sup>19</sup>.

Fear and embarrassment in doing Pap smear due to the lithotomy position was reported by women living in rural areas, similar to other studies. Fear of the positive result, absence of symptoms, low education, low income and lack of time are important obstacles to seek health services<sup>20</sup>.

Although education, income, moral and affectionate values have also interfered in the perception of risk and preventive practices, the organization of healthcare and the action of the professionals are significant aspects to reach satisfactory results<sup>28</sup>.

Chart 2. Reasons for non-adherence to Pap smear according to the studies

Reasons for non-adherence	Reference	Complaints
Difficulty of access	Silva, M. et al., 2022 Nascimento et al., 2022 Silva et al., 2021 Saldanha et al., 2021	Delayed scheduling; lack of materials or professionals to run the test; lack of time to run the test
Lack of information	Maciel et al., 2021 Dias et al., 2021 Queiroz et al., 2017 Acosta et al., 2017	Poor understanding of the importance of Pap smear; unaware of test procedures
Shame/embarrassment	Lopes et al., 2021 Teixeira et al., 2021 Queiroz et al., 2017 Acosta et al., 2017	Insecurity and fear of the test
Delayed results	Melo et al., 2019 Santos et al., 2020 Dantas et al., 2018 Miranda et al., 2018	Poor encouragement to attend follow-up consultations and regular Pap smear

Chart 3. Barriers to do Pap smear

Topic	Barrier	Reference
Nursing-related barriers	1. Understaffing 2. Lack of training 3. Poor team support	Melo et al., 2019 Santos et al., 2020 Dantas et al., 2018
Health system-related barriers	1. Availability of services 2. Lack of input/equipments 3. Time the patient waits	Miranda et al., 2018 Lopes et al., 2021 Silva, M. et al., 2022 Nascimento et al., 2022 Silva et al., 2021 Saldanha et al., 2021
Patients-related barriers	1. Fear 2. Lack of knowledge about the test 3. Unable to adopt pre-test practices	Teixeira et al., 2021 Queiroz et al., 2017 Acosta et al., 2017 Maciel et al., 2021 Dias et al., 2021

The Pap smear related challenges can be perceived in three main barriers: nursing, SUS and patients<sup>23</sup>.

Difficulties of access to the health unit, unsatisfactory humanized care provided by health professionals, lack of guidance and insufficient information offered to these women about cancer and the importance of the Pap smear are closely associated with not doing the exam<sup>24</sup>.

Poor training of the nursing team for humanized care stands out as one of the main barriers found for effective adherence to Pap smear. Little empathy and unsatisfactory information provided to the women may pull them away from the exam<sup>20</sup>.

Welcoming is a practice that comprehends fair and inclusive assistance to those who seek health services to promote integrality and equity. This type of approach highlights the importance of humanization of health services based on ethical principles and citizenship, facilitating the communication and information-sharing among health professionals<sup>26</sup>.

Satisfactory welcoming occurs only when health services are organized with professionals able to create a bond with the patient and respond to their insecurities. It demands commitment from all those involved in the process, demonstrating the institution's capacity and professional ethics. Educational practices are unsatisfactory due to lack of nursing professionals to receive these women, causing work overload<sup>21,28</sup>.

Patients-related obstacles concentrate in unawareness of the exam and procedures which stimulate wrong beliefs about Pap smear<sup>25</sup>.

Health systems related barriers are delayed consultations, in addition to lack of equipment to perform the exam and limiting the access of the patients<sup>23,24</sup>.

The precarious structure of the health units to perform Pap smear are associated with reduced time to schedule consultations, delayed results and obstacles to access the services<sup>18</sup>.

All these aspects demand improvement of preventive action of cervical cancer at the North Region. Managers and health professionals need to develop strategies to minimize the impacts caused by the barriers to perform the exam and the unfavorable conditions of availability and access to health services in rural areas<sup>16</sup>.

## CONCLUSION

Women's knowledge about Pap smear was investigated and the reasons why women do not do the exam regularly have been presented as well, standing out the challenges nursing team encounters to do the exam.

Low level of information and poor communication contribute to the non-adherence to the exam. The nursing team need to change the approach to health care and encourage women with proper information about the exam and demystify fears women have or embarrassment due to lack of guidance.

The information should be provided since the primary health level, especially because women who express prejudice are those with less education and little access to reliable information because they are unaware of the finality of Pap smear.

Some studies had methodological limitations that could affect the validity and generalization of the studies and the opinions about Pap smear vary significantly according to the cultural, economic and geographic context. This diversity might not be covered by a literature review.

It is necessary to qualify the professional to participate of the Pap smear screening to ensure quality of the exam and results. Also, health literacy should be pursued to clarify potential doubts and warn about the importance of Pap smear screening.

## CONTRIBUTIONS

Cleudiane Fialho Negrão, Nayara Silveira Gemaque and Tatiane da Silva Marques contributed substantially to the study design, acquisition, analysis and/or interpretation of the data, wording and/or critical review. Danielle Etienne de Oliveira Bezerra contributed to the wording and critical review. All the authors approved the final version to be published.

## DECLARATION OF CONFLICT OF INTERESTS

There is no conflict of interests to declare.

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