

# CERVICAL CANCER: KNOWLEDGE AND BEHAVIOR OF WOMEN FOR PREVENTION

*Câncer de colo uterino: conhecimento e comportamento de mulheres para prevenção*

*Cáncer de cuello uterino: conocimiento y conducta de mujeres hacia la prevención*

Original Article

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## ABSTRACT

**Objective:** To analyze the knowledge of women regarding prevention of cervical cancer and the factors hindering the performance of screening tests. **Methods:** This is a descriptive observational cross-sectional study conducted with 110 women aged 25-64 years treated at a health center between January and March 2014. We collected sociodemographic and economic data and information on gynecological aspects and behavior regarding the exam. Data were analyzed using descriptive statistics with absolute and relative values. **Results:** Data relating to the meaning of cervical cancer showed that 65 (59.1%) women were unaware of its meaning, 69 (62.7%) knew how to prevent it, 104 (94.5%) had already done Pap-smear test, 59 (53.6%) had done the Pap-smear test in the past year, 62 (56.4%) do the screening test annually, 88 (80%) knew the importance of the screening test. Regarding the factors related to the difficulty in performing the screening test, most women 49 (44.5%) reported the shame as the most impactful factor. **Conclusion:** Although most women do the test regularly, many are unaware of its real purpose and feel ashamed and embarrassed during the test.

**Descriptors:** Nursing; Women's Health; Colonic Neoplasms; Papanicolaou Test.

## RESUMO

**Objetivo:** Analisar o conhecimento das mulheres em relação à prevenção do câncer de colo de útero e os fatores dificultadores acerca da realização da prática do exame preventivo. **Métodos:** Trata-se de um estudo do tipo observacional, de corte transversal e descritivo, com 110 mulheres entre 25 e 64 anos, atendidas em uma unidade de saúde, entre os meses de janeiro e março de 2014. Coletaram-se dados sociodemográficos e econômicos, aspectos ginecológicos e comportamento sobre o exame. Analisaram-se os dados através da estatística descritiva, apresentando valores absolutos e relativos. **Resultados:** Dados referentes ao significado do câncer uterino mostraram que 65 (59,1%) desconheciam seu significado, 69 (62,7%) sabiam como preveni-lo, 104 (94,5%) já realizaram o Papanicolaou, 59 (53,6%) realizaram o Papanicolaou há 1 ano, 62 (56,4%) realizam o exame preventivo anualmente e 88 (80%) sabiam a importância dessa realização. Quanto aos fatores encontrados referentes à dificuldade na realização do exame preventivo, 49 (44,5%) relataram ser a vergonha o fator mais impactante. **Conclusão:** Apesar de a maioria das mulheres realizar o exame periodicamente, muitas desconhecem a sua verdadeira finalidade, sentindo-se envergonhadas e constrangidas durante a realização do exame.

**Descritores:** Enfermagem; Saúde da Mulher; Neoplasia do Colo; Papanicolaou.

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## RESUMEN

**Objetivo:** Analizar el conocimiento de las mujeres sobre la prevención del cáncer de cuello uterino y los factores que dificultan la realización de la práctica del examen preventivo. **Métodos:** Se trata de un estudio del tipo observacional, de corte transversal y descriptivo con 110 mujeres entre 25 y 64 años asistidas en una unidad de salud entre los meses de enero y marzo de 2014. Se recogieron los datos sociodemográficos y económicos, los aspectos ginecológicos y de la conducta del examen. Los datos fueron analizados a través de la estadística descriptiva con valores absolutos y relativos. **Resultados:** Los datos referentes al significado del cáncer de cuello uterino mostraron que 65 (59,1%) mujeres desconocían su significado, 69 (62,7%) sabían cómo prevenirlo, 104 (94,5%) ya habían realizado el Papanicolaou, 59 (53,6%) realizaron el Papanicolaou en el último año, 62 (56,4%) realizan el examen preventivo cada año y 88 (80%) sabían de la importancia de su realización. Sobre los factores relativos a la dificultad de realización del examen preventivo, 49 (44,5%) relataron la vergüenza como el factor más importante. **Conclusión:** Aunque la mayoría de las mujeres realizan el examen con periodicidad muchas desconocen su verdadera finalidad, sintiéndose avergonzadas y constreñidas durante su realización.

**Descriptores:** Enfermería; Salud de la Mujer; Neoplasia del Colon; Prueba de Papanicolaou.

## INTRODUCTION

Cervical cancer (CC) is considered a progressive disease, characterized by cervical intraepithelial changes that may develop into an invasive stage within one or two decades. Presenting well-defined staging and slow evolution, cervical cancer may be interrupted from an early diagnosis and timely treatment at reduced costs<sup>(1)</sup>.

Despite that, the rates are alarming, since approximately 530,000 women will develop cervical cancer each year worldwide, this being the third most common type of cancer among women and responsible for the death of 275,000 women per year. The main risk factor for the development of high-grade intraepithelial lesions and cervical cancer is the infection with the human papillomavirus (HPV). Nowadays 13 types of HPV are recognized as oncogenic by the International Agency for Research on Cancer (IARC). Of these, the most common ones are HPV16 and HPV18<sup>(2,3)</sup>.

HPV infection is considered a necessary condition but not a sufficient cause for the emergence of this neoplasm. In addition to aspects related to the HPV infection itself (viral type and load, single or multiple infection), other factors related to immunity, genetics and sexual behavior seem to influence mechanisms that are so far uncertain, determining the regression or persistence of infection, and also the progression towards premalignant lesions or cancer<sup>(4)</sup>.

Age also interferes in this process. The majority of HPV infections in women aged under 30 years spontaneously regress, while persistence is more frequent above this age. Cigarette smoking increases the risk for development of cervical cancer, proportionally to the number of cigarettes smoked per day and to the start at an early age<sup>(4)</sup>.

Cervical cancer is a disease of slow and quiet growth. There is a pre-clinical, asymptomatic stage, with important progressive intraepithelial changes, when the detection of potential precursor lesions is made by means of the periodic preventive examination of the cervix. This pathology progresses for years before reaching the invasive stage of the disease in which the cure becomes more difficult.

At this stage, the main symptoms are vaginal bleeding, discharge, and pain. Screening of cervical cancer is a complex process of multiple steps, namely: application of the screening test, identification of positive cases (suspect precursor lesions or cancer), confirmation of diagnosis, and treatment<sup>(3,5)</sup>.

In Brazil, the main strategy used for early detection/screening for cervical cancer is the collection of material for microflora and cervicovaginal cytology, popularly known as preventive cervical test, Papanicolaou test, cervical cytology, Pap smear or Pap test. The frequency of the preventive test, established by Brazil's Ministry of Health in 1988, is still current and in line with the recommendations of the major international programs. The cervical cytology should be performed in women aged 25-60 years, once a year and, after two consecutive negative tests, every three years<sup>(4,5)</sup>.

The Cervical Cancer Prevention Practices (CCPP), represent today a major public health challenge. The reasons for this are related to cultural, social, economic, and behavioral factors, as well as to the very organization of the public health services.

Beyond these factors, the women's delay in performing the test or its absence in the service can be related to the way the user perceives the screening. The women's perception is influenced by values, culture, race, the experiences, beliefs, life expectations, and preconceived ideas built throughout life<sup>(6)</sup>.

Overcoming the barriers for the women's better adherence to preventive screening means giving attention to the reports and experiences of those who submit to it. Therefore, this study is justified by the fact that each year more women get sick due to lack of knowledge on how to prevent the cervical cancer, besides the fact that the health professional is not prepared to deal with situations that put women in embarrassment.

To change that reality, the health professionals, including the nurse, through the presented information,

need to be able to plan and guide prevention services aimed at health promotion. This is the primary way to reduce the incidence of this type of cancer<sup>(6)</sup>.

Given that, the study aimed at analyzing the women's knowledge of cervical cancer prevention and the hindering factors for the practice of the screening test.

## METHODS

This is an observational, cross-sectional, and descriptive study, developed in Dr. Hamilton Falcão Healthcare Unit, in the neighbourhood of Benedito Bentes, in the city of Maceió, AL. The sample consisted of 110 women aged 25-64 years, who attended that Healthcare Unit to carry out the preventive examination for cervical cancer.

The sample size calculation was based on the number of women assisted in that health unit and the prevalence of the disease (56%)<sup>(7)</sup>, with an absolute accuracy of 10% and 5% significance level. The women were selected consecutively, based on the following inclusion criteria: women aged 25 to 64 years, who underwent the cervical cytology, and were willing to cooperate voluntarily in this study.

Data collection was carried out in the months from January to March 2014, by mean of a previously designed script containing sociodemographic and economic data (information about age, marital status, education, and profession), gynecological data (examination, first sexual intercourse, and previous pregnancies), and data on the knowledge and behavior of women on the prevention and meaning of cervical cancer. Descriptive analysis was performed, and the results were presented in absolute numbers and simple frequency.

The study was approved by the Research Ethics Committee of the Federal University of Alagoas (Opinion No. 22885113.6.0000.5013) and followed the 466/12 Resolution of the National Health Council. The participants signed a free and informed consent form, agreeing to participate voluntarily.

## RESULTS

The sociodemographic and economic data describes a sample in which 35 (31.8%) of the women were between 25 and 34 years, 52 (47.3%) were married, 77 (70%) did not attend high school, 72 (65.5%) were housewives, and 81 (73.6%) had a family income up to two minimum wages (Table I).

Concerning the risk factors for cervical cancer, it was found that 73 (66.4%) of the respondents had from one to three pregnancies, 96 (87.3%) had initiated sexual activity when aged between 12 and 20 years, and 67 (60.9%) of the

women interviewed had from two to seven sexual partners. Among the interviewees, sexually transmitted diseases (STD) were reported by 29 (26.4%) women, 57 (51.7%) pointed the STD as some type of discharge, and only 41 (37.9%) cited HPV (Table II).

Table I - Distribution of sociodemographic and economic data of women attending a primary healthcare unit. Maceió, AL, 2014.

Variables	n	%
<b>Age</b>		
25-34 years	35	31.8
35-44 years	32	29.1
45-55 years	30	27.3
+ 55 years	13	11.8
<b>Civil Status</b>		
Married	52	47.3
Common-law marriage	30	27.3
Divorced	9	8.2
Single	9	8.2
Widow	10	9.0
<b>Education</b>		
Illiterate	13	11.8
Incomplete fundamental school	47	42.7
Complete fundamental school	8	7.3
Incomplete high school	9	8.2
Complete high school	29	26.4
Higher education	4	3.6
<b>Profession</b>		
Housekeeper	72	65.5
Waitress	1	0.9
Nutrition technician	1	0.9
Public servant	3	2.7
Caregiver	3	2.7
Education Assistant	1	0.9
Housemaid	17	15.5
Hairdresser	2	1.8
Nursing technician	2	1.8
Merchant	4	3.6
Gas station attendant	1	0.9
Cashier	1	0.9
Auditing Assistant	1	0.9
Mason helper	1	0.9
<b>Family Income</b>		
< 1 minimum wage	14	12.7
1 to 2 minimum wages	81	73.7
> 2 minimum wages	15	13.6

When asked if they knew what the cervical cancer is, 65 (59.1%) answered no. Among those who reported knowing what cervical cancer means, 28 (44.4%) associated this neoplasm with a wound, lesion, tumour or deformation in the womb, as a meaning for the disease. Of the interviewees, 68 (62.7%) reported knowing how to prevent cervical cancer, including 36 (52.9%) who cited condoms as the primary means of prevention, followed by preventive Pap test, cited by 28 (43.5%) (Table III).

Table II - Distribution of the interviewees according to risk factors for cervical cancer. Maceió, AL, 2014.

Variables	n	%
<b>Pregnancies (number)</b>		
None	09	8.2
1 to 3	73	66.4
4 to 7	19	17.2
More than 8	09	8.2
<b>Sexual partners (number)</b>		
1 to 3	67	60.9
4 to 7	24	21.8
7 to 10	04	3.6
10 to 20	02	1.8
21 to 30	10	9.1
>30	03	2.7
<b>First sexual intercourse</b>		
<12 years	01	0.9
12 to 16 years	44	40.0
17 to 20 years	52	47.3
>21 years	13	11.8
<b>STD carriers</b>		
Yes	29	26.4
No	81	73.6
<b>Types of STD</b>		
Ulcers	11	10.3
Discharge	57	51.8
HPV	41	37.3

STD: Sexually transmitted diseases; HPV: Human papillomavirus.

## DISCUSSION

The majority of women who participated in this study is in the age range from 25 to 44 years. For the Brazilian National Cancer Institute (*Instituto Nacional de Câncer José Alencar da Silva - INCA*)<sup>(7)</sup>, the incidence of cervical

As to the preventive screening of cervical cancer, 104 (94.5%) had undergone the examination at least once; for 59 (56.73%) of these, the last test had been performed one year ago. The importance of having the Pap test was recognized by 88 (80%) of the participants. Regarding the difficulties posed to performing the examination, the most perceived feeling was shame during the procedure, reported by 49(44.5%) women (Table IV).

Table III - Distribution of the interviewees according to the knowledge of cervical cancer. Maceió, AL, 2014.

Variables	n	%
<b>Knowledge</b>		
Yes	45	40.9
No	65	59.1
<b>Meaning</b>		
Wound/lesion/deformation	28	44.4
Disease/inflammation/venereal disease	17	55.6
<b>Prevention</b>		
Yes	68	61.8
No	42	38.2
<b>Preventive Methods</b>		
Others	03	3.6
Papanicolaou test	28	43.5
Condoms	36	52.9

Tabela IV - Difficulties posed to the practice of the cervical screening test. Maceió, AL, 2014.

Difficulties	n	%
None	41	37.3
Shame	49	44.5
Fear	4	3.6
Difficult access	8	7.3
Carelessness	6	5.4
Lack of time	2	1.9

cancer increases in women between 30 and 39 years of age, and reaches its peak in the fifth or sixth decade of life. Before the age of 25, HPV infections and low-grade lesions are prevalent; these spontaneously regress in most cases, and therefore can only be monitored according to clinical guidelines.



After 65 years, on the other hand, with normal and regular preventive screening, the risk for development of cervical cancer is reduced. This situation, however, has been gradually changing, and the onset of precursor lesions is increasingly occurring earlier, due to the early initiation of sexual activity associated with other risk factors such as multiparity, smoking, multiple partners, and sexually transmitted infections<sup>(8)</sup>.

There was a significant number of married women or in common-law marriage in the study population. These types of conjugal union can lead wives to greater exposure, especially to infectious diseases of the genital tract transmitted by sexual intercourse, due to the confidence in their partners' faithfulness, which lead them not to use any prevention method<sup>(8)</sup>.

Cervical cancer is more common among women of lower social class and lower educational levels, as the latter can be related to reduced access to information about health care, which can directly affect the demand for preventive examinations, the better understanding of the information on diseases, and the need for favourable attitudes towards the early detection of cancer. Women with low level of education have a higher risk of developing cervical cancer, with an indirect relationship between the level of education and the risk of advanced diagnosis of this tumour<sup>(9)</sup>.

In line with this fact, one study found that women with low income are more vulnerable to sexually transmitted diseases (STD), since they have low power to argue and negotiate with their partner. On the other hand, those with more education are probably more aware of their rights and have greater power to practice safer sex<sup>(10)</sup>.

In addition to the education, the occupation is also a determining factor for cervical cancer, because women who work outside the home have higher proportions of proper attitudes towards Pap smears, as well as greater access to information due to social contact with other workers. This may stimulate preventive health practices. On the contrary, women who work exclusively at home have less autonomy in making health-related decisions<sup>(8,11)</sup>.

The occurrence of births before 20 years of age in women with the DNA of HPV is a consistent risk factor for disease development. This risk doubles in women with four children, when compared with those who have one or no children. Women with seven or more pregnancies have a 3.9-fold higher risk in comparison with nulliparous women<sup>(12)</sup>. A possible explanation is the trauma to the cervix during labour, or an increased susceptibility to infection resulting from immunosuppression, hormonal influences, and dietary deficiencies, even though not sufficiently proven<sup>(12)</sup>.

The precocity of the first sexual intercourse (10-14 years) and pregnancy (up to 19 years) are risk factors for CC, since metaplasia becomes intensified in

adolescence and intercourse increases the likelihood of atypical transformation, and thus increase the odds on cellular changes, favouring HPV infection and other microorganisms. Greatest exposure to the following risk factors are added: multiple partners, risk partners, exposure to STIs and to the action of seminal fluid. The risk of acquiring a precursor lesion that may develop into a cervical cancer is thus increased<sup>(8,10)</sup>.

Several authors have pointed an increase in the incidence of cervical lesions by HPV in women whose number of sexual partners was higher than two<sup>(8,12,13)</sup>, with the incidence of precursor lesions directly related to the number of male sexual partners, and those who had more than two partners show the risk increased by five times. The man is suggested as HPV DNA reservoir, storing them in the reproductive organ and disseminating them<sup>(12)</sup>.

Another risk factors highlighted in this study is the presence of STIs in the voluntary group. Women with STIs present five times more cell changes in the cervix. This is due to the possibility that most of these changes cause genital inflammation and/or ulceration, facilitating the spread of other STIs, including HPV<sup>(10)</sup>.

The level of knowledge about the disease was considered low among women in general, since the demand for health services occurs mainly because of the presence of a complaint, and not for prevention. Moreover, little is known about the symptoms and signs of cervical cancer, and the information derives from the population.

The lack of knowledge brings consequences like the low awareness of the significance and importance of the Pap test, and the restricted access to health care. This is responsible, in part, for a significant number of women who never underwent the examination and end up discovering the disease at an advanced stage<sup>(11,13)</sup>. The cervical cancer can be cured when early discovered; however, there are still women developing this cancer and dying in Brazil because they ignore the purpose of the examination<sup>(13,14)</sup>.

Even with the implementation of programs by the Ministry of Health and the wide dissemination of information about the Pap smear in primary health services, women present little clarity or no knowledge of the significance of cervical cancer prevention<sup>(14,15)</sup>.

When checking women's knowledge of the Pap test, the result was satisfactory, since most demonstrated to know the purpose of the exam. However, recognizing the importance of the exam is not the major or decisive factor for women to undergo this procedure. A provision of willingness and personal conviction are necessary, an inner will that is able to overcome insecurity and other obstructions, enabling the voluntary act of seeking prevention<sup>(13)</sup>.

As to the difficulties encountered, it was observed that the woman finds several harmful barriers to performing a

proper and effective prevention, because exposing their body makes them feel embarrassed. For women, the sense of shame is directly related to the impersonality of the procedure involving the exposure of the body and their sexuality<sup>(1)</sup>.

The relationship that women have with their sexuality directly affects the way she reacts to the test, which handles their genital organ and area. Sex plays a decisive role in the relationship of the individual with themselves and in their interpersonal relationships. When a woman is not well oriented, this exhibition of the genitals can cause embarrassment and social conflicts<sup>(16)</sup>.

The gynecological exposure causes discomfort and embarrassment. The health worker is seen as an inspector and a judge. The feeling of powerlessness and defenselessness when assuming the gynecological position and letting themselves be invaded by instruments or by the gynecological touch produces in women the feelings of shame, fear, and embarrassment, even though she recognizes as necessary the practice of the test<sup>(16)</sup>.

There are other factors that must not be overlooked by health professionals, described in other studies of the same nature, such as the lack of time, fear, lack of symptoms, or the fact that the client does not like the professional who performs the procedure. In this sense, health education is the best way to approach women to that procedure and, consequently, contribute to the prevention of cervical cancer<sup>(17)</sup>.

Thus, the present study found a considerable number of women with behavior that makes them vulnerable to the disease: multiparous, with early sexual initiation, besides the low socioeconomic status and poor education. In addition to the socioeconomic factors, there are still factors that hinder the practice of the screening test, such as the feeling of shame, fear, and anxiety.

It is thus understood the need to rethink the health practice, with focus on the spread of procedures and guidelines, not only relating to their technical aspects, but also adopting a comprehensive approach, understanding the women's culture and experiences. In this context, educational strategies and health information are to be highlighted. Providing information to the population contributes to a new attitude towards behavioral change, leading to disease prevention in a more conscious and efficient manner, and thus enabling women to achieve better quality of life.

## CONCLUSION

Although the majority of the women undergo the cervical examination regularly, many are unaware of its

actual purpose and feel ashamed and embarrassed during the examination.

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