# Women's knowledge about the papanicolaou exam

CONHECIMENTO DE MULHERES SOBRE O EXAME DE PAPANICOLAOU

CONOCIMIENTO DE MUJERES SOBRE EL EXAMEN DE PAPANICOLAOU

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# **ABSTRACT**

Epidemiologic, quantitative, descriptive, transversal study. Carried out on nighttime public school, female students to assess their knowledge level regarding the Papanicolaou exam. Out of the 1035 women who were queried, 476 were over 18 and signed a release form to be part of the study. The questionnaire consisted of objective questions capable of identifying the women's a awareness regarding the exam, as well as the social epidemiologic profile of the target group. A health educational activity simulated the exam to inform the women. After the simulation, the questionnaire was repeated and it has been concluded that while 51,3% of all the women answered all questions correctly on the first instance, 75,63% of then got it right on the second time. The activity helped the women understand, to an extent, the importance of this particular exam, but this understand do not is linear.

# **KEY WORDS**

Vaginal smears. Women's health. Uterine cervical neoplasms. Nursing.

#### **RESUMO**

Estudo epidemiológico, quantitativo, descritivo, transversal. Realizado com mulheres, estudantes do ensino médio noturno em escolas públicas para identificar conhecimentos sobre o exame de Papanicolaou. Participaram 1035 mulheres sendo 476 maiores de 18 anos, que compuseram o grupo de sujeitos. Após consentimento foi aplicado questionário com questões objetivas, capazes de identificar conhecimentos a respeito do exame de Papanicolaou, bem como perfil sócioepidemiológico do grupo; foi realizada uma atividade de educação em saúde com simulação da realização do exame. Após, foi reaplicado o questionário e concluímos que 198 alunas (51,3%) acertaram todas as questões do 1º questionário e 360 (75,63%) ao reaplicarmos o mesmo, havendo agregação de conhecimento. Destaca-se que a maioria das mulheres abordadas no desenvolvimento do estudo conhece o exame e sabe que é preciso realizá-lo periodicamente, porém este conhecimento não é homogêneo.

# **DESCRITORES**

Esfregaço vaginal. Saúde da mulher. Neoplasias do colo do útero. Enfermagem.

# **RESUMEN**

Estudio epidemiológico, cuantitativo, descriptivo, transversal. Realizado con mujeres, estudiantes del enseño medio nocturno en escuelas públicas para identificar conocimientos sobre el examen de Papanicolaou. Participaron 1035 mujeres siendo 476 mayores de 18 años, que compusieron el grupo de sujetos. Pos consentimiento fue aplicado cuestionario con cuestiones objetivas, capases de identificar conocimientos a respecto del examen de Papanicolaou, así como perfil socio-epidemiológico del grupo; fue realizada una actividad de educación en salud con simulación de la realización del examen. Pos, fue reaplicado el cuestionario y concluimos que 198 alumnas (51,3%) acertaron todas las cuestiones del 1º cuestionario y 360 (75,63%) al reaplicar el mismo, habiendo agregación de conocimiento. Se destaca que la mayoría conoce el examen y sabe que es preciso realizarlo periódicamente, pero este conocimiento no es homogéneo.

# **DESCRIPTORES**

Frotis vaginal. Salud de la mujer. Neoplasias del cuello uterino. Enfermería.

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# INTRODUCTION

Around the world, cancer is considered a severe public health problem. It represents the second cause of death by disease, preceded by cardiovascular diseases only. In Brazil, breast cancer is the main malign tumor in women. An estimated number of 49,400 new cases were detected in 2008. The second most common malign tumor is uterine cervical cancer, which appears as from the age of 20 years, with the greatest risk concentration between 25 and 49 years of age, and is responsible for the deaths of approximately 230 thousand women per year. According to estimates by the National Cancer Institute (INCA), in 2008, 18,680 new cases of uterine cervical cancer were expected in Brazil, 1,360 of which in Minas Gerais State (approximately 13.48 cases for every 100,000 women)(1).

The highest incidence levels of uterine cervical cancer are found in underdeveloped countries. This finding illustrates this type of cancer's strong association with precarious living conditions, low human development rates, absence or fragility of community education strategies (health promotion and prevention) and difficulties to get

access to public health services for early diagnosis and treatment of precursor lesions. Besides those factors, the early start of sexual activity, multiple sexual partners, smoking (directly related with the number of uterine cervical cancer, cigarettes smoked), inadequate intimate hygiene and extended use of oral contraceptives also contribute to the appearance of uterine cervical cancer<sup>(2)</sup>.

According to the INCA, recent studies have shown that the human papiloma virus (HPV) plays an important role in the devel-

opment of cervical tumor cells and their transformation into cancer cells, and are present in more than 90% of uterine cervical cancer cases. Hence, one form of primary uterine cervical cancer prevention is to use condoms during sexual relations. Safe sex is one way to avoid HPV contagion. Precursor lesion detection and early diagnosis of uterine cervical cancer, however, are still the best strategy to decrease morbidity and mortality rates of these tumors. As a form of secondary prevention, this screening is performed through preventive tests (commonly known as pap smears) in Brazil(2).

This test can be taken at health centers or units that offer trained professionals to perform it. According to estimates, mortality due to this cancer can be reduced by approximately 80% through screening, by means of preventive tests and treatment of potentially highly malign precursor lesions or in situ carcinomas(1). For this purpose, the organization, comprehensiveness and quality of screening programs needs to be guaranteed, as well as patient follow-up. Different educative campaigns have been carried out, directed at the population and health professionals, stimulating preventive tests for all women with previous sexual activity, especially in the age range from 25 to 59 years.

Information from the 2003 Brazilian National Household Survey (PNAD), which the Brazilian Institute of Geography and Statistics (IBGE) disseminated in 2005, showed that, in the last three years, the coverage rate of the uterine cervical cytology screening was 68.7% in women over 24 years of age, while 20.8% of women in that age group had never been submitted to the preventive test<sup>(3)</sup>. As this survey was based on information provided by the interviewees, one may admit that part of these women, depending on certain socioeconomic conditions, can mix up the performance of a gynecological test with cervical-uterine material collection for laboratory tests<sup>(4)</sup>.

As the percentage of women who have not adopted the habit of taking the preventive test is still high, often, diagnoses are still reached in more advanced stages of the disease. This late diagnosis can be related to: the female population's difficulties to get access to health services and programs, the low training levels of human resources involved in cancer care (mainly in small and medium-

> sized cities), the public health system's ability to absorb the demand reaching the health units and municipal and state managers' difficulties to define and set up a care flow, guided by criteria to rank different care levels with a view to adequate case management and forwarding of suspect cases for examination at other health system levels<sup>(3)</sup>.

> The National Cancer Care Policy (Decree GM No 2439, issued on December 8<sup>th</sup> 2005) and the 2005-2007 Action Plan for the Control of Uterine Cervical and Breast Cancers contain actions for breast and uterine cervi-

cal cancer control. Those policies address the following strategic guidelines for actions at different health care levels: increased coverage of the target population; guaranteed quality; strengthening of the information system; development of training courses: research development and social mobilization(3).

Hence, it is fundamental for health services to be structured so as to advise the population of the preventive test, as its periodical performance permits reducing mortality due to uterine cervical cancer in the risk population. Based on the principle of prevention as the best strategy against uterine cervical cancer, this research is justified because it contributes to the goals of the Brazilian Ministry of Health.

# **OBJECTIVES**

#### General

Lesion detection and

early diagnosis of

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these tumors.

To identify the knowledge of nighttime female secondary public school students in Uberaba/MG about the Papanicolaou test.



# Specific

To verify the knowledge obtained through a health education activity, involving the same women, and compare it with previous knowledge.

# **METHOD**

This epidemiologic, quantitative, descriptive, cross-sectional study was carried out with nighttime female secondary public school students over 18 years of age in Uberaba/MG who agreed to participate in the study by reading and signing the informed consent term. After a survey and bibliographic review on the theme, the researchers requested permission to develop the research from the Regional Superintendence for Teaching in Uberaba/MG and identified the schools where the target population was present.

All state schools offering nighttime secondary education in Uberaba/MG were visited between March and April 2009. In total, 20 institutions were identified.

The activities developed at the Schools were previously arranged with the respective school boards. On that occasion, research and service proposals were presented. After obtaining the informed consent, all female students registered in Secondary and Young Adult Education received a pre-questionnaire with objective questions to identify their basic knowledge about the Papanicolaou test, as well as a socio-epidemiological profile of the group.

The applied questionnaire was based on INCA guidelines to perform the test, with eight closed questions about the research group's socio-epidemiological profile (age, origin, profession/occupation) and about the Papanicolaou test (goal, technical procedure, requisites to perform the test, test site, conducts after the procedure).

During contact with these women at each institution, a short health education activity was organized, guided by Paulo Freire's technique, which rests on knowledge exchange based on dialogue, an exchange between scientific and popular knowledge<sup>(5)</sup>. The main characteristics of the Papanicolaou test were addressed, as well as its importance to prevent uterine cervical cancer. Furthermore, the material was presented that is used to perform the test, pre-test preparation and post-test recommendations, followed by a dynamic simulation of the test items, using a gynecological mannequin and a Papanicolaou kit for demonstration. After this short lecture, the same questionnaire was applied to verify the knowledge obtained through the educative activity and compare it with previous knowledge.

At the end of the activities, time was made available to answer questions and individual doubts, which met with considerable demand. The obtained data were processed and compared through descriptive statistical analysis. Research development was based on resolution 196/96 by the National Research Ethics Commission (CONEP) and approved by the Ethics Committee for Research Involving Human Beings (CEP) at Universidade Federal do Triângulo Mineiro (UFTM), registered under protocol No 1234/2008.

# **RESULTS AND DISCUSSION**

The initial idea for the study was that women in the target population did not fully know the Papanicolaou test or had distorted knowledge about the theme. The population comprised 1035 women, 476 of whom were older than 18 years and constituted the research subjects.

The group of 476 female nighttime and EJA secondary public school students from Uberaba-MG were between 18 and 65 years old, with a mean age of 25 years, median 42 years and standard deviation 9 years.

Among the 476 students, 359 (75.42%) came from Uberaba/MG, 87 (18.28%) from other cities in the region and 30 (6.30%) did not answer the question.

As for occupation/profession, 177 declared (32%) they were students, 15 (3%) mentioned another profession/occupation besides student and 30 (5%) answered they were housewives. The remaining 290 (52%) declared they exercised another profession/occupation without including student. None of the other professions/occupations that appeared in the research represented more than 1% of the total.

When asked about whether they had heard about the Papanicolaou test (question 1 in the research instrument: Have you heard about the Papanicolaou test?), 386 students (81%) answered yes, they had heard about it and knew what the test is about, 80 (17%) had heard about it but did not know what the test is about, 3 students (1%) had never heard about the Papanicolaou test and 7 (1%) crossed out their answer or did not answer the question.

Cervical-uterine cancer control is a secondary prevention strategy, based on cervical cytology. This is the most disseminated method around the world to screen for cervical dysplasia. It is internationally appointed as the most adequate, sensitive and low-cost instrument, besides the fact that women know and accept it for screening purposes. In most specialized services, disease screening through this technique has surpassed  $80\%^{(6)}$ . In this research, subjects are part of this test dissemination context.

A research involving pregnant women from a poor community in São Paulo city evidenced that many women think they known the Papanicolaou test, but that this knowledge is insufficient to influence changes in health practices<sup>(7)</sup>.

When asked about the goal of the Papanicolaou test (question 2: What is the Papanicolaou test for?), 403 students (85%) demonstrated that they knew the goal, identi-



fying the test as a procedure capable of permitting the detection of precursor lesions of uterine cervical cancer with a view to its early diagnosis, thus representing a uterine cervical cancer preventive test. Fifty-nine students (12%) answered that the Papanicolaou test protects women by impeding that they get cancer, while only 6 (1%) answered it is a test to see the baby during pregnancy.

In a comparative study between Brazilian and Japanese women, it was verified that knowing the goal of the Papanicolaou test influences women to take it, resulting in a higher and more conscious demand, while disinformation about the disease and the test impairs women in their search for preventive care. Disinformation can lead to carelessness and consequent lack of interest in prevention, not only for uterine cervical cancer but also for other gynecological diseases. The study results also showed that women take the preventive test when they have easy access to the gynecological disease prevention program and also if they are supported by some medical insurance<sup>(8)</sup>.

The incorrect answer of 12% of the subjects is highlighted here. They affirmed that the goal of the Papanicolaou test is to impede the development of uterine cervical cancer. As a result of this distorted information, these women may stop worrying about continuous follow-up because they believe they are protected.

In the analysis of the students' knowledge about how the test is performed (question 3: How is the Papanicolaou test performed?), 450 (94%) demonstrated knowing that the test involves the collection of cytological material (cells) from the uterine cervix, with one sample collected from the external part (ectocervix) and another from the internal part (endocervix). The remaining 26 students (6%) did not know for sure how the test is performed and 8 (3%) believed it involves blood collection and a urine sample after at least 12 hours of fasting.

When asked about who should take the Papanicolaou test (question 4: Who should take the test (as from when)?), 387 students (81%) gave the correct answer: any woman as from the first sexual intercourse. The remaining 89 students (19%) did not know for sure when to take the test, 76 of whom (16%) believed any woman should take it as from the first period.

In response to the question about the periodicity of the test (question 5: With what interval should one take the test?), 456 students (96%) correctly answered that the test should be taken once per year, while 20 (4%) students could not answer this question.

Since 1988, the Brazilian Ministry of Health follows the World Health Organization's recommendation to have women between 25 and 60 years of age take the Papanicolaou test every three years after two annual negative controls<sup>(2)</sup>. However, the assertion *annually*, by 96% of the students, was considered correct as health professionals from the study region give this advice in their practice.

With regard to the question about where the test can be taken (question 6: Where can this test be taken?), 455 students (96%) knew this test can be taken at health centers or units that offer trained professionals to perform it. Sixteen participants (3%), however, believed it could only be taken in private clinics.

According to guidelines by the Ministry of Health, physicians or nurses can perform the Papanicolaou test during gynecological consultations<sup>(9)</sup>. The need for trained professionals should be highlighted with a view to adequate test material collection.

With regard to what attitude should be taken after the test (question 7: After the test, you should:), 433 students (91%) knew they should pick up the result and take it to a health professional. Thirty-eight 38 (8%), however, believed one does not need to worry, as they would already be protected.

In a research carried out at a health unit in Fortaleza-CE in 2006, during outpatient care, it was perceived that many women stood in line at the health center in the early morning to guarantee their place to take the Papanicolaou. After a long time waiting, one health professional attends the woman and performs the test. Many women, however, do not return to the health service to pick up the result. Also, the service invests money in each Papanicolaou test performed. Higher education and technical professionals are involved, as well as different expenses on test collection material, reading of the blade and printing the result. When women do not return to the service to receive this result, both the service and the women waste time and resources, as the goal of the Papanicolaou, which is uterine cervical cancer prevention, is not reached  $^{(10)}$ . In this research, 91% of the subjects answered the question correctly, although it is known that correct answers do not necessarily guarantee correct behavior.

As to previous care needed to take the test (question 8: Correct, partially correct, incorrect assertion), 312 students (65%) appointed the correct alternative by classifying the assertion: not having a period, no sexual intercourse in the last 48 hours, no vaginal shower before the test as correct. Ninety-eight students (21%), however, classified the assertion as partially correct, while 58 (12%) thought these aspects do not interfere in the test result.

These answer levels surpass what is found in literature. In a study carried out in Natal-RN, 42% of the women mentioned no sexual intercourse during the night before the test, 33% not using cream and only 17% not having a period, demonstrating the need for educative interventions regarding care before test material collection, as neglecting this care interferes with test results<sup>(11)</sup>.

Among the 386 students (81%) who had heard about the Papanicolaou and knew its goal, only 198 (51.3%) correctly answered all questions before the educative activity. Ninetysix (48.5%) of these are between 18 and 25 years old, 32 (16.2%) between 26 and 30 years, 59 (29.8%) between 31 and 45 years and only 9 (4.5%) are older than 45 years.



Data found in the present research are in line with literature. In a research carried out through a home survey in Argentina, 92.5% of the interviewees informed they had heard about the Papanicolaou test, but only 49.5% of these were classified as having adequate knowledge about the test. The highest levels of adequate knowledge were found among women with seven or more years of education. Most of this knowledge was obtained from sources like radio/television, female friends/relatives and health institutions<sup>(12)</sup>.

Another study, involving women with uterine cervical cancer at a hospital in São Paulo city, demonstrated that deficient knowledge about the Papanicolaou test is frequent among older women, probably because of the recent nature of Brazil's preventive action history<sup>(13)</sup>.

After the dialogued health education activity, the same questionnaire was reapplied to assess whether the activity added technical and scientific knowledge about the Papanicolaou test in this group of women, so as to expect, as a result of the proposed initiative, a behavioral change with a view to improved self-care.

When answering the second questionnaire, 360 students (75.63%) answered all questions correctly, against 51% for the first questionnaire, i.e. an increase by approximately 24% in correct answers. Hence, the health education activity added knowledge in the group.

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#### **CONCLUSION**

At the end of the research, in view of the proposed aims and the results obtained, it can be concluded that, in the study group: 476 women older than 18 years, nighttime secondary public school students, whose main occupation/profession is to study, coming from Uberaba/MG and the region, knowledge is present about the Papanicolaou test. This knowledge, however, is neither complete nor homogeneous.

The youngest students, between 18 and 25 years old, have more knowledge about the Papanicolaou test. This information is satisfactory, as prevention is the priority focus in this age group, which is possible in this phase of life.

The health education activity effectively added knowledge about the Papanicolaou test among female nighttime secondary public school students, as correct answers increased by 24%.

However, it remains surprising that 278 women (58.40%) who have access to information, are predominantly young and come from a center known as a health care and education hub, which is the case for the study group, possess distorted knowledge about the Papanicolaou test, which is so widely disseminated.

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