# Factors related to non-adherence to the realization of the Papanicolaou test

Fatores relacionados a não adesão à realização do exame de Papanicolau

Factores relacionados con la no adherencia a la realización del examen de Papanicolaou

Márcia Aparecida dos Santos Silva<sup>1</sup>, Érica Mairene Bocate Teixeira<sup>1</sup>, Rosangela Aparecida Pimenta Ferrari<sup>1</sup>, Maria Elisa Wotzasek Cestari<sup>1</sup>, Alexandrina Aparecida Maciel Cardelli<sup>1</sup>

**Objective**: to identify reasons for low adherence to the Papanicolaou test in women seeking care in primary health care. **Methods**: cross-sectional study. Data collection carried out during home visits, applying questionnaire to characterize sociodemographic aspects as well as the reasons for non-adherence to examination and suggestions for facilitating adherence. **Results**: among 169 women, 67% were of reproductive age and 73.9% have finished elementary school. The failure to previously scheduled examination was due mainly to the beliefs and attitudes (36.1%) and service organization (25.4%). The feelings reported by women during the Papanicolaou test were shame (55.6%), discomfort (32.5%) and pain (20.7%). **Conclusion**: Although the screening of cervical cancer is essential for timely intervention, a significant proportion of women still does not adhere to examination by myths and taboos, beliefs, and health attitudes, as well as service organization. **Descriptors**: Uterine Cervical Neoplasms; Papanicolaou Test; Primary Health Care; Women's Health.

**Objetivo**: identificar motivos para baixa adesão ao exame de Papanicolau entre mulheres atendidas na atenção primária de saúde. **Métodos**: estudo transversal. Coleta de dados realizada durante visitas domiciliares, aplicando-se questionário para caracterizar aspectos sociodemográficos, bem como os motivos para não adesão ao exame e sugestões facilitadoras para adesão. **Resultados**: das 169 mulheres, 67% estavam em idade reprodutiva e 73,9% cursaram o ensino fundamental. O não comparecimento para o exame previamente agendado foi devido, principalmente, às crenças e atitudes (36,1%) e à organização do serviço (25,4%). Os sentimentos referidos pelas mulheres durante o Papanicolau foram vergonha (55,6%), desconforto (32,5%) e dor (20,7%). **Conclusão:** embora o rastreamento do câncer de colo de útero seja fundamental para intervenção a tempo oportuno, significativa parcela das mulheres ainda não adere ao exame por mitos e tabus, crenças e atitudes em saúde, bem como organização do serviço.

Descritores: Neoplasias do Colo do Útero; Teste de Papanicolaou; Atenção Primária à Saúde; Saúde da Mulher.

**Objetivo**: identificar razones para baja adherencia de examen de Papanicolaou en mujeres asistidas en la atención primaria de salud. **Métodos**: estudio transversal. Recolección de datos realizada durante visitas domiciliarias, aplicación de cuestionario para caracterizar aspectos sociodemográficos, así como razones de la falta de adherencia a examen y sugerencias para facilitar la adhesión. **Resultados**: de las 169 mujeres, 67% estaban en edad reproductiva y 73,9% han terminado la escuela primaria. Falta para realización del examen previamente programado se debió principalmente a las creencias y actitudes (36,1%) y organización de servicios (25,4%). Sentimientos reportados por mujeres durante el Papanicolaou fueron vergüenza (55,6%), malestar (32,5%) y dolor (20,7%). **Conclusión**: aunque la detección del cáncer cervical es fundamental para intervención oportuna, parte significativa de mujeres todavía no adhiere al examen por mitos y tabúes, creencias y actitudes en salud y organización del servicio.

Descriptores: Neoplasias del Cuello Uterino; Prueba de Papanicolaou; Atención Primaria de Salud; Salud de la Mujer.

Corresponding author: Alexandrina Aparecida Maciel Cardelli Av. Robert Kock 60, Londrina. CEP: 86038-440. Paraná, PR, Brazil. E-mail: macielalexandrina@gmail.com

<sup>&</sup>lt;sup>1</sup>Universidade Estadual de Londrina. Paraná, PR, Brazil.

## Introduction

Early detection through the "Papanicolaou" test for cytological cervical cancer is considered the best strategy to identify precursory lesions of cancer as well as a secondary prevention method that is based on the natural history of the disease and the early identification of human papillomavirus and, therefore, has a direct impact in reducing mortality from cervical cancer<sup>(1-2)</sup>.

However, in order to reach these goals, the examination needs to be carried out assiduously by women between 25 and 64 years old, period where high-grade lesions with benign or premalignant alterations occur, being subject to treatment that if not effected, it determines highest mortality rate<sup>(2)</sup>.

The primary health care provides resources needed for the prevention of cervical cancer, but there is a significant number of women who do not adhere to this practice<sup>(3)</sup>. Poor adherence contributes negatively in reducing survival indicators associated with this type of cancer<sup>(4)</sup>. Thus, cultural, social, economic and behavioral factors must be considered as decisive for adherence and control of this grievance<sup>(5-6)</sup>.

In this sense, the need for present study is justified, because despite women having access to free preventive control, offered on free demand on primary care and through programmatic campaigns to increase coverage, yet the demand for this care is not effected in the appropriate percentage in order to reduce mortality from this type cancer. It is thought that this practice may be associated with determinants of beliefs and attitudes on women's health, reflecting directly in the maintenance of this grievance as the third most frequent neoplasia in the female population in Brazil. Every year, the disease causes 5,160 fatalities and represent the fourth cause of death of women in the country with 527,000 new cases estimated for the year 2014<sup>(2-4)</sup>.

Faced with this reality, there was a need to identify reasons for non-adherence to the Papanicolaou test in women seeking care in primary health care. With this knowledge we aim at the building of strategies of reducing the number of nonadherence, increasing adherence to this procedure, helping to improve the assistance provided to these women.

## Methods

This was a retrospective descriptive crosssectional survey, in 2013. The study was conducted on the east side of the city of Londrina-PR, in a Basic Health Unit which has in its comprised area 14,771 people, among them 9,197 registered in the Information System of Primary Care, with 4,014 women aged between 25 and 64 years. The goal of attendance for Papanicolaou collection in 2013 was 1,184 women, and 874 examinations were conducted. This figure accounted for 73.8% of the population, not reaching the 80% proposed by the ministry of health<sup>(2)</sup>, revealing that a significant proportion of women stood outside this prevention plan. It is noteworthy that the planning of offering this action does not impose limit in the number of consultations, and still, in that particular year, not even the minimum goal was achieved.

The structure of the offered assistance in this Basic Health Unit is grounded in family health strategy, which operates with three health teams and its professional staff rely on two doctors, a coordinating nurse, three nurses of the Family Health Strategy and a resident nurse who organize together the service into two weekly schedules to perform the Papanicolaou collection, comprising 64 consultations a week to users of the comprised area, with attendance from 14:00 to 17:00h on Tuesdays and from 8:00 to 16:00h on Wednesdays. The schedules are performed by spontaneous demand of women seeking the Basic Health Unit to perform the collection, or by trapping of employees who provide the schedule of collection for women searching for other assistance. The schedule spreadsheet of Papanicolaou collection contains the following data: date, time, name of the user, medical

record number, address and telephone number. The attendance and absences of users are registered on this spreadsheet.

Taking into account that the minimum goal for Papanicolaou collection was not reached in 2013 and that this was a retrospective cross-sectional study in which the analysis units were composed of women who had scheduled their examination and missed the realization of it, the N stipulated was initially fixed at 310. However, it was found that of these, 121 did not belong to the area comprised of the Basic Health Unit, due to the itinerant profile of the population. This is a common situation in all territories belonging to each municipal Basic Health Unit and that can be identified by the following of the home address informed at the time of scheduling. There is guidance to attendance of this demand regardless of territorial restriction. However, the design of this study adhered to this restriction. Thus, we opted for the exclusion of these women, resulting in an N = 189. In this new sample definition, 20 (10.6%) units of analysis were lost, 12 due to informed domicile address nonexistent and 8 due to refusal to participate in the survey. Therefore, the final N totaled 169 women.

Data collection was performed during home visits using a questionnaire with sociodemographic aspects and questions about reasons for non-adherence to the examination and suggestions for facilitating adherence.

Data were analyzed using the Statistical Package for Social Sciences, version 20.0, described as frequencies and percentages and presented in tables and graphs. In compliance with the determinations of the Resolution 466/12 of the National Health Council, the research project was approved by the Ethics Committee for Research Involving Human Beings of the State University of Londrina approval protocol 544.624/2014.

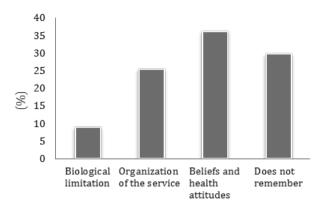
## Results

All participants had already done the Papanicolaou collection before, and the interviews were conducted on average one year after the no show for the Papanicolaou collection due to the approval of the ethics committee, and no woman reported to have conducted the examination at another health care local. It was observed that 67% of women were in reproductive age, being 17 the minimum and 76 the maximum age; 4.7% were teenagers. Most participants lived with a partner (69.2%) and had three or more children (45%). The predominant self-reported race was white (63.3%); approximately 50% were housewives; 73.9% had completed only primary school (Table 1).

**Table 1** - Sociodemographic variables of the women who missed the Papanicolaou collection

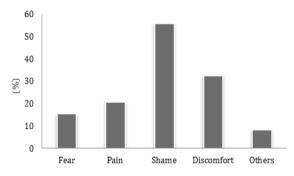
Variables	n(%)
Age range (in years)	
≤19	8(4.7)
20 - 29	29(17.2)
30 - 39	38(22.5)
40 - 49	38(22.5)
≥50	56(33.1)
Colour of skin	
White	107(63.3)
Black	19(11.2)
Brown	42(24.9)
Yellow	1(0.6)
Educational level (years of study)	
0-4	55(32.5)
5-8	70(41.4)
9-12	42(24.9)
≥13	2(1.2)
Occupation	
Formal work	59(34.9)
Informal work	18(10.7)
Housewife	80(47.3)
Retired/pensioner	12(7.1)
Marital status	
With companion	117(69.2)
Without companion	52(30.8)
Nº of children	
Without children	15(9.0)
One	36(21.0)
Two	42(25.0)
≥ Three	76(45.0)
Total	169(100.0)

The reason for the lack of further evidence was related to the beliefs and health attitudes (36.1%), it is worth to note that 29.6% of women reported to have forgotten the reason why they did not attend the examination (Figure 1).



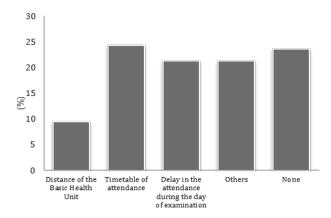
**Figure 1** - Reasons for not attending the Papanicolaou collection previously scheduled in the Basic Health Unit

Among the determinants of health beliefs and attitudes, shame (55.6%) was the predominant self-reported feeling when carrying out previous tests (Figure 2).



**Figure 2** - Feelings of women during the Papanicolaou done earlier in the Basic Health Unit

Women reported difficulty in attending the Basic Health Unit due to the service organization, with 24.3% related to the time attendance timetable for the exam to the public (Figure 3).



**Figure 3** - Women's difficulties to attend the Papanicolaou examination previously scheduled in the Basic Health Unit

Among the suggestions listed as facilitators for adherence to the consultation for tracking cervical cancer mentioned were the improvement of infrastructure of the Basic Health Unit (21.0%) exemplified by more rooms for care, speed of the procedures, sufficient number of employees and local comfort. Attendance by a physician (6.0%); female professionals (4.0%); properly qualified (4.0%) for sample collection were equally suggested by women. It is noteworthy that 11.0% of women appreciated the service provided, not contributing with suggestions, and other participants (54.0%) did not report any recommendations.

#### Discussion

Women have earned major advances in society, occupying spaces in the labor market that overlap the domestic activities, postponing the care of their health<sup>(6)</sup>. However, there are differences of social and age groups in the different regions of the country that change this reality. A research that investigated the coverage and adequacy of the cytopathological exam and associated factors in 41 Brazilian municipalities found that women over 25 years old and with higher education adhered in greater proportion to the

examination, as opposed to gilts and women with lower socioeconomic status<sup>(7)</sup>. In the present study, the majority of women who did not adhere to the Papanicolaou test was in fertile age and had only primary education.

Low education level also influenced the non-adherence to the examination in the results of research with nursing staff, increasing the chances for developing cervical cancer by not identifying the injury in primary stages. On the other hand, women with low education are also more susceptible the contracting sexually transmitted diseases, due to less argumentative power with the partner<sup>(8)</sup>.

Limitation in the educational level hinders the understanding of the exam, and consequently health promotion and prevention actions are restricted to the understanding of women. In turn, women with higher level of education care more for their health, seeking the service more frequently<sup>(8)</sup>.

The reasons for not attending the previously scheduled Papanicolaou examination in the Basic Health Unit may be related to previous experiences, varying from negative beliefs to inadequate professional attitudes, resulting in high number of women missing the collection. In this study, women emphasized the beliefs and attitudes and the service organization.

With regard to the beliefs and attitudes, the study found that women between 46 and 74 years old carry influence of a generation that suffered constant sexual repression, gynecological demands were subdued and associated with fear, shame and ignorance of the importance of the exam, reflecting on increased resistance by these women to submit to the exam<sup>(9)</sup>. However, women in this study, most of them in reproductive age, have reported feelings of shame, discomfort, pain and fear during the examination.

One of the main reasons for non-adherence to the consultation is the feeling of shame and embarrassment, followed by lack of knowledge about cervical cancer, the technique and the importance of preventive exam, regardless of age<sup>(6)</sup>.

Shame becomes an essential barrier to the examination and can lead to discontinuity of the assistance. The exposure of the body during the Papanicolaou procedure is something intense for the woman, for places her in a vulnerable situation, in which she is exposed to touch, handling and judgment of her body by another person<sup>(10)</sup>. The act of getting naked refers to a human frailty process that is inert to the action of another, besides the impotence, defenselessness and loss of property of the body that the gynecological position incurs<sup>(11)</sup>.

The feeling of fear comes from negative experiences that come from third parties or from the own experience in previous collections, besides the fear of pain and possible positive outcome for cancer. That feeling during the collection makes some women postpone having a cervical smear, revealing a lack of information about the importance of early diagnosis, the higher probability of healing and subtle treatments<sup>(12)</sup>.

As for the organization of health services, women reported this to be a barrier to the realization of the collection of the Papanicolaou and not suitable for routine of women who are active in the labor market, who becomes dependent on work release or delays to take of herself for eventual days off and / or holidays. The current labor market in our society requires from woman a productive erosion both at work and at home. She must perform her activities with excellence in the work and she should ensure the welfare of the family at home, and in this context there is no room for care of her health and conduct routine examinations<sup>(13)</sup>.

The study found that the most vulnerable women to developing cervical cancer were concentrated where geographical barriers and access to health services were larger, as well as financial difficulties. These barriers are multiplied when associated with cultural and behavioral issues of the individual, preventing the early detection of cancer<sup>(14)</sup>. Therefore, the health service must be aware of the difficulties of women to realize the exam and

must facilitate the use of this service in a warm and individualized manner, accounting for the diversity of each region.

Another barrier for non-attendance at the cytology test is the menstrual cycle which can coincide with the schedule of collection invalidating the procedure, so the health service must have this variable to better structure the program in order to increase adherence and coverage<sup>(15)</sup>.

On the other hand, the study points out the need for more investment in information in order to avoid that women seek care on the verge of gynecological complaints such as changes in the menstrual cycle and bleeding after sexual intercourse, making late use of the cytological test and implying low preventive effect and indispensable referral to specialist services due to the disease progression<sup>(16)</sup>.

Although women have pointed out the motives and feelings for not attending the Papanicolaou test previously scheduled in the Basic Health Unit, they proposed service improvements to make possible the adherence related to infrastructure and human resources. The study points to the urgent need of service and user satisfaction, because health is also a woman's right and the service should qualify for assistance and optimize conducive environments for adherence to the early detection of precursory lesions of cervical cancer<sup>(17)</sup>.

With regard to human resources for the examination of cytology for cancer, women reported feeling embarrassment to a male professional by exposing her body. In this sense, the results of the research conducted with prisoners also showed that the procedure performed by a physician or male nurse created feelings of embarrassment such as fear, nervousness and shame(18).

Other women suggested that the professional to make the examination must be a physician. This preference is related to the belief that this professional has greater competence, autonomy and resoluteness during the examination. When requesting qualified professionals, women demonstrate their dissatisfaction with care, due to the lack of interest in hearing their complaints and carrying out the procedure without interaction with them, a fact that results in lack of professional credibility<sup>(17)</sup>.

Although these women rebuke quality of the previously experienced service and still recognize the importance of prevention of cervical cancer through examination, it proves to be a clear fact the lack of commitment with self-care when they miss the consultation, since the exam is also an individual responsibility of the woman<sup>(19)</sup>.

In general, the abovementioned behavior impedes access to health services tied to other barriers, because many women fail to take the exam periodically. not returning the consultations and seeking the service only when they have a complaint(12-20). Capture, active search and education for self-care should be strategies to increase adherence, especially avoiding making judgments about the attitude of these clients, but investing in the qualification of the health system to reduce the morbidity and mortality rates due to this grievance, through preventive actions and effective and efficient promotion of health.

## Conclusion

Although the screening of cervical cancer is fundamental for timely intervention, a significant proportion of women still does not adhere to examination by myths and taboos, beliefs, and health attitudes, as well as service organization.

In this logic, health professionals must interact more effectively with the patient through the rescue of equity in care which preaches the individualization of care and the establishment of a bond of trust that overlaps the fear, shame, difficulties of access and the practice of responsible self-care. These actions can be achieved through the strengthening of continued education, lectures in the community, individual guidelines that encourage the attendance of users to the collection and demystify harmful beliefs for prevention in health. As the study limitation, it is

acknowledged that these results cannot be generalized since they deal with qualitative variables involving cultural aspects that may vary in population groups.

### **Collaborations**

Silva MAS and Cardelli AAM contributed to the construction of the project, in conducting the study, analysis and interpretation of data and writing, also the latter being responsible for the critical review of the article and final approval of the version to be published. Teixeira EMB contributed in the analysis and interpretation of data, writing and critical review of the article. Ferrari RAP and Cestari MEW contributed to critical revision of the article.

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