REASONS AND FACTORS ASSOCIATED WITH NOT PERFORMING THE PAP SMEAR TEST

MOTIVOS E FATORES ASSOCIADOS À NÃO REALIZAÇÃO DO EXAME PAPANICOLAU

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Abstract. The objective of this study was to evaluate the reasons and factors that interfere with non-adherence to the pap smear. Cross-sectional, observational, quantitative study, carried out with 379 women who missed the exam scheduled in 2019 at the ubs of Anori-AM. The volunteers answered a questionnaire containing questions related to uterine cancer and the pap smear, sociodemographic profile and reasons for not adhering to the exam. The relationship between failure to undergo previous exams (dependent variable) and sociodemographic and pap smear-related variables was analyzed. The mean age was 39.5 ± 9.8 years and 25.3% reported not having undergone previous exams. The reasons for non-adherence were lack of interest, fear and shame (82.3%). A significant association was observed with being over 37 years old (or=1.73; 95% ci: 1.02-2.94), not having knowledge about how regularly to take the exam (or=6.09; 95% ci). %: 1.77-20.98) and those who do not know the previous exam recommendations (or=10.45; 95%ci: 5.47-19.96), p<0.05. It is concluded that the reasons for non-adherence are related to personal aspects including lack of interest, fear, embarrassment, and insecurity and, not carrying out previous exams was associated with older women, a lack of knowledge about the regularity and recommendations prior to the exam.

Keywords: Pap smear; adherence; women's Health; Care.

Resumo. O objetivo deste estudo foi avaliar os motivos e fatores que interferem na não adesão ao exame de Papanicolau. Trata-se de um estudo transversal, observacional e quantitativo, realizado com 379 mulheres que faltaram ao exame agendado em 2019 nas UBS de Anori-AM. As voluntárias responderam a um questionário contendo questões relacionadas ao câncer de colo do útero e ao exame de Papanicolau, além de informações sobre perfil sociodemográfico e motivos da não adesão ao exame. Foi analisada a relação entre a não realização de exames anteriores (variável dependente) e as variáveis sociodemográficas e relacionadas ao exame de Papanicolau. A média de idade foi de 39,5 ± 9,8 anos, e 25,3% relataram não ter realizado exames anteriores. Os principais motivos da não adesão foram falta de interesse, medo e vergonha (82,3%). Observou-se associação significativa com idade superior a 37 anos (OR=1,73; IC95%: 1,02-2,94), desconhecimento sobre a regularidade com que o exame deve ser realizado (OR=6,09; IC95%: 1,77-20,98) e desconhecimento das recomendações prévias ao exame (OR=10,45; IC95%: 5,47-19,96), p<0,05. Conclui-se que os motivos para a não adesão estão relacionados a aspectos pessoais, como falta de interesse, medo, vergonha e insegurança, e que a não realização de exames anteriores esteve associada principalmente ao desconhecimento sobre o exame.

Palavras-chave: Papanicolau; adesão; saúde da mulher; cuidados.

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INTRODUCTION

Cancer is a major social, public health, and economic problem in the 21st century, ranking as one of the leading causes of death in all countries of the world, accounting for almost one in six deaths (16.8%).[1] In Brazil, a 20% increase in cancer incidence has been observed, and it is expected that by 2030, there will be more than 25 million new cases.[2] Cervical cancer is the third most common type of cancer among the female population, with an estimated 17,010 new cases, representing a risk of 13.25 per 100,000 women.[3]

The method for screening cervical cancer in Brazil is the Cervical Cancer Screening Test (PCCU), also known as the Pap smear test or oncotic cytology.[4] However, for screening to be effective in reducing the occurrence and mortality from cancer, the World Health Organization (WHO)[5] recommends that 90% of women up to 15 years of age be properly vaccinated against human papillomavirus (HPV) and, a significant percentage of women (70%) in the at-risk age group undergo Pap smear testing, and 90% are followed up and appropriately treated.

The National Health Survey (PNS) conducted in Brazil showed that the percentage of women aged 25 - 64 years who had never performed the test was 9.7% in 2013 and 6.10% in 2019.[6] The low adherence negatively contributes to the reduction of survival indicators for this type of cancer and is related to several factors such as lack of knowledge about their own bodies, lack of knowledge about the test and its importance, difficulty in access, lack of opportunity to talk about their sexuality, schooling, and shame.[7]

In Primary Health Care, several strategies are used to enable early screening for cervical cancer.[8] These approaches include educational and awareness campaigns, scheduled appointments to encourage regular screenings, nursing consultations with standardized collection protocols, and individualized guidance to clarify doubts and reduce emotional barriers.

According to the annual report from the National Cancer Institute (INCA), the Southern and Southeastern regions of Brazil showed the highest coverage, with approximately 84% of women aged 25 - 64 years performing the exam, while the Northern and Northeastern regions had lower coverage, about 79% and 76%, respectively, and of only 72%, compared to 90% among those with complete higher education. Regarding the reasons for not performing the examination, lack of perception of the need (45.1%), lack of guidance (14.8%), and shame (13.1%) stand out, highlighting challenges that transcend access to the service, pointing to educational and sociocultural barriers. These data are intended to guide public policies and specific guidelines to increase adherence to the examination and reduce regional and social disparities (INCA, 2022).[9]

Brazil was one of the pioneers in using the Cervical Cancer Screening Test (PCCU) in screening programs,[10] carried out in Primary Care Units, generally by nurses who use standardized collection protocols and offer support on appropriate conduct and treatment.[11]

Although a reduction in cancer mortality has been observed over the years in Brazil, there are still large inequities among Brazilian regions,[12] remaining higher in municipalities of the Northern and Northeastern regions, which in 2017 presented rate three times higher than that of the Southeastern Region.[13]

Despite Primary Health Care offering the Pap smear test on a scheduled and free basis, the demand for the test often does not reach the necessary targets to have an effective impact on mortality indicators. Thus, studies aimed at understanding the factors that contribute to non-attendance to the Pap smear test, especially in regions with higher risk of developing cancer, can contribute to the development of strategies to increase test coverage, informing the local population about the importance of prevention, and promoting regular Pap smear testing.[14]

In this context, the aim of this study was to evaluate the reasons and factors that interfere with non-adherence to the Pap smear test.

MATERIALS AND METHODS

This cross-sectional observational epidemiological study was carried out in the municipality of Anori-AM, Northern region of Brazil, with estimated population of 21,937 inhabitants and low Municipal Human Development Index (HDI 0.561).[15]

In the Northern region, cervical cancer is the most incident (25.62/100,000), followed by the Northeast region (20.47/100,000), the Mid-Western region (18.32/100,000), the Southern region (14.07/100,000), and the Southeastern region (9.97/100,000).[17]

The municipality's Primary Care network has 9 Family Health Strategy teams: 4 teams at the 'Fausto Gomes da Rocha' Basic Health Unit (UBS), 3 teams at the 'Júlio Teles de Souza' UBS, and 2 riverside teams at the 'Cuiuanã' Health Unit in the rural area.

In 2019, 1080 women aged 25 - 64 years were summoned by the two health units that are reference centers for conducting Pap smear tests throughout the municipality of Anori-AM. Of this total, 471 (43.6%) women who did not attend the Pap smear test were included.

Initially, contact was sought with the 471 women who did not attend the test, with up to three attempts made by telephone and, in the absence of a response, a home visit was conducted to collect data. After these attempts, those who could not be located were excluded.

In addition to the responsible researcher, community health agents (ACS) who were duly trained to administer the questionnaires participated in the data collection process.

Data were collected using a questionnaire developed by the researcher, containing 10 questions related to the sociodemographic profile (marital status, occupation, schooling, area of residence, housing situation and type, income, and average age). In addition, they answered 13 questions, 9 of which were multiple choice related to cervical cancer and the Pap smear test, and 3 open-ended questions about having performed previous tests, reasons for not adhering to the test, and the means of obtaining information about the test.

The questions were evaluated as right or wrong based on the Brazilian Protocols and Guidelines for Cervical Cancer Screening determined by the National Cancer Institute[17] and the American Cancer Society.[18]

Data were descriptively analyzed using absolute and relative frequencies for categorical variables and mean and standard deviation for age. Simple and multiple logistic regression models were applied to analyze the relationship between not having performed previous tests and sociodemographic variables, and variables related to cervical cancer and the Pap smear test were categorized as correct or incorrect. All variables with $p<0.20$ in the simple analyses were included in the multiple model, with those that had $p\leq0.05$ remaining in the final model. The quality of fit was assessed using the Akaike Information Criterion (AIC). All analyses were conducted using the R software, with significance level of 5%.[19]

The research was approved by the Research Ethics Committee (CEP) of the São Leopoldo Mandic Faculty under CAAE number 51087521.4.0000.5374.

RESULTS

Of a total of 471 women who missed their Pap smear test, 92 were excluded because they did not answer the questionnaire, either due to refusal or because they could not be found after attempts made by the community health agent (ACS), remaining 379 women in the study with mean age of 39.5 ± 9.8 years.

The results regarding knowledge about the exam are presented in Table 1. It was observed that 25.3% of women had not performed previous exams, but most recognize the importance of performing the exam. Only 24.0% of women correctly identified the appropriate time to perform the first Pap smear test.

TABLE 1 – Descriptive analysis of issues related to cervical cancer and the Pap smear test (n=379)

	Category	Frequency	Percentage
How often should a cervical cancer screening test (Pap smear) be performed?	Every 2 years	65	17,20%
	Once a year	250	66,00%
	The first two tests should be performed annually, and if both results are negative, subsequent tests should be performed every three years. (Correct)	64	16,90%
When should the first preventive exam be performed?	Should be between 25 and 64 years of age	258	68.10%
	Should be between 25 and 64 years of age for those who have had or have an active sex life (Correct)	91	24.00%
	No previous answer	30	7.90%
	After the start of sexual activity	93	24.50%
	At any age	82	21.60%
Age group that benefits most from the HPV vaccine.	Girls aged 9 – 14 years (Correct)	106	28.00%
	Boys aged 11 - 14 years (Correct)	3	0.80%
	Girls aged 9 - 14 years and boys aged 11 - 14 years (Correct)	93	24.50%
	No answer	2	0.50%
	After sexual activity	78	20.60%
What is the recommended timeframe for Pap smear tests?	After 18 years of age	23	6.10%
	At menopause	1	0.30%
	Every woman who has already had a sex life and who is between 25 and 64 years of age (Correct)	277	73.10%
	Inadequate diet and alcoholic beverages (Correct)	52	13.70%
	Exposure to radiation (Correct)	9	2.40%
	Sun exposure	10	2.60%
Factors related to cervical cancer	Lack of physical activity (Correct)	65	17.20%
	HPV and other infections (Correct)	174	45.90%
	Menarche/first menstruation	13	3.40%
	Obesity and heredity (Correct)	44	11.60%
	None of these factors	12	3.20%
	To prevent diseases	60	15.80%
	Preventing cervical cancer (Correct)	313	82.60%
Importance of the Pap smear test	It has no importance related to women's health.	3	0.80%

	Category	Frequency	Percentage
How can cervical cancer be prevented?	Having a healthy diet (Correct)	118	31,10%
	Maintaining adequate body weight (Correct)	37	9,80%
	Practicing physical activity (Correct)	34	9,00%
	Vaccinating children and adolescents within the indicated age range against HPV (Correct)	99	26,10%
	Avoiding alcohol consumption, not smoking (Correct)	24	6,30%
	Having a preventive exam every 3 years	64	16,90%
Are you aware of how the HPV virus is transmitted?	No answer	3	0,80%
	Through sexual intercourse	267	70.40%
	Contact with the skin of the vulva, perianal region and scrotum even with the use of condom (Correct)	112	29.60%
Are you familiar with the pre-exam recommendations?	Not using lubricants, spermicides or vaginal medications in the last 48 hours before performing the preventive exam (Correct)	102	26.90%
	Not performing the exam during menstruation, as it may impair the cytopathological diagnosis (Correct)	89	23.50%
	In the case of abnormal vaginal bleeding, a gynecological exam is mandatory and the sample can be collected (Correct)	60	15.80%
	Wait until the fifth day after the menstrual cycle	69	18. 20%
	I did not receive guidance	59	15.60%

The reasons given for not adhering to the examination are presented in Table 2. Factors related to personal aspects such as lack of interest, fear, and shame were the most frequent reasons.

TABLE 2 – Descriptive analysis of the question about the reasons for non-adherence to the Pap smear test (n=379)

Category	Frequency	%
External factors (work, children, and religion)	11	2,90%
Personal reasons (lack of interest, fear, shame, insecurity)	223	82,3%
Living in a rural area with difficult access	47	12,40%
Not having an active sex life	22	5,80%

Regarding the means of information dissemination about the examination presented in Table 3, it was observed that the most frequent means of disseminating information about Pap smear tests is through community health agents and nurses (59.1%).

TABLE 3 – Descriptive analysis of information sources for the Pap smear test (n=379)

Category	Frequency	%
Campaigns in electronic media	46	12.10%
In health and weekend campaigns	42	11.10%
By the community health agent and nurse	224	59.10%
Magazines, posters, brochures or stickers,	71	18.70%
television and radio	1	0.30%
No information		

Table 4 presents the results of the analyses regarding the association between sociodemographic profile and knowledge with the performance of previous examinations. Lower rate of previous examinations was observed among women over 37 years of age compared to younger women (OR=1.73; 95% CI: 1.02-2.94), as well as those who lacked knowledge about the regularity with which examinations should be performed (OR=6.09; 95% CI: 1.77-20.98) and those who were unaware of the prior examination recommendations (OR=10.45; 95% CI: 5.47-19.96), p<0.05.

TABLE 4 – Analyses (crude and adjusted) of associations with prior performance of previous exams (n=379)

Variable	Category	n (%)	Performed previous examinations		Crude OR (95%CI)	p-value	Adjusted OR (95%CI)	p-value
			*No n (%)	Yes n (%)				
Sociodemographic							Ref	0,0438
Age (years)	≤$37	231 (61,0)	47 (20,4)	184 (79,6)	Ref		1,73 (1,02-2,94)	-
	>37	148 (39,0)	49 (33,1)	99 (66,9)	1,94 (1,21-3,10)	0,0057	-	-
Marital status	With a partner	278 (73,4)	77 (27,7)	201 (72,3)	Ref		-	
	Without a partner		19 (18,8)	82 (81,2)	0,60 (0,34-1,06)	0,0806		-
Schooling	Up to the complete elementary		23 (33,3)	46 (66,7)	1,61 (0,92-2,86)	0,0928	-	
	level		73 (23,6)	237 (76,4)	Ref			-
Place of residence	Above complete elementary		51 (40,2)	76 (59,8)	3,09 (1,91-4,98)	<0,0001	-	
	school		45 (17,9)	207 (82,1)	Ref			
Type of residence	Rural zone		11 (23,9)	35 (76,1)	0,88 (0,43-1,81)	0,7252		-
	Urban zone		2 (11,1)	16 (88,9)	0,35 (0,08-1,55)	0,1670	-	
	Rented		83 (26,4)	232 (73,6)	Ref			
Income	Provided		30 (34,9)	56 (65,1)	2,80 (1,42-5,55)	0,0031		
	Own		49 (26,2)	138 (73,8)	1,86 (1,01-3,43)	0,0473		
	Family Allowance		17 (16,0)	89 (84,0)	Ref			
	Up to one minimum wage							
	More than 1 minimum wage							

Knowledge	Correct answer	64 (16,9)	3 (4,7)	61 (95,3)	Ref	0,0004	Ref	0,0042
Regularity of the examination	Incorrect answer	315 (83,1)	93 (29,5)	222 (70,5)	8,52 (2,61-27,82)		6,09 (1,77-20,98)	-
Age range that most benefits from the HPV vaccine.	Correct answer	91 (24,0)	25 (27,5)	66 (72,5)	Ref	0,5900	-	
	Incorrect answer	288 (76,0)	71 (24,6)	217 (75,4)	0,86 (0,51-1,47)			-
Cervical cancer screening	Correct answer	109 (28,8)	21 (19,3)	88 (80,7)	Ref	0,0865	-	
Factors that cause cervical cancer	Incorrect answer	270 (71,2)	75 (27,8)	195 (72,2)	1,61 (0,93-2,78)			-
Importance of the examination	Correct answer	277 (73,1)	61 (22,0)	216 (78,0)	Ref	0,0154	-	
It is possible to prevent cervical cancer?	Incorrect answer	102 (26,9)	35 (34,3)	67 (65,7)	1,85 (1,12-3,04)			-
Do you know how the HPV virus is transmitted?	Correct answer	344 (90,7)	85 (24,0)	269 (76,0)	Ref	0,0309	-	
Are you familiar with the pre-exam recommendations?	Incorrect answer	35 (9,3)	15 (42,8)	20 (57,2)	2,51 (1,09-5,68)			-
	Correct answer	313 (82,6)	74 (23,6)	239 (76,4)	Ref	0,1018	-	
	Incorrect answer	66 (17,4)	22 (33,3)	44 (66,7)	1,62 (0,91-2,87)			-
		312 (82,3)	82 (26,3)	230 (73,7)	Ref	0,3590	-	
		67 (17,7)	14 (20,9)	53 (79,1)	0,74 (0,39-1,41)			-
		112 (29,6)	16 (14,3)	96 (85,7)	Ref			
		267 (70,4)	80 (30,0)	187 (70,0)	2,57 (1,42-4,63)	0,0018	-	
		251 (66,2)	42 (16,7)	209 (83,3)	Ref			
		128 (33,8)	91 (71,1)	37 (28,9)	12,17 (6,45-22,96)	<0,0001	Ref	
							10,45 (5,47-19,96)	<0,0001

*Outcome event. $Sample median. Ref: Reference category for the independent variables. OR: Odds ratio. CI: Confidence interval. AIC (empty model) = 430.98; AIC (final model) = 351.81.

DISCUSSION

The results of this study highlight the need for educational and awareness-raising approaches targeted at specific age groups, adequate understanding of the frequency of the examination, and the importance of prior recommendations to increase knowledge about these aspects and enable greater adherence to the Pap smear test.

In this study, all the women interviewed, despite having been scheduled for the examination, missed the day of collection, and 25.3% reported not having performed previous examinations. According to the National Health Survey (PNS)[5] conducted in Brazil, the percentage of non-adherence to the examination was 6.10, and in the state capital Manaus, this percentage changed from 7.8 in 2013 to 3.5 in 2019.[66]

An effective strategy to increase adherence to the examination is to actively seek out women who have missed appointments through community agents who use this moment to reinforce information about the importance of the examination and the need to seek health services for its regular performance.[20] In the municipality of Anori, the active search for women who have missed appointments is conducted by community agents to encourage the performance of preventive examinations and promote awareness of their importance. Agents deliver the request during the follow-up of families benefiting from the Family Allowance Government Program, in health activities promoted by health teams in rural communities and in the most distant neighborhoods of the municipality. In cases where patients are unable to reach health services at Basic Health Units (UBS), either due to mobility difficulties or, sometimes, shame at never having performed the test, the sample is collected directly at their homes.

Other strategies could be considered involving other professionals on the team to address the topic, such as creating support groups for women where they can share experiences and encourage each other, exploring the possibility of offering guidance via telemedicine, and establishing partnerships with other local institutions such as schools, churches, and non-governmental organizations (NGOs) to intensify the information dissemination.

When asked about how they received information about the test, most responded that it was through community health agents (ACS) and nurses. Nurses and community health agents (ACS) are extremely important in disseminating knowledge, as they are the professionals closest to this target population within the Family Health Strategy.[21] The role of the nurse is fundamental in the fight against cervical cancer, since this professional is involved in all stages of the process, from prevention to the rehabilitation of patients. In addition, nurses can perform nursing consultations, specific examinations and materials for the early detection of cervical cancer. Active search and screening are also important actions carried out by nurses with the help of community health agents who must know their territory and have the ability to create a bond with the population.[22]

The literature shows that the reasons reported by women for not adhering to the Pap smear test are diverse and complex, and factors such as fear of pain and discomfort during the examination, embarrassment, shame of ex-

posing their own body, absence of active sexual activity,[7,23,24] are pointed out as the reasons for not performing the examination. In this study, it was observed that personal reasons such as fear, shame, or insecurity associated with the examination exerted a substantial influence on women, superimposing factors related to family responsibilities, professional commitments, or religious beliefs.

Within Primary Health Care, health education and awareness activities are fundamental pillars for breaking down these barriers and demystifying the myths and misconceptions associated with the examination.[25] Therefore, it is important that health professionals adopt sensitive and welcoming approaches when dealing with women's health concerns and issues, ensuring that they feel comfortable and respected.[26] A welcoming and respectful environment can help women feel more comfortable and willing to share their concerns.[27]

In the municipality of Anori, several health initiatives related to the Pap smear test are annually carried out. These initiatives involve a multidisciplinary team composed of nurses, doctors, and community health agents who conduct lectures and discussion groups on the importance of self-care and the Pap smear test, a preventive examination. In addition, health campaigns are carried out at strategic points and in riverside communities to perform Pap smear tests in a suitable environment, aiming to promote awareness and access to the Pap smear test, contributing to the health and well-being of women living in the municipality of Anori.

The analysis of the association between sociodemographic characteristics and the non-performance of previous examinations showed that being over 37 years of age increased the chance of not having performed previous examinations. This fact was also identified in other study, pointing to non-adherence to the examination by older women, which can be justified because older women often mistakenly understand that the need for the Pap smear test is reduced after the onset of menopause or the reduction of sexual activity.[28-30]

Since most women were married or in a stable relationship, even if they had missed the examination in the year of the research, it was expected that they had already undergone previous examinations. The fact that they were in a stable relationship may have induced the mistaken perception of belonging to a lower-risk group.[31]

Other aspects related to the characteristics of the population may interfere with the performance of the examination. Low schooling may be associated with non-adherence to the examination, hindering positive decisions about their health and the use of health services in a preventive manner[7,32], in addition to increasing the chance of non-adherence to examinations in the last two years by up to two times compared to women with complete higher education. Most of the sample under study had schooling higher than complete primary education, which may have contributed to the lack of association with low schooling in this study.

Social vulnerability has also been pointed out as a factor in the non-adherence to the examination;33 however, in the present study, although most women received 1 minimum wage and benefits from the Family Allowance Government Program, no significant association was found with the non-performance of the examination.

Distance and transportation difficulty may also be factors that contribute to low adherence.[34] Riverside populations of the municipality have as their main means of transport the river route, which may be by boat, canoe or motorboat, depending on the transport type and the territorial distance, and the travel time varies between 2 hours and 10 hours to reach the municipality's health unit. Although some of the evaluated women live in rural areas and the reference units for sample collection are mostly located in the central region of the municipality, they did not report difficulty of access as the main barrier to perform the examination.

The familiarity of the riverside population with this means of transport may have minimized the perception of difficulties related to commuting. However, it is noteworthy that, even with river transport being a common practice, there may be specific challenges that interfere with the search for health services. Further studies focused on a specific sample of riverside women, addressing the impact of access to health services, could offer valuable insights for a more comprehensive understanding of these aspects in the population.

Among all the aspects evaluated regarding the Pap smear test and cervical cancer, only issues related to lack of knowledge about the regularity of the examination and prior recommendations increased the chance of non-adherence to previous examinations.

Knowledge of the purpose of gynecological examinations influences women to perform them, resulting in greater demand for services, while misinformation can generate disinterest and lack of concern for the prevention of cervical cancer.[35,36]

However, having knowledge is often not enough to break down barriers to perform the examination, as it does not guarantee that women will change their behavior regarding seeking health care.[37]

Regarding the regularity of Pap smear examinations, it was observed that most did not answer this question correctly, and not knowing the regularity increased the chances of not having previous examinations. However, this result should be analyzed with caution, because although the Brazilian guidelines for Cervical Cancer Screening recommend that the first two examinations should be performed annually and, if both results are negative, the next ones should be performed every three years, in practice, health units advise women to repeat the examination annually. This information possibly influenced the responses presented by the sample, leading to the reflection that although this population lacks knowledge regarding what is established in the guidelines, it is well-informed regarding what is recommended in primary care. Thus, further studies should be conducted considering this aspect to better understand the relationship among these factors.

It is important to recognize the limitations in interpreting the results of this study. The cross-sectional design allows for the identification of associations among variables at a specific point in time, without considering possible changes over time.

The reasons for not performing a Pap smear test were obtained through open-ended questions subject to subjectivity and social desirability. Unlocated sample losses may have introduced selection bias. As a future perspective, longitudinal studies that evaluate the impact of educational actions and active search efforts to reduce absenteeism, as well as the inclusion of coverage and effectiveness indicators in municipal monitoring should be carried out.

However, the results presented are extremely important for the evaluated municipality, as no previous study has been conducted with this approach, which will allow for the development of interventions targeted at the population under study to be more effective in overcoming the barriers evidenced in this study.

Such initiatives can support public policies to be more focused on reducing regional inequalities and strengthening early screening for cervical cancer.

CONCLUSION

It could be concluded that the reasons for non-adherence to the scheduled examination are related to personal aspects such as lack of interest, fear, shame, and insecurity. Failure to perform the Pap smear test is associated with being older, lack of knowledge about the regularity of the examination, and lack of prior recommendations.

REFERENCES

1. BRAY, F. et al. Estatísticas globais de câncer 2022: estimativas GLOBOCAN de incidência e mortalidade em todo o mundo para 36 tipos de câncer em 185 países. CA: A Cancer Journal for Clinicians, 2024. [acesso em 2025 out. 16 2025];v. 74, n. 2, p. 229-259. Disponível em: https://doi.org/10.3322/caac.21834 .

2. Sung H, Ferlay J, Siegel RL, Laversanne M, Soerjomataram I, Jemal A et al. Global cancer statistics 2020: GloboBocan estimates of incidence and mortality worldwide for 36 cancers in 185 countries. CA Cancer J Clin [internet]. 2021 [acesso em 2023 ago. 12]; 71:209-49. DOI: https://doi.org/10.3322/caac.21660.

3. Instituto Nacional de Câncer José Alencar Gomes da Silva (INCA). Estimativa 2023: incidência do câncer no Brasil [internet]. Rio de Janeiro: INCA; 2022 [acesso em 2022 nov. 28]. Disponível em: https://www.gov.br/inca/pt-br/assuntos/cancer/numeros/estimativa.

4. Aguilar RP, Soares DA. Barreiras à realização do exame Papanicolau: perspectivas de usuárias e profissionais da Estratégia de Saúde da Família da cidade de Vitória da Conquista-BA. Physis [internet]. 2015 [citado 2023 maio 2];25(2):359-79. DOI: https://doi.org/10.1590/S0103-73312015000200003.

5. World Health Organization. Global strategy to accelerate the elimination of cervical cancer as a public health problem. Genebra: World Health Organization; 2020.

6. Instituto Brasileiro de Geografia e Estatística (IBGE). Pesquisa nacional de saúde: 2019: percepção do estado de saúde, estilos de vida, doenças crônicas e saúde bucal: Brasil e grandes regiões [internet]. Rio de Janeiro: IBGE; 2020 [acesso em 2023 jan. 11]. Disponível em: https://www.pns.icict.fiocruz.br/wp-content/uploads/2021/02/liv101764.pdf.

7. Iglesias GA, Larrubia LG, Campos Neto AS, Pacca FC, Iembo T. Conhecimento e adesão ao Papanicolau de mulheres de uma rede de Atenção Primária à saúde. Rev. Ciênc. Méd. [internet]. 2019 [acesso em 2023 maio 4]; 28(1):21-30. Disponível em: https://docs.bvsalud.org/biblioref/2020/01/1047801/med-3-00_4008.pdf.

8. Garcia LF, Santin AA, Sette NLF, Matarucco CR. Análise dos fatores associados a não adesão das mulheres ao exame preventivo de câncer de colo de útero: uma revisão bibliográfica. Revista UNIFEV: Ciência e Tecnologia [internet]. 2016 [acesso em 2023 maio 2]; 1(1):158-70. Disponível em: https://api.semanticscholar.org/CorpusID:79390734.

9. Instituto Nacional de Câncer (INCA). Dados e números sobre câncer do colo do útero: Relatório anual 2022. Rio de Janeiro: INCA; 2022. Disponível em: https://www.inca.gov.br/sites/ufu.sti.inca.local/files/media/document/dados_e_numeros_colo_22novembro2022.pdf . Acesso em: 16 out. 2025.
Oliveira NC, Moura ERF, Diógenes MAR. Desempenho de enfermeiras na coleta de material cérvico-uterino para exame de Papanicolaou. Acta Paul. Enferm. [internet]. 2010 [acesso em 2023 maio 3]; 23(3): 385-91. Disponível em: https://www.scielo.br/j/ape/a/C9LwtWJLPkGFkvgPm8jFg7g/?format=pdf.

10. Andrade CB, Souza C, Campos NPS, Gonzaga MFN, Pereira RSF, Soares APG. Percepção dos enfermeiros da atenção básica à saúde do município de Jeremoabo frente à resistência das mulheres na realização do exame citopatológico de colo de útero. Saúde Foco [internet]. 2017 [acesso em 2022 nov. 20]; 9:34-55. Disponível em: https://portal.unisepe.com.br/unifia/wp-content/uploads/sites/10001/2018/06/006_ percepcao_dos_enfermeiros_da_atencao_basica_a_saude.pdf.

11. Barbosa IR, Souza DLB, Bernal MM. Desigualdades regionais na mortalidade por câncer de colo de útero no Brasil: tendências e projeções até o ano 2030. Ciênc. Saúde Colet. [internet]. 2016 [acesso em 2023 maio 4]; 21:253-62. DOI: https://doi.org/10.1590/1413-81232015211.03662015.

12. Silva GA, Jardim BC, Ferreira VM, Junger WL, Girianelli VR. Cancer mortality in the capitals and in the interior of Brazil: a four-decade analysis. Rev. Saúde Pública [internet]. 2020 [acesso em 2023 maio 4]; 54:126. DOI: https://doi.org/10.11606/s1518-8787.2020054002255.

13. Lima KF, Melo LHCP, Gomes LM, Rodrigues-Antunes S, Feio DCA. A importância dos fatores associados à não adesão ao exame preventivo do câncer de colo uterino por mulheres brasileiras – revisão sistemática. RBAC. 2022;54(1):55-61. doi:10.21877/2448-3877.202102072.

14. Instituto Brasileiro de Geografia e Estatística (IBGE). Cidades e estados [internet]. Rio de Janeiro: IBGE; 2021 [acesso em 2023 jan. 11]. Disponível em: https://www.ibge.gov.br/cidades-e-estados/am/anori.html.

15. Instituto Nacional de Câncer José Alencar Gomes da Silva (INCA). Diretrizes brasileiras para o rastreamento do câncer do colo do útero [internet]. 2. ed. rev. atual. Rio de Janeiro: INCA; 2016 [acesso em 2021 out 19]. Disponível em: https://www.inca.gov.br/publicacoes/ livros/diretrizes-brasileiras-para-o-rastreamento-do-cancer-do--colo-do-utero.

16. Instituto Nacional de Câncer José Alencar Gomes da Silva (INCA). Diretrizes brasileiras para o rastreamento do câncer do colo do útero [internet]. 2. ed. rev. atual. Rio de Janeiro: INCA; 2016 [acesso em 2021 out 19]. Disponível em: https://www.inca.gov.br/publicacoes/ livros/diretrizes-brasileiras-para-o-rastreamento-do-cancer-do--colo-do-utero.

17. Instituto Nacional de Câncer José Alencar Gomes da Silva (INCA). Estimativa 2018: incidência do câncer no Brasil [internet]. Rio de Janeiro: INCA; 2017 [acesso em 2023 maio 12]. Disponível em: https://portaldeboaspraticas.iff.fiocruz.br/wp-content/uploads/2019/10/estimativa-incidencia-de-cancer-no-brasil-2018.pdf.
American Cancer Society. Risk factors and causes of childhood cancer [internet]. Atlanta: American Cancer Society; c2019 [acesso em 2019 set. 4]. Disponível em: https://www.cancer.org/cancer/cancer-in-children/riskfactorsandcauses.html.

18. R Core Team. R: A language and environment for statistical computing [internet]. Vienna, Austria: R Foundation for Statistical Computing; 2020 [acesso em 2021 abr. 2]. https://www.eea.europa.eu/data-and-maps/indicators/oxygen-consuming-substances-in-rivers/r-development-core-team-2006.

19. Nazaré G de CB, Ribeiro JC, Santos AA dos, Resende JD de SA, Resende MA, Rodrigues M de S. A importância da busca ativa do enfermeiro na Atenção Primária para prevenção do câncer de colo uterino. Revista Eletrônica Acervo Saúde [internet]. 2020 [acesso em 2023 mar. 17]; (39):e2066. Disponível em: https://acervomais.com.br/index.php/saude/article/view/2066.

20. Souza AF, Costa LHR. Conhecimento de mulheres sobre HPV e câncer do colo do útero após consulta de enfermagem. Rev. bras. cancerol. [internet]. 2015 [acesso em 2022 jan. 18]; 61(4):343-350. Disponível em: https://rbc.inca.gov.br/index.php/revista/ article/view/220.

21. Haines A, Barros EF de, Berlin A, Heymann DL, Harris MJ. National UK programme of community health workers for COVID-19 response. The Lancet [internet]. 2020 [acesso em 2023 maio 5]; 395(10231):1173-75. DOI: http://dx.doi.org/10.1016/S0140-6736(20)30735-2.

22. Onofre MF, Vieira RD, Bueno GH. Principais fatores que dificultam a adesão ao exame de citologia oncótica: uma revisão de literatura. Enferm. rev. [internet]. 2019 [acesso em 2020 jan. 5]; 2(22):231-42. Disponível em: http://periodicos.pucminas.br/index.php/enfermagemrevista/article/view/21082.

23. Silva JP, Leite KNS, Souza TA de, Sousa KM de O, Rodrigues S da C, Alves JP et al. Exame Papanicolau: fatores que influenciam a não realização do exame em mulheres de 40 a 65 anos. Arq. Ciênc. Saúde [internet]. 2018 [acesso em 2022 dez. 2]; 25(2):15-19. Disponível em: https://docs.bvsalud.org/biblioref /2019/12/1046441/a3.pdf.

24. Damiani G, Basso D, Acampora A, Bianchi CBNA, Silvestrini G, Frisicale EM et al. The impact of level of education on adherence to breast and cervical cancer screening: evidence from a systematic review and meta-analysis. Prev. Med. [internet]. 2015 [acesso em 2023 maio 5]; 81:281-89. DOI: http://dx.doi.org/10.1016/j.ypmed.2015.09.011.

25. Carvalho BA, Silva JCM, Falavigna MF, Silva MF, Tupinambá RVF. Exame Papanicolau: percepção de acadêmicas de enfermagem do Vale do Paraíba. Reevap. 2016 [acesso em 2017 abr. 17]; 1(8):104-9. Disponível em: http://unifatea.com.br/seer3/index.php/REENVAP/article/download/38/27/71.

26. Terezam R, Reis-Queiroz J, Hoga LAK. A importância da empatia no cuidado em saúde e enfermagem. Rev. Bras. Enferm. [internet]. 2017 [acesso em 2023 maio 6]; 70(3):669-70. DOI: http://dx.doi.org/10.1590/0034-7167-2016-0032.

27. Terezam R, Reis-Queiroz J, Hoga LAK. A importância da empatia no cuidado em saúde e enfermagem. Rev. Bras. Enferm. [internet]. 2017 [acesso em 2023 maio 6]; 70(3):669-70. DOI: http://dx.doi.org/10.1590/0034-7167-2016-0032.

28. Miranda AP, Rezende EV, Romero NSA. Percepção e adesão das mulheres quanto ao exame citopatológico. Rev. Nursing [internet]. 2018 [acesso em 2022 abr. 2]; 21(246):2435-2438. Disponível em: https://pesquisa.bvsalud.org/portal/resource/ pt/biblio-969216.

29. Lopes P, Lopes A. A importância do exame citopatológico nas unidades básicas de saúde: a atuação do enfermeiro. Rev. Intersaúde [internet]. 2020 [acesso em 2022 maio 12]; 1(3):129-140. Disponível em: http://revista.fundacaojau.edu.br:8078/ journal/index.php/revista_intersaude/article/view/162.

30. Oliveira RL de, Lima LA de S, Ramos LGA. Assistência do enfermeiro na educação em saúde, no câncer de colo do útero. Research, Society and Development [internet]. 2021 [acesso em 2022 maio 2]; 10(4);e1210413728-e1210413728. DOI: http://dx.doi.org/10.33448/rsd-v10i4.13728.

31. Santos MS, Macêdo APN, Leite MAG. Percepção de usuárias de uma unidade de saúde da família acerca da prevenção do câncer do colo do útero. Rev. APS [internet]. 2010 [acesso em 2023 maio 6]; 13(3):310-19. Disponível em: https://periodicos.ufjf.br/index.php/aps/article/view/14462.

32. Fernandes NFS, Almeida PF de, Prado NM de BL, Carneiro Â de O, Anjos EF dos, Paiva JAC et al. Desafios para prevenção e tratamento do câncer cervicouterino no interior do Nordeste, Brasil. Rev. Bras. Estud. Popul. [internet]. 2021 [acesso em 2022 abr. 26]; 38(144). DOI: https://doi.org/10.20947/S0102-3098a0144.

33. Cesar JA, Santos GB, Sutil AT, Cunha CF, Dumith SC. Citopatológico de colo uterino entre gestantes no Sul do Brasil: um estudo transversal de base populacional. Rev. Bras. Ginecol. Obstet. [internet]. 2012 nov. [acesso em 2023 jan. 11]; 34(11):518-23. Disponível em: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0100-72032012001100007. DOI: 10.1590/S0100-72032012001100007.

34. Lopes VAS, Ribeiro JM. Fatores limitadores e facilitadores para o controle do câncer de colo de útero: uma revisão de literatura. Ciênc. Saúde Colet. [internet]. 2019 Sep [acesso em 2020 abr. 29]; 24(9):3431-42. Disponível em: http://www.scielo.br/scielo.php?script=sci_ arttext&pid=S1413-81232019000903431&lng=en.

35. Bianca OL, Nunes CRO, Oliveira VV de, Barbosa RAA, Souza MS, Teles MAB. A percepção das mulheres idosas sobre o exame de prevenção de câncer do colo de útero. Rev. Pesqui. (Univ. Fed. Estado Rio J., Online). [internet]. 2019 [acesso em 2022 maio 2]; 11(5):1347-1352. Disponível em: http://www.seer.unirio.br/index.php/cuidadofundamental/article/view File/8325/pdf_1.

36. Silva LA, Freitas AS, Müller BCT, Magalhães MJS. Conhecimento e prática de mulheres atendidas na Atenção Primária a saúde sobre o exame Papanicolaou. Rev. Pesqui. (Univ. Fed. Estado Rio J., Online). [internet]. 2021 [acesso em 2023 maio 7]; 13:1013-19. Disponível em: https://seer.unirio.br/cuidadofundamental/article/view/9845/10048.

37. Azevedo AG, Cavalcante IB, Cavalcante JB, Rolim LADMM. Fatores que influenciam a não realização do exame de Papanicolaou e o impacto de ações educativas. Rev. bras. anal. clin. [internet]. 2016 [acesso em 2022 maio 4]; 48(3):253-57. Disponível em: https://www.rbac.org.br/wp-content/uploads/2016/11/ARTIGO-11_RBAC-48-3-2016-ref.-176.pdf.