Knowledge and Practices of Primary Care Users about Cervical Cancer Control

Conhecimentos e Práticas de Usuárias da Atenção Primária à Saúde sobre o Controle do Câncer do Colo do Útero
Conocimiento y Prácticas de las Usuarias de Atención Primaria sobre el Control del Cáncer Cervical

Mikaela Santos Mascarenhas[1]; Luan Viana Faria[2]; Lorena Pinholi de Morais[3]; Davi da Costa Laurindo[4]; Mário Círio Nogueira[5]

Abstract

Introduction: Cervical cancer is the fourth most common type of cancer in the female population worldwide, with its incidence and mortality more accentuated in low-income countries, which have less structured health services and less coverage for disease screening. **Objective:** To analyze the appropriateness of the knowledge and practices that users of a basic health unit (BHU) in Juiz de Fora – MG have on cervical cancer screening, considering as reference the recommendations of the National Cancer Institute José Alencar Gomes da Silva (INCA). **Method:** Descriptive cross-sectional study using a structured questionnaire applied to users of a BHU in the age group from 25 to 69 years old for two weeks. Prevalence of adequate practices and their associations with sociodemographic factors were estimated. **Results:** All the women were already cognizant of the cytopathological examination and the majority (77.9%) was aware of its purpose. However, none demonstrated complete adequate knowledge about the recommended age range and frequency to screen these neoplasms. The prevalence of appropriate practice was of 17.4% (CI95%: 11.8-23.1%), with a higher proportion for the age group over 50 years. **Conclusion:** The users' knowledge about INCA's recommendations on primary health care for cervical cancer screening is very precarious. **Key words:** Primary Health Care; Mass Screening; Uterine Cervical Neoplasms; Papanicolaou Test.

Resumo

Introdução: O câncer do colo do útero é o quarto tipo de câncer mais frequente na população feminina mundial, tendo sua incidência e mortalidade mais acentuadas nos países de baixa renda que possuem serviços de saúde menos estruturados e alcançam menor cobertura no rastreamento da doença. **Objetivo:** Analisar a adequação dos conhecimentos e práticas das usuárias de uma unidade básica de saúde (UBS) de Juiz de Fora - MG, sobre o rastreamento do câncer do colo do útero, tendo como referência as recomendações do Instituto Nacional de Câncer José Alencar Gomes da Silva (INCA). **Método:** Estudo transversal descritivo, utilizando questionário estruturado aplicado às usuárias de uma UBS na faixa etária de 25 a 69 anos durante duas semanas. Foram estimadas prevalências de práticas adequadas e suas associações com fatores sociodemográficos. **Resultados:** Todas as mulheres já tinham ouvido falar do exame citopatológico e a maioria (77,9%) tinha conhecimento de sua finalidade. Entretanto, nenhuma apresentou conhecimento inteiramente adequado sobre o rastreamento dessas neoplasias, no que concerne à faixa etária e à periodicidade recomendadas. A prevalência de prática adequada foi de 17,4% (IC95%: 11,8-23,1%) com maior proporção para a faixa etária de maiores de 50 anos. **Conclusão:** O conhecimento das usuárias da atenção primária à saúde sobre as recomendações do INCA para o rastreamento do câncer do colo do útero é ainda muito precário.
Palavras-chave: Atenção Primária à Saúde; Programas de Rastreamento; Neoplasias do Colo do Útero; Teste de Papanicolaou.

Resumen

Introducción: El cáncer de cuello uterino es el cuarto tipo de cáncer más común en la población femenina en todo el mundo, con su incidencia y mortalidad más pronunciada en los países de bajos ingresos, que tienen servicios de salud menos estructurados y logran menos cobertura en la detección de la enfermedad. **Objetivo:** Analizar la idoneidad del conocimiento y las prácticas de los usuarios de una unidad básica de salud (UBS) de Juiz de Fora - MG, en la detección del cáncer de cuello uterino, tomando como referencia las recomendaciones del Instituto Nacional del Cáncer José Alencar Gomes da Silva (INCA). **Método:** Estudio descriptivo transversal que utiliza un cuestionario estructurado aplicado a usuarios de una UBS en el grupo de edad de 25 a 69 años durante dos semanas. Se estimó la prevalencia de prácticas adecuadas y sus asociaciones con factores sociodemográficos. **Resultados:** Todas las mujeres habían oído hablar de la prueba de Papanicolaou y la mayoría (77.9%) era consciente de su propósito. Sin embargo, ninguno presentó un conocimiento completamente adecuado sobre el cribado de estas neoplasias, con respecto al rango de edad y frecuencia recomendados. La prevalencia de la práctica adecuada fue del 17.4% (IC95%: 11,8-23,1%), con una mayor proporción para el grupo de edad de más de 50 años. **Conclusión:** El conocimiento de las usuarias de la atención primaria de salud sobre las recomendaciones del INCA para detección del cáncer cervical es muy precario. **Palabras clave:** Atención Primaria de Salud; Tamizaje Masivo; Neoplasias del Cuello Uterino; Prueba de Papanicolaou.

[1]Department of Collective Health of the Medicine School of the Federal University of Juiz de Fora (UFJF). Juiz de Fora (MG), Brazil. Orcid iD: https://orcid.org/0000-0003-0474-5512
[2]Department of Collective Health of the Odontology College of UFJF. Juiz de Fora (MG), Brazil. Orcid iD: https://orcid.org/0000-0003-2336-9946
[3]Department of Collective Health of the Medicine School of UFJF. Juiz de Fora (MG), Brazil. Orcid iD: https://orcid.org/0000-0002-5544-5846
[4]Department of Collective Health of the Medicine School of UFJF. Juiz de Fora (MG), Brazil. Orcid iD: https://orcid.org/0000-0002-0779-3504
[5]Department of Collective Health of the Medicine School of UFJF. Juiz de Fora (MG), Brazil. Orcid iD: https://orcid.org/0000-0001-9688-4557
Corresponding Author: Mikaela Santos Mascarenhas. Rua Guaçuí, 541, apto. 302 - São Mateus. Juiz de Fora (MG), Brazil. CEP 36025-190. E-mail: mikaelamascarenhas@gmail.com

INTRODUCTION

Cervical cancer is the fourth most common type of cancer in the female population worldwide[1] and nearly 85% of the world cases occur in low-or-average income countries[2]. The highest incidence of cervical cancer is closely related to less developed regions and lower socioeconomic levels. Added to this, perspectives of increase of mortality in the poorer Brazilian regions in the upcoming years reveal the magnitude of the challenge to control this cancer in the country[2].

According to the National Cancer Institute José Alencar Gomes da Silva (INCA), in Brazil, with exception of non-melanoma skin cancer, cervical cancer is the first most incident in the North Region, the second in the Northeast and West-Central Regions and the fifth in the Southeast Region. The number of new cases expected of cervical cancer for each year of the triennium 2020-2022 for Brazil is 16,710 with estimated risk of 16.35 cases at each 100 thousand women, with variation of the magnitude among the Brazilian Regions[1].

The etiology of cervical cancer is the persistent infection by the oncogenic types of the human papillomavirus (HPV), mainly the HPV16 and HPV18[3]. The natural history indicates that the infections are normally transitory but when not fought appropriately by the immune system, can result in the incorporation of these viruses into the host genome and create precancerous lesions[4]. The period between the infection by the oncogenic viruses, the development of precancerous lesions and its evolution to tumor encompasses a temporal window of nearly 10 to 20 years, enough time for effective actions of early identification and treatment of the lesions, thus breaking the epidemiological chain and reducing the incidence and mortality by this cancer[5-7].

In Brazil, since 1940, there are initiatives to control cervical cancer[8] and currently these policies are part of the Plan of Strategic Actions to Cope with Chronic Non-Communicable Diseases from 2011 to 2022[9]. The Guidelines to Screen Cervical Cancer[10] define the cytopathological exam as screening method that must be performed in women aged 25 to 64 years, triennially after two annual consecutive normal exams.

These guidelines[10] were elaborated by INCA and adopted as reference parameter in this study, since INCA is linked to the Ministry of Health that issues guidelines to steer the conducts of early cancer detection. It is worth mentioning that a study published in 2019, comparing the main guides of clinical practice elaborated in Brazil concluded that those compiled by the Ministry of Health and its associated organs have better methodology and transparency in comparison with the guides organized by the societies of medical specialties[11].

Had synergic factors as coverage of at least 80% of the target-population and access to the diagnosis and appropriate treatment exist, the incidence of invasive cervical cancer can be reduced in up to 90%. In Brazil, where screening is still opportunistic, data of 2017 indicate that all the Brazilian Regions presented values higher than 77% of exams performed within the target age-range[11].

Given the importance of screening as public policy of risk reduction of the advanced disease, studies identifying the current knowledge users of health services about causal factors have and the form of early detection of cervical cancer as well as their attitudes and practices in relation to the current screening policies, are indispensable for the promotion of health and have already been performed in several Brazilian cities[12-20].

Therefore, the present study has the objective of investigating the appropriateness of the knowledge and practices that users of basic health unit have about cervical cancer screening in relation to the current screening policies. These findings can contribute to the knowledge about the reality of preventive practices in medium size cities and the level at which the recommendations of national health managers are incorporated in the daily life of healthcare professionals of basic attention and its users.

METHOD

Descriptive, cross-sectional study with structured questionnaire applied to the users of the basic health unit (BHU) in the age-range of 25 to 69 years, consecutively consulted during two weeks in a BHU of Juiz de Fora-MG. As the study is part of a wider research involving the evaluation of the knowledge and attitude of users about breast cancer[21,22] screening, the age limit of the women selected is up to 69 years to address the age-range-target for mammography. In this analysis the data of the women in the age-range between 25 and 69 years, the age-range-target of the screening program were analyzed.

All the users who were in the reception room at the BHU in the days of the research were invited to join the study to avoid biases of sample selection, excluding those out of the age-range investigated. After clarification about the study, those who accepted to participate signed the Informed Consent Form. Their anonymity was kept.

The questionnaire presented a first part with items about users sociodemographic characteristics as age, race/color self-reported (categories of IBGE), education, marital status and time of enrollment at the BHU and a second part with items about the knowledge they have about INCA recommendations[10] for cervical cancer screening. The interviews were conducted by health

undergraduates previously trained in the week before data were collected.

The variables of exposure of the study were the sociodemographic characteristics, time the users are enrolled at BHUs and appropriate knowledge about screening. The definition of the fully appropriateness of the knowledge the woman had[10] is when she knew previously about the cytopathological exam, finality, periodicity and cognizance of the beginning and end of the screening. The outcome variable was the appropriate practice according to these recommendations. The following criteria were followed to identify the appropriateness: cytopathological exam performed at least once; the first exam with 25 years or more and the last, at least 36 months ago.

The sociodemographic characteristics of the study population and the responses to the questionnaire are presented in tables with absolute and relative frequencies.

The prevalence of appropriate practice was estimated with confidence interval of 95% (CI95%). The association of appropriate practice about the knowledge and sociodemographic factors was analyzed with chi-square test, confidence level of 5%.

All the analyses were performed in the software R version 3.5.2 through graphic interface of RStudio. The clinical trial was submitted and approved by the Institutional Review Board of Federal University of Juiz de Fora, report number 3,415,835 and CAAE number 02584318,8,0000,5147.

RESULTS

Of a total of 172 users of BHU, nearly 56% were within the range of 25 and 49 years old. The most frequent category of race/color was Caucasian (43.6%) and of education, incomplete elementary (32.6%). Half of the women were married and 55.8%, users of BHU for more than ten years (Table 1).

In relation to cytopathological exam, all the women were aware and 77.9% knew the finality, but only 1.2% of the users interviewed knew that screening should begin at 25 years old while 3.5% responded it ends at 64 years old. None of them knew the correct periodicity, every 3 years. Only four women (2.3%) had never done the exam, only one of these knew what the purpose was. Of those who did the exam, nearly 66% were in the last 12 months. More than half of the women did the exam for the first time before 25 years old, being 43.0% before 20 years old and 27.9% between 20 and 24 years old. Nearly all who did the exam picked up the results and showed to a healthcare professional (Table 2).

The prevalence of the appropriate practice was only 17.4% (CI95%: 11.8-23.1%), with high proportion in the age range of older than 50 years (Table 3).

Table 1. Sociodemographic characteristics of the research participants. Juiz de Fora, 2019 (N=172)

VARIABLES	N	%
Age range		
25-49	96	55.8
50-64	76	44.2
Race/Color		
Caucasian	75	43.6
Black	42	24.4
Asian	3	1.7
Brown	51	29.7
Did not respond	1	0.6
Education		
No education	1	0.6
Elementary incomplete	56	32.6
Elementary complete or high school incomplete	37	21.5
High school complete or university incomplete	56	32.6
University complete	22	12.8
Marital Status		
Single	54	31.4
Married	86	50.0
Stable union	8	4.7
Divorced	16	9.3
Widow	8	4.7
Time of engagement with UBS		
<= 2 years	37	21.5
2 to 10 years	39	22.7
>10 years	96	55.8

DISCUSSION

In the present study, the percentage of women who had some previous knowledge about the cytopathological exam and knew its purpose was 100% and 77.9%, respectively. These data were similar to the encountered in other Brazilian BHUs as the city of São Mateus-ES, where 98.9% of the users have heard about the exam and 78.1% were aware of its purpose[23], just like the city of Fortaleza-CE, where rates of 98.4% and 54.8% respectively were found[24]. Although it has been demonstrated that the near totality of the women had already heard about the cytopathological exam, few were those who actually

Table 2. Distribution of frequency of responses to the variables about knowledge and practices of users of basic attention about screening cervical cancer. Juiz de Fora, 2019 (N=172)

VARIABLES	N	%	VARIABLES	N	%
Heard about			How old were you when you underwent for the first time (only for those who did)		
Yes	172	100.0	Less than 20 years	74	43.0
No	0	0.0	From 20 to 24 years	48	27.9
Appropriate knowledge about the purpose			With 25 or more years	42	24.4
			Did not respond	3	1.7
Yes	134	77.9	Does not apply	5	2.9
No	38	22.1	How long since the last time		
Appropriate knowledge about when to begin			From 0 to 12 months	111	64.5
Yes	2	1.2	From 13 to 36 months	43	25.0
No	170	98.8	More than 36 months	10	5.8
Appropriate knowledge about when to end			Did not respond	3	1.7
			Does not apply (never did)	5	2.9
Yes	6	3.5	Picked the test result		
No	166	96.5	Yes	163	94.8
Appropriate knowledge about periodicity			No	4	2.3
			Does not apply (never did)	5	2.9
Yes	0	0.0	Showed a healthcare professional the result		
No	172	100.0			
Has submitted once			Yes	162	94.2
Yes	167	97.1	No	5	2.9
No	4	2.3	Does not apply (never did)	5	2.9
Did not respond	1	0.6			

knew INCA's recommendations for cervical cancer screening, especially about the recommended age-range and periodicity.

In a scenario where most of the interviewed women are enrolled in the BHU for more than ten years, enough time to participate of health promotion actions developed, it is necessary to question the behavior of the BHU healthcare professionals in relation to INCA recommendations and what is being taught to the users. In a study of 2014[12], evaluating 1,600 BHU healthcare professionals, mostly nurses, 93% of them reported they conducted women screening annually and 75.1% indicated to start the exam in women before 25 years, in contrast with INCA recommendation.

With the objective of investigating what are the main barriers to implement the guidelines in the BHUs, a Brazilian study published in 2019 interviewing 60 managers concluded that the most important were poor organizational tradition in using guidelines (25.0% of

BHUs), low adherence of the professionals (21.4%), disorganization of health services (21;4%), further to the precariousness of the information system and high rotation of professionals[25]. When managers were asked about the recommended age-range for screening, 70% knew the right response while 56%, responded about periodicity[25] correctly.

As a measure to change this situation, Amaral et al.[26] evaluated the impact of the training offered to health professionals in a Goiânia-GO BHU about cervical cancer screening where INCA guidelines were being discussed, in special the recommended periodicity and age-range, the importance of the Cervical Cancer Information System (SISCOLO), the appropriate form filling of the cytopathological exam request, adequacy of the sample, clinical conduct and follow up of women with altered test result. In the end, among other positive results, it was observed the reduction of exams in women younger than 25 years and a relevant increase of the practice within

Table 3. Prevalence of appropriate cervical cancer screening practices in BHU users. Juiz de Fora, 2019

VARIABLES	N	n	Prevalence	CI95%	P-Value
Total	172	30	17.4	11.8-23.1	-
Age range					<0.001
25-49	96	7	7.3	2.1-12.5	
50-64	76	23	30.3	19.9-40.6	
Race/Color					0.641
Caucasian	75	12	16.0	7.7-24.3	
Other	96	18	18.8	10.9-26.6	
Education					0.205
Up to elementary incomplete	57	14	24.6	13.4-35.8	
Up to high school incomplete	37	6	16.2	4.3-28.1	
High school or higher complete	78	10	12.8	5.4-20.3	
Marital Status					0.623
With spouse	102	19	18.6	11.0-26.2	
Without spouse	70	11	15.7	7.2-24.3	
Time of relation with BHU					0.475
<= 2 years	37	4	10.8	0.8-20.8	
2 to 10 years	39	8	20.5	7.8-33.2	
>10 years	96	18	18.8	10.9-26.6	
Appropriate knowledge about the purpose					0.858
Yes	134	23	17.2	6.1-30.8	
No	38	7	18.4	10.8-23.6	

Captions: N: number of users; n: number of users with adequate practice; Prevalence: percent of users with adequate practice; CI 95%: confidence interval of 95%; P-Value: chi-square test for the association among sociodemographic variables and prevalence of adequate practice, significative if p<0.05.

the periodicity of the Ministry of Health, reflecting the efficacy of providing instruction to BHUs practitioners, nurses and other health professionals.

While analyzing the national coverage of the cytopathological exam among women from 25 to 64 years through the National Health System (PNS) of 2013 it was concluded that 79.4% of the women in this age-range submitted to the exam in the last three years. In an investigation through telephone conducted in 2013 in the Brazilian capitals and Federal District (FD), this estimate increases to 83.9%, but still lower than the coverage anticipated target of 85% of the female population until 2022[27], defined by the Plan of strategic actions to cope with non-communicable diseases (NCDs) in Brazil (2011-2022)[9].

In the present study, prevalence of appropriate practice was found in only 17.4% of users within the recommended age-range demonstrating the importance of abiding to measures to increase the adherence of professionals and

users to the national guidelines. Women older than 50 years had more prevalence of appropriate practice. Other studies reported most appropriate practice among users above 35 years[24] and among 25 and 35 years[13], reflecting the great diversity of the Brazilian regions.

Unlike what this study encountered, the marital status was already associated to the inappropriate cervical cancer screening in other articles[14,28-30]. A study conducted with Spanish women in the US showed that the risk to not submitting to the exam in unmarried women or without stable union was nearly fourfold bigger than the married[28]. Similarly, a study conducted in Pelotas indicated that be a widow or single was a risk factor for not submitting to the exam[14]. A higher propensity of married women or in stable unions who seek family planning or obstetric services is indicated as a plausible explanation for this finding since their seek for health service opens the possibility of submitting to the cytopathological exam[29]. This aspect can also be

justified by couples demanding each spouse to pursue preventive and curative health practices[30]. Furthermore, other characteristics, as high level of education, having a job and living close to the health facility were already associated to more knowledge and practices about cervical cancer screening[24].

Still in education, many studies indicate that low education is associated to non-submitting to cytopathological exam because less education can result in poor information and understanding about prevention strategies[12,13,18-20,23,27,31]. However, in the present article, education level failed to show associations with the prevalence of appropriate practices of cervical cancer screening.

In relation to self-reported race/color, more analyzes are needed to confirm whether there is association between this factor and lack of knowledge and not submitting to the exam. Corroborating this article, a study conducted with women who usually followed prenatal examination also in Juiz de Fora-MG[20], concluded that self-reported race/color failed to be related to poor practices similar to Florianópolis-SC[31] and Recife-PE[18]. In contrast, through a telephone investigation conducted in 2013 in the Brazilian capitals and Federal District[27], the highest coverage of cytopathological exams was reported by Caucasian women.

Studies indicate the flawed or scant cognizance women have about health-related services, negative feelings about the exam, poor attitude and unemployment are among the barriers to perform the cytopathological exam[16,32].

The results of the present article reinforce the necessity to adopt measures to favor the cytopathological exam as recommended by INCA as the continuous education of healthcare professionals of the BHU[33], users-targeted individual and collective educative interventions[5-17] and the incentive to create a direct bond between the consultation at the BHU and the women[16], to expand the early detection and prevention of cervical cancer.

CONCLUSION

This study showed that the users of basic attention demonstrate flawed knowledge about INCA recommendations to screen cervical cancer, especially in regard to age range and periodicity advised. As an example, more than 80% of the users screened inappropriately although more than half of these women are frequent users of this BHU for more than ten years, enough time to have attended initiatives of health education. These community and healthcare professionals-targeted actions can reverse this status and, potentially, create a positive impact in the health of the female population.

CONTIBUTIONS

All the authors contributed equally for the conception and planning of the study; gathering, analysis and interpretation of the data; wording and critical review. All the authors approved the final version to be published.

DECLARATION OF CONFLICT OF INTERESTS

There is no conflict of interests to declare.

FUNDING SOURCES

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