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Cervical cancer: knowledge, attitude and practice on the prevention examination

Câncer cervico-uterino: conhecimento, atitude e prática sobre o exame de prevenção

Cáncer de cuello uterino: conocimiento, actitud y práctica sobre el examen de prevención

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ABSTRACT

Objective: to evaluate the knowledge, attitude and practice of women on the cervical-uterine cancer screening and to investigate their association with sociodemographic variables. **Method:** a cross-sectional study, carried out from July to September 2015, with 500 women enrolled in the Basic Health Units of the Health District V, of the city of Recife-PE. For data collection, a semi-structured form was used. In statistical analysis, the Chi-square test and Fisher's Exact Test were applied and, in the multivariate analysis, the Poisson model and Wald statistic. **Results:** the prevalence of *adequate* knowledge, attitude and practice was 35.2%, 98% and 70.6%, respectively. *Adequate* knowledge was associated with having no children, having a family income of two minimum wages and Spiritist/Afro-Brazilian religion. **Conclusion:** women carry out the examination, deem it necessary, but do not have *adequate* knowledge, which demonstrates the need for educational actions by nurses and other health professionals.

Descriptors: Nursing; Women's Health; Uterine Cervical Neoplasms; Papanicolaou Test; Knowledge, Attitudes and Practice in Health.

RESUMO

Objetivo: avaliar o conhecimento, atitude e prática de mulheres sobre o exame preventivo do câncer cervico-uterino e investigar sua associação com as variáveis sociodemográficas. **Método:** estudo transversal, realizado de julho a setembro de 2015, com 500 mulheres cadastradas nas Unidades Básicas de Saúde do Distrito Sanitário V, do município de Recife-PE. Para a coleta de dados utilizou-se um formulário semiestruturado. Na análise estatística, foi aplicado o teste Qui-Quadrado, Teste Exato de Fisher e, na análise multivariada, o modelo de Poisson e estatística de Wald. **Resultados:** a prevalência de conhecimento, atitude e prática *adequados* foi de 35,2%, 98% e 70,6%, respectivamente. O conhecimento *adequado* foi associado a não ter filhos, ter renda familiar de dois salários mínimos e religião espírita/afro-brasileira. **Conclusão:** as mulheres realizam o exame, julgam-no necessário, mas não têm conhecimento *adequado*, o que demonstra a necessidade de ações educativas pelos enfermeiros e demais profissionais de saúde.

Descritores: Enfermagem; Saúde da Mulher; Neoplasias do Colo do Útero; Teste de Papanicolau; Conhecimentos, Atitudes e Prática em Saúde.

RESUMEN

Objetivo: evaluar el conocimiento, actitud y práctica de mujeres sobre el examen de prevención del cáncer de cuello uterino e investigar su asociación con las variables sociodemográficas. **Método:** estudio transversal, realizado de julio a septiembre 2015, con 500 mujeres inscritas en las Unidades Básicas de Salud del Distrito Sanitario V, del municipio de Recife, Pernambuco, Brasil. Para la recolección de datos se utilizó un formulario semiestructurado. En el análisis estadístico, se aplicó el test de Chi-Cuadrado, la Prueba Exacta de Fisher y, en el análisis multivariada, el modelo de Poisson y la estadística de Wald. **Resultados:** la prevalencia de conocimiento, actitud y práctica *adecuados* fue de 35,2%, 98% y 70,6%, respectivamente. El conocimiento *adecuado* fue asociado a no tener hijos, tener una renta familiar de dos salarios mínimos y religión espírita/afrobrasileña. **Conclusión:** las mujeres realizan el examen, lo juzgan necesario, pero no tienen conocimiento *adecuado*, lo que demuestra la necesidad de acciones educativas por los enfermeros y demás profesionales de salud.

Descriptores: Enfermería; Salud de la Mujer; Neoplasias del Cuello del Útero; Prueba de Papanicolaou; Conocimientos, Actitudes y Práctica de Salud.

INTRODUCTION

The number of new cases of cervical cancer or uterine cervical cancer (UCC) expected in Brazil in 2016 will be 16,340, with only breast cancer (57,960 new cases) and colon and rectal cancer behind (17,620 new cases)[1]. The incidence of UCC is higher in less developed countries. Generally, the disease manifests itself from the 30 years, increasing the risk according to the age; your age range is between 50 and 60 years[2].

The main risk factor for the development of UCC precursor lesions is human papillomavirus (HPV), associated with factors such as smoking, low socioeconomic status, multiparity, early onset of sexual activity, and multiple sexual partners. Most HPV infections regress spontaneously in women under 30 years of age and, above that age, persistence is more frequent, leading to the appearance of neoplasms[2].

With the exception of skin cancer, UCC is the one with the greatest potential for prevention and cure, and when diagnosed in the beginning, the woman has a survival rate of approximately 70%. For early detection, the main strategy of UCC screening programs is cytopathological examination (Papanicolaou). In Brazil, it is recommended to perform this test in women between the ages of 25 and 64 who started sexual activity[2]. The interval between examinations should be three years, after two negative exams, with an annual interval[3]. These recommendations are recommended by the Ministry of Health (MoH), in partnership with the National Cancer Institute (NCAI), which meet the recommendations of the World Health Organization (WHO)[2-3].

Although the examination is available in Primary Care, there are still women who do not perform it. Often the disease is detected at an advanced stage on the first visit, which reduces the chances of cure[4]. There needs to be awareness of the importance of conducting the exam[5] and thus contribute to increasing their membership[6].

In spite of the educational actions implemented by professionals of the health teams, among them, nurses, it is observed, in studies carried out in other Brazilian settings, that women's knowledge on the subject is still limited[7-9], because it was considered *adequate* in only 40.4%[7], 51%[8] and 36%[9] of their reports. Thus, it became necessary to know the context in which these women are inserted, through an epidemiological study on the theme, in order to identify these limitations.

Knowing that the UCC prevention exam is the method of early diagnosis of this pathology, recognizing the influence of knowledge and the perception of the importance of adopting *adequate* preventive measures in health (attitude) in the transformation of personal behavior for the achievement of health promotion, it is understood the relevance of tracing a diagnosis of knowledge, attitude and practice (KAP) of women about the prevention of UCC and to apprehend the existing difficulties related to access and performance of the exam. This research provides inputs that may help to guide the planning and implementation of actions that promote the *adequate* KAP, providing the empowerment of women on maintaining their health and greater compliance with the examination.

Identifying the KAP of these women and the factors associated with the KAP of the UCC preventive examination will guide nurses and other health professionals working in similar contexts in the elaboration of educational strategies through survey of the situational diagnosis of the subject in the community, as well as bring them closer to their reality, providing a better interaction with these women. Thus, this study aimed to evaluate the knowledge, attitude and practice of women on the preventive examination of cervical cancer and to investigate its association with sociodemographic variables.

METHOD

Ethical aspects

The project was approved by the Research Ethics Committee (REC) of the U*niversidade Federal de Pernambuco* – CAAE (*Certificado de Apresentação para Apreciação Ética* – Certificate of Presentation for Ethical Consideration) 44530415.3.0000.5208 and Opinion 1,097,582. All participants signed the Free and Informed Consent Form (FICT).

Design, place of study and period

A cross-sectional, analytical study with a quantitative approach, carried out from July to September, 2015, at the Basic Health Units of the Health District (HD) V, Recife, Pernambuco. In that study, the KAP survey was applied to women on the UCC prevention examination.

Population, sample; inclusion and exclusion criteria

The study population was composed of women enrolled in the health units belonging to HD V. The sample consisted of 500 women, calculated considering a 95% confidence level, a sampling error of 5%, a population of 79,798 women enrolled in the BHU of HD V, in the age group from 25 to 64 years, as recommended by the NCAI/MoH for UCC screening[3], and the expected prevalence, obtained by the result of a study[7], whose prevalence of women's KAP on cytopathological examination was 45.3%[7].

The number of women participating in each BHU was calculated in a stratified manner, according to the number of teams of the unit, ensuring proportionality. The study participants were selected for convenience, following the home visit schedule of the Community Health Agents (CHA) or, at the time the women sought care at the BHU, except for the UCC prevention exam, because they were probably given guidance on how to do the exam, and thus did not influence the results of the research.

The sample selection obeyed the following inclusion and exclusion criteria:

Inclusion: women between the ages of 25 and 64 who had already started sexual activity, as recommended by NCAI/MoH for UCC screening[2-3].

Exclusion: women who underwent hysterectomy due to precursor injury or UCC; women being treated for UCC because they have prior knowledge of the disease; women who had some cognitive deficit for being unable to answer the interview questions; women who were not found at home after three attempts to visit; and women who attended the BHU to do the UCC prevention exam because of probable prior guidance regarding the care needed before the test.

Study protocol

For the data collection, a semi-structured form was used, adapted[10] and composed of sociodemographic (independent variables) and

KAP related characteristics of women on the UCC prevention test (dependent variables). A pilot study was carried out with ten women for the adequacy of the instrument. At the end of the interview, all the participants received an explanatory folder on the subject, which was read by the interviewers (1 master's student and 14 undergraduate nursing students). The KAP was assessed as follows:

Knowledge was *adequate* when the woman said she had already heard about the test, she knew that it was used to detect cancer in general or, specifically, cervical, knew how to cite at least one necessary care for the examination and knew the periodicity for its accomplishment; or *inadequate*, when he said that he had never heard of the exam, or had heard, but did not know that it was used to detect cancer, when he did not know how to cite at least the necessary care for the examination and its periodicity.

The attitude was considered *adequate* when the woman felt that the test was necessary or *inadequate* when she felt that the test was unnecessary/did not know/had no opinion.

The practice was *adequate* when the woman had undergone the prevention exam at the most three years ago, returned to receive the last result of the examination performed and sought to mark a return to show the result of the examination; or *inadequate* when he had done the last preventive exam for more than three years or had never done the exam or had not returned to receive the last result and/or did not seek a return to show the result of the exam.

Analysis of results, and statistics

The database was entered in double entry in the program EPI INFO, version 3.5.2 and its validation was carried out. It was then exported and analyzed in SPSS software version 17. For the assessment of the sociodemographic profile of the women, the percentage frequencies of the categorical variables were calculated and the respective frequency distributions were constructed. In the continuous variables, the statistics were calculated: minimum, maximum, mean and Standard Deviation.

After the classification of the KAP into *adequate* or *inadequate*, the prevalence of adequacy in each domain was calculated by means of the Chi-Square Test. The Chi-Square Test for independence was applied to evaluate the sociodemographic profile factors that significantly influenced women's KAP. In cases where assumptions of the test were not met, Fisher's Exact Test.

The multivariate analysis for the *adequate* knowledge was made by adjusting the Poisson model with robust variance. Variables were included in the initial model, together, and individually withdrawn, repeating the estimation of the model for each variable withdrawn, using as criterion the highest P value of the Wald statistic. For insertion into the model, we considered the level of significance lower than 20% in the Chi-Square statistic for independence; for the permanence of the variable in the model, we considered the value of 0.05 of the Wald statistic. All conclusions were obtained considering the level of significance of 5%.

RESULTS

Among the sociodemographic characteristics of the women, the majority were aged between 40 and 59 (53.6%), had three or more children (33.6%), did not work (60.2%), studied until complete/incomplete elementary and middle school (46%), lived with a family income of 1 minimum wage (43.1%), followed the Catholic religion (50.8%) and was considered brown/mulatto (66%) (Table 1).

In assessing the adequacy of women's knowledge, attitude and practice about UCC prevention, it is evident that 35.2% of women presented *adequate* knowledge, 98% presented *adequate* attitudes for UCC prevention and 70.6% practiced cancer prevention actions. There was a statistically significant difference between the adequacy of KAP about UCC prevention, indicating that knowledge has a higher prevalence of non-adequacy, whereas attitude and practice have a significantly higher prevalence of adequacy (Table 2).

Table 1 - Sociodemographic characteristics of women enrolled in the Basic Health Units of the Health District V, Recife, Pernambuco, Brazil 2015

Factor assessed	n	%
Age (years)		
25-39	188	37.6
40- 59	268	53.6
≥60	44	8.8
Minimum	25	
Maximum	64	
Mean ± Standard Deviation	43.7±11.2	
Number of children		
0	59	11.8
1	113	22.6
2	160	32.0
≥3	168	33.6
Marital Status		
Single	160	32.0
Married	195	39.0
Stable Union	97	19.4
Divorced	22	4.4
Widow	26	5.2
Work		
Yes	199	39.8
No	301	60.2
Schooling		
Illiterate/Literate	16	3.2
Complete/incomplete elementary and middle school	230	46.0
Complete/incomplete High School	220	44.0
Complete/incomplete Higher Education	34	6.8
Family income (minimum wage)[a]		
No income/ <1	74	14.8
1	215	43.1
2	158	31.7
≥3	52	10.4
Religion		
Catholic	254	50.8
Protestant	179	35.8
Others	21	4.2
No religion	46	9.2
Color		
White	95	19.0
Black	75	15.0
Brown/mulatto	330	66.0

Note: [a]Minimum wage in force: R$ 788.00 (about 215 US dollars).

Table 2 - Assessment of the adequacy of women's knowledge, attitude and practice about cervical cancer screening, Recife, Pernambuco, Brazil 2015

Domains assessment	Domain assessed			*p* value[a]
	Knowledge	Attitude	Practice	
Adequate	176(35.2%)	490(98.0%)	353(70.6%)	**<0.001**
Inadequate	324(64.8%)	10(2.0%)	147(29.4%)	
p value[b]	**<0.001**	**<0.001**	**<0.001**	-

Note: [a]P value of the Chi-Square Test for homogeneity; [b]P value of Chi-Square Test for proportion comparison.

Table 3 - Adequacy of women's knowledge, attitude and practice about the prevention of cervical cancer, according to socio-demographic factors. Recife-Pernambuco, Brazil 2015

Factor assessed	Domain assessed					
	Knowledge		Attitude		Practice	
	Adequate	*p* value	Adequate	*p* value	Adequate	*p* value
Age		0.509[a]		0.801[b]		0.259[a]
20 to 39 years	65(34.6%)		185(98.4%)		140(74.5%)	
40 to 59 years	92(34.3%)		262(97.8%)		185(69.0%)	
60 or over	19(43.2%)		43(97.7%)		28(63.6%)	
Número of children		0.044[a]		0.936[b]		0.901[a]
None	30(50.8%)		58(98.3%)		43(72.9%)	
1 child	41(36.3%)		110(97.3%)		82(72.6%)	
2 children	49(30.6%)		157(98.1%)		112(70.0%)	
3 or more	56(33.3%)		165(98.2%)		116(69.0%)	
Marital Status		0.073[a]		0.055[b]		0.123[a]
Single	54(33.8%)		155(96.9%)		104(65.0%)	
Married	81(41.5%)		194(99.5%)		140(71.8%)	
Stable Union	26(26.8%)		95(97.9%)		71(73.2%)	
Divorced	9(40.9%)		20(90.9%)		20(90.9%)	
Widow	6(23.1%)		26(100.0%)		18(69.2%)	
Work		0.450[a]		1.000[b]		0.764[a]
Yes	74(37.2%)		195(98.0%)		139(69.8%)	
No	102(33.9%)		295(98.0%)		214(71.1%)	
Escolaridade		0.066[b]		0.594[b]		0.238[a]
No illiterate/Literate	2(12.5%)		16(100.0%)		10(62.5%)	
Elementary and Middle school	73(31.7%)		223(97.0%)		154(67.0%)	
High School	87(39.5%)		217(98.6%)		162(73.6%)	
Higher Education	14(41.2%)		34(100.0%)		27(79.4%)	
Family income		0.011[a]		0.867[b]		0.698[a]
No income/< 1 MW[c]	14(18.9%)		72(97.3%)		49(66.2%)	
1 MW	78(36.3%)		210(97.7%)		156(72.6%)	
2 MW	65(41.1%)		155(98.1%)		109(69.0%)	
3 or more MW	19(36.5%)		52(100.0%)		38(73.1%)	
Religion		0.018[b]		0.399[b]		0.886[b]
Catholic	88(34.6%)		248(97.6%)		183(72.0%)	
Protestant	69(38.5%)		177(98.9%)		124(69.3%)	
Others	11(52.4%)		21(100.0%)		15(71.4%)	
No religion	8(17.4%)		44(95.7%)		31(67.4%)	
Color		0.884[a]		0.314[b]		0.804[a]
White	32(33.7%)		93(97.9%)		66(69.5%)	
Black	28(37.3%)		72(96.0%)		51(68.0%)	
Brown/Mulatto	116(35.2%)		325(98.5%)		236(71.5%)	

Note: [a]P value of the Chi-Square Test for independence; [b]P value of the Fisher's Exact Test. [c]Minimum wage in force: R$ 788.00 (about 215 US dollars).

Table 4 - Adjustment of the Poisson model for adequate knowledge of cervical cancer, Recife, Pernambuco, Brazil 2015

Factor assessed	Adequate knowledge		
	RP	(95%)CI	*p* value[a]
Number of children			
None	1.52	1.11 - 2.08	0.009
1 child	1.04	0.76 - 1.44	0.789
2 children	0.90	0.66 - 1.24	0.523
3 or more	1.00	-	-
Family income (minimum wage)[b]			
No income/<1	1.00	-	-
1	1.79	1.08 - 2.96	0.025
2	2.07	1.24 - 3.47	0.005
≥ 3	1.94	1.08 - 3.50	0.027
Religion			
Catholic	1.92	0.99 - 3.73	0.053
Protestant	2.20	1.13 - 4.27	0.020
Others	2.66	1.25 - 5.64	0.011
No religion	1.00	-	-

Note: [a]P value of the Wald tests; bMinimum wage in force: R$ 788.00 (about 215 US dollars).

As to knowledge, 99.6% of the women heard about the exam, 73.8% knew that it was to prevent UCC, 58% cited *adequate* care for the exam and 62.7% stated that the exam should be done annually. Among the other purposes of the examination, 16.2% of them mentioned preventing diseases, detecting STD/AIDS and vaginal discharge. For the attitude, 98% considered it necessary to carry out the UCC prevention exam. Regarding the practice, 94.6% comply with the exam, 67.4% do it annually, 87% in an interval not exceeding three years, 61.2% have performed in the last 12 months; 85.8% returned to receive the result and 10.4% did not; 80.4% showed the result for the health professional and 15.6% did not show it.

It is noteworthy that among the women who did not do the exam (5.4%), the main reasons mentioned were: lack of interest (32.4%), shame (17.6%) and lack of time/absence of sexual partner (both with 14.7%). Not liking the exam and feeling fear were also reported by 11.8% and 8.8% of women, respectively. Some women mentioned more than one reason.

In the distribution of *adequate* women's knowledge, attitude and practice about the prevention of cervical cancer, according to the sociodemographic profile, it is noted that the adequacy of knowledge is significantly influenced by the number of children they have (p = 0.044), (p=0.011) and religion (p=0.018), and a greater association with *adequate* knowledge was observed in women who did not have children (50.8%), had a minimum wage of two (41, 1%) and followed a religion other than Catholic or Protestant (52.4%),. The other sociodemographic data did not present significance in the determination of knowledge. Regarding attitude and practice, no variables were associated with the prevalence of adequacy (Table 3).

In the multivariate analysis of the factors associated with *adequate* knowledge, it can be observed that the variables that remained together significant for the determination of *adequate* knowledge were: number of children, family income and religion. The group of women without children has a greater association with *adequate* knowledge (52%) about the prevention exam than does the group of women with three (3) or more children. Comparing the group of women with one (1) child and two (2) children to the group of women who had three (3) or more children, there was no significant difference in the prevalence of knowledge about the prevention exam.

In the comparison of the prevalence of *adequate* knowledge among the family income groups, the group of women without income was the one that presented a lower association to *adequate* knowledge, while those with 1, 2 and 3 or more family income minimum wages presented, respectively, 79%, 107% and 94% more association with *adequate* knowledge about the prevention exam, and in all comparisons with the group without income, the difference was significant.

As for religion, the group of women without religion was the one that presented the least association to *adequate* knowledge. When comparing the prevalence with the Catholic group, Protestant and the group of those with other religions, it was verified that the increase in the association with the *adequate* knowledge in these groups is, respectively, 92%, 120% and 166%. It is also observed that the difference was significant (p=0.020 and 0.011, respectively) when compared with the Protestant group and the group with other religions (Table 4):

DISCUSSION

Sociodemographic variables of the study show that the majority of women are middle-aged, multiparous, do not work, have low schooling, are low-income, catholic and of brown or mulatto. It is, therefore, a poor population, which reflects the social inequality in the country. Knowing the reality of the community in terms of access to information and level of schooling is important so that Nursing can draw strategies that have a better reach for people[11].

The results of the research show that women have an *adequate* attitude about the need to perform the exam; have *adequate* practice because they do the exam, seek the result and show it to a health professional, but they have *inadequate* knowledge because they have never heard of the prevention exam, or have heard, but do not know the purpose, they have not been able to say a necessary care for its accomplishment and/or its periodicity.

The lack of knowledge about the UCC, the importance of its early diagnosis and the prevention exam is not restricted to the local reality, being mentioned in international studies in which the women have a low knowledge on the subject[12-14], spend more than three years without doing the exam[12] or do not do it[13-14] because they feel ashamed[13], because of lack of time[13] and recommend education as a strategy to modify this setting[12-13], with nurses mainly responsible for this activity[12].

Only 35.2% of the women in this study were classified as having *adequate* knowledge, since they have already heard about the exam, but are unaware of its purpose, the care prior to completion and/or its periodicity. They do the exam because it is requested by professionals of the health teams[13] and these, in turn, do not promote *adequate* knowledge through health education, since achieving the goal of monthly examinations guarantees the financial transfer to the Municipality[15], a concern that overcomes the incentive to carry out educational actions with the population.

A study carried out in Fortaleza (CE), which aimed to evaluate the KAP of the colpocitological examination among users of a BHU, obtained a similar result, finding that only 40.4% obtained *adequate* knowledge. Most responded that the purpose of the examination was to detect STD, HIV and vaginal discharge. Educational actions on the subject were non-existent, with nurses distancing themselves from these activities, to the detriment of consultations[7].

Regarding attitude, women have adequacy (98%) and it is observed that many, despite not having *adequate* knowledge, have correct attitudes regarding the exam. Similar results are also observed in other studies conducted in Uberaba-MG[11], Picos-PI[16] and Juiz de Fora-MG[17] when they found that 98%[11], 97.4%[16] and 88%[17] were classified with an *appropriate* attitude towards the examination. The right attitude can positively interfere with good health practice[16], because it reflects what the woman thinks about the exam, and finding it important predisposes her compliance.

The practice was *adequate* in 70.6% of the participants, which may be the result of health campaigns or isolated invitations. A survey conducted in Iporá-GO presented a similar result, in which 67.6% of the women were classified with *adequate* practice and the majority of them (72.8%) undergo the examination in an interval not exceeding three years[7]. In another, held in Juiz de Fora-MG, 73.5% performed the exam in the minimum interval of one year, being considered with *adequate* practice[17].

In this study, among the women who did not do the exam, the main reason reported was lack of interest, feeling ashamed, not having time or partner, disliking the exam and being afraid. Disinterest leads to a negative practice and may be related to ignorance of the benefits of the exam and the beliefs and myths of each woman[18]. Some of them only seek a consultation with the health professional when they present gynecological complaints, thus not having the habit of prevention[19] and others, because they no longer have a sexual partner, believe that it is no longer necessary to do the exam[20].

These motives are barriers that arouse emotional tensions, but can be overcome. For this, it is necessary that the nurse compliance withes into account subjective issues, such as the thinking and the feelings of the woman, being important the formation of a link between the professional and the user. This relationship is indispensable to minimize these feelings and encourage compliance with the examination[21]. Women who receive information from health professionals have greater compliance with the examination when compared to those who were informed by other sources[22].

Concerning the association between sociodemographic aspects and KAP, the family income had a significant association with knowledge. Women who had a family income of two minimum wages were classified with *adequate* knowledge about UCC prevention when compared to those with lower income. Higher family income provides more access to the media and health services, since some have used health plans or paid private consultations to do the exam. The ways in which income affects health can be observed in the acquisition of health goods and services, access to health services, living conditions and education[23].

Number of children presented a statistical association with knowledge, since not having children was associated with an *adequate* knowledge about the subject. The absence of children reduces the overload of the woman with the household chores and, therefore, more time to take care of itself, to study and to participate in educational activities on the prevention of the UCC. Many women seek to invest initially in working life to ensure a better future for their descendants[24].

Religion also had a statistically significant association with knowledge. Belonging to the Spiritist or Afro-Brazilian class was related to *adequate* knowledge. Beliefs guide and facilitate everyday decisions, contribute to social support, provide emotional and even financial support for their members, and encourage the adoption of healthy habits, promoting health. Moreover, religion provides a more comprehensive view of life, for to feel loved by God is a fundamental factor and generates a better physical and psychological well-being[25].

The high proportion of women with *inadequate* knowledge about UCC prevention detected in the present study evidences the need for nursing to rethink its preventive practice regarding health education, and, therefore, to modify the reality of these women, so that they become multiplying agents inside and outside the community. In this way, they can encourage more women, especially those who do not do the exam or perform it outside the recommended periodicity, guaranteeing their empowerment in the care with their health, reflected in *adequate* knowledge about the UCC and in compliance with the prevention exam.

Study limitations

It is necessary to consider the memory bias of the participants when answering the form during the interview in the questions about the practice of preventive examination.

Contributions to Nursing

Each woman is a unique being and her particularities should be valued by Nursing, responsible for collecting the exam at BHU. A warm posture should be adopted by building the link and identifying the knowledge and perceptions women have about the examination. This will lead to an approximation of the reality of women and a greater interaction between professional/user, allowing more efficient health education actions. It is necessary that professionals in this area exercise their role as educators in Primary Care, better managing their activities, so that there is no distancing of educational practices in the community.

CONCLUSION

Women in the study present some sociodemographic characteristics that are consistent with risk factors for UCC development, such as being between 40 and 59 years of age and having three or more children. Added to this, some conditions disadvantage women in accessing the UCC preventive exam, such as low schooling and low family income. Among these characteristics, having a family income of two to three minimum salaries, not having children and being of Spiritist or Afro-Brazilian religion were associated with *adequate* knowledge.

Participants presented *adequate* prevalence of attitude and practice when compared to knowledge, which indicates that they perform the examination within the criteria recommended by the Ministry of Health, consider it necessary, but they do not know its purpose. These findings may be justified by the fact that there is an incentive for health professionals to perform the UCC preventive examination. However, educational actions that promote *adequate* knowledge need to be improved in order to meet the needs of women.

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