

## KNOWLEDGE, ATTITUDE AND PRACTICES OF WOMEN AGRICULTURAL WORKERS ON THE PREVENTION OF CERVICAL CANCER

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**ABSTRACT:** The main purpose of this work is to identify the knowledge, the attitude and the prevention practices of uterine cervix cancer held by women that are agricultural workers. Recognize their sociodemographic profile and consequential difficulties to take cytopathological exams are also objectives of this work, as well as detect risk factors that may advance uterine cervix cancer. This is an observational study, cross-sectional, conducted with 50 farm women workers associated in the rural workers union of the city of Vitória de Santo Antão, Pernambuco. Among women interviewed, with respect to uterine cervix cancer prevention, 32 (64%) revealed improper understanding; 26 (52%) showed appropriate attitude and 39 (78%) presented proper practice. The workers need to know better about cytopathological examination and its significance to adhere to a constant practice of it. Therefore, is of great significance to define strategies to supply the deficiencies encountered, in a way these women may get more expertise and commitment with the examination.

**KEY WORDS:** Nursing; Papanicolaou test; Uterine cervical neoplasms; Women's health.

## CONHECIMENTO, ATITUDE E PRÁTICA DE TRABALHADORAS RURAIS SOBRE PREVENÇÃO DO CÂNCER DE COLO UTERINO

**RESUMO:** Objetivou-se identificar o conhecimento, a atitude e a prática sobre a prevenção do câncer de colo uterino de mulheres trabalhadoras rurais, bem como conhecer o perfil sociodemográfico, as principais dificuldades para realização do exame citopatológico e os fatores de risco do câncer de colo uterino. Trata-se de um estudo observacional, de corte transversal, desenvolvido com 50 trabalhadoras rurais associadas ao Sindicato dos Trabalhadores Rurais da cidade de Vitória de Santo Antão, Pernambuco. Dentre as mulheres entrevistadas, em relação à prevenção do câncer de colo uterino, 32 (64%) possuíam conhecimento inadequado; 26 (52%) apresentavam atitude adequada e 39 (78%) apresentavam prática adequada. As trabalhadoras rurais precisam conhecer o exame citopatológico e a importância de sua realização, para aderirem à prática do exame. Dessa forma, é de grande importância definir estratégias para suprir as deficiências encontradas, de maneira que essas mulheres possam ter mais conhecimento do exame e adesão ao mesmo.

**PALAVRAS-CHAVE:** Câncer de colo uterino; Enfermagem; Exame col-pocitológico; Saúde da mulher.

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## INTRODUCTION

Cervical cancer (CC) is a major contributor to deaths among women worldwide. The late diagnosis and the prevalence of this neoplasia is twice as high in developing countries, causing a low survival rate<sup>1</sup>.

In Brazil, CC is a serious public health problem, with high rates of prevalence and mortality in women of low social and economic levels and in the productive phase of their lives. There is an association between this type of cancer and poor living conditions, low levels of human development, the fragility of health promotion and prevention strategies and difficulty in accessing public services for early diagnosis and treatment of precursor injuries<sup>2</sup>.

The number of new cases estimated for each year of the 2020-2022 triennium was 16,590 new cases and a risk of 15.43 cases per 100 thousand women<sup>4</sup>. In this context, the following are important: the implementation of effective strategies to control this neoplasm; early detection by undergoing the preventive cytopathological examination; as well as the planning of actions that aim to remedy the difficulties that make it impossible, providing the reach of the desired coverage<sup>3</sup>, since many women have inadequate access to the examination, either due to the inexistence of exam planning (by the health team), or because many do not recognize their purpose<sup>5</sup>.

There are few studies that investigate the knowledge, attitude and practice of women outside health units. Most focus on research with users of the health service, which can bias the results. In addition, the rural population is lacking access to the examination, as well as less monitored by the family health team<sup>5</sup>.

This study is justified, therefore, by the need to investigate the reality of CC prevention with women workers approached outside health units, analyzing preventive knowledge and its applicability, in order to stimulate the construction of information in a simplified way and, thus, empower these women about the importance of undergoing cytopathological examination.

Given the above, the objective was to identify the knowledge, attitude and practice about the prevention of cervical cancer in women rural workers, as well as to know the sociodemographic profile, the main difficulties undergoing the cytopathological examination and the risk factors for cervical cancer in this population.

## METHODOLOGY

This was an observational, cross-sectional study conducted at the Rural Workers Union in the municipality of Vitória de Santo Antão, State of Pernambuco.

Women associated with the union made up the population object of this study. The sample was selected for convenience, obeying the following inclusion criteria: women who had or had already had an active sexual life and aged 18 years or over. Those who did not have the ability to understand and/or verbalize to respond to the data collection instrument were excluded.

Data were collected from March to June 2018. Initially, women were invited to participate in the study while waiting for assistance. Then, the objectives of the research were clarified and those who agreed to participate were directed to a private room to sign the free and informed consent term and respond to the data collection instrument.

Individual interviews, face to face, using a semi-structured form and subdivided into three parts: (1) sociodemographic indicators (age, marital status, years of schooling, number of children, religion, skin color, family income, first sexual intercourse, number of sexual partners, use of contraceptive methods, cigarette consumption, physical activity, research on sexually transmitted infection); (2) KAP survey (knowledge, attitude and practice) adapted from the study by Vasconcelos et al.<sup>6</sup>; (3) identification of difficulties of undergoing cervical cancer screening (personal difficulties and institutional difficulties). It should be noted that the form was tested in a pilot study and applied by a trained interviewer supervised by the research coordinator.

The KAP<sup>6</sup> survey identifies knowledge, attitude and practice on CC prevention and consists of three parts: knowledge (means of obtaining information about CC, participation in educational activities, identification of the purpose of the cytopathological examination, care needed before undergoing the test, exam frequency); attitude (identification of reasons for undergoing the cytopathological test); practice (undergoing the exam, returning to receive the result, continuity of care after the exam). Subsequently, the KAP survey was evaluated according to the criteria adopted by Silveira et al.<sup>3</sup>, described below:

Appropriate knowledge - when the woman

reported having heard about the test, she knew it served to detect cancer in general, or specifically cervical cancer, and she knew how to name at least two forms of care needed before undergoing the test.

Inappropriate knowledge - when the woman said she had never heard of the test or had already heard of it, but mentioned not knowing that it was to detect cancer; or when she could not mention at least two types of care needed before undergoing the exam.

Appropriate attitude – when the woman indicated CC prevention as the reason for undergoing the test. When she mentioned the fact, it was a routine exam or the desire to know if everything was alright with her, it was only considered an appropriate attitude when, at the same time, she had adequate knowledge on the test.

Inappropriate attitude - when the woman had other reasons for undergoing the test than the prevention of CC.

Appropriate practice - when the woman had undergone her last preventive exam, at the most, three years ago, returning to receive the final result of the exam and sought to make an appointment to show the result.

Inappropriate practice - when she had undergone the last preventive exam more than three years ago or had never undergone the exam, even having started sexual activity more than a year ago, or when she had not returned to receive the last result, or did not seek to make an appointment to show the exam result.

Data were organized in a Microsoft Office Excel 2013 spreadsheet and analyzed using the Statistical Package for the Social Sciences (SPSS), version 22.0. Descriptive analysis (frequencies and percentages), measures of central tendency (mean) and variability (standard deviation) were performed. Results were statistically analyzed by the chi-square test. Values of  $p < 0.05$  were considered statistically significant.

The research was approved by the Research Ethics Committee of the Health Sciences Center, Federal University of Pernambuco, CAAE 79854017.6.0000.5208, under the opinion number 2.421.402. The ethical aspects of research on human beings were safeguarded as recommended by Resolution 510, of April 7, 2016, of the National Health Council<sup>7</sup>.

## RESULTS

Fifty women rural workers participated in the study; the prevalent age group was 49-58 years old, mean of 40.80 years old (standard deviation = 12.93). The mean schooling observed was 8.2 years (standard deviation = 4.54), with a range from 0 to 18 years of study. The other sociodemographic data are listed in Table 1.

**Table 1.** Sociodemographic characterization of women rural workers. Vitória de Santo Antão, State of Pernambuco, Brazil, 2018.

Variables	N	%
<b>Age</b>		
19-28 years	13	26
29-38 years	12	24
39-48 years	7	14
49-58 years	17	34
Over 58 years	1	2
<b>Marital status</b>		
Married	34	68
Widow	3	6
Divorced	2	4
Single	11	22
<b>Education</b>		
No schooling	6	12
Incomplete Elementary School	28	56
Complete Elementary School	3	6
Incomplete high school	2	4
Complete high school	10	20
Higher Education	1	2
<b>Family income*</b>		
< 1 minimum wage	27	54
From 1 to 2 minimum wages	22	44
> 2 minimum wages	1	2
<b>Self-declared ethnicity</b>		
White	18	36
Brown	25	50
Black	7	14
<b>Religion</b>		
Catholic	40	80
Evangelical	9	18
None	1	2

\*Minimum wage of R\$ 954,00.

Table 2 presents the variables that identify exposure to secondary risk factors for the development of CC.

**Table 2.** Distribution of exposure to secondary risk factors for cervical cancer. Vitória de Santo Antão, State of Pernambuco, Brazil, 2018

Variables	N	%
<b>First sexual intercourse</b>		
13-16 years	20	40
17-19 years	21	42
20 years or more	9	18
<b>Sexual partners during life (number)</b>		
1 to 2	45	90
3 to 5	5	10
<b>Pregnancy (Number)</b>		
None	4	8
From 1 to 3	32	64
From 4 to 8	14	28
<b>Current use of hormonal contraceptives (oral or injectable)</b>		
Yes	12	24
No	38	76
<b>Have you ever had an STI treatment *</b>		
Yes	1	2
No	49	98
<b>Condom use in all sexual relations</b>		
Yes	7	14
No	43	86
<b>Smoking</b>		
Yes	5	10
No	45	90
<b>Adequate periodic physical activity**</b>		
Yes	17	34
No	33	66
<b>Previous cytopathological examination</b>		
Yes	45	90
No	5	10

\*STI: sexually transmitted infection.

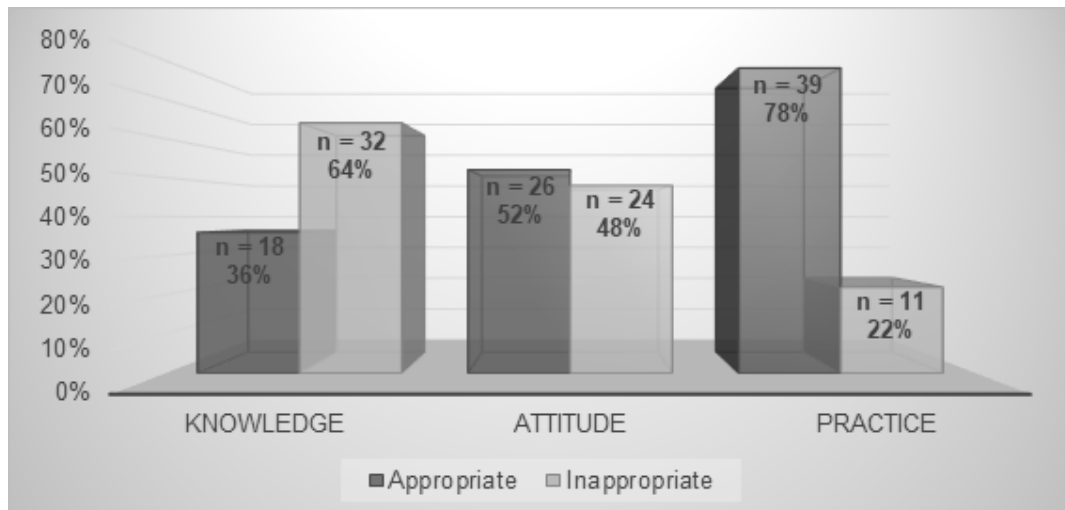
\*\*Adequate periodic physical activity: characterized by at least 150 minutes of exercises distributed during the week<sup>8</sup>.

It was noticed that 27 (54%) rural women pointed out difficulties of undergoing the cytopathological test. Importantly, each interviewee could cite more than one difficulty, whether personal or related to health services. Regarding personal difficulties, shame was mentioned by 16 (51.6%) women; in relation to the difficulties related to health services, the most mentioned were difficulties in access and scheduling issues, both mentioned by 6 (46.15%) women (Table 3).

**Table 3.** Difficulties of undergoing the cytopathological examination reported by rural workers. Vitória de Santo Antão, State of Pernambuco, Brazil, 2018

Difficulties of undergoing the cytopathological examination	N	%
<b>Personal difficulties</b>		
Shame	16	51.6
Fear	2	6.5
Access difficulties (distance)	6	19.4
Difficulty in leaving children or relatives	5	16.1
Lack of motivation	1	3.2
Lack of time	1	3.2
<b>Difficulties related to health services</b>		
Access (lack of professional service/lack of service offer)	6	46.15
Scheduling issues	6	46.15
Waiting time to get an appointment	1	7.7

Among the women interviewed, 32 (64%) had inappropriate knowledge, 26 (52%) had an appropriate attitude and 39 (78%) had an appropriate practice (Figure 1).



**Figure 1.** Evaluation of knowledge, attitude and practice of women rural workers on cytopathological examination. Vitória de Santo Antão, State of Pernambuco, Brazil, 2018.

Of the rural workers interviewed, 47 (94%) had already heard of CC prevention exam; of these, 33 (66%) heard of the test by health professionals, 10 (20%) on TV and 4 (8%) by friends. Although most women classified themselves with inappropriate knowledge, 27 (54%) had already participated in educational activities on the CC prevention test.

It was observed that 26 women were classified with an appropriate attitude, however, 28 (56%) did not know how to identify the purpose of the cytopathological test. Of these, 16 (32%) mentioned that the test was performed for “the woman to know how she is doing”, 7 (14%) to detect STI/HIV or other pathologies, 3 (6%) on the recommendation of professionals and 2 (4%) “Because it is a routine exam”.

In reference to the practice, 3 (6%) women had undergone the test more than three years ago, 3 (6%) did

not receive the result of the last test and 5 (10%) had never undergone the test.

In statistical associations (Table 4), it was found that the practice, in relation to undergoing the cytopathological test, improves with the advancing age of the woman. With regard to the frequency of the test, those who considered the semiannual, biannual or those who did not know/remember, demonstrated an inappropriate attitude, respectively, 5 (83.3%), 1 (100%) and 3 (100%). Most of those who considered undergoing the annual test had appropriate practice (85%).

With respect to the difficulties of undergoing the test, 23 (46%) women did not find it difficult; of this total, 22 (95.7%) had an appropriate practice. Therefore, it can be inferred that women, when they did not encounter difficulties (personal and related to health services), had better practice in relation to undergoing the cytopathological test.

**Table 4.** Association of knowledge, attitude and practice with variables of interest on cytopathological examination. Vitória de Santo Antão, State of Pernambuco, Brazil, 2018

(Continuation)

Variables	Knowledge		Attitude		Practice	
	Appropriate	Inappropriate	Appropriate	Inappropriate	Appropriate	Inappropriate
<b>Age</b>						
≤ 40 years*	7(28%)	18(72%)	12(48%)	13(52%)	16(64%) a	9(36%) a
> 40 years*	11(44%)	14(56%)	14(56%)	11(44%)	23(92%) a	2(8%) a
<b>First sexual intercourse</b>						
From 13 to 16 years	7(35.0%)	13(65%)	10(50%)	10(50%)	13(65%)	7(35%)
From 17 to 19 years	8(38.1%)	13(61.9%)	11(52.4%)	10(47.6%)	19(90.5%)	2(9.5%)

Variables	Knowledge		Attitude		Practice	
	Appropriate	Inappropriate	Appropriate	Inappropriate	Appropriate	Inappropriate
20 years or more	3(33.3%)	6(66.7%)	5(55.6%)	4(44.4%)	7(77.8%)	2(22.2%)
<b>Years of schooling</b>						
≤ 8 years**	10(32.3%)	21(67.7%)	17(54.8%)	14(45.2%)	25(80.6%)	6(19.4%)
> 8 years**	8(42.1)	11(57.9)	9(47.4%)	10(52.6%)	14(73.7%)	5(26.3%)
<b>Family income</b>						
< 1 minimum wage	9(33.3%)	18(66.7%)	14(51.9%)	13(48.1%)	20(74.1%)	7(25.9%)
From 1 to 2 minimum wages	8(36.4%)	14(63.6%)	11(50%)	11(50%)	18(81.8%)	4(18.2%)
> 2 minimum wages	1(100%)	0(0%)	1(100%)	0(0%)	1(100%)	0(0.0%)
<b>Educational activity</b>						
Yes	9(33.3%)	18(66.7%)	17(63%)	10(37%)	23(85.2%)	4(14.8%)
No	9(39.1%)	14(60.9%)	9(39.1%)	14(60.9%)	16(69.6%)	7(30.4%)
<b>Examination frequency</b>						
Every 6 months	1(16.7%)	5(83.3%)	1(16.7%) b	5(83.3%) b	5(83.3%)c	1(16.7%)c
Annually	17(42.5%)	23(57.5%)	25(62.5%)b	15(37.5%)b	34(85%) c	6(15%) c
Every 2 years	0(0%)	1(100%)	0 (0%) b	1(100%) b	0(0%) c	1(100%) c
Do not know/ remember	0(0%)	3(100%)	0(0%) b	3(100%) b	0(0%) c	3(100%) c
<b>Difficulty of undergoing the exam</b>						
Yes	7(25.9%)	20(74.1%)	11(40.7%)	16(59.3%)	17(63%) d	10(37%) d
No	11(47.8%)	12(52.2%)	15(65.2%)	8(34.8%)	22(95.7%)d	1(4.3%) d
<b>a = 0.017</b>	<b>b = 0.028</b>	<b>c = 0.001</b>	<b>d = 0.005</b>			
*Median age						
**Median years of schooling						

Women's knowledge and attitude were associated with appropriate or inappropriate in relation to cytopathological test. In Table 5, the knowledge showed a statistically significant association with practice.

**Table 5.** Association of knowledge and attitude with the practice of women rural workers. Vitória de Santo Antão, State of Pernambuco, Brazil, 2018

Knowledge and attitude of women rural workers	Practice	
	Appropriate	Inappropriate
<b>Knowledge</b>		
Adequate	17(94.4%) e	1(5.6%) e
Inadequate	22(68.8%) e	10(31.3%) e
<b>Attitude</b>		
Adequate	23(88.5%)	3(11.5%)
Inadequate	16(66.7%)	8(33.3%)
<b>e = 0.035</b>		

## DISCUSSION

Cytopathological test is recommended for women aged between 25 and 64 years old who have or have had an active sex life, with an interval of three years after two negative annual tests. The infections that appear before the age of 25 regress, most of the times, naturally, because they are low grade lesions. The occurrence of CC increases among women between 50 and 60 years of age<sup>9</sup>.

As for marital status, the findings are similar to the study carried out in Bahrain, Asia, with 300 women, in which 221 (73.7%) participants were married<sup>10</sup>. Many women report difficulty in dialoguing with the partner about the need to use condoms, especially those married or living in a stable relationship, facing opposition from their partners<sup>11</sup>.

Regarding education, the result was similar to that of a survey conducted in Ceará with 240 women, in which 46.2% of the participants had elementary school<sup>12</sup>. There

was no statistically significant association between years of study and the attitude of women, but research carried out in Bahrain, Asia, revealed a statistical significance for these variables<sup>10</sup>.

In relation to monthly income, a similar finding was identified in a survey conducted in Floriano, State of Piauí, with 493 participants, who had monthly income less than or equal to a minimum wage<sup>13</sup>. In another study carried out in the city of Maceió, State of Alagoas, with 110 women, a monthly family income between one and two minimum wages (73.7%) was observed<sup>14</sup>.

The level of education and wage income are determining factors for the prevention of CC. Women who have less access to health services, who face financial difficulties, are more vulnerable to the development of CC. These variables can influence the woman's understanding of the need to undergoing the exam, access to information, in addition to interfering with the understanding of information about the disease, as preventive measures<sup>15</sup>. In addition, it is observed that there is a greater regularity of an appropriate attitude among women with a higher level of education<sup>16</sup>.

In this sense, it is of utmost importance to develop educational technologies, considering the characteristics of each population, whether by age, monthly income, level of education, so as to achieve a greater understanding of the ways of prevention and early detection of the CC<sup>5</sup>.

Most respondents stated that sexual activity started during adolescence. Research developed with 46 participants in Floriano, State of Piauí, corroborates this finding, revealing that 36 (78.2%) women had initiated sexual activity between 15 and 19 years of age<sup>17</sup>. Early onset of sexual life is a variable to be considered, since there is an increase in the transformation zone of the ectocervix at puberty, leading to infection by the human papilloma virus (HPV), and, therefore, potentiating the chances of cellular alteration<sup>1</sup>.

The number of sexual partners also stands out as a risk factor for CC. It was observed, in the study carried out in Cambodia, Asia, with 440 women, that 94% of the participating women had between 1 and 2 sexual partners during their lives<sup>18</sup>. In contrast, a study carried out in Maceió, State of Alagoas, showed that 67 (60.9%) interviewees had two to seven sexual partners and most of them experienced 1 to 3 pregnancies<sup>14</sup>.

The multiplicity of partners is a factor that predisposes women to HPV infection compared to those who have only one partner<sup>19</sup>. It is also observed that the higher number of pregnancies provides an increase in the transformation zone of the ectocervix, favoring infection by HPV<sup>1</sup>.

The use of hormonal contraceptives corresponded to 24% of women. In addition, most of them did not use condoms, showing vulnerability to STI acquisition. In contrast, a study conducted in New York, with 297 participants, showed that 17 (18%) used oral contraception. Moreover, 73.8% of all women interviewed did not use condoms<sup>20</sup>. Low adherence was also found regarding the use of condoms in a study developed in the State of Ceará, in which 86.7% members did not use condoms<sup>12</sup>.

Only one participant reported treatment for STIs, a fact corroborated by Malta et al.<sup>12</sup> and Rosa et al.<sup>17</sup>, in which 98.3% and 93.5% of the members, respectively, did not have a history of STI. The history of STIs increases the probability of precancerous lesions in a number twice as high compared to women who do not have this history<sup>21</sup>.

As for smoking, a study carried out in New York found that 50.5% participants were smokers<sup>20</sup>, contrary to the data in this study, for which the majority of women were not smokers. However, Albuquerque et al.<sup>22</sup> reached data similar to that of New York. Smoking leads to increased replication of the viral genome, increased transcription of oncogenic viral proteins E6, in addition to reduced levels and activity of the p53 protein (tumor suppressor protein), favoring increased HPV transcription, when it is already present. The carcinogenic effect of substances from cigarettes and excreted in the cervical mucus and their immunosuppressive effects is highlighted<sup>23</sup>.

In this context, the importance of carrying out health education strategies for screening CC, its risk factors and the profile of women in the priority age group, is highlighted to increase adherence to cytopathological test and reduce the difficulties encountered by women in undergoing the test.

The most prevalent personal difficulty of undergoing the cytopathological test was shame. As for the difficulties related to health services, the most cited were access and problems with scheduling the exam, facts that corroborate other studies already developed<sup>14-24</sup>.

Many women are unaware of the true purpose of the preventive test, feeling ashamed and embarrassed during the procedure. It is pertinent, therefore, to rethink health practice through a comprehensive attitude, understanding the socio-cultural environment of each woman, with the purpose of enabling behavioral changes and a better quality of life<sup>14</sup>.

It is necessary for health services to recognize the difficulties faced by women and provide the test in a welcoming and distinct way<sup>25</sup> and to develop strategies in order to enable the preventive test as a service without the need for scheduling or alternative schedules<sup>15</sup>. Further, the professional should listen to the reports of those women who undergo or who have already undergone the exam in order to identify possible barriers<sup>14</sup>.

Inappropriate knowledge about the test was observed in most participants, a fact that corroborates other studies<sup>6,13,17,24,25</sup>. Appropriate knowledge about the test is essential to boost appropriate practice and attitude. Thus, it is essential that nurses clarify the importance of undergoing CC preventive test, using permanent and effective educational interventions on the topic<sup>26</sup>. Besides using technologies for health care, in order to support prevention and health promotion actions for women. The largest source of information cited in this study was from health professionals, similarly to that observed in another study<sup>24</sup>.

The attitude of the interviewees was considered appropriate, a finding that disagreed with the one identified in an investigation carried out in Floriano, in which 45 (97.8%) participants were classified as having an inappropriate attitude<sup>17</sup>. More than half of the women did not know the purpose of the test, which corroborates a study developed in Mozambique<sup>24</sup>.

Despite the fact that a considerable number of women showed appropriate practice, strategies should be reinforced in order to increase adherence to the test, investing in the qualification of the health system, and, thus, reduce the morbidity and mortality data due to CC<sup>27</sup>.

The nurse has a fundamental role in empowering rural women for the prevention of CC, their return for the next appointments and in the adherence to appropriate CC prevention practices. The gynecological nursing visit may be a unique opportunity to invest in welcoming, empathy,

dialogue, health education in favor of caring, humane and singular care<sup>28</sup>.

The application of the KAP survey allowed a situational diagnosis, by identifying the knowledge, attitude and practice of women rural workers on the cytopathological test, demonstrating a deficiency in knowledge, which highlights the importance of building effective educational strategies by health professionals, mainly by nurses working in primary health care.

## CONCLUSION

Most women rural workers had inadequate knowledge, a negative factor in women health promotion. The practice regarding the examination improved with the advancing age of the woman. Thus, it appears that the group of women rural workers needs to know the cytopathological examination and its importance in order to be able to adhere to the appropriate CC prevention practice. In addition, the fact that the woman does not find difficulty of undergoing the examination corroborates positively so that she has an adequate CC prevention practice.

Thus, it is of great importance to set strategies to address the shortages found, so that these women can have quality information and easy access to the examination, helping in the early detection of CC and reducing morbidity and mortality from this condition.

It is worth mentioning that it is up to health professionals to collaborate in the creation and validation of accessible educational technologies, with the aim of providing health education material (booklets, videos, digital media), with adaptation of the content to a language adjusted to the target audience, collaborating for the prevention and early detection of CC, in all types of populations, including women rural workers, who often have a lower level of education and demand equity and reception in the actions of health services.

As a social application, this study contributes to the debate on CC prevention with a view to strengthening Primary Health Care and its commitment to the reality of the Brazilian population, in order to consider health promotion measures, based on the knowledge of the



profile of women served in the cervical cancer control program, working in the collective and singular sphere.

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