### **Original Article**



# Knowledge of rural women about human papillomavirus

# Conhecimento de mulheres da zona rural sobre o papilomavírus humano

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ABSTRACT | OBJECTIVE: To evaluate women's knowledge in a rural area about human papillomavirus and ways of prevention. **METHOD:** A descriptive exploratory study with a qualitative approach. Semi-structured interviews were conducted in October 2017 with 43 women registered in a Family Health Unit located in the rural area of the municipality of São João do Rio do Peixe, Paraiba. Bardin's content analysis technique was used. **RESULTS:** From the data obtained in the research, three categories emerged: Women's knowledge about the human papillomavirus (HPV); guidance received from the perspective of women; and forms of prevention used by women against HPV. Understanding about HPV is permeated by the lack of instruction about the virus, although most interviewees recognize condoms as an essential way of prevention, even reporting that they have not received adequate guidance on HPV from the Family Health Unit staff that attends in the community. CONCLUSION: It was identified a deficit in women's knowledge in that rural area about the human papillomavirus, mainly regarding the form of transmission, its causes, and precautions for prevention. It is up to the health team to develop new health education strategies on HPV so that the community has better information related to disease prevention.

**DESCRIPTORS:** Human papillomavirus. Prevention. Rural population. Women. Nursing.

RESUMO | OBJETIVO: Avaliar o conhecimento das mulheres de uma zona rural sobre o papilomavírus humano e formas de prevenção. MÉTODO: Estudo descritivo exploratório abordagem qualitativa. Realizaram-se entrevistas semiestruturadas em outubro de 2017 com 43 mulheres cadastradas em uma Unidade de Saúde da Família localizada na zona rural do município de São João do Rio do Peixe. Utilizou-se a técnica de análise de conteúdo de Bardin. RESULTADOS: A partir dos dados obtidos na pesquisa emergiram três categorias: Conhecimento das mulheres sobre o papilomavírus humano (HPV); orientações recebidas na perspectiva das mulheres; e formas de prevenção utilizadas pelas mulheres contra o HPV. A compreensão sobre o HPV é permeada pela ausência de instrução acerca do vírus, embora a maioria das entrevistadas reconheça o preservativo como uma importante maneira de prevenção, mesmo relatando não terem recebido orientações adequadas sobre o HPV pela equipe da Unidade de Saúde da Família que atende na comunidade. CONCLUSÃO: Identificou-se déficit de conhecimento das mulheres da referida zona rural sobre o papilomavírus humano, principalmente quanto à forma de transmissão, suas causas e cuidados para a prevenção. Cabe à equipe de saúde desenvolver novas estratégias de educação em saúde sobre o HPV para que a comunidade tenha melhores informações relacionadas à prevenção da doença.

**DESCRITORES:** Papilomavírus humano. Prevenção. População Rural. Mulheres. Enfermagem.

How to cite this article: Abreu LS, Andrade TSO, Nunes ZM, Rufino NS, Martins KP. Knowledge of rural women about human papillomavirus. J Contemp Nurs. 2021;10(1):43-50. http://dx.doi.org/10.17267/2317-3378rec.v10i1.3243



#### Introduction

Human Papillomavirus (HPV) is considered a virus transmitted mainly by the sexual act, which causes a sexually transmitted infection (STI), which affects men and women, and is regarded as a public health problem<sup>1</sup>. It is a virus made up of DNA with a greater affinity for the cutaneous and mucous epithelium, causing the abnormal growth of epithelial cells in humans and animals. There are about 100 HPV genotypes, with types 16 and 18 together standing out for being considered high risk and causing 70% of cervical cancer cases, while HPV types 6 and 11 are considered low risk and can cause genital warts<sup>2-3</sup>.

Worldwide, about 291 million women experience HPV infection at some stage in life, equivalent to a prevalence of 10.4%, with more than 90% of these infections regressing naturally in 6 to 18 months<sup>4</sup>.

In Brazil, there are no statistical bases for the prevalence of HPV infection in sexually active individuals. According to the public examined and the diagnostic method used, women's incidence varies from 0.7 to 10%. The prevalence ranges from 10% to 50% between 15 and 25 years, the beginning of sexual practice. This period is the most promising for women to acquire the infection. After 30 years, this prevalence decreases to 3 to 5% in women<sup>5</sup>.

Data state that 50% to 80% of infections occur two to three years after the beginning of sexual life and the most affected population corresponds to sexually active adolescents<sup>6</sup>. Among women in the age group of 20 to 25 years, the most affected are usually those with a busy sexual life or several partners<sup>7</sup>. Although there is still no test to confirm HPV infection in men, they are a critical vector and spreader of the virus, contributing to the increase in cervical cancer in women and exposing themselves to morbidity and mortality due to HPV infection<sup>8</sup>.

There has been an increase in the infectious disease caused by this virus, with asymptomatic manifestation determined by various types of HPV. The lack of knowledge, biological conditions, and misconceptions has contributed to the spread of STI. Government health education actions are not focused on HPV. It is essential to investigate the level of information and sexual practices so that informational behaviors positively affect the life of the community<sup>2</sup>.

The population has a limited understanding of HPV since the media predominantly link information in a way that is not understandable to individuals, health services, universities, and professionals that often do not adequately guide the population on the relevance of these viruses and the consequences of infection. In this context, health education is seen as the construction of nursing knowledge, public power, and people's health care<sup>10</sup>.

Given the population's exposure to the virus, nursing can collaborate to prevent HPV and cervical cancer through health educational activities, informing the female public about the importance of regularly carrying out preventive exams and providing guidance on other ways of virus prevention vaccination<sup>11</sup>.

The HPV vaccine is a method used to decrease cancer cases in women. It prevents pre-cancerous cervical lesions of the cervix, vulva, vagina, cervical cancer, and genital warts caused by viruses 6, 11, 16, and 18<sup>12,13</sup>.

In this perspective, the lack of health education on the spread and prevention of HPV confers a significant theme to the health of the population, especially women who are more vulnerable to acquiring the infection. Also, considering that this is a considerable risk factor for the development of cervical cancer, more scientific studies on this pathology must be carried out to awaken in the health professional an intervention in sex education more adequate to the population.

Given the above, this article aims to assess women's knowledge in a rural area about the Human Papillomavirus and ways of prevention.

Method

It is a descriptive and exploratory study, with a qualitative approach, carried out in a community in the rural area of Sao Joao do Rio do Peixe municipality, Paraiba, Brazil. This location's choice is justified by a large number of resident women and the lack of health education in the community.

The sample consisted of 43 women registered at the Family Health Unit (FHU) in question, delimited in a non-probabilistic manner and convenience. Inclusion criteria were: women over 18 years old to be present at the time of collection and accept participating in the research.

Data collection took place in October 2017 through semi-structured interviews. A properly trained researcher conducted the interviews, met the participants at their homes, and ensured a private environment for such an activity. The duration of the interviews took an average of 50 minutes and was composed of two parts. The first part consisted of collecting characterization data, such as age, marital status, education, and sexual activity. The second part of the interview was composed of the following subjective questions that meet the study's objectives: Do you know what HPV is? Where did you get information about HPV?; What are the symptoms, and what can it cause?; How does your transmission take place?; How can we prevent ourselves from HPV?; What was the guidance you obtained from the nurse at the FHU on HPV?; Do you know that the Ministry of Health offers the vaccine for girls and boys against HPV?.

Before each interview, the researcher provided the participants with information regarding the research's importance and objectives. Those who agreed to participate in the study signed the Free and Informed

Consent Form (ICF). The interviews were recorded with the aid of an mp4 device and transcribed in full for analysis of subjectivity.

The data were analyzed using the technique of Bardin<sup>14</sup> through content analysis. To ensure the participants' privacy, they were identified with letters accompanied by sequential numbers corresponding to the order in which the interviews were conducted.

The guidelines inherent to the research protocol found in resolution 466/12 of the National Health Council (CNS), which regulates research involving human beings, were obeyed. The Research Ethics Committee approved this study of the University Center of Joao Pessoa - UNIPÊ under number CAAE 71724017.5.0000.5176.

#### **Results**

The study included 43 women aged between 18 and 49 years. Of these, 26 were between 18 and 35 years old and 17 between 36 and 49. As for the marital situation, 32 were married, 02 divorced, 06 single, and 03 were in a stable relationship. Concerning education, 02 had completed elementary school, 18 had an incomplete elementary school, 11 had completed high school, 08 had unfinished high school, and 04 had completed or incomplete higher education. As for sexual activity, 37 were active, and 06 were not active.

From the data obtained in the research, three categories emerged: Women's knowledge about HPV; Orientations received from women's perspective; and Forms of prevention used by women against HPV.

### Women's knowledge about HPV

We sought to investigate the knowledge that women have about HPV, understanding that knowledge is an essential tool for health care. Based on the interviews conducted, it was identified that most women had insufficient and /or fragmented knowledge.

Isn't it the bacterium, or is it the virus that transmits HPV? It is what causes colon cancer. (16)

I think it's a sexually transmitted virus. (I7)

It is a type of virus; there are several types of viruses that together are called papillomaviruses. (110)

A disease that catches in the uterus when having sex with another person is a cock's crest?. (I11)

I don't know precisely the relation; I know that it has to do with the onset of cervical cancer. (I13)

I've already been informed. It's a virus, isn't it? I even had it, I even had treatment, I cauterized a wound in the vagina. (I28)

It is a virus that can become a severe disease if you do not take care of yourself. (I37)

I think HPV and cancer are the same thing, a sexually transmitted disease. (140)

Some interviewees reported not knowing what it was about:

I have the knowledge, and at the same time, I don't, because I know that this virus exists, but I don't know how it is caused, I don't see what it transforms in a woman's body. (I1)

I do not know. I only know about cervical cancer because I search the internet. (I11)

I do not know. What is HPV? I think it's a disease. (I16)

I do not know. (142)

No. Isn't HPV cervical cancer? (115)

Other women had the wrong knowledge:

It is the AIDS virus. (15)

I think they are warts that come out on the body. (19)

It's cervical cancer. (115)

I think it's the vaccine you get. (134)

## Orientations received from the perspective of women

Regarding the guidance received by FHU professionals on the HPV virus, all women interviewed stated that they had not received any advice:

None, because nobody ever came to talk about it. (111)

I had no guidance from the nurse about HPV. (I12)

Concerning the guidance on the importance of the cytological examination received at the nursing consultation, most of the interviewees reported that the nurse's only advice about this examination was that it served to prevent diseases. It was not noticeable for the interviewees a clear orientation about the importance of the exam since the cytological exam is of fundamental importance in the early detection of cervical cancer.

Explains that it is to prevent disease. (118)

I took the exam, but I haven't been informed about anything [...] the orientation that says you have to take this exam every year. (122)

They explain that they have to be doing it all year round because they already detect it on the exam if they have a disease. (115)

The information passed on to me is that I have to have gynecological exams every six months, at least. (128)

I had no information from the FHU. (I2)

When going to have sex with partners, use a condom. (116)

About obtaining information about vaccination against Papillomavirus, most interviewees stated that the health agent guided them. Others reported that they received this information through television, school or were not informed:

I heard from the health agent. (14)

For the TV commercials and for the health agent who passes by the houses warning of the campaigns. (124)

I only hear about HPV when there are these vaccination campaigns. Through television, and sometimes some movements in the city, you end up seeing posters. (I21)

I was told no, I saw it on TV. (I27)

Yes, I found out through the school. (19)

For the newspapers. (129)

I was informed because the boys here went to get the vaccines. (I17)

#### Forms of prevention used by women against HPV

In this category, we sought to analyze the forms of prevention known and used by women against HPV. With regard to knowledge about ways of HPV prevention, it was identified that most of these women recognize condoms as an important form of prevention. However, a considerable number did not know how to prevent them. Few women mentioned other means of prevention:

I do not know. (I17)

Using a condom. (17)

Use a condom, get a vaccine. (12)

Doing routine gynecological exams, also using a condom is a way to avoid it. (128)

Only the vaccination they released. (110)

In sexual relations, using condoms, not having so many partners who do not use condoms, and handling contaminated blood who works in the health area. (15)

#### **Discussion**

Most women who have undergone research on HPV knowledge have shown that they have no education about the virus and that many of them because they do not know what the virus is, end up confusing it with other diseases. This result coincides with the results obtained in another study<sup>1</sup>, which showed

that most young people have heard of HPV due to STIs' relevance. Still, they have more knowledge about the human immunodeficiency virus (HIV) than about the HPV.

Although this virus did not widely disseminate and the knowledge about it became unsatisfactory and often even non-existent<sup>1</sup>, it is known that currently, in 100% of the occurrences of cervical cancer, HPV is found. These people have a transient infection and no apparent symptoms, making it difficult to detect between one and two years, thus favoring the progression of pre-cancerous and neoplastic lesions<sup>15</sup>. In this context, the absence of appropriate information about HPV can lead to a failure that harms both people affected by the virus and those who participate in its social scenario.

Understanding the virus is one of the main tools related to its prevention<sup>16</sup>. That way, the educational level added to other socio-demographic characteristics needs to be taken into account during the orientations given to women about the virus, with a view to the realization of individual strategies that allow the assimilation of the received directions.

Concerning the knowledge about ways to prevent HPV, it was identified that most of these women recognize condoms as an essential prevention method. However, a considerable number did not know how to prevent it, as well as few women mentioned other means of prevention. This result coincides with that found in a similar study conducted in Recife, showing with the testimonies that the participants recognize condoms and vaccination as effective prevention strategies<sup>17</sup>.

HPV is evidenced as a relevant public health problem in the face of lethality and changes in the health status associated with injuries, combined with the event of cervical cancer, and through other pathologies<sup>18</sup>. The prevention of this virus is an important strategy for reducing infection. It is essential to implement projects to clarify the damage associated with the infection, people's understanding of the importance of prevention through vaccination, appropriate recommendations on sexual practices, and exam detection<sup>11</sup>.

In the present study, all women reported that they had not received any guidance on HPV by FHU health professionals, showing flaws in health education. The lack of information about the virus corroborates with a study carried out in a public elementary and high school in Niteroi- RJ, showing that the lack of knowledge about HPV and preventive examination is due to the lack of understanding of health professionals and services on the subject<sup>19</sup>. As one of the members of a multidisciplinary team in the Family Health Strategy, the nurse is faced with Health Unic System (SUS) educational activities and, together with the school community, different ideas can be developed, according to those described by the interviewees. Both have the competence to properly instruct sexual habits among young people and the early active search for suspected cases of the virus<sup>20</sup>.

Health education is a scientific means used by professionals that favors the understanding of the health-disease process for the adherence to new health practices and behaviors. The instruction method is a relevant element of nursing's professional occupation to motivate changes in habits and adaptations to the new life situations of society<sup>21</sup>. In this context, health professionals must be trained and updated periodically to provide adequate preventive guidance to the population about HPV.

Considering that a small number of participants revealed a clear conception that the cytological examination is a preventive examination of cervical cancer, it evidences insufficient guidance on the purpose and importance of carrying out this examination. A similar study carried out with ten women at an FHU in Montes Claros - MG found that the guidelines during nursing consultations did not aim to prevent cervical cancer but focused only on collecting the cytopathological exam<sup>22</sup>.

The nurse working in the family health strategy can help prevent cervical cancer by motivating the preventive exam's performance through the collection of material from the cytological exam. He is responsible for identifying women at risk<sup>23</sup>. The nursing consultation is designated as a nurse's assignment that serves to identify the health-disease process's adversities, carrying out and analyzing the

care that collaborates for the promotion, protection, recovery, and rehabilitation of health<sup>24</sup>. In this context, it is observed that the nurse must listen and instruct the woman before the collection of the exam to calm her down. The professional must be trained to know how to deal with the cultural barriers imposed to explain the importance of the exam, clarifying the relation between HPV and cervical cancer.

The informants' speeches in this study highlighted the Community health agents since they are also part of the health team responsible for disseminating HPV vaccination within the Ministry of Health's age range. Regarding women's knowledge about vaccination, and compared to a study carried out in Campinas-SP, vaccination was known by less than 9% of respondents in 20119. In contrast, in another study, developed in 2014, 75.8% of women knew about the HPV vaccine<sup>25</sup>. It is important to note that the vaccine does not replace the test, but it is a primary prevention tool when it induces the regression of precursor lesions and remission of cervical cancer. The preventive exam's performance is of great importance since vaccines do not protect all types of HPV viruses. This exam is responsible for the reduction of cervical cancer cases in developed countries<sup>3</sup>.

Therefore, all health professionals must disseminate information about vaccination, emphasizing that immunization is crucial in the prevention of HPV, but that only this cannot provide total protection, and it is essential to associate prevention with the use of condoms during sexual intercourse and periodic cytological examination.

#### **Conclusion**

This study made it possible to identify the deficit of women's knowledge in that rural area about the human papillomavirus, especially about how it is transmitted, its causes, and the precautions that one must take regarding prevention. The lack of knowledge about the purpose and importance of the cytological examination in preventing and detecting the HPV virus impairs self-care practices, and prevention of cervical cancer was also reported among the participants.

Given the lack of information on HPV in this community, it is up to the health team, especially the nurse, to develop new health education strategies for the population, adequately informing about HPV and its problems, emphasizing the forms of prevention available, both against this and other sexually transmitted diseases, and also highlights the importance of preventive examination.

#### **Author contributions**

Abreu LS participated in developing research, design, design, data collection, interpretation of results, and writing of the scientific article. Andrade TSO participated in the data collection and writing of the scientific article. Nunes ZM participated in the writing of the scientific article. Rufino NS, co-supervisor, and Martins KP, advisor and supervisor of the research, participated in the conception, design, interpretation of results, and writing.

#### **Competing interests**

No financial, legal or political conflicts involving third parties (government, companies and private foundations, etc.) have been declared for any aspect of the submitted work (including, but not limited to, grants and funding, participation in advisory council, study design, preparation manuscript, statistical analysis, etc.).

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