

Chapter 113

Health in focus: HPV



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ABSTRACT

The present study is concerned with discussing the infection caused by the human papillomavirus (HPV), going through themes about the means of transmission, detection, most common signs and symptoms, strategies for promotion and prevention, and treatment in Primary Care. In addition, it is concerned with exposing the interventions of nursing professionals in the Primary Care scenario. The bibliographic survey was carried out through scientific articles found in the electronic databases Scielo and Google Scholar. Additionally, magazines with the theme of interest. We opted, preferably, for works prepared in the period from 2018 to 2023. The lack of information has been favoring excessive propagation and putting the health of the population at risk. Thus, in observing a deficiency in the knowledge of this virus, it is expected to amplify knowledge, considering that it represents a considerable public health problem.

Keywords: HPV, Knowledge, STI.

1 INTRODUCTION

Currently, cervical cancer is one of the most common cancers in the female population, occupying the fourth most common cancer position among women and affecting about half a million women each year. In Brazil, it is estimated about 16,590 cases for each year of the 2020-2022 triennium, with the North Region responsible for concentrating the highest number of incidences (21.20/100 thousand), the Northeast (17.62/100 thousand), the Midwest (15.92/100 thousand), South Region (17.48/100 thousand) and Southeast Region (12.01/100 thousand). However, according to data presented in November 2022 by the

National Cancer Institute (INCA), a total of 704 thousand new cases are expected between 2023 and 2025, with the South and Southeast regions representing 70% of cases (INCA, 2022; INCA, 2023).

HPV is a sexually transmitted disease through direct contact, vaginal or anal sex, however, penetration is not necessary to contract it, and can be transmitted through oral sex, saliva, and even sweat. There are over 150 different subtypes. It is known that 40 types can infect the anogenital tract causing warts and that at least 13 subtypes are considered oncogenic. In most people, HPV infection has no symptoms, however, they can transmit it. Thus, cervical cancer is a serious public health problem in many countries, including Brazil (FIOCRUZ, 2018).

In Brazil, the onset of early sexual activity, multiple partners, sexual intercourse without using a condom and smoking are some of the risk factors that, added to the fragility in the screening process of the early or pre-malignant/pre-tumor phases, make possible a terrain fertile ground for the emergence of more cases caused by the human papillomavirus (HPV) over the years. It is noteworthy that many women live with HPV, however, only a minority of this population ends up developing cervical cancer. Thus, it appears that HPV is a risk factor for the onset of cervical cancer and within the various subtypes of HPV, subtypes 16, 18, 31, and 33 require greater attention (BRASIL, 2020; CARVALHO et al., 2021).

Cervical cancer begins as dysplasia, going through stages that take years to reach the stage of a malignant tumor. The cell infected by the Papillomavirus undergoes modifications, going through 3 degrees until it reaches the state of carcinoma in situ, that is, a tumor surrounded by a membrane. With the rupture of this membrane, the uterine cervix is invaded continuously and progressively, thus, this invasion can gain other areas, such as the vagina, parametrium, bladder, rectum, etc., reaching the lymphatic circulation, thus affecting the pelvic ganglia and thus, having the possibility of reaching the blood circulation affecting distant organs (NAKAGAWA et al., 2010; CARVALHO et al., 2022).

The Ministry of Health, through the National Immunization Plan (PNI), launched a campaign to immunize girls between the ages of 11 and 14 against HPV. The vaccine received free of charge in the Unified Health System is offered in 2 types: bivalent (16 and 18) and quadrivalent (6, 11, 16 and 18). Furthermore, women up to 45 years of age with immunosuppression, living with HIV/AIDS, transplant recipients, and cancer carriers were contemplated within the immunization plan. It is worth remembering that SUS collection points for preventive gynecological exams for the entire population are spread across different regions and offer preventive exams for cervical cancer (Papanicolaou) free of charge (OPAS, 2023; TERRA et al., 2019; FERRARO et al., 2011).

Therefore, throughout the history of this disease, to reduce the number of cases and mortality in the female population, several actions were implemented by the Ministry of Health, such as the National Policy for the Prevention and Control of Cancer in the Health Care Network of People with Chronic Diseases within the scope of the Unified Health System, the Cancer Information System, which includes the Cervical Cancer and Breast Cancer Information Systems, the Reference Service for Diagnosis and Treatment of Cervical Cancer Precursor Lesions of the Uterus (TATIANA, 2019; BRASIL, 2023; PACHECO et al.,

2017).

The study proposes to discuss the infection caused by the human papillomavirus (HPV), going through themes about the means of transmission, detection, most common signs and symptoms, strategies for promotion and prevention, and treatment in Primary Care. In addition, it is concerned with exposing the actions of the nursing professional in the Primary Care scenario.

2 METHODOLOGY

The bibliographic survey was carried out through scientific articles found in the electronic databases Scielo and Google Scholar. Additionally, magazines with the theme of interest. The term “HPV” was used as a descriptor, as an inclusion criterion, preferably, works prepared in the period from 2018 to 2023 were chosen. Subsequently, the process of sorting, reviewing, and finally selecting the contents of the articles relevant to the work began. Thus, a total of 30 articles were selected aiming at a consistent elaboration and contemplation of the topics to be developed on the subject.

3 RESULTS AND DISCUSSION

There are different types of HPV, each subtype is capable of causing disease and showing a different evolution. However, it is believed that most varieties of HPV are capable of causing cancer precursor lesions. In addition, the individual infected with HPV, in the future, maybe more likely to develop cancer in the regions where the virus is installed. Thus, HPV ends up entering the list of risk factors for diseases such as cervical cancer, colon cancer, rectum cancer, oral cancer, and throat cancer. So far, it is known that there are more than 150 types of HPV, which are categorized according to the location they reach, the symptom they trigger, and whether or not they have the potential to generate cancerous lesions (RICCI et al., 2019; OLIVEIRA et al., 2013).

Of the 150 types of HPV, approximately 40 types infect the male and female urogenital tract. However, it is observed that types 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, and 59 of HPV are classified as high risk, with enormous potential for cancer. HPV subtypes 16 and 18 accounts for about 70% of cervical cancer detected worldwide, in addition to causing 90% of diagnosed rectal and colon cancers. On the other hand, types 6 and 11 are the most common, causing warts on the genitals and larynx, but without major complications (BRASIL, 2022; INCA 2020).

Signs and symptoms of the disease

Most individuals infected with HPV are asymptomatic or show symptoms inconspicuously and transiently. Thus, these infected individuals are capable of transmitting the virus even without manifesting any symptoms. Manifestations of HPV infection can be presented in two ways: clinical and subclinical. About clinical lesions, we have striking feature warts called condylomata acuminata and commonly known as "cockscomb". They look very similar to cauliflower, exhibit different sizes, and can appear in various

parts of the body (vagina, vulva, cervix, anus, scrotum, pubic region, mouth, throat, etc.). Within this context, it is understood that clinical lesions are those that the health professional can identify with the naked eye. On the other hand, subclinical lesions correspond to those that are not visible to the naked eye, so these individuals do not exhibit any symptoms (BRASIL, 2020; CALUMBY et al., 2020).

Subclinical lesions on the cervix are classified into Grade I Intraepithelial Neoplasia (Classified as low grade and indicate only the infection/presence of the HPV virus) and Intraepithelial Neoplasia grades II or III (Classified as high grade and indicate the precursor lesions of cervical cancer). Generally, infections caused by the human papillomavirus present as microscopic lesions, that is, the development of cancer at an early stage happens silently (the presence of the virus without causing the disease characterizes the state of latent infection), however, with the advance There are some symptoms or signs of the disease, so women need attention to the symptoms/symptoms that may be indications for the diagnosis of this cancer, such as uterine bleeding, foul-smelling discharge from the vagina, pelvic pain, pain during intercourse sexual intercourse, weight loss, lack of appetite, fatigue, shortness of breath, etc. (INCA, 2020; SZYMONOWICZ et al., 2020).

Additionally, it is worth mentioning that the individual infected by the virus may take months or even years to manifest any symptoms or signs, that is, to remain for a long period in the state of latent infection. Research to discover the causes involved in the time for the appearance of lesions is being developed, since it is still not possible to state whether the infection was old or current (INCA, 2020).

Means of transmission

The HPV virus is highly contagious and contamination can occur from a single exposure to the virus through direct contact with infected skin or mucosa. The main transmission route is sexual, which includes oral-genital, genital-genital, or even manual-genital contact. This means that contagion can occur even in sexual intercourse without vaginal or anal penetration. Additionally, vertical contamination from mother to fetus may occur during vaginal delivery (BRASIL, 2020; INCA, 2020).

Although rare, contagion can occur through hands contaminated by the virus. A large number of individuals infected with the virus, because they do not show any signs and/or symptoms, can transmit it without knowing it. The possibility of contamination through objects, using the toilet and swimming pool, or sharing towels and underwear has not yet been proven, however, sharing intimate items should be avoided (INCA, 2020; SZYMONOWICZ et al., 2020).

For contagion to occur, the infected person does not need to show symptoms. But when the wart is visible, the risk of transmission is much greater. Using a condom during sexual intercourse generally prevents transmission of the virus. The transmissibility rate depends on both viral and host factors, but in general, the risk of transmission is 65% for verrucous lesions and 25% for subclinical lesions (INCA, 2020).

Means of detection

Clinical examination is the first step towards detecting signs that may indicate infection by the HPV virus, followed by cytological collection, molecular biology, and colposcopy to confirm the lesions. In this way, a biopsy can be performed (RODRIGUES & ROCHA, 2019).

Through the presence of one or more visible lesions in the urogenital region, manifested as papular warts of varying sizes, it becomes feasible to identify the HPV virus. However, subclinical lesions are not visible to the naked eye, they do not show signs and/or symptoms, thus, they are only detected through cytopathological, molecular biology, or histopathological examinations. Additionally, there may be clinical lesions in the oral and laryngeal regions (INCA, 2022; BRASIL 2021).

The oncotic cytology exam or Papanicolaou test can screen for subclinical lesions. Colposcopy can be performed in case of the detection of lesions in the cervix. On the other hand, the molecular biology technique, Southern Blot, now considered the gold standard, demands an effort to execute and allows a more detailed analysis of a DNA sequence. (RODRIGUES & ROCHA, 2019).

In the diagnosis of HPV, the in situ hybridization methodology helps with the histopathological results and is also a technique that uses tissue samples in a wide range. sensitivity and specificity, even with little material (MENÊSES et al., 2019).

Health promotion and prevention actions

It is extremely important that people, in general, have access to information about the HPV virus, its implications for health, and forms of prevention, as a combined approach of immunization against HPV and screening for cervical cancer is effective for the reduction of complications resulting from the virus. For this, it is essential to seek ways of promoting health that have an impact on the reduction of cervical cancer rates, among which is health education. The notion of health promotion, referring to the First International Conference on Health Promotion, contained in the Ottawa Charter, thus refers to “the process of empowering the community to act to improve its quality of life and health, including greater participation in the control of this process (FIOCRUZ, 2018).

However, it is worth noting here that education, in its traditional molds, does not handle the health promotion advocated in the Ottawa Charter, because, in this model, knowledge is transmitted to subjects in a prescriptive manner without considering individual, social, and cultural reality in which he is inserted, imposing a need that, to learn about health, the subject in question brings with him a baggage that cannot be obtained from everyone. From this perspective, when subjects disregard the prescription, they become guilty of their health problems, ignoring the fact that they originate or are also influenced by social, cultural, and financial factors. This phenomenon is called “victim blaming”. In this logic, the professional exempt himself from his responsibility regarding the health conditions of the population and their processes of illness, anchoring himself in a paradigmatic model that is decontextualized from the community reality and which is, consequently, ineffective. So, currently, government efforts are undertaken to ensure forms of

education in which subjects are protagonists of the educational process (PACHECO et al., 2017).

With this, the blaming of the individual tends to be overcome, as changes are made in health practices and concepts. In this context, health is understood as a result of the living conditions of the population, influenced by socioeconomic factors, with its practices primarily focused on its promotion and prevention of vulnerabilities, diseases, and injuries, and not just on healing. In light of these efforts, and in line with the proposals of the Sanitary Reform, a new model of health care began to be defined, focusing on health promotion and comprehensive care. This scenario propitiates the proposition of popular education in health, which takes place from a political perspective, based on dialogue and exchange of knowledge between the educator and the student, in which popular knowledge is valued. This proposal is linked to organized social mobilization, to build a society following popular interests, helping to achieve autonomy and rights, based on the questioning of the lifeworld of subjects and their social groups. From this perspective, for health professionals, including nurses, to contribute to the users of their services in these achievements, which are reflected in health indicators, they must evaluate their *modus operandi*. With this, they will be analyzing the effectiveness of their actions, among which people are vulnerable to HPV infection (SEVALHO, 2017; MINISTÉRIO DA SAÚDE, 2002).

The main form of prevention is vaccination against HPV. Currently, registered and approved by ANVISA, vaccines are offered free of charge by SUS in quadrivalent form (protection against HPV 6, 11, 16 and 18) and bivalent (protection against 16 and 18). In 2017, the Ministry of Health contemplated girls aged 9 to 14 years and boys aged 11 to 14 years. It is worth noting that vaccination does not rule out the use of condoms during sexual intercourse, which is distributed free of charge by the SUS. Another extremely important form of prevention is early screening during gynecological consultations and performing the gynecological Pap smear. Additionally, health education programs in schools are smart interventions to spread and build a space for dialogue. After all, the age group contemplated in the immunization program against HPV is directly related to the beginning of sexual life (INCA, 2020; MINISTRY OF HEALTH, 2002).

Vaccination is most effective if given before the onset of sexual intercourse. Two doses should be taken six months apart. It is estimated that women who received one of these vaccines before being infected with HPV were 70% less likely to develop cervical cancer. In addition, the use of a condom during penetrative sexual intercourse partially protects against HPV infection, which can also occur through contact with the skin of the vulva, perineal region, perianal region and scrotum (INCA, 2020).

Special groups, such as HIV immunocompromised patients, should follow specific guidelines: For women with immunosuppression, living with HIV/AIDS, transplant recipients and cancer carriers, the vaccine is indicated up to 45 years of age. , vaccinated women should also maintain the prevention of cervical cancer through regular screening. Additionally, a preventive measure is to reduce the number of sexual partners, thus helping to reduce the risk of this infection (PAHO, 2023).

Management of treatment in Primary Care

First, it is important to point out that there is no specific treatment to eliminate the human papillomavirus from the body. In this way, the treatment consists of resources to treat genital warts that are particular to each patient (TATIANA et al., 2019).

In the gynecological consultation, it is necessary to detect whether there are lesions and genital warts; when they are not present, the procedure is to guide the patient to keep her preventive examination up to date (every three years after two normal annual results). However, if a wart or any suspected precursor lesion appears in the preventive, the patient should schedule a medical appointment to understand her options and next steps in the face of the result of the virus manifestation (FIOCRUZ, 2018).

As already explained, treatment varies from patient to patient, depending on the amount, location and extent of these warts, and there are some options for treating them, such as Acids, local creams, electrical cauterization, laser and even surgery. In the Unified Health System (SUS) podophyllotoxin and imiquimod creams are offered, this measure was incorporated by the Ministry of Health in November 2018 with the support of the National Commission for the Incorporation of Technologies in the SUS (FIOCRUZ, 2018).

Actions of the nursing professional in Primary Care

It is known that the nurse, as a health professional, acts in the diagnosis, prevention, control, education and health promotion in addition to the treatment of diseases and infections, including the Human Papillomavirus (HPV). This can cause high-risk lesions on the cervix and low-risk, such as genital warts. Despite its occurrence in a large number of women, especially those with an active sex life, caution should be exercised in monitoring this Sexually Transmitted Infection (STI), due to its close relationship with cervical cancer (BARCELOS et al., 2011).

As previously described, prevention through barrier methods and the preventive examination of the cervix popularly called papanicolau is offered in Primary Health Care. Regarding this, it is understood that Primary Care is composed of a set of health actions aimed at individual, collective and family care, incorporating in its strategies: protection, promotion, prevention, diagnosis, planning, treatment, harm reduction, rehabilitation, surveillance, palliative care, to be developed by health professionals and a multidisciplinary team for the population, of which the team assumes health responsibility (OLIVEIRA et al., 2012).

Thus, the participation of nurses consists of interventions aimed at maintaining and promoting health, disease prevention, diagnosis and intervention in nursing, and it is up to them to help women, through the Basic Care Program for Women's Health (PAISM), assistance to women for the diagnosis, prevention, screening and treatment of HPV through nursing consultation and systematization of the process of integrative care (OLIVEIRA et al., 2012).

In health care, following Resolution 358/2009 of COFEN (Conselho Federal de Enfermagem),

provides for the Systematization and Implementation of the Nursing Process in public and private environments or where Nursing care and consultation take place, organized in stages interdependent, namely: Data collection, Diagnosis, Planning, implementation, Evaluation (COFEN, 2009).

COFEN Resolution 381/2011 provides for more complex nursing care, techniques that require scientific-based knowledge and the ability to make immediate decisions resolves that the nursing team, collecting material for analysis through the Papanicolaou test, is a private activity of the nurse. Observing the legal provisions of the profession, it is up to them to carry out the nursing consultation, the preventive exam, request complementary exams and, at certain times, prescribe medications (COFEN, 2011).

Within nursing care, it is fundamental for patients diagnosed with HPV to be welcomed and encouraged to talk about their fears, doubts, complaints and feelings, intervening positively and evaluating the need to refer the patient to a mental health professional. It also includes referring patients with altered results, guiding the diagnosis/prognosis/treatment, scheduling future consultations, and promoting educational, strategic and planned actions for health promotion and HPV prevention, within the basic health unit, formal and informal spaces, schools and community. Additionally, the professional should encourage adherence to treatment by encouraging self-care, raising awareness about STIs and the use of condoms, in addition to regularly visiting Primary Health Care centers for consultations. For this, nurses must know the Health System in their region and the local territoriality for institutional management and referrals of patients when there is a need for referrals. Such practices optimize integrative care equally (SANTOS et al., 2018).

Knowing, evaluating and intervening enhances nursing care, especially if the professional practice is based on scientific evidence, combined with qualification. Continuing education contributes to building technical skills and competencies (SANTOS et al., 2018).

4 FINAL CONSIDERATIONS

Given the above in the current textual composition, the relevance and repercussions of understanding the breadth, scope and consequences of the different Sexually Transmitted Infections (STIs) as a problem of national and global epidemiological importance become evident. The implementation and adherence of practices that intend to prevent the transmission and treatments of such conditions bring, in clear and significant ways, positive implications for the client - as an individual and part of the community - and nursing and multidisciplinary teams as a whole.

About HPV, previously exposed and analyzed in detail, although some reported cases took years for them to be clinically manifested, the high rates of occurrences, in the country and the world, demonstrate difficulties in the fight against the disease. Preventive methods, such as the use of condoms during the sexual act, medical tests that help in the diagnosis and the adoption of mass vaccination, together with tactics to reinforce guidelines, clarify doubts, consolidate knowledge and help in resolving family conflicts due to the stigma and prejudice associated with STIs, are fundamental tools for the decline in infection

rates.

It is essential to keep in perspective that in addition to adequate and efficient technical and scientific procedures, as it is a source of public health concern, it is necessary to give due importance to the various health determinants - encompassing the cultural, economic and political spheres - , to enable humanization within the service and the identification of vulnerabilities and deficits that interfere with maintaining health and improving the quality of life, as well as educating the population, lay or not, about STIs.

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