

Knowledge of Nurses Regarding Human Papillomavirus and Vaccines Against HPV

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ABSTRACT: OBJECTIVE: To assess nurses' knowledge and attitudes about cervical cancer, HPV infection and HPV vaccines among nurses, in addition to identifying barriers/obstacles and facilitators for accepting the HPV vaccine, responding to following research question: What is the knowledge and attitudes of nurses about HPV, cervical cancer and the HPV vaccine? **METHOD:** It is a descriptive, exploratory and quantitative study, carried out with nurses enrolled in the Regional Nursing Council of the state of Alagoas. Objective questions will be analyzed about the participants' knowledge and attitudes related to HPV and independent qualitative variables related to sociodemographic factors will be studied, in addition to questions about knowledge about HPV infection, cervical cancer, HPV vaccine and vaccine acceptability. The data will be tabulated using *Microsoft Excel*®. The program for inferential estimates, *the Statistical Package for the Social Sciences (SPSS)* version 20, will be used, adopting a "p" valuesignificant <0.05. The analysis was based on the bibliographic reference relevant to the topic. The project was approved by the Ethics and Research Committee under opinion number 5.515.521. **EXPECTED RESULTS:** It is expected to evaluate the knowledge and attitudes of nurses in relation to the infection caused by the HPV virus, in addition to prevention measures, vaccination and consequences related to cervical cancer.

Keywords: Knowledge; Nurses; Human papillomavirus; HPV vaccines; Cervical Cancer.

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I. INTRODUCTION

This project has as object of study the knowledge and attitudes of nurses enrolled in the Regional Council of Nursing of Alagoas (COREN-AL) about infection by the human papillomavirus (HPV), cervical cancer and the vaccine against HPV.

The interest in carrying out this study arose from observation and experience as a nursing technician and nursing student where I work in Alagoas in Primary Health Care and Tertiary Care.

Such performances made me approach the community and observe the problems that could be related to women's health, such as the increase in the number of cases of Cervical Cancer (CCU).

In addition to the observation of professional practice for the nursing consultation and gynecological screening such as the collection of the Papanicolaou test, where the nurse must act as a protagonist, in addition to care and integration for the prevention, early diagnosis and treatment of the disease.

The Human Papillomavirus (HPV) is a virus belonging to the *Papillomaviridae* family and consists of double-stranded DNA. There are over 200 types of viruses, and the most common types are HPV types 6 and 11 which are associated with 90% of condylomata acuminata and recurrent juvenile papillomatosis. Types 16 and 18 are present in 70% of CCs and are also the most frequent in cancers related to other sites, such as the vagina, vulva, anus, oropharynx and penis (WHO, 2016).

The Information Center on HPV and Cervical Cancer (ICO) estimates that there are 6 million people infected with HPV, 2.5 million women over 15 years old. HPV is a major precursor to cervical cancer, ranked as the third largest and most frequent type of cancer among women in the world (ICO, 2015).

It is noteworthy that 16.710 new cases were expected in Brazil in 2020, about 15.38 cases per 100,000 women. Third in incidence of primary cancer and fourth in women who die of cancer nationally, excluding non-melanoma skin cancers (INCA, 2021).

It is known, however, that some possible factors may end up inducing the regression or even the evolution of the infection, such as: immunosuppression, smoking, sexual transmissible co-infection and behavioral aspects, therefore the objective of health strategies are primary and secondary preventive actions (PAHO, 2016).

Primary prevention is relevant to reducing the risk of contagion with HPV. Thus, health actions include vaccination of adolescents against the aforementioned virus, and the use of condoms during sexual intercourse and actions for the population of Health Education, punctuating the main risk factors (OPAS, 2016).

Secondary prevention has early diagnosis actions, pertinent to the signs and symptoms related to CC, such as pelvic pain, bloody discharge, presence of intermenstrual bleeding, detection of precursor lesions through screening using oncotoc cytopathological examination of women with an active sexual life between 25 and 64 years old (INCA, 2016).

In 2014, the quadrivalent vaccine was introduced in Brazil, free of charge through the Unified Health System (BRASIL, 2014). The inclusion of the population is taking place gradually, starting with girls from 11 to 13 years old in 2014, from 9 to 14 years old in 2015, and up to 14 years old in 2017 (BRASIL, 2018).

Following the introduction of the vaccine, in 2022 the recommendation continues with the quadrivalent vaccine as previously in 2017, but was expanded to boys aged 9 to 14 years, men aged 11 to 26 years and women aged 9 to 45 years who have immunosuppression (BRASIL, 2022).

In 2014, 87% of Brazilian cities reached the recommended target for the first dose, but only 32% met the recommended target for the second dose. Explanations listed for the low coverage rate are accessibility inaccuracy, failure to record vaccine doses used, typographical errors, and inaccurate demographic data used to estimate the number of people in the target age group (MORO et al., 2017).

The vaccine is used in 120 countries and the approved vaccination strategy is adapted to local conditions. Those that have adopted a school vaccination strategy, such as Australia, Canada and the United Kingdom, have maintained adequate coverage, while countries that offer the vaccine in health facilities have struggled to reach the recommended target of at least 80% coverage (SALAZAR et al., 2017).

In view of this issue, it is observed how insufficient knowledge related to prevention can delay the identification of signs and symptoms of cervical cancer, hindering the diagnosis and women's adherence to the actions offered by health services. In this scenario, a study carried out in Uganda confirmed that women ignore the signs and symptoms of cervical cancer, highlighting the importance of Health Education actions performed by health professionals as one of the main facilitators for cervical cancer screening (NDEJJO et al., 2017).

The nurse manages his activities based on the ethical rules of the profession in the perspective of improving the health and quality of life of the person, family and community. Its activities aim at "promotion, prevention, restoration and rehabilitation of health independently and in accordance with the ethical and legal guidelines of the profession" (COFEN, 2007).

This professional must systematically evaluate and plan the activity to be developed based on the observation of reality, interests and needs (ACIOLI, 2008). Among all these activities, nurses form their activities in prevention. Therefore, it plays a fundamental role in the prevention of CC (PRIMO; BOM; SILVA, 2008).

Wanda Horta, one of the great nursing theorists, defined nursing as science and art in 1970. And still defined nursing as responsible for the maintenance and promotion of health activities and disease prevention, still responsible for nursing diagnosis and intervention. (HORTA, 1979). In this situation, the nurse acts directly in the diagnosis, prevention and treatment of HPV through nursing consultations, promoting the Systematization of Nursing Care, where every process is carried out (OLIVEIRA et al., 2021).

In this context, the studies become relevant to the theme of this research, as they mention that nurses carry out CC screening in nursing practice and guide women to take preventive measures, therefore, their knowledge about HPV, CC and vaccines against HPV is essential to improve screening measures according to HPV vaccines (KELLOGG et al., 2019).

Thus, it is intended to answer the following research question: What is the knowledge and attitudes of nurses about HPV, CCU and the vaccine against HPV?

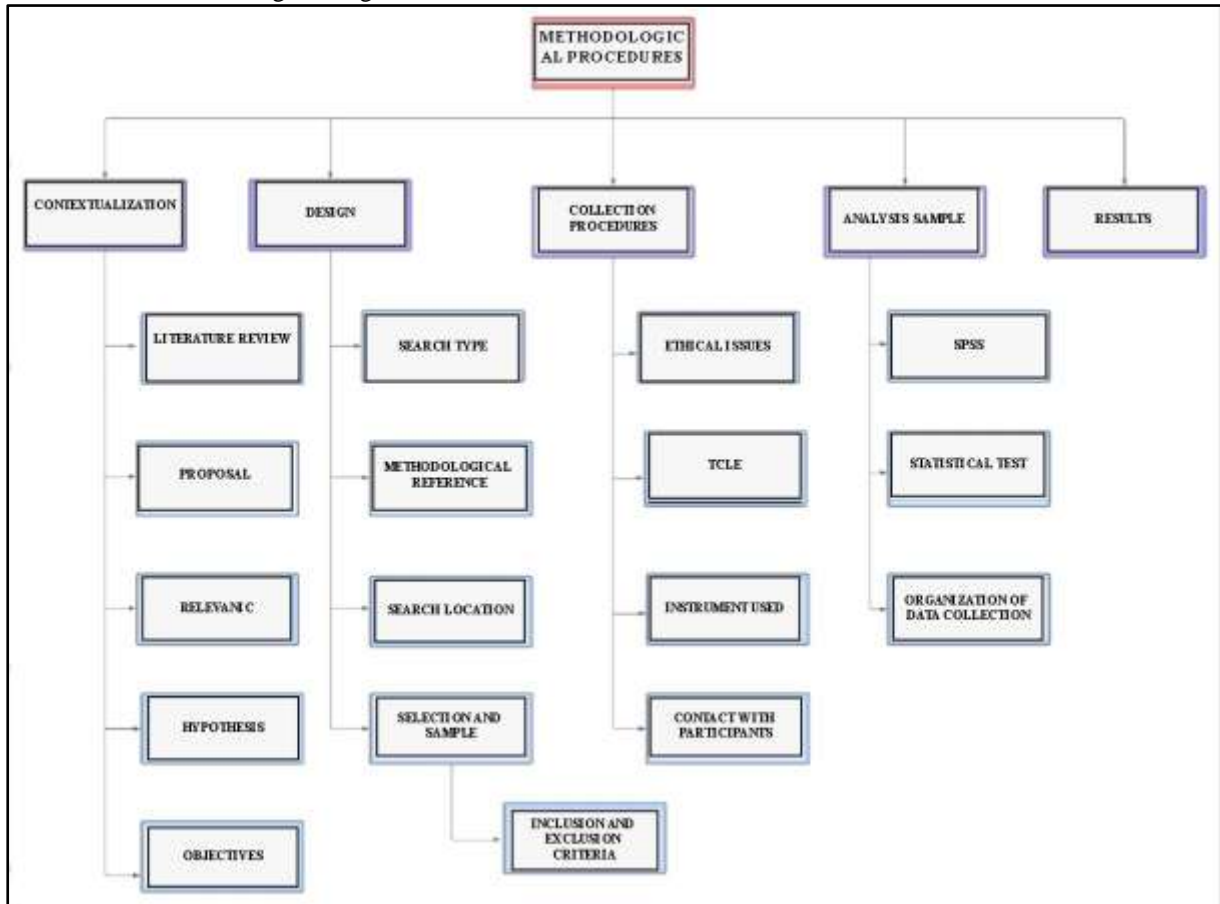
As a general objective to evaluate the knowledge and attitudes of nurses about cervical cancer, HPV infection and HPV vaccines.

As specific objectives to identify the knowledge and attitudes of nurses about HPV, CCU and the vaccine against HPV; identify barriers/obstacles and facilitators for the acceptance of the HPV vaccine and investigate the association of socioeconomic and cultural aspects with knowledge and attitudes about HPV.

II. METHOD

This is a descriptive, exploratory study with a quantitative approach. Descriptive research mainly aims to accurately portray the characteristics of individuals, situations or groups and the frequency with which certain phenomena occur (POLIT; BACK; HUNGLER; THORELL, 2004). The exploratory character will allow to identify the knowledge, attitudes of nurses related to HPV. The methodological stages of the research are observed in the flowchart (De Oliveira et al., 2018).

1.Flowchart. Methodological stages of the research.



Source: Own research, 2023.

The research was carried out in the State of Alagoas with nurses who are enrolled in COREN. Participants for this survey will initially be recruited remotely (online), through the dissemination of the research on the internet through digital media (Whatsapp, facebook, and Instagram) of the researcher herself.

COREN -AL will help publicize the research through its digital media (Instagram), with the access link to participate in the research and fill out the form via Google forms and the Free and Informed Consent Form.

Data collection will be of the snowball type, where the link to fill in the form will be sent to people through social networks, requesting the dissemination of the survey.

The sample calculation equation for the study of proportion in an infinite population was calculated to determine the sample. Considering a significance level of 95%, and a margin of error in the estimate of 5%, and a population standard deviation of 50%, the population size is known with a total of 8,972. Thus, to assess knowledge and attitudes, 370 participating nurses will be needed to compose the study sample.

Nurses enrolled in COREN, with an email address, Facebook®, Instagan® and WhatsApp® account will participate in the research. And those nurses who do not have skills with electronic means will be excluded; who do not have access to the internet; that they do not return the form in the time established by the study.

The study will have as instrument an adapted version of the questionnaire in which it was used by (SOUZA, 2015) validated, adaptations were made for this research related to the sociodemographic characterization and in the form of collecting information about the year of graduation in Nursing.

The questionnaire contains two specific parts, the first with questions related to sociodemographic/economic data such as: age, sex, marital status, color/race (as defined by the Brazilian Institute of Geography and Statistics-IBGE), city of residence, highest degree, main activity in nursing and place of work).

And the second with general questions that will include questions about knowledge about HPV infection, cervical cancer and the HPV vaccine. The questionnaire will also have questions about acceptability of the HPV vaccine and about barriers/obstacles and facilitators to vaccine acceptance.

The statistical treatment of the data will be descriptive, with the organization of the data in tables, spreadsheets and graphs, to verify the frequency, mean and standard deviation with the help of *Excel*® 2013. *The statistical tests adopted will be Pearson's chi-square, and the Fisher's exact test.* The program used for the inferential estimates will be the *Statistical Package for the Social Sciences* (SPSS) version 20, adopting a "p" value significant <0.05.

The project was approved by the Ethics and Research Committee under opinion number 5.515.521.

Confidentiality will be maintained for all participants in the research study and after its completion. However, there is a commitment to disseminate the results of this research through the scientific literature, without the individual identification of each participant. The research is based on the perspective of Resolution n.º 466/2012, which aims to ensure the rights and duties of the participants, the scientific community and the State (BRASIL, 2012).

III. EXPECTED RESULTS

This research is expected to identify the association of knowledge and attitudes about this topic on HPV with proposed discussions focusing on and encouraging Health Education actions for registered nurses participating in the COREN-AL research.

Because there may be important gaps in the knowledge of these professionals that must be corrected so that there is no interruption of communication and care between nurse and patient during the nursing consultation.

However, it is necessary to strengthen the permanent educational efforts of professionals who work directly in the area to improve knowledge, attitudes and practices related to CC surveillance, which can guarantee a positive impact on health outcomes related to the disease.

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