RUNNING HEAD: HPV, Cervical Cancer

HPV, Cervical Cancer, and Gardasil

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Abstract

We will discuss what exactly the Human Papillomavirus is, how it is spread and how it relates to cervical cancer. We have also put together an activity that will help illustrate how the virus is so easily spread from person to person. The purpose of this presentation is we want everyone to walk away knowing what HPV is and how it's spread, what cervical cancer is and who is at risk, and to know the pros and cons of receiving the new vaccine. Our goal is to teach you what we know about the virus and the new vaccine and answer any questions about either.

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Assessment

The Gardasil vaccine by Merck is an important health topic because of the large amount of people infected with HPV in our society. One study shows that by the age of fifty, 80% of women have carried some strain of HPV during their lifetime (Merck 2006). While not all HPV strains cause cervical cancer, it is well known that most cervical cancer is caused by HPV. With prevention of the disease, costs could be greatly reduced in the treatment of cervical cancer. Our teaching project falls under 2 of the 10 leading health indicators for Healthy People 2010: responsible sexual behavior and immunization(CDC 2007). With responsible sexual behavior, people need to be aware that there are STIs, such as HPV, that can be undetected by the naked eye and incurable. The education on HPV can lead to an increase in both adults and adolescents who use condoms during sexual intercourse. Immunizations are also an important prevention method that has led to the eradication of many diseases. It is estimated that in 2005, 10,370 people were diagnosed with cervical cancer and 3,710 women died from it. Gardasil prevents against the strains that cause approximately 70% of cervical cancers and 90% of genital warts (Merck 2006). With the help of Gardasil, along with education on HPV, deaths and many costly expenses can be avoided by preventing cervical cancer and genital warts.

Participant Information

The people that participated in our teaching project were all Caucasian college students in their late teens to early 20s. We had a total of six people that came to our discussion. There were two females and four males. While the Gardasil vaccine is aimed at preventing cervical cancer in females, males are in no way immune to HPV and can spread the word to both their male and female family and friends about risks and preventions. The group participated fully in

the discussion and activity and had many relevant questions about HPV and the vaccine. See Appendix A for an outline of the information given during the presentation.

Teaching Project Matrix

Objectives	Major Content	Time	Teaching	Evaluation
What is it that you wish the participant to be able to do? 1. Participants will be able to describe what HPV is and how it is spread. 2. Participant will be able to describe what causes cervical cancer and any relating risk factors. 3. Participant will be able to discuss the pros and cons of receiving the HPV vaccine and who should receive it. 4. Participants will engage in an activity illustrating how HPV is spread.	**Thorough topical outline of content to match each objective**. I. Intro A. Who we are B. What we're doing II. HPV A. What is it? B. How is it spread? C. Activity III. Cervical Cancer A. Genital Warts B. What is cervical cancer? C. Risks IV. Vaccine A. Pros B. Cons C. Who should get it? V. Conclusion A. Discussion B. Questions C. Wrap-up References: 1. Merck 2. www.cdc.gov 3. Health Center pamphlets	**Break down by minutes.** I. Intro A. 5mins II. HPV A. 10mins B. Activity- 5-10mins III. Cervical cancer A. 10-15mins IV. Vaccine A. 10-15mins V. Conclusion A. 10-15mins Total~ 1hr	**Teaching strategy identifies, e.g. lecture, discussion, .ppt, small group activity, etc.** 1. Handouts- cognitive 2. Lecture/discussion- cognitive 3. Group activity- psychomotor	**Effectiveness** The information presented was very effective for our audience. We were able to maintain a professional position as educators while also facilitating discussion around the subject as peers. Our participants felt at ease asking questions and participating in the group activity and seemed to be positively impacted by our presentation. **Efficiency** The presentation was given in a very efficient manor. We were able to maintain our time frame and share the responsibility of information given. The way the presentation was set up made it very easy to move from one topic of discussion to the next.

Post Analysis

Our attempt to educate our audience on the risks involved with HPV and cervical cancer was very successful. The participants were involved with discussion and asked several pertinent questions. Many expressed that they had learned a great deal of information they formerly had not known through our presentation. Perhaps the most influential aspect of the presentation was

the group activity illustrating how easily HPV is spread from person to person without knowing. In retrospect, I think there were a few things we could have done differently. More advertisement for the event could have resulted in a larger group of participants or we could have held the presentation more than once at different times in different places to allow more people the opportunity to participate. Also, some of the participants expressed that the use of more visual aids would have been helpful. Otherwise, we believe the project was very successful.

Appendix A

Let's talk about sex, baby
Let's talk about HPV

I. Introduction

A. We are sophomore II nursing students currently taking Health Assessment and Promotion. The course requires us to do a teaching project in order to gain experience in teaching the community about pertinent health care issues. We have chosen to talk about HPV and the new vaccine, Gardasil.

B. We will discuss what exactly HPV is and how it is spread and how it relates to cervical cancer. We have also put together an activity that will help illustrate how the virus is so easily spread from person to person. The purpose of this get together is we want everyone to walk away knowing what HPV is and how it's spread, what cervical cancer is and who is at risk, and to know the pros and cons of receiving the new vaccine. We here to teach you what we know about the virus and we welcome any questions at any point during the presentation. If we cannot answer a question, see us after the presentation and we'll exchange emails so we can find the answer together.

II. HPV

A. HPV stands for human papillomavirus. It is the number one most common sexually transmitted infection in the United States. While sexual activity was suspected of being correlated with cervical cancer for several years, it wasn't until the 1960s that studies done by epidemiologists established the suspected connection. In the 1980s, HPV DNA was found to be contained in some cervical cancer cells. The HPV vaccine, Gardasil, developed in 2006 is designed to prevent cervical cancer, precancerous genital lesions, and genital warts related to HPV. The vaccine targets the types of HPV that cause up to 70% of all cervical cancers and about 90% of genital warts. Women between the ages of 11 and 26 are recommended for immunization. HPV is also responsible for less common forms of cancer such as vulvar, vaginal, penile, anal, and some head and neck cancers. Vaccines for men are currently under development.

B. HPV is spread through direct contact, most commonly sexual contact. However, transmission can also occur via nonpenetrative sexual activity (oral sex). HPV can also be spread from mother to child at the time of birth. HPV is presumed to be communicable during acute infection as well as persistent infection.

C. Group activity: Each person is given a test tube with an unknown solution. One person has "HPV", a solution of water and baking soda, everyone else has plain water. Everyone is to exchange fluids with at least two other people by pouring some of their liquid into the other's test tube and having them pour it back into their own. Once everyone has swapped fluids, an indicator, vinegar, will be placed in everyone's test tube. A bubbling reaction indicates the individual has contracted HPV.

III. Cervical Cancer

A. There are 1 million new cases each year of genital warts in the United States. They are flesh colored growths that most often are caused by HPV. You cannot always see these growths because they may reside inside the vagina and on the cervix. They also rarely cause symptoms such as burning, itching, or pain, and therefore, genital warts can be passed without either person knowing about it. Treatment of warts depends on the person. Sometimes they disappear on their own and sometimes they grow larger. Usually treatment consists of cream or solution application, removal by freezing, burning, or laser, and in worst-case scenarios, surgery may be necessary. No matter what treatment is performed, genital warts can reappear after time.

B. Cervical cancer is cancer of the cervix. It is life threatening and is caused by abnormal cells that develop in the lining of the cervix. 99.7% of cervical cancer is caused by HPV. It usually takes a number of years for abnormal cells to become cancerous but in rare cases it can occur in a year's time. Half of the females diagnosed with cervical cancer are between 35 and 55 years old, and were most likely exposed to HPV in their teens and 20's. To test for cervical cancer, a pap test is done. If abnormal cells are found and determined to be cancerous then surgery, radiation therapy, and chemotherapy are used as treatments. Every day in the United States, 10 women die from cervical cancer (3,700 yearly).

C. Since the HPV vaccine does not provide protection from all forms of cervical cancer-causing strands of HPV, it is important for women to continue regular cervical cancer screening. A Papanicolaou test, or Pap smear, is performed to detect cervical cancer or changes in the cervical cells that suggest cancer may develop in the future. It is a simple procedure in which cells are gently taken from the surface of the cervix and sent to a laboratory where they are examined under a microscope. The results are usually reported in one to tow weeks. The test is often done as part of a general evaluation of your reproductive health. All women should begin having pap smears after become sexually active or by the age of 21 and should be routinely performed every 1-2 years.

D. Risks include unprotected sex, family history of cervical cancer, multiple partners or a partner that has had multiple partners, having sex before age 18, HPV infection, tobacco use, and an uncircumcised male partner.

IV. Gardasil vaccine

A. There are major benefits that arise from the use of the HPV vaccine. The most obvious benefit is the prevention of developing cervical cancer and genital warts. The vaccine is approved by the FDA after extensive testing on women between the ages of 9 and 26 all around the world. The studies have shown no major side effects, the most common being soreness around the injection site. The vaccine does not contain thimerosal or mercury. Most insurance companies will cover the cost of the vaccine, however, there may be a lag-time after a vaccine is recommended before it is available and covered by health plans. For those without insurance, the Vaccines for Children program provides free vaccines for families not covered by insurance. The VFC program provides free immunization for adolescents under the age of 19.

B. As with all vaccines, Gardasil has been shown to be generally well tolerated in women and girls as young as 9 years of age. The most common side effects are pain, swelling, itching, and redness at the site of injection. Fever may also occur. Some people may also be allergic to the ingredients in the vaccine. Gardasil only protects against the four most common strains of HPV (16, 18, 6, and 11), therefore you can still get a strain of HPV not covered in the vaccine. It also does not protect you from HPV types that you may have already been exposed to, and you must still receive routine cervical cancer screening.

C. The Advisory Committee on Immunization Practices (ACIP) recommends routine vaccination for girls 11-12 years of age. The ACIP recommendation also allows for vaccination of girls beginning at nine years old as well as vaccination of girls and women 13-26 years old. Recommendations of the ACIP become CDC policy once they are accepted by director of the CDC and the Secretary of HHS and are published in CDC's Morbidity and Mortality Weekly Report (MMWR).

References

Merck & Co., Inc. (2006). *What You Need to Know—Human Papillomavirus*. 20605991(1)-06/06-GRD. Whitehouse Station, NJ.

National Immunization Program (2007). *HPV Vaccine Q&A.* Retrieved April 10, 2007 from Department of Health and Human Services: Centers for Disease Control and Prevention Website http://www.cdc.gov/nip/vaccine/hpv/hpv-faqs.htm