



Knowledge and Awareness of Human Papillomavirus among College Students at a Historically Black College/University in South Carolina

Keiara Reames and Gloria S. McCutcheon

Department of Biology, School of Natural Science and Mathematics

Clafin University, Orangeburg, SC 29115



Abstract

Background: The human papillomavirus (HPV) is a sexually transmitted infection (STI) that can lead to genital warts and various forms of cancer in males and females. In females the virus is associated with 91% of cervical cancer. Cervical cancer attributes to 70% of cancer in women worldwide. The mortality rate of African American women attributed to cervical cancer is highest of all races and ethnicities. The vaccine is effective in protecting patients from the most common HPV types in women, which are low risk (6 and 11) and high risk (16 and 18). However, African American women are vulnerable because they typically contract a different subtype of HPV than Caucasian women, including high risk subtypes 33, 35, 58, and 68.

Hypothesis: Brief educational sessions can increase awareness of HPV and its vaccine among college students.

Materials and Methods: An electronic knowledge and awareness survey was presented to the freshman class at Clafin University through SurveyMonkey during Freshman Orientation, August 18, 2016. A pre-survey was conducted, followed by educational videos, and a post-survey. A brief educational session on availability of the vaccine was presented by a health care provider from Clafin University Health Services.

Results: Of the incoming freshman, 90% had heard of HPV. Participants were well-aware that the vaccine is not limited to those who are sexually active (P=1.000), with no differences in results of pre and post survey. Students were not as knowledgeable about the vaccine, as well as transmission, symptoms and effects of HPV. Knowledge was significantly increased after the educational videos as it relates to three being the number of required doses (t = 4.7789, SED = 0.059, and P< 0.0001) and the potential occurrence of HPV without symptoms (t = 3.3951, SED = 0.050, and P = 0.0008).

Conclusion: In conclusion, there is a great need for increased health promotion among African American youths and college students as we address diseases and conditions associated with HPV and contribute to closing the gap in health disparities. Future activities will promote HPV education and investigate high risk HPV subtypes that are typically contracted by African American women.

Introduction

The human papillomavirus (HPV) is a sexually transmitted infection (STI) that is frequently passed among males and females. All sexually active men and women will come in contact with HPV at some point in their life, but it usually does not cause any symptoms. The HPV vaccination is used to protect patients from contracting HPV associated diseases, including cervical cancer, anal cancer, head and neck cancer, as well as genital warts.

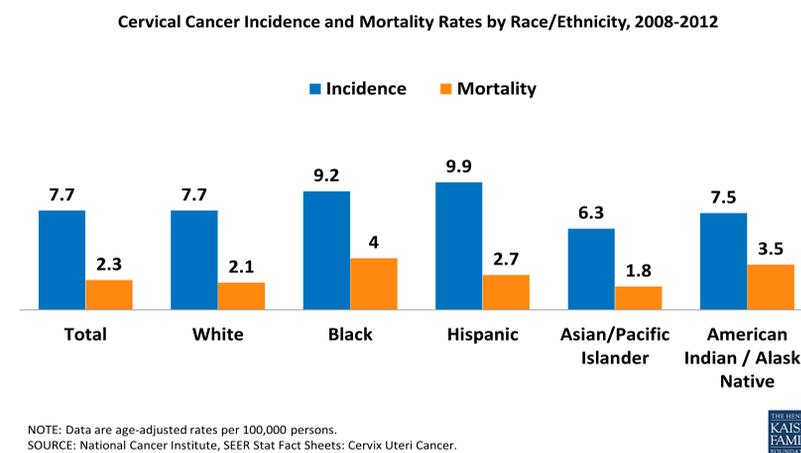
Ethnicity and HPV associated cervical cancer has recently been an important topic observed in the United States. The vaccines Gardasil and Cervarix are effective in preventing HPV associated cervical cancer types 6, 11, 16 and 18, which are common low and high risk HPV strains in women. Researchers at Duke University conducted a study in 2013 on HPV among African Americans and Caucasians. The results showed that Caucasian women contract HPV subtypes 16, 18, 56, 39, and 66 but African American women contract subtypes 33, 35, 58, and 68 (Duke Medicine News and Communications 2013). African American women were left completely vulnerable until the release of Gardasil 9. This vaccine targets HPV types 31, 33, 45, 52, 58, 6, 11, 16 and 18. That covers high risk types 33 and 58, which is common in African Americans. Because HPV is of increasing concern and affects some populations disproportionately, this study will examine the knowledge and awareness of HPV in African American college students.

Materials and Methods

Upon obtaining certification to conduct research with human participants from the National Institutes of Health and approval from the Clafin University Institutional Review Board, this research was conducted with confidentiality and anonymity. A hundred and forty-four participants from the incoming class of 2020 at Clafin University were surveyed via Survey Monkey (paper in cases where electronic tools are unavailable) during freshman orientation. The participants were informed on the purpose of the research. Once the study was agreed upon, the participants were given a pre-survey with questions to determine their knowledge and the stigma associated with HPV and its vaccine. An educational video on HPV was shown and a post survey, which was the same as the pre-survey, was conducted. Statistics were done using minitab.

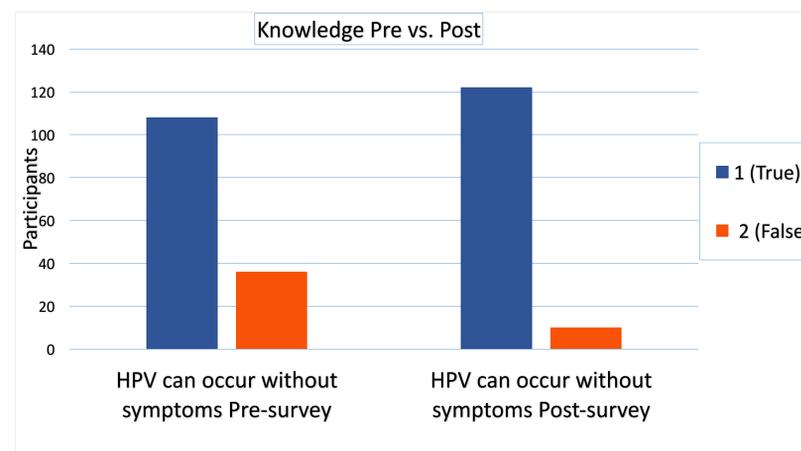
Figure 1

Racial and Ethnic Disparities in Cervical Cancer



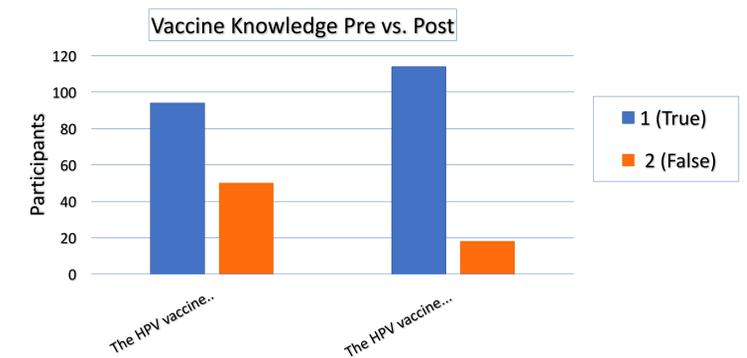
Results

Knowledge was significantly increased about the potential occurrence of HPV without symptoms (t = 3.3951, SED = 0.050, and P = 0.0008). In the post-survey significantly more participants responded correctly that HPV can occur without symptoms (1= true, 2= false).



Pre-survey and Post-survey comparison for the question "HPV can occur without symptoms." (1= true, 2= false)

Knowledge was significantly increased after the educational videos as it relates to three being the number of required doses (t = 4.7789, SED = 0.059, and P< 0.0001)



Pre-survey and Post-survey comparison for the question "The HPV vaccine requires 3 doses." (1= true, 2= false)

Conclusion

In conclusion, there is a great need for increased health promotion among African American youths and college students as we address diseases and conditions associated with HPV and contribute to closing the gap in health disparities. This infection is still not well known in African American youth and college students (D'Urso 2007). HPV is one of the most common STI's, and can occur without symptoms, represent areas where knowledge is needed. Questions referring to the HPV vaccine showed the most improvement, with three being the number of required doses. From this we can conclude that health promotion in the African American community is much needed.

References

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- D'Urso Jennifer, Thompson-Robinson Melva, Chandler Steve. 2007. HPV Knowledge and Behaviors of Black College Students at Historically Black University. Journal of American College Health.56:159-162.

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