

Acceptance and Knowledge of the Human Papillomavirus (HPV) and its Vaccine Amongst College Students



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Abstract

Human papillomavirus (HPV) is one of the most pervasive sexually transmitted diseases (STDs) in the United States (Jones, 2007). Researchers have consistently found low levels of knowledge about HPV in college-aged groups (Sandfort et al., 2009), and they are often thought of as a high-risk population in regards to sexual behavior and sexually transmitted infections (Koutsky et al., 1997). Students need to be aware of what they expose themselves to and how it can affect their health and future life choices. Of the 41 students who volunteered for the study, 17 were vaccinated and 24 were non-vaccinated. The purpose of this research was to investigate the acceptance and knowledge of human papillomavirus (HPV) and its vaccine amongst college students. Overall, the vaccinated students had more knowledge of HPV and the HPV vaccine.

Introduction

Human papillomavirus (HPV) is one of the most pervasive sexually transmitted diseases (STDs) in the United States (Jones, 2007). Researchers have consistently found low levels of knowledge about HPV in college-aged groups (Sandfort et al., 2009). College students are considered an important segment of American society that are often thought of as a high-risk population in regards to sexual behavior and sexually transmitted infections (Koutsky et al., 1997). The most consistent risk factor for HPV infection is a high number of sex partners (Basman et al., 2005). Students need to be aware of what they expose themselves to and how it can affect their health and future life choices. Of the 40 types of human papillomavirus, which are numbered 1-40, that can infect the mucosal epithelium, four types can be prevented using a prophylactic vaccination. Two high-risk types, 16 and 18, cause 70% of cervical cancers, a proportion of other genital cancers and a subset of head and neck cancers. Two low-risk types, 6 and 11, cause 90% of genital warts and the disease recurrent respiratory papillomatosis (Brotherton, et al., 2011). According to the CDC, as of June, 2011 35 million doses of the HPV vaccine have been administered within the United States, in both males and females. HPV has become the leading cause of many types of cancer ranging from cervical cancer to neck and throat cancer. It is important to bring knowledge to the fact that there is a vaccine available that potentially stops certain forms of cancer. The hypothesized outcome of this study was that the students who were vaccinated for HPV will have an enhanced understanding of HPV, vaccine preventions, and acceptance of the vaccine when compared to non-vaccinated students.

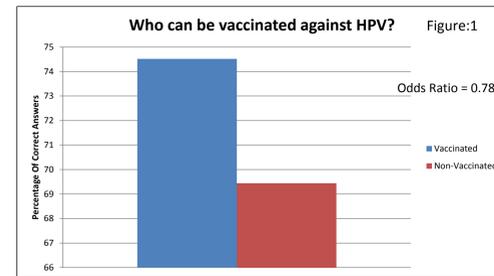


Figure 1: This graph depicts the average of correct answers that refer to who can be vaccinated for HPV. 74.5% of the vaccinated students and 69.4% of the non-vaccinated students answered the questions correctly.

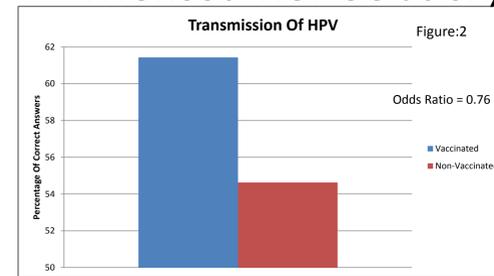


Figure 2: This graph depicts the averages of the correct answers that refer to how HPV is transmitted person to person. 61.4% of the vaccinated students and 54.6% of the non-vaccinated students answered the questions correctly.

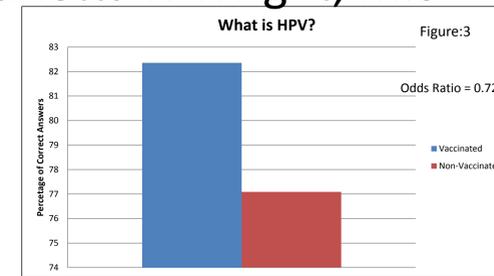


Figure 3: This graph depicts the average of the correct answers that refer to what HPV is and compares vaccinated to non-vaccinated students. 82.4% of the vaccinated students and 77.1% of the non-vaccinated students answered correctly.

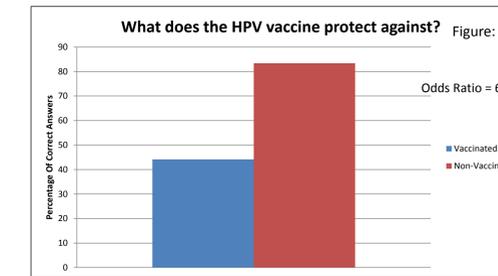


Figure 4: This graph depicts the average of correct answers that refer to what the HPV vaccine protects against. 44.1% of the vaccinated students and 83.3% of the non-vaccinated students answered the questions correctly.

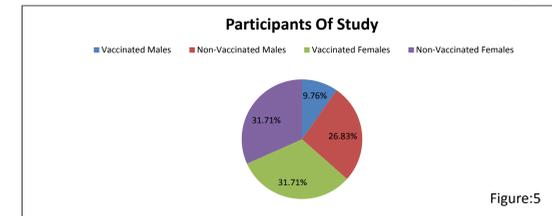


Figure 5: This graph depicts the percentage of students that volunteered for the study.

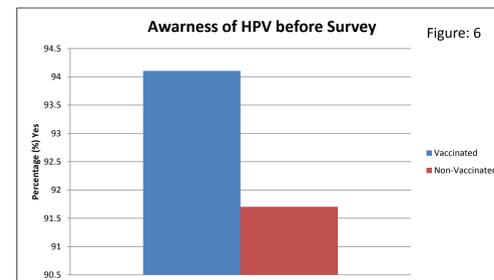


Figure 6: This graph depicts the average percentage of students that were aware of/heard of HPV before the survey. 94.1% of the vaccinated students and 91.7% of the non-vaccinated students reported they were aware of HPV before the survey.

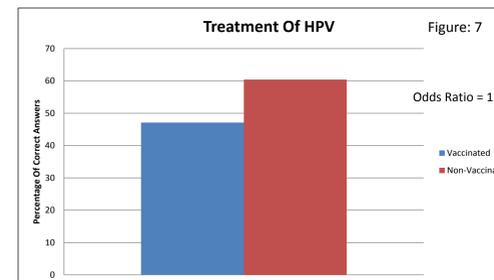


Figure 7: This graph depicts the average of correct answers that refer to the treatment of HPV. 47.1% of vaccinated students and 60.4% of non-vaccinated students answered the questions correctly.

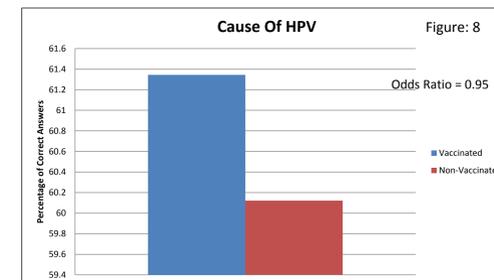


Figure 8: This graph depicts the average of the correct answers that refer to what HPV can cause in an infected person. 61.3% of the vaccinated students and 60.1% of the non-vaccinated students answered the questions correctly.

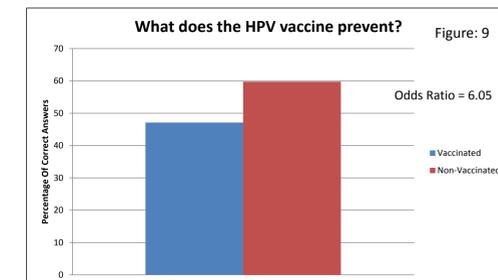


Figure 9: This graph depicts the average of correct answers that refer to what the HPV vaccine prevents. 47.1% of the vaccinated and 59.7% of the non-vaccinated students answered the questions correctly.

Materials and Methods

This research project was approved by the Institutional Review Board of Waynesburg University on January 31, 2012 and was given the IRB number 2011.11.14.01. This was an anonymous cross-sectional survey study available to both females and males aged 18 or over and was conducted on Waynesburg University's main campus. The surveys were separated into vaccinated and non-vaccinated (control) students. The survey contained multiple subcategories (i.e. what HPV is, its transmission, and what it causes) within the survey to be broken down for analysis. Averages of the correct answers for each specific subcategory were calculated for the vaccinated and non-vaccinated students. Odds ratios were calculated for each subcategory to compare between the non-vaccinated and vaccinated students. 41 students volunteered to participate in the study. Of that 41, 17 were vaccinated (4 males and 13 females) and 24 were non-vaccinated (11 males and 13 females).

Conclusion

The hypothesis was supported because both the vaccinated students and non-vaccinated students had knowledge of some of the subjects that referred to HPV and the HPV vaccination. In conclusion the importance of this investigation revealed that if students have knowledge of HPV and the HPV vaccine the student will make the best decision that is beneficial to them. Also the yearning for more knowledge should lead to the action of education of the subject. In the future, students who are vaccinated against HPV are protected from genital warts cervical/penile cancer, and throat/neck cancer. Those students who are not vaccinated are at risk for acquiring HPV, passing it on to a partner without knowledge, and can pass HPV to child if they become pregnant. Therefore, the importance of this study is to raise awareness of this deadly virus.

References

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Acknowledgement

We would like to thank the IRB for approving this research project and Nancy Wrick for printing off this poster. We would also like to thank Dr. Jellison for her help with the making of the survey.

Results

41 students volunteered to participate in the study. Of that 41, 17 were vaccinated (4 males and 13 females) and 24 were non-vaccinated (11 males and 13 females). When asked if the student would be interested in learning more about HPV and the HPV vaccine 64.7% of the vaccinated students and 75.0% of the student's non-vaccinated students reported yes. When asked if Waynesburg University offered a discussion to inform students about HPV and the HPV vaccine 64.7% of the vaccinated students and 62.5% of the non-vaccinated students reported that they would attend. Odds ratios were calculated for each subcategory comparing between the non-vaccinated and vaccinated students. Since the non-vaccinated students were the control their odds ratio was compared to the vaccinated students. Both the averages of the correct answers and odds ratio numbers concluded the same results. The research concluded that the vaccinated students had more knowledge of what HPV is, what HPV causes, how it's transmitted, and who can be administered the vaccine. The non-vaccinated students had more knowledge of what the vaccine prevents, what the vaccine protects against, and how HPV can be treated. Both groups showed a high interest in learning more about HPV and the HPV vaccine and both would consider attending a discussion group that pertained to HPV and the HPV vaccine if it was offered at Waynesburg University's main campus.