Parent's Knowledge and Comfortability of Discussing the HPV Vaccine in a South Jersey Setting

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Introduction:

This cross-sectional study will be conducted in order to determine the knowledge of parents of children who are 9-14 years old regarding HPV vaccination and their comfortability of discussing vaccination in a South Jersey dental clinic. Approximately 50 families will be recruited to participate in a 15 question survey assessing knowledge of the HPV vaccine, oral implications of HPV, and comfort level of vaccination education in the dental setting. The survey will also collect demographic information and if the child has or has not received any dose of the HPV vaccine. There is no incentive for the parent to participate, however, there is a potential benefit of shaping how pediatric dental providers approach HPV vaccination in the dental clinic. The study will be conducted over a 6 month period at Pediatric Dental Associates of Cherry Hill. Inclusion criteria will be parents of a patient who is aged 9-14 that presents for either a new patient exam or recall exam. Exclusion criteria will be parents who do not wish to provide consent, parents of children aged 9-14 who present for appointment other than a recall exam or new patient exam (such as an emergency visit or operative visit), parents whose child is not in the appropriate age range (< age 9 and > age 14), and non-English or non-Spanish speaking parents. Participation will be anonymous and surveys will be given a numerical code for data collection. Statistical analysis will then be performed to determine significance between HPV knowledge, demographic characteristics, HPV vaccination history, and comfortability of extending HPV vaccine education into the pediatric dental setting. After the survey is conducted, a CDC information sheet will be recommended to the participants for further education.

Study Aims:

This study aims to understand parental comfort of children ages 9-14 with discussing HPV vaccination with their pediatric dentist during a routine examination in a dental clinic in South Jersey. The primary outcome of this study is to determine parent's knowledge of the HPV vaccine and determine their comfortability of discussing it in a dental setting. The secondary outcome is to better inform providers how to include this topic in the dental screening as a second line for the pediatrician.

Methods:

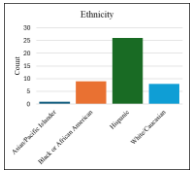
Parents of patients ages 9-14 who attend either a new patient exam or recall appointment at Pediatric Dental Associates of Cherry Hill will be recruited to participate in this cross-sectional study. Participation is voluntary and includes providing consent and completing a survey questionnaire of 15 questions. The survey will include questions that gather demographic information, information about the HPV vaccine, and comfortability of addressing the HPV vaccine in the dental clinic. Dr. Lindsay Pisan will identify patients that are to be included in the study based on the age of the patient, number of patients attending dental visits in the same family of the appropriate age, and appointment type. For families with more than one child aged 9-14 who present at a single visit, only one survey will be completed about only one child per family. One survey cannot be completed per household for multiple children due to possibly differing views on the HPV vaccine dependent on the child's age, along with the survey containing specific questions about one child's history. In order to randomize which child the survey will pertain to, surveys will be labeled per child, and one survey will be randomly selected. Informed consent to participate in the study will then be provided to the parent and risks and benefits of participation will be discussed. After written consent is granted, the survey will be provided to the parent to complete, which will take approximately 10 minutes. The survey will then be collected and securely stored with the signed consent. The survey is anonymous and will be given a numerical code for data collection and analysis. Lindsay Pisan will be the sole researcher managing the confidential surveys and consent forms. Once collected, they will be securely stored in a sealed envelope. The data will then be transferred into a password-protected Excel worksheet. The paper surveys and consent forms will then be appropriately shredded and discarded to protect confidential information.

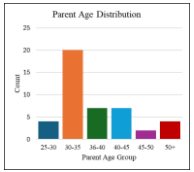
Background:

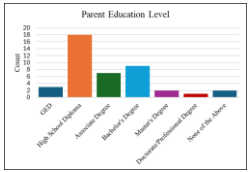
The human-papilloma virus infects almost all adults over the course of their life, and it is proven to cause at least 6 types of cancer, from cervical cancer to the newly increasing oropharyngeal cancer.[7] In the United States alone, 4000 women die per year due to HPV related cervical cancer.[8] Vaccination is one of the most effective ways to prevent HPV and can protect the recipient from 90% of cancers caused by the virus.[7] Vaccination is recommended for children starting as early as age 9, and if the first dose is provided before the 15th birthday, a 2-dose regimen is recommended. However, HPV vaccination is significantly trailing behind in vaccination rates compared to those of Tdap and meningitis, which according to the CDC, deaths from HPV far exceed those of the latter.[6] This lack of compliance to receive the HPV vaccination series can be pointed to a number of causes, with willingness of physicians to discuss with parents being one of them.[10]

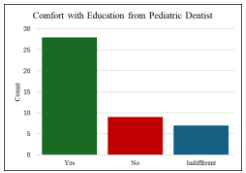
HPV is linked to causing oropharyngeal cancers via the high risk strain HPV-16.[10] Recent research has concluded that 75% of oropharyngeal cancers in men are caused by HPV, which outpaces the incidence of oropharyngeal cancer caused by smoking.[9] This points to our continually growing knowledge on the implications of HPV infection, especially in its relationship to oral cancers. In 2021, the FDA even expanded the HPV vaccination indication to include prevention against oropharyngeal cancers. With this in mind, dental providers have a unique opportunity in educating patients on the HPV vaccine. The American Academy of Pediatric Dentistry acknowledges the association between HPV and oropharyngeal cancers, and encourages pediatric dentists to include HPV vaccination education as anticipatory guidance due to the increased frequency in which dentists interact with their patients.[10] However, HPV-related oral and oropharyngeal cancer incidence continues to rise and discussions in dental settings remain infrequent.[1] Dental provider hesitancy to discuss the HPV vaccine can be associated with a lack of knowledge in the subject area, personal beliefs, and/or liability concerns, along with the fear of broaching the topic of sexual transmission of the virus.[2,8] This study will explore the parental comfortability with discussing the HPV vaccination in a dental setting, while also gathering information on parental existing beliefs and knowledge on the HPV vaccine. The information collected from this study can potentially influence how we, as pediatric dentists, can better provide anticipatory guidance on this topic, and hopefully, protect our patients against these deadly cancers.

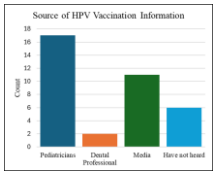
Survey Data:

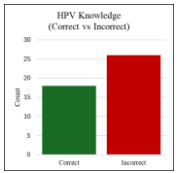












Results:

Sample size included 44 eligible parent participants who completed the survey

Demographics collected from survey:
- Age of parents: most were aged 30-35 (45.5%)
- Ethnicity: Majority Hispanic (59%)
- Education: most had High School Diploma (43%)
- Respondent: Typically the mother (72%)

HPV Education Comfort (Q14)
- 63.6% comfortable receiving HPV info from pediatric dentist
- 20.5% not comfortable; 15.9% indifferent

Reasons for Discomfort (Q15)
- Top reasons include: discomfort with vaccines in general and child vaccinated

HPV Knowledge and Attitudes
- Only 40.9% correctly identified HPV effects
- 59% comfortable following doctor-recommended vaccines
- Pediatricians= primary source of HPV vaccine info, followed by media

Statistical Analysis:
- Chi Square: No sig assoc between HPV knowledge (13) and refusal reason (15)
- Regression: No sig predictors (demographics or child info) for:
- Comfort with pediatric dental HPV education (14) or if child is vaccinated (12)
- Age 11 only strong indicator of vaccination status but not stat significant

Conclusions:

Parental Openness: Most parents are open to HPV vaccine education from pediatric dentists, regardless of age, ethnicity, or education level

Media: Media, a common source of vaccine information, may contribute to hesitancy or discomfort

Knowledge Gap: 60% of parents were unable to correctly identify HPV implications–highlighting a clear opportunity for educational intervention

Primary Sources: Pediatricians remain the most cited source of HPV vaccine information

Age Factor: Vaccine uptake showed a trend toward being higher at age 11, though statistically insignificant–This suggests an opportunity for dentists to initiate discussions earlier (as early as age 9), potentially reinforcing messages from pediatricians

Collaborative Potential: Coordinated messaging from both dental and medical providers may enhance parental comfort and vaccine acceptance

Further Studies: Expand sample size to improve reliability, clarify survey design to reduce invalid responses, consider follow-up studies surveying dental professional knowledge and comfort with HPV vaccine education

References:

Cooper University Health Care