

Pediatric Dentists’ Knowledge, Comfort, Perceptions Regarding Administering the HPV Vaccine

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ABSTRACT

Purpose: To determine Pediatric Dentists current level of knowledge, comfort, and perception in promoting the HPV vaccine and viewpoints on administering it.

Methods: A survey consisting of 37 questions was sent via SurveyMonkey to active practicing members of the American Academy of Pediatric Dentistry (N=6,751), and Post-Doctoral Student Members (N=1,005). The data was collected over an 11-week period. The survey investigated pediatric dental professionals’ outlook on their knowledge base, perceptions and level of comfort regarding dispensing the HPV vaccine.

Results: Three hundred and twenty-two responses (N=322) were collected. The response rate was four percent: 290 from active members, and 32 from residents. Thirty-eight percent of responding pediatric dentists agree in their competency and current knowledge about the HPV vaccine. Twenty-six percent of respondents feel comfortable discussing the HPV vaccine with patients and parents. Additionally, 52% of responding pediatric dentists believe they have an obligation to promote the HPV vaccine and 40% of them are willing to administer the HPV vaccine if permitted by law.

Conclusion: Responding pediatric dentists are members of the healthcare workforce and could promote HPV vaccination; however more work is needed before that can occur. Currently there is lack of knowledge and comfort in discussing the HPV vaccine with patients, which demonstrates the need for continuing education. Additionally, the very low response rate may indicate a general lack of interest in this subject among practicing pediatric dentists, and trainees.

INTRODUCTION

Human Papillomavirus (HPV) is the most common sexually transmitted infection in the world.¹ HPV vaccination was first introduced in 2006 and is recommended in order to prevent HPV associated disease and cancers of the cervix, vagina, vulva, penis, anus and oropharynx.^{2,3} According to the Centers for Disease Control and Prevention’s latest recommendation, HPV vaccination is recommended starting at 9 years of age through 26 years.^{2,4}

Current research identifies barriers in knowledge, compliance, willingness, resources and time among dental providers in promoting and administering the vaccine.⁵⁻⁸ Furthermore, current research has found difficulties in access to care for patients and compliance with the vaccine regimen. It is reported that those who are female and of higher social economic status, were more compliant with the HPV vaccine regimen.⁹

HPV vaccination provides an instrumental opportunity to decrease oropharyngeal cancer, cervical cancer, anogenital cancers and cancer precursors.¹⁰ Pediatric dentists specialize in providing oral healthcare to pediatric patients from birth-21 years of age, and have a platform to endorse the HPV vaccine. Notably, the pediatric dental setting constitutes an additional environment where HPV vaccine recommendations can be given to parents and patients in hopes to increase vaccine uptake and adherence.^{5,9,11-13} Increasing knowledge and resources on the topic HPV prevention will aid pediatric dentists in primary prevention against HPV related diseases/ cancers including oropharyngeal cancers and its manifestations.^{5, 14, 15}

The American Academy of Pediatric Dentistry (AAPD) policy statement written in 2020 recommends that oral healthcare providers, “Educate patients, parents, and guardians on the serious health consequences of oral and oropharyngeal cancers and the relationship of HPV to OOPC (oral and oropharyngeal cancer),” and to “Counsel patients, parents, and guardians regarding the HPV vaccination, in accordance with CDC recommendations, as part of anticipatory guidance for adolescent patients.”¹⁶

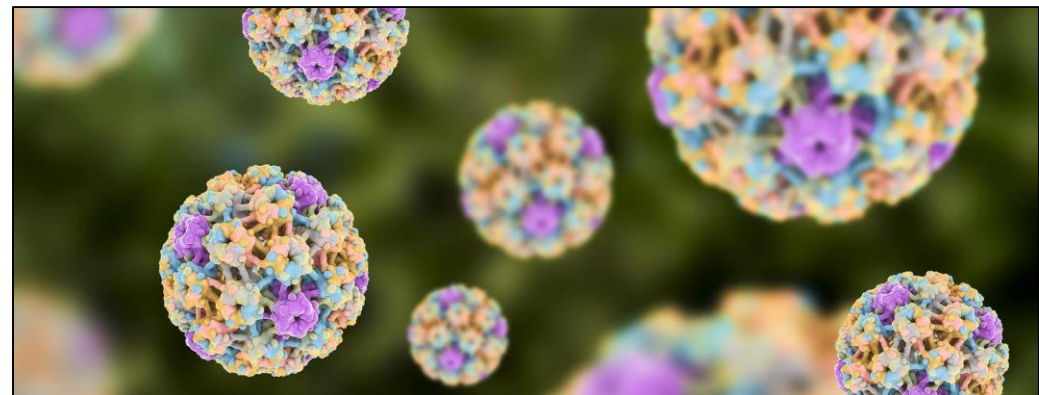
The objective of this study was to determine Pediatric Dentists current level of knowledge, comfort, and perception in promoting the HPV vaccine and viewpoints on administering it. The results of this study hopefully will aid in identifying barriers to promote and to improve HPV vaccination compliance and adherence rates in the future.

MATERIALS AND METHODS

A survey consisting of 37 questions was sent in October of 2023 via SurveyMonkey to 6,751 active practicing members of the American Academy of Pediatric Dentistry (AAPD,) and 1,005 Post-Doctoral Student Members for a total of 7,756 members. The survey investigated pediatric dental professional’s viewpoints on their current level of knowledge base, comfort and perceptions in administering the HPV vaccine. A cover letter was sent along with the email, describing the purpose of the study, expressing that the completion of the study was voluntary, and that the risk(s) of potential psychological, social, physical or legal risks to participants is at a minimum. The data was collected over an 11 week period. The Institutional Review Board of the Albert Einstein College of Medicine reviewed this study #2023-14907 and approved by expedited review.

RESULTS

- Three hundred and twenty-two responses (N=322) were collected for response rate of four percent in total over a 11 week period. Fifty-six percent (N=181) of the responding pediatric dental professionals 41% (N=130) were female. The gender distribution correlated with the identified distribution for all AAPD members in the United States. Ten percent (N=32) of the participants identified as a pediatric dental resident, 86% (N=277) as a practicing pediatric dentists.
- In regard to competence in current knowledge about the HPV vaccine, 38% (N=121) of pediatric dentists agree that they are competent in their current knowledge about the HPV vaccine; 34% (N=111) responded being neutral, and 28% (N=91) responded with disagree. Results are illustrated on Graph 1.
- In regard to comfort level of pediatric dentists discussing the HPV vaccine with patients and parents, 26% (N=82) of respondents feel comfortable discussing the HPV vaccine with patients and parents, 31% (N=100) responded with “neither uncomfortable nor comfortable, and 43% (N=137) of respondents felt uncomfortable. Results are illustrated on Graph 2.
- In regard to pediatric dental professionals promoting the HPV vaccination, 52% (N=167) believed they have an obligation to promote the HPV vaccine, while 48% (N=154) believed they do not. Results are illustrated on Graph 3.
- In regard to pediatric dentists’ willingness to administer the HPV vaccine if permitted by law, 40% (N=128) selected “yes”, while 60% (N=192) selected “no.” Result are illustrated on Graph 4.
- Sixty-nine percent (N=220) of pediatric dental professionals selected “lack of knowledge/competency”, 34% (N=107) selected “liability reasons”, 53% (N=168) selected “not comfortable promoting it”, 73% (N=232) selected “parents and patients perceptions”, and 39% (N=125) selected “lack of knowledge of insurance reimbursement”, when ask about barriers to promoting the HPV vaccine.
- Forty-three percent (N=138) of pediatric dental professionals had participated in a class or continuing education course that discusses the topic of HPV vaccination.
- Sixty-six percent (N=214) of pediatric dental professionals liked to learn more about the HPV vaccine.
- There were no statistical differences between the practicing pediatric dentists and resident members of the AAPD in regard to competency in current knowledge (P= 0.534; 95% CI 0.00,1), and comfort in discussing HPV vaccination with patients (P=0.617; 95% CI -1,1.1). Additionally, there was no difference in the viewpoint on an obligation to promote (P= 0.393; 95% CI -1, -0.00) and administer the HPV vaccination (P= 0.078; 95% CI -1, -0.00).

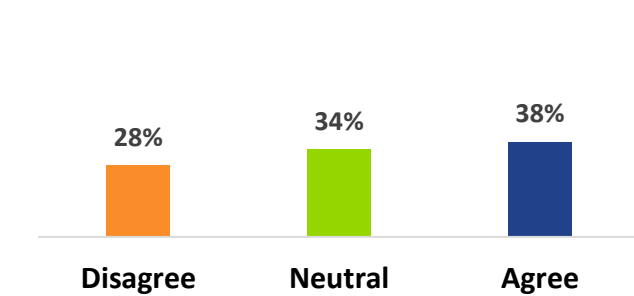


Human Papillomavirus
Credit: Getty Images/Science Photo Library RF

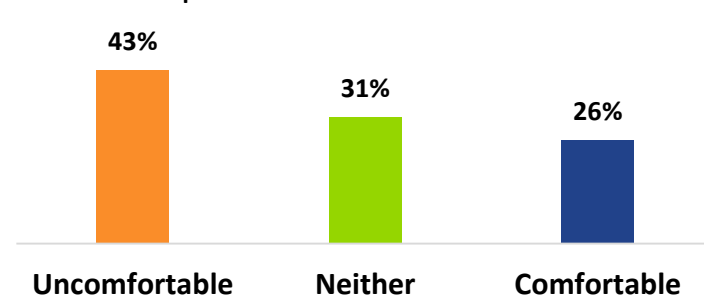


RESULTS

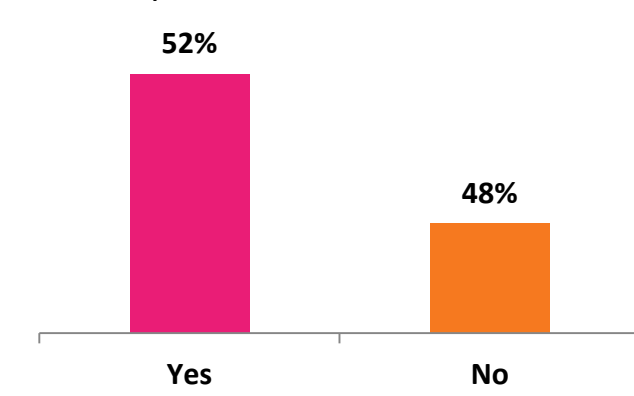
Graph 1. Pediatric Dentists reported level of competency and knowledge base about the HPV vaccine



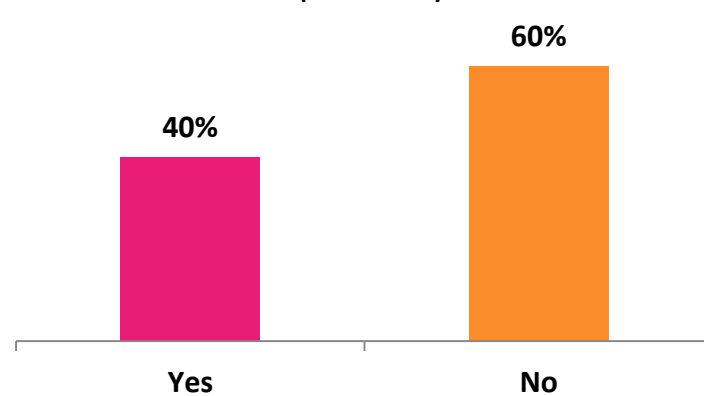
Graph 2. Pediatric Dentists comfort level in discussing the HPV vaccine with patients and parents



Graph 3. Pediatric dentists belief on having an obligation to promote HPV vaccination



Graph 4. Pediatric Dentists willingness to administer the HPV vaccine if permitted by law



CONCLUSIONS

Based on this study’s results, the following conclusions can be made:

- Only the minority share of responding pediatric dentists agree that they are competent in their current knowledge about the HPV vaccine and feel comfortable discussing the HPV vaccine with patients and parents. Over half of the respondents believe they have an obligation to promote the HPV vaccine but only forty percent of pediatric dentists are willing to administer the HPV vaccine if permitted by law.
- There are multiple barriers in promoting the HPV vaccine: lack of knowledge/competency and parents and patients perceptions are noteworthy.
- A minority of responding pediatric dental professionals have participated in a class or continuing education course that discusses the topic of HPV vaccination.
- The majority of respondents would like to know more about the topic of HPV vaccines.
- There was no difference regarding knowledge, level of comfort and perceptions in promoting and administering the HPV vaccine between practicing pediatric dentists vs. resident members of the AAPD.
- Low knowledge base and comfort level demonstrates the need for continuing education.

BIBLIOGRAPHY

References available upon request.