Knowledge of HPV Vaccine + Confidence Providing Counseling Among **Dentists + Residents**

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INTRODUCTION

"Head and neck cancers account for 3% of malignancies in the United States with more than 63,000 Americans diagnosed and 13,000 dying annually" (1). Oral and oropharyngeal cancers (OOPCs) make up a substantial portion of head and neck cancer. OOPCs can be found along the soft palate, base of tongue, and tonsils among others. Tobacco and alcohol consumption are contributing risk factors for OOPCs, there has recently been a rise in the number of cancer cases linked to human papilloma virus. "Since the mid-2000s, incidence rates have increased by about 1% per year, mostly because of a rise in cancers linked with HPV. These HPV-positive cancers tend to act different than HPV-negative cancers" (2).

The American Academy of Pediatric Dentistry (AAPD) has maintained a policy on HPV vaccinations, adopted in 2017. HPV is associated with anogenital, skin, and oral and oropharyngeal cancers and is observed in oral squamous cell carcinoma, the most common type of OOPC" (3). HPV strain 16 is the most prevalent subtype and is targeted, along with strain 18, by the HPV vaccine. Vaccines have been available since 2006.

PURPOSE

Per the American Academy of Pediatrics, (AAP), the HPV vaccine series should be scheduled between 9 and 12 years of age for both males and females. "A two-dose schedule is recommended for children younger than 15 years with both doses 6-12 months apart. For children age 15 or older at the time of initial vaccination and for those with immunocompromising conditions, a three-dose series is recommended" (3). Anticipatory guidance for adolescent patients, by pediatric dentists, includes alcohol, tobacco, and nutritional counseling. Child and adolescent patients see their dentists twice a year, as opposed to pediatrician well-visits once a year. Thus, there is a greater and more frequent window of opportunity for counseling patients and parents about HPV, OOPCs, and the benefits of the HPV vaccine.

Based on one study's survey of New York state pharmacy, medical and dental providers, it was found that "fewer than one-third of dental providers routinely discuss the HPV vaccine with patients in the target age group (11-26 years)" (5). The rates reported are significantly higher than those of Vermont dental providers, where "78% of those responding to a survey reported that they rarely discuss HPV disease and vaccine with their patients" (5). However, "findings support prior observations that dentists generally believe they should talk about HPV complications and prevention but do not have the confidence in their ability to do so" (5).

This is a single-site anonymous survey study to gauge resident and practitioner level of comfortability regarding HPV vaccine education and counseling. These metrics will provide a milestone for further evaluation and improvement in the future.

METHOD

A. 14 and 16

B. 12 and 14

NA

This research project was a cross-sectional study with data collection occurring between October to December 2024. A 20-question survey was sent out via email to active members of the American Academy of Pediatric Dentistry (AAPD) once in October with a follow-up email sent two weeks later, and answers were collected via REDCap. Participants were asked to complete a one-time survey, consisting of sixteen multiple choice questions on participants' knowledge of the HPV vaccine and counseling completed in their office/clinic. There were minimal risks associated with participation in this study; risks included participant discomfort or frustration from answering questions. No PHI, PII, or sensitive information was recorded and confidentiality was maintained. Participants had the option to stop participation at any time.

Data was exported from REDCap to statistical data analysis software. Univariate statistics will be calculated for all variables. Mean and standard deviation will be reported for continuous variable. Count and percentage will be reported for categorical variables.



20 (16%)

28 (22%) 10 (7.8%)

70 (55%)

vaccination history, either as part of medical intake forms or during









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RESULTS

129 responses were collected from the total 7,888 active members (both practicing dentists and postdoctoral residents). As seen in the figures section, each knowledge-based question of the survey had more than 50% correct answers marked by survey respondents. When asked to rank their level of comfort explaining the link between OOPC and HPV, most (33%) providers agreed they felt confident doing so. Only 45% reported asking families and patients about vaccination history (either as part of intake forms or during visits) and 42% of providers "strongly disagreed" when asked to report if they conduct HPV vaccine counseling with patients and their families, despite guidance from AAPD to do so. 34% of providers "strongly agreed" and 14% "agreed" to knowing where to locate physical brochures, links, etc to provide families with information regarding the HPV vaccine. The majority of providers either "strongly disagreed" or "disagreed" that they begin counseling patients and families before the designated age when vaccination is recommended to begin.

CONCLUSIONS

While more than half of providers could correctly answer questions regarding basic HPV vaccine schedule and frequency, the majority reported they did not feel comfortable in their knowledge of the vaccine and did not conduct counseling with patients and families. Most providers reported a lack of knowledge as to where to find information to provide parents and families with, though more than half of respondents could explain relevancy of the HPV vaccine to oral health (link between OOPC and HPV). More than half of providers reported asking families about their vaccination history as part of medical intake forms during their visits. There is an apparent gap between ability to counsel patients and families and confidence doing so.

This study, though limited, demonstrates a need for increased continuing education by dentists and residents regarding this topic. Potential collaboration with our medical colleagues regarding HPV and overall vaccination schedule in pediatric patients could prove helpful in addressing this matter.

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