Determinants of Pediatric Dentists Readiness to Assess HPV Risk in Children in Private Practice

Quinn Amukamara, DMD; Fred Ferguson, DDS; Tinnysha Chopra, DDS; David Yens, PhD; David Miller, DDS
One Brooklyn Health
Interfaith Medical Center-Department of Dentistry

INTRODUCTION

Human Papillomavirus (HPV) is a prevalent sexually transmitted infection affecting both men and women, potentially leading to genital warts and various cancers, including cervical, anal, penile, and throat cancers. While declining tobacco use has reduced tobacco-related head and neck cancers, there's a rising trend in overall head and neck cancer cases, particularly among younger, non-tobacco-using individuals, attributed to HPV. Current literature indicates a gap in dental practitioners discussing HPV infection and vaccination with patients, emphasizing the need for dentists, especially pediatric dentists, to play a more active role in HPV prevention through targeted interventions and effective communication strategies.

METHODS

The study design is a cross sectional, prospective study which consisted of a 15 item questionnaire sent out via email to members of AAPD (American Academy of Pediatric Dentistry) including, practicing pediatrics dentists. It was hosted by Survey Monkey to meet security standards for the transmission of online data. Transport layer security protocol was used to encrypt and transmit data which are frequently backed up in an encrypted storage. To ensure anonymous responses, no IP addresses were collected. The statistical analysis plan included an independent, chi-square and logistic regression analysis. Frequencies for each of the 15 questions were collected and summarized into relevant bar graphs. Cross tabulation and statistical significance were calculated to analyze each objective individually.

Figure 1

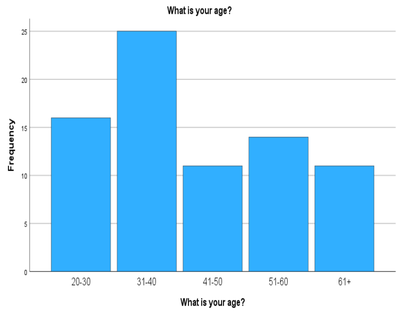


Figure 2

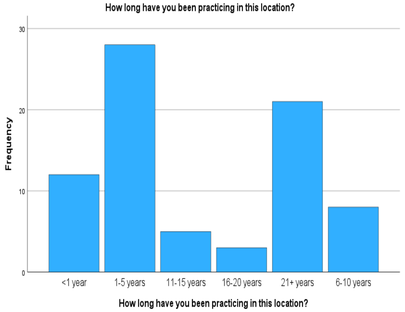


Figure 3

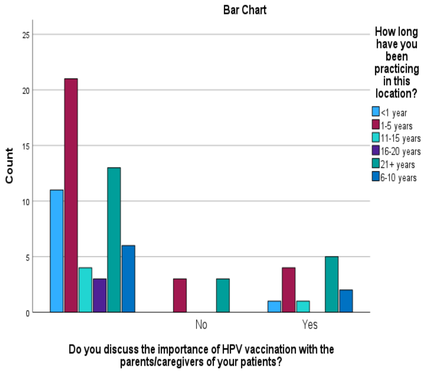


Figure 4

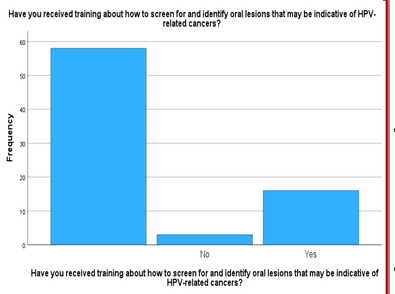


Figure 5

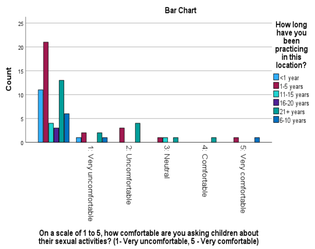
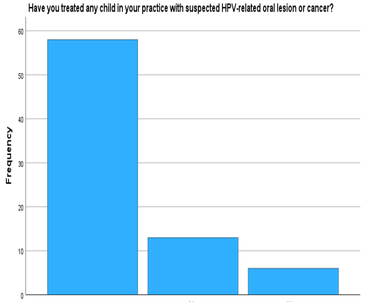


Figure 6



RESULTS

- Figure 1: The bar chart reveals that the "31-40" age category has the highest count, representing 32.5% of total respondents, while the distribution demonstrates an ascending trend from left to right, signifying a higher proportion of respondents in older age categories. Notably, the "61+" category encompasses individuals aged 61 and above, constituting 100% of respondents in this category and providing insights into a concentration in the "31-40" range with an upward shift in older age groups.
- Figure 2: The bar chart reveals that the majority of practitioners, constituting 36.4% of the total, have been practicing for 1-5 years. As the duration increases, the distribution progressively rises from left to right, with the "21+ years" category having the highest cumulative percentage, indicating a substantial proportion of practitioners at the location for 21 years or more. Overall, the chart provides a clear overview of practitioners' distribution based on their practice duration at the given location.
- Figure 3: The table indicates that 7.8% of respondents explicitly do not discuss the importance of vaccination with parents/caregivers, while 16.9% affirmatively engage in these discussions. The cumulative percentage of 83.1% suggests that a substantial majority either does not participate in such discussions or provided an unclear response, providing a focused view on vaccination discussion practices with notable proportions expressing limited engagement or ambiguity.
- Figure 4: A small proportion, 3.9%, of respondents did not receive training on assessing oral lesions indicative of HPV-related cancers in children, while a larger proportion, 20.8%, have undergone such training. The cumulative percentage reaching 100% indicates clear responses, providing insights into the distribution of training status among respondents in the assessment of oral lesions associated with HPV-related cancers in children.
- Figure 5: The majority of respondents (83.1%) exhibit discomfort or strong discomfort when inquiring about children's sexual activities, with only a small percentage (2.6%) feeling very comfortable. The cumulative percentages emphasize an evident prevalence of discomfort in the respondents, offering valuable insights into their comfort levels regarding discussions on children's sexual activities.
- Figure 6: The table reveals that the majority of respondents (92.2%) have not treated any child with suspected HPV-related oral lesions or cancer in their practice, while a smaller proportion (7.8%) has confirmed such cases. The cumulative percentage reaching 100% indicates that all respondents provided a clear response, providing insights into the distribution of experiences among those who have and have not encountered suspected HPV-related oral lesions or cancer in pediatric dental practice.

DISCUSSION/CONCLUSION

In conclusion, the findings underscore a notable hesitancy or ambiguity among respondents, with 83.1% (n=6) either avoiding or giving unclear responses when discussing vaccination importance with parents/caregivers. The assessment of oral lesions related to HPV in children shows that 20.8% have received training, while 3.9% have not. Furthermore, a majority of respondents (83.1%) express discomfort discussing children's sexual activities, contrasting with a small percentage (2.6%) feeling very comfortable. The data also reveals that 92.2% of respondents have not treated any child with suspected HPV-related oral lesions or cancer, while 7.8% confirm such cases, providing valuable insights into the varied experiences within pediatric dental practice. It is crucial to note that the total number of participants in the survey was 77, and out of these, only 19 were able to complete the study. This limited completion rate may raise concerns about the overall validity of the research, as the sample size has been significantly reduced, potentially impacting the generalizability of the findings. Researchers should consider this limitation when interpreting the results and future studies may benefit from efforts to enhance participant engagement and completion rates.

References

HPV Survey