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Assessing Dentists' HPV-Related Health Literacy for Oropharyngeal Cancer Prevention

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Abstract

Background—HPV-related oropharyngeal cancers are on the rise. Dentists may be the next group of providers participating in the prevention of HPV. The aim of this study was to assess dentists' health literacy regarding the connection of HPV and oropharyngeal cancer.

Methods—We conducted four focus groups with dentists (n=33) during a regional dental conference in 2016. Guided by the health literacy competencies (i.e. access, understand, appraise, and apply), we employed constant comparison methods for data analysis.

Results—Dentists mentioned a variety of informational sources (e.g. dental journals and colleagues). Knowledge about the link between HPV and oropharyngeal cancer varied among participants. Participants appraised multiple patient and practice factors when deciding to have the discussion with their patients. Some dentists currently discuss the HPV and oropharyngeal cancer connection with their patients, and most conduct secondary screenings.

Conclusions—Findings indicate areas for intervention including creating awareness of trusted informational sources, and increasing HPV knowledge and understanding the multiple patient (e.g. age) and practice (e.g. open operatories) appraisal factors. Moreover, enhancing the communication skills of dentists with their patients is needed to improve HPV-related cancer prevention education.

Practical Implications—Addressing dentists' HPV-related health literacy has the potential to improve their HPV-related prevention practices, including expanding patient education on this topic and increasing HPV vaccination knowledge, ultimately contributing to the reduction of oropharyngeal cancers.

Introduction

Incidence rates of oropharyngeal cancers (i.e., cancer in the base of the tongue, tonsils, and pharyngeal wall) have steadily increased since the 1970s despite reductions in behaviors causatively linked to oral cancer such as tobacco use ¹⁻³. Between 2008-2012, there were an estimated 15,738 annual average number of oropharyngeal cancer cases ⁴. Moreover, evidence indicates human papillomavirus (HPV) is the cause of approximately 72% of oropharyngeal cancers and that about 62% are attributed to HPV types 16 and 18 ⁵⁻⁷. This suggests that HPV-related prevention could play a role in reducing oropharyngeal cancer rates.

There are three approved vaccines to prevent HPV-related anogenital cancers; two of them available for males and females ⁸. Although these vaccines provide protection against HPV types 16 and 18, there is no current indication for oropharyngeal cancer. Moreover, in the U.S., the HPV vaccination program is provider-based, meaning it is dependent on a provider recommendation of the vaccine ⁹. Although numerous factors determine whether someone receives and completes the HPV vaccine series, provider recommendation plays a significant role in shaping patients' intention to receive the vaccine ^{10, 11}. Current providers involved in the recommendation are pediatricians, family medicine practitioners, or obstetricians and gynecologists ⁶.

The dental profession have focused its role on secondary prevention, such as screening by palpating and visual inspection through a head and neck examination. Nonetheless, in 2009, the American Dental Association advised its membership “to educate themselves and their patients about the relationship between HPV and oropharyngeal cancer” ¹². Previous research has found that dentists have suggested they are willing to discuss HPV and oropharyngeal cancer with patients ^{13, 14}, but they may not have appropriate levels of HPV-related knowledge ¹⁵ and *health literacy*, the way in which people *access, understand, appraise, and apply* health information ^{16,17} — to respond to patients' concerns or make prevention recommendations. Health literacy is a framework that can be useful to understand how dental providers can serve as agents and recipients of HPV-related oropharyngeal cancer preventive information ¹⁸.

Given the growing incidence of HPV-attributable oropharyngeal cancers, the availability of the HPV vaccine as mode of a primary prevention, and the role providers play in vaccine recommendations; dental providers may be key agents for promoting HPV prevention. Thus, the aim of this study was to assess dentists' health literacy regarding the connection of HPV and oropharyngeal cancer.

Methods

This qualitative study utilized focus groups ¹⁹ as the method for data collection to assess dentists' level of health literacy. We created a focus group guide, previously described ²⁰, following the Health Literacy competencies by the European Consortium Health Literacy Project (i.e., access; understand; appraise; apply) ¹⁷. An expert panel composed of a dentist,

a dental hygienist, and researchers with expertise in health literacy and HPV reviewed the questions of the focus group guide for content validity.

The study coordinator contacted the organizer of a regional dental conference who agreed to contact the registered dentists. Via the organizer, we sent recruitment emails providing details of the study to dentists who had registered for the conference. Dentists interested in participating replied to the email, and the study coordinator assessed their eligibility. Inclusion criteria were: (1) having a current dental license; (2) graduating from an accredited US dental program; (3) practicing for more than one year; and, (4) age of 21 years or older. Participants responded with their availability based on four options provided. The study coordinator assigned them at random based on available times.

We conducted four focus groups with a total of 33 participants (focus groups included between 7 and 9 participants each) during the regional conference in 2016. Discussions lasted an average of 66 minutes and were audio recorded. Using a short survey, we collected information regarding participants' demographics. The [university] IRB approved this study. Participants signed an informed consent form prior to data collection, and received a \$100 gift card for their time.

A professional transcribed the focus group audio-recordings. The research team created a codebook following the Health Literacy competencies. Two coders independently reviewed all data using MAXQDA²¹ and summarized the codes. For the data analysis, we employed constant comparison methods^{19, 22}. The coders resolved any discrepancy in coding by team discussion. During team meetings, the research team refined the themes and chose exemplary quotes.

Results

Most of the dentists were males, non-Hispanic White, and had an average of 19 years in practice. Moreover, the majority of the participants worked in a private practice setting (Table 1).

We present the results following the Health Literacy Competencies of Access, Understand, Appraise and Apply.

Access

Based on Sørensen et al.'s (2012) model, access refers to “the ability to seek, find and obtain health information”¹⁷ (p. 9). The moderator asked participants ‘*Where do you get your information about HPV-related cancers?*’. Participants mentioned different sources that included dental journals, continuing education (CE) courses, and their colleagues. Other, less often cited information sources included the ADA, popular magazines and television shows, friends and family, and dental school. For example,

“I think colleagues and journals.”

11 years in practice

“We're exposed to some of it with an annual OSHA update and then CE courses.”

20 years in practice

Participants who were recent graduates (< 5 years) noted dental school as a source of information. Moreover, some participants noted the inadequacy of the amount and suitability (e.g. low on practical and clinical aspects) of HPV-related information. A participant mentioned: “Sometimes it's not maybe in the shortest form, so I can't say that I always read the whole article to be honest.” (11 years in practice)

Understand

Understand refers to “the ability to comprehend the health information that is accessed” (p. 9) through varied sources¹⁷. We asked participants to explain what they knew about HPV and the HPV vaccine. Overall, participants had varied knowledge regarding HPV and it focused on content across four categories: HPV infection, the HPV vaccine, the connection between HPV and oropharyngeal cancer, and screening.

HPV Infection

Most participants in all focus groups knew that HPV was a sexually transmitted infection (STI) that could cause cancer. Only a few participants were able to identify generally correct information regarding incidence and prevalence of HPV, with only one participant identifying it as the most prevalent STI. A few participants correctly stated that most sexually active adults have been exposed to HPV. Some participants correctly identified that there were over 100 types of HPV, of which some caused poor health outcomes. Correct identification of specific cancer-causing types of HPV was mixed, with some participants correctly identifying at least one of the types and others confusing high-risk and low-risk HPV types as being two different strands. Example quotes include:

“Two different strands. Some are very treatable. Some are much more aggressive.”

11 years in practice

“I know it causes cervical cancer, and I'm not sure about like how many people carry it or what's the symptoms.”

16 years in practice

Furthermore, some participants correctly identified that individuals that developed HPV-related cancer were most likely exposed many years prior. “I know you can get it and not have any symptoms for years, and then it can manifest itself ten years down the road.” (30 years in practice). A few participants all focus groups correctly identified that most adults will ‘shed’ an HPV infection. Other participants wondered about the length of time it takes for HPV infection to develop into cancer.

HPV Vaccine

Most participants correctly identified that there was a vaccine for preventing HPV infection, but, only a few participants mentioned vaccine by name. Additionally, a few participants knew that the vaccine covered several types that caused cancer and genital warts, with one participant correctly noting that the vaccine was being changed to cover more HPV types. However, several participants showed incorrect knowledge about the vaccine including: it

was being removed from the market due vaccine-related health risks, it caused birth defects, and it only provided protection against low-risk HPV.

“I know the vaccine, it doesn't work on the most virulent – I think it's HPV 31 – 33, the most virulent, I don't think the vaccination works effective on the two most virulent which cause cancer, but I know there are two – like the HPV 6 and 8, they're the genital warts. Those are, I guess, not a big deal compared to the most virulent ones.”

4 years in practice

“I think it causes – well, I just heard it might cause birth defects. That's just what I heard.”

4 years in practice

In general, participants knew that both male and female adolescents should receive the HPV vaccine. However, participants asked many questions to the focus groups' moderator regarding specific vaccine age and gender recommendations, and insurance coverage for vaccination, illustrating an interest in obtaining more HPV-related information.

Connection between HPV and Oropharyngeal Cancer

Most participants knew that HPV was a risk factor for oropharyngeal cancer, particularly in 'non-typical' oral cancer patients; though, several participants indicated uncertainty about the causation of HPV-related oropharyngeal cancer. Only some participants indicated that HPV-related oropharyngeal cancer was increasing in incidence and prevalence among the general population. Some examples include:

“HPV causes oral cancers in people who are non-typical oral cancer people, so younger people, non-smokers, non-heavy drinkers, sometimes in people with immune disorders such as HIV.”

18 years in practice

“I know that there are certain strains that are becoming more prevalent and linked with oral cancer.”

2 years in practice

Moreover, knowledge about the aggressiveness/prognosis of HPV-related oropharyngeal cancer was mixed, with some participants correctly identifying that it was less aggressive and more 'treatable', a few participants identifying it as more 'aggressive', and stating their lack of knowledge related to this area.

Screening

Some participants stated their lack of knowledge or asked questions related to symptomology of HPV-related oropharyngeal cancer, whereas other participants in the stated that papillomas and condylomas in the oral cavity were symptomatic of HPV-related oropharyngeal cancer (but could also occur for no reason). For example a participant mentioned:

“I don't. I've not had a lot of knowledge about it in the past. So I really have not other than just when I'm doing a normal cancer screening looking for abnormalities. But I have no idea what it might look like in the oral cavity.”

32 years in practice

Lastly, questions were raised among some participants regarding the ability of current oropharyngeal cancer screening technology to effectively screen for HPV-related oropharyngeal cancer.

Appraise

We also asked dentists about factors that could affect whether they would discuss the relationship between HPV and oropharyngeal cancer with their patients (*Are there certain things about your [patients/practice/profession] that would make it easy to talk about HPV with your patients? What would make it difficult?*). This is what Sørensen et al. (2012) denote as appraise or “the ability interpret, filter, judge and evaluate the health information that has been accessed” (p.9) ¹⁷. Two themes were frequently discussed: patient and practice factors.

Patient Factors

Patient factors included an interrelated set of factors including the patient's age and risk profile, difficulty discussing a sensitive topic with their patients, and whether or not the patient presented symptoms consistent with oropharyngeal cancer. Most participants noted the importance of educating patients about oropharyngeal cancer prevention, and some mentioned the importance of nicotine and alcohol use prevention among adolescents.

Most participants were uncomfortable with discussing a topic that they viewed as being sensitive in nature with underage patients. This was despite their understanding of the need for HPV vaccination in adolescents due to a perception of increased risk based on their belief that adolescents initiated sexual behavior earlier than in the past. Indeed, some participants indicated that they did not have the communication skills necessary to have such a conversation and were uncertain as to *whom* (the underage patient or the parent) they should be discussing oropharyngeal cancer prevention with. Beyond adolescent patients, some dentists indicated that they would be uncomfortable discussing the prevention of HPV-related oropharyngeal cancer with patients that were older than themselves because of its connection to oral sex, as described by some participants.

“I know as a professional, you really should be able to talk like that, but for me if the patient, sometimes they're the same age as my grandpa, I find it very uncomfortable to talk to him about anything related to HPV, to their sexual activity. I guess I'm a little weirded out by that.”

6 years in practice

Additionally, a few participants discussed the sensitive nature of the topic being a barrier in different geographic areas of the United States and among different cultural groups. Overall, most participants were concerned that patients may perceive that such a discussion was indicative of judgement of their personal behaviors.

“But to some degree, I mean you could say – I mean, yes, if someone has a history of smoking, obviously, they're gonna check that on their form and then you'll discuss with them the effects on their dental health. You don't typically ask about someone's sexual history. But there is a correlation between oral sex and HPV being in the oral cavity obviously. And there's been a huge rise in oropharyngeal cancers in young people because of this in the last few years. So, to some degree, I feel like we should be working towards educating our younger patients on this.

3 years in practice

Practice Factors

Participants also mentioned practice factors that affected whether dentists currently discuss or would educate patients about the link between HPV and oropharyngeal cancer. Factors included the physical structure and space of the office, and the usual practice procedures. Nearly all participants indicated that they had open operatories within their practice, and indicated that they would pose a barrier to discussing HPV-related oropharyngeal cancer. This was due to the insufficient privacy this setting provides to the discussion of any sensitive topic, potentially embarrassing patients who know others could be listening. This participant noted:

“Dental offices are kind of open. It's not like a doctor's. So that does make it harder because sometimes in my practice, the second room is next to me. So the patient in the next chair maybe hears.”

16 years in practice

However, some participants noted that their practices contained consultation rooms that could be used for this purpose. For example,

“Yeah. In that circumstances, even with something like that, I think there's a way to be discrete about everything. And then I also have a private office where I could do private consultations. I mean I would venture to say most dentists do have a private office. Whether or not you want to bring a patient into that office, that's your own thing.”

13 years in practice

Another practice appraisal factor involved the usual procedures within the practice. Such practices included asking about current HPV vaccination status or sexual behaviors on the medical history form (dependent on the type of dental practice).

Apply

The last health literacy competency refers “to the ability to communicate and use the information to make a decision to maintain and improve health” (p. 9) ¹⁷. We asked participants “*How do you use this information in your practice?*”. The majority of participants in this study do not currently discuss HPV-related information with their patients. Only a few participants voluntarily discussed information about HPV with their patients (one of which asked about HPV vaccine status on the medical intake form) and did so only when presented with symptoms of HPV such as a papilloma or condyloma. A few

participants indicated that patients had asked them about HPV or the HPV vaccine in the past.

“And we do oral cancer screenings, but I don't know in terms of beyond that. We're not asking patients if they have been having oral sex lately or ever or if they're engaging in activities that might result in transmission of HPV.”

5 years in practice

“I think that's true. I've been doing those for years. And we may not always tell the patient that was an oral cancer screening. We just said retract the tongue and do our exam. We could probably do a better job in really talking to the patient, educating them on what we're actually doing during our examination.”

30 years in practice

Most participants indicated that they or their dental hygienists regularly performed oral cancer screenings on patients. However, a few participants indicated that they did not inform patients that they were performing an oropharyngeal cancer screening, some of which only did so when they saw indications of oropharyngeal cancer-related symptoms. Most participants noted that they would discuss HPV-related oropharyngeal cancer information with patients if they see evidence of HPV infection such as a papilloma or condyloma. “Same with HPV. Why would we talk about that if we see no signs and symptoms of it?” (33 years in practice).

Discussion

Due to the increasing incidence of HPV-related oropharyngeal cancer, the ADA has indicated that dental providers should educate themselves and their patients about HPV and its connection to this type of cancer ¹². Thus, this timely, formative study assessed dentists' level of health literacy regarding the connection of HPV and oropharyngeal cancers. By looking at each of the health literacy competencies, we found that dentists' HPV-related oropharyngeal cancer health literacy varies substantially for each competency.

Dentists reported multiple sources from which they access HPV-related information, such as journals, continuing- and formal-education. However, other less trustworthy sources were also mentioned. This variability in the type and quality of informational sources has also been noted among dental hygienists ²⁰. This lack of consistency and reliability of the information can have an impact on dentists' levels of HPV-related knowledge.

Similar to previous research with dental providers from Florida ¹⁴, knowledge about the connection of HPV and oropharyngeal cancer and the HPV vaccine varied among the participants of this study. Most were knowledgeable that HPV is an STI, HPV is the cause of oropharyngeal cancer, and that an HPV vaccine exists. However, there were inaccuracies related to the HPV symptoms, transmissibility, and the vaccine recommendations. Inaccuracies in HPV-related knowledge have also been reported among dentist and dental hygienists attending a professional conference ¹⁵. Moreover, a recent survey conducted among Texas dentists, dental hygienists, and dental students, found deficiencies in their current knowledge regarding the role of HPV in oropharyngeal cancer ²³. Taken together,

these studies indicate a need for training and education in the dental community on the etiology, progression, and prevention of HPV-related oropharyngeal cancers, as well as clarifying misunderstandings about the HPV vaccine.

Smoking, drinking, and older age are risk factors dentists consider when screening for oral cancer. However, due to the sexually transmitted nature of HPV, oral sexual behavior along with male gender are risk factors to be considered²⁴. In fact, among men, oral HPV-16 infection significantly increases with the number of oral sexual partners²⁵. This changing patient profile requires dentists to appraise different risk factors among their patient population. Most dentists in this study mentioned feeling uncomfortable asking about sexual activity, particularly among adolescents, because of their lack of skills to address such issues. Thus, age was a barrier to engage in the discussion of HPV with their patients. This is a key finding because the recommended optimal HPV vaccination age range is among adolescents⁸. Even though the HPV vaccine is not yet recommended for the prevention of oropharyngeal cancer, there is an opportunity for dentists to engage in primary prevention strategies by educating their patients about HPV and the HPV vaccine. A recent systematic review found that other health care providers, such as some pediatricians and family physicians, also confront barriers to recommending the HPV vaccine due to feeling uncomfortable talking about sex²⁶. Therefore, not being comfortable talking with adolescents and parents about the HPV and HPV vaccine will continue to hinder current efforts to increase HPV vaccine uptake in the U.S. Dentists also appraise factors related to the structure and practice procedures in their offices. Participants discussed how the open operatories pose an issue of lack privacy. In addition, not every dental office asks patients about HPV vaccination status or their sexual behaviors during the intake procedure. These factors, along with the uncomfortable feeling of discussing sexual behaviors with their patients, can hinder the discussion of HPV-related information.

We found that most participants were not discussing HPV-related cancer prevention with their patients. This is similar to previous research that found that 47% of dentists were not discussing the connection between HPV and oropharyngeal cancer with their patients, 33% were discussing it with some patients, and only less than 20% discussed it¹⁵. Moreover, in our study some dentists reported not having the skills to have this conversation with their patients. This need to improve communication skills has been noted in previous research with dentists, and recommendations for developing professional guidelines and educational courses have been suggested^{27, 28}.

This is not the first time that the field of dentistry has had to integrate a sensitive and complex oral-systemic issue into dental practice. Other oral-systemic issues such as eating disorders²⁹⁻³¹, diabetes³², and tobacco use cessation³³, have required dentists to engage in a preventive role. For instance, a Cochrane review of tobacco cessation interventions found that behavioral interventions along with oral screening conducted by dental providers contributed to abstinence in tobacco use among smokers³³. These previous experiences serve to highlight the work dentistry has accomplished in the reduction of oral cancer as well as other diseases.

Study limitations

Findings of this study must be considered in context of its limitations. Although focus groups provide data on perceptions and opinions about a particular topic, some social desirability bias may be present due to the group environment, which might cause participants to express what other people would like to hear¹⁹. This study qualitatively assessed HPV understanding among participants, which did not permit an individual-based quantification of correct and incorrect understanding of HPV knowledge. Moreover, the dentists that participated in these focus groups might be different from other dentists in the larger population since they were recruited from a regional conference; thus, selection bias might have been present. Lastly, most of the participants worked in a private practice setting; thus, generalization to other types of practices is limited. Future research should examine these HPV-related health literacy factors among a larger and more diverse sample of dentists.

Practice Implications

Overall these findings have implications for practice that should be noted. Dentists have some knowledge about the connection between HPV and oropharyngeal cancers, but lack the skills to effectively have a conversation to educate their patients. Some of the barriers mentioned are modifiable, which can be address with the appropriate educational and training interventions. Addressing dentists' HPV-related health literacy has the potential to improve their HPV-related prevention practices, including expanding patient education on this topic and increasing HPV vaccination knowledge, ultimately contributing to the reduction of oropharyngeal cancers.

Conclusion

This study assessed dentists' health literacy regarding the connection of HPV and oropharyngeal cancer. Findings indicate areas for interventions including creating awareness of trusted informational sources, improving HPV knowledge, understanding the multiple appraisal factors, and enhancing communication skills of dentists with their patients. These findings are relevant to clinical practice because they highlight modifiable barriers to the discussion of the prevention of HPV-related oropharyngeal cancers between dentists and their patients. Additionally, the health literacy framework aided in understanding this complex and novel issue, and can continue to guide future areas for intervention.

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Table 1
Dentists Demographic Characteristics (n = 33)

Characteristics		
	<i>n</i>	<i>Percentage</i>
Gender		
Female	14	42
Males	19	58
Race		
White	21	64
Black	5	15
Asian	4	12
Other	2	6
Missing	1	3
Hispanic		
Yes	1	3
No	32	97
Practice Type		
General/Family dentistry	21	64
Specialty *	3	9
Combination	7	21
Public Health	1	3
Other	1	3
Public or Private Setting		
Public	10	30
Private	23	70
	<i>Mean</i>	<i>SD</i>
Age	46.9	13.1
Years in Practice	19.2	12.3

* 1 pediatric and 2 periodontic specialties

Table 2
Dentists' Exemplary Quotes by Health Literacy Competency

Health Literacy Competency	Sub-theme	Exemplary Quotes
Access	-	<p>"I think colleagues and journals." – 11 years in practice</p> <p>"We're exposed to some of it with an annual OSHA update and then CE courses." – 20 years in practice</p> <p>"Sometimes it's not maybe in the shortest form, so I can't say that I always read the whole article to be honest." – 11 years in practice</p>
Understand	HPV infection	<p>"Two different strands. Some are very treatable. Some are much more aggressive." – 11 years in practice</p> <p>"I know it causes cervical cancer, and I'm not sure about like how many people carry it or what's the symptoms." – 16 years in practice</p> <p>"I know you can get it and not have any symptoms for years, and then it can manifest itself ten years down the road." – 30 years in practice</p>
	HPV vaccine	<p>"I know the vaccine, it doesn't work on the most virulent – I think it's HPV 31 – 33, the most virulent, I don't think the vaccination works effective on the two most virulent which cause cancer, but I know there are two – like the HPV 6 and 8, they're the genital warts. Those are, I guess, not a big deal compared to the most virulent ones." – 4 years in practice</p> <p>"I think it causes – well, I just heard it might cause birth defects. That's just what I heard." – 4 years in practice</p>
	Connection between HPV and oropharyngeal cancer	<p>"HPV causes oral cancers in people who are non-typical oral cancer people, so younger people, non-smokers, non-heavy drinkers, sometimes in people with immune disorders such as HIV." – 18 years in practice</p> <p>"I know that there are certain strains that are becoming more prevalent and linked with oral cancer." – 2 years in practice</p>
	Oral cancer screening	<p>"I don't. I've not had a lot of knowledge about it in the past. So I really have not other than just when I'm doing a normal cancer screening looking for abnormalities. But I have no idea what it might look like in the oral cavity." – 32 years in practice</p> <p>"I thought I had heard that they're starting to link some of the papillomas that we're finding are being connected to HPV. So they're not necessarily coming up necessarily as categorizing them as warts, but different papillomas or condylomas that have certain characteristics are kind of being traced back to a viral link." – 13 years in practice</p>
Appraise	Patient factors	<p>"But to some degree, I mean you could say – I mean, yes, if someone has a history of smoking, obviously, they're gonna check that on their form and then you'll discuss with them the effects on their dental health. You don't typically ask about someone's sexual history. But there is a correlation between oral sex and HPV being in the oral cavity obviously. And there's been a huge rise in oropharyngeal cancers in young people because of this in the last few years. So, to some degree, I feel like we should be working towards educating our younger patients on this." – 3 years in practice</p> <p>"I would have a hard time talking to someone that was much older than I about something like sex and oral sex." – 11 years in practice</p> <p>"I know as a professional, you really should be able to talk like that, but for me if the patient, sometimes they're the same age as my grandpa, I find it very uncomfortable to talk to him about anything related to HPV, to their sexual activity. I guess I'm a little weirded out by that." – 6 years in practice</p>
	Practice factors	<p>"Dental offices are kind of open. It's not like a doctor's. So that does make it harder because sometimes in my practice, the second room is next to me. So the patient in the next chair maybe hears." – 16 years in practice</p> <p>"Yeah. In that circumstances, even with something like that, I think there's a way to be discrete about everything. And then I also have a private office where I could do private consultations. I mean I would venture to say most dentists do have a private office. Whether or not you want to bring a patient into that office, that's your own thing." – 13 years in practice</p>
Apply	-	<p>"When we do oral cancer screenings, we list it literally as the top potential risk factors sexual activity, smoking, alcohol, outdoor work, things like that." – 16 years in practice</p> <p>"And we do oral cancer screenings, but I don't know in terms of beyond that. We're not asking patients if they have been having oral sex lately or ever or if they're engaging in activities that might result in transmission of HPV." – 5 years in practice</p>

Health Literacy Competency	Sub-theme	Exemplary Quotes
		<p>“No, I think like, in general, we just keep it very light. I'm just gonna go ahead and take a look at everything and make sure everything is looking good. And, usually, my patients are pretty happy with that. They don't really ask too many questions.” – 8 years in practice</p> <p>“I think that's true. I've been doing those for years. And we may not always tell the patient that was an oral cancer screening. We just said retract the tongue and do our exam. We could probably do a better job in really talking to the patient, educating them on what we're actually doing during our examination.” – 30 years in practice</p> <p>“Same with HPV. Why would we talk about that if we see no signs and symptoms of it?”- 33 years in practice</p>