Linking Research to Clinical Practice

Oral Cancer Screenings

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The purpose of Linking Research to Clinical Practice is to present evidence based information to clinical dental hygienists so that they can make informed decisions regarding patient treatment and recommendations. Each issue will feature a different topic area of importance to clinical dental hygienists with A BOTTOM LINE to translate the research findings into clinical application.

Walsh MM, Rankin KV, Silverman S Jr. Influence of Continuing Education on Dental Hygienists' Knowledge and Behavior Related to Oral Cancer Screening and Tobacco Cessation. *J Dent Hyg*. 2013;87(2):95-105.

Purpose: There are more than 35,000 new cases of oral and pharyngeal cancers (OPC) diagnosed each year. Most OPCs are diagnosed in advanced stages, requiring aggressive treatment and resulting in higher morbidity and mortality than when diagnosed early. The overall 5 year survival rate of OPC is approximately 60%. Early detection of OPC lesions are the key to survival. A major risk factor for OPC is chronic tobacco use. The purpose of this paper is to report changes in dental hygienists' knowledge, attitudes and behaviors 6 months after attending a standardized lecture format continuing education (CE) course on early OPC detection and tobacco cessation counseling compared to baseline values.

Methods: A total of 64 CE courses were given for dental professionals throughout the 10 U.S. public health districts to determine if OPC screenings and tobacco cessation counseling behaviors could be modified at 6 months post-training. Questionnaires were obtained at baseline and 6 months later using a pre- and post-test design.

Results: A total of 1,463 dental hygienists participated at baseline and 543 at a 6 month follow-up. Data showed a significant difference in knowledge and behavior compared to baseline values.

Conclusion: CE appeared to have a significant influence on participants' OPC and tobacco cessation knowledge and behavior, and could potentially make a difference on prevention, early detection and ultimately on OPC control.

Commentary

Licensed dental professionals have the responsibility and opportunity to screen patients for OPC. Previously, screenings primarily were recommended for high risk individuals with risk factors such as smoking, chewing tobacco and excessive alcohol consumption. These historic high risk groups remain; however, HPV 16 is becoming the fast growing segment of the OPC population, and many people with HPV infections are unaware of the viral infection which presents no outward signs or symptoms. Interestingly, a March 2013 Consumer Report regarding health screening tests stated that most people should not waste time on oral cancer screenings, among others, and suggested only those at high risk are indicated because OPC is relatively uncommon.[1] The visual OPC screening, however, differs from other screening tests in that it is noninvasive, uses no radiation and usually is provided at low or no cost to dental patients. As indicated, 35,000 new cases of OPC are diagnosed each year. OPC also kills 8,000 people annually in the U.S., and early detection lowers the stage of the cancer at diagnosis and improves 5 year survival rates. These statistics highlight the need for OPC screenings, and raise questions regarding OPC screening and counseling practices by dental hygienists and public awareness of OPC screening in dental practice.

This study assessed changes in dental hygienists' knowledge, attitudes and behaviors 6 months after a CE course on early OPC detection and tobacco cessation counseling. Although dentists and dental hygienists attended this course, results for dental hygienists only were reported. While 94.3% performed screenings at baseline, only 50.9% palpated the neck and 66% updated tobacco use status of continuing patients. For counseling, 46% discussed roadblocks to quitting and 61.8% identified rewards of quitting with patients not ready to quit. With patients express-

ing a readiness to quit, 24.7% discussed setting a quit date, 22.7% discussed triggers, and 40.8% discussed pharmacologic options for quitting. Only 76% informed patients when doing an OC exam. Few reported using adjunctive tissue diagnostic techniques such as toluiduine blue, brush biopsy or technologies based on tissue reflectance and/or autofluorescence. These findings concur with a 2005 study of New York dental hygienists and dentists indicating the large majority (82% dentists; 72% dental hygienists) reported routinely performing OC examinations while routine tobacco-use counseling was reported by only 12% of dentists and 21% of dental hygienists.[2]

Findings showed significant improvement in dental hygienists' counseling of patients not ready to quit about roadblocks to quitting and rewards of quitting. In counseling patients ready to quit, there was significant improvement in discussing a quit-date, tobacco use triggers and pharmacotherapy options, and in following-up with those who made a quit attempt. More dental hygienists also performed comprehensive OPC exams, including tongue retraction, to view lateral borders and neck palpation. The percentage of hygienists who informed patients of the procedure when doing an OPC screening and in using brush biopsy as an adjunctive tissue diagnostic technique also improved. These improvements in behaviors indicate the potential impact of a CE course on early OPC screening, although participants reporting 6 months later (37%) might have reflected behavior changes of those who experienced greater impact or interest.

Although baseline data indicated that almost all of the participants were aware of the importance of regular OPC exams and regularly perform visual OPC exams, a need existed for improvement in thoroughness of screenings. Comprehensive counseling of patients about quitting tobacco use was reported by fewer dental hygienists. These findings could be related to time allocated for a dental hygiene appointment or the use of referrals for tobacco cessation counseling, topics not assessed in this study. Dental hygienists are well versed in the "Ask, Advise and Refer" program, the primary aim of the American Dental Hygienists' Association's educational campaign for tobacco cessation,[3] and it is likely that many of the respondents referred their patients for cessation assistance rather than providing it directly. Improvement was noted in the percentage of dental hygienists who informed patients of the OPC screening procedure while performing the examination after the CE course. The authors highlighted this finding as "very important because public awareness about the risk factors and methods of early OPC detection is very low and increased awareness can help both patients and health care providers detect lesions early."

Awojobi O, Scott SE, Newton T. Patients' perceptions of oral cancer screening in dental practice: a cross-sectional study. *BMC Oral Health*. 2012;12(55): doi: 10.1186/1472-6831-12-55.

Background: Oral cancer is increasing in incidence in the UK and indeed worldwide. Delay in diagnosis is common; up to half of patients are diagnosed with advanced lesions. Thus, it is essential to develop methods to aid early detection. This study aimed to assess dental patients' experiences and awareness of oral cancer and screening within general dental practice.

Methods: A cross-sectional questionnaire survey of 184 English-speaking adults, with no previous history of oral cancer, was conducted. The questionnaire collected data on participant's knowledge of oral cancer, experience of screening, attitudes and feelings towards having a screening, anticipated help-seeking behaviors, health-related behaviors (particularly risk factors) and sociodemographics.

Results: Twenty percent of respondents had never heard of oral cancer; 77% knew little or nothing about it and 72% did not know that their dentist routinely screens for oral cancer. Overall, attitudes to screening were positive - 92% of respondents would like their dentist to tell them if they were being screened for signs of oral cancer and 97% would like help from their dentists to reduce their risk.

Conclusion: Patients seem generally unaware of oral cancer screening by their dentist but are happy to take part in screening, would like to be informed, and welcome the support of their dentist to reduce their risk of developing oral cancer.

Commentary

Informing patients that they are being checked for early signs of OPC during a routine examination presents a prime opportunity to provide patients with information about oral cancer and advice about OPC prevention and early detection. While studies of related practice behaviors by dentists and dental hygienists indicate that a high percentage of their patients receive OPC screenings, findings indicate that lower percentages of these individuals receive related counseling. This study explored the extent of missed opportunities by surveying a sample of adults (n=186) attending 2 general dental practices in London. Specific aims were to explore patients' awareness of OPC and OPC examination experiences.

Results indicated a low awareness about OPC and OPC screenings among responding dental patients (97% had never heard of OPC or knew little or nothing about it, 72% did not know that their dentist routinely screens for oral cancer, and 60% were unaware of ever

being screened) despite 78% having visited their dentist in the past year. Over 90% of participants wanted to know that their dentist was performing a screening and wanted help reducing risk. Some (39%) said they would not feel anxious about an OPC screening, and 25% indicated they might feel a little worried. These findings indicate that the concern identified in previous surveys of dentists about alarming patients might be overstated. Respondents at greater risk (alcohol use, smoking status) were significantly more likely to have positive attitudes about screening. Findings also indicated that a higher proportion of participants intended to seek help from their primary care provider than from a dentist for signs of OPC, indicating a low awareness of the key role licensed dental professionals play in OPC diagnosis, treatment and referral.

Although the vast majority of dentists in the UK and the U.S. report performing routine OPC screenings, results of this exploratory study in London indicate that a gap exists when communicating the procedure, findings, and related counseling with dental patients. Respondents expressed a desire for more information about prevention and detection of OPC.

The Bottom Line

These studies addressed the provision of routine OPC screenings and related counseling by dentists and dental hygienists. The findings and conclusions indicate a need for improvement in OC screening behaviors, especially as related to counseling patients about OPC prevention and reducing associated risks. Improvement in the public's awareness of the dental professionals' key role in diagnosis, referral and treatment is needed. Based on the findings of both studies, the following conclusions are drawn:

- The vast majority of dental hygienists provide routine OPC screenings, however, greater attention could be paid to extending the tongue for visual inspection and palpating the neck.
- Tobacco cessation counseling practices are provided by most dental hygienists, however, only 76% inform patients of the OC screening procedure. The OC examination should be used routinely as an opportunity for education about OC prevention, risk factors and identification.
- There is a need for improvement in the tobacco cessation information provided by dental hygienists to patients who are ready to quit (e.g., setting a quit date, tobacco use triggers and pharmacologic options), and those who are not yet ready to quit (e.g., roadblocks to quitting, potential rewards associated with quitting). Follow up with patients who have quit also is indicated.
- The public has low awareness about OC and OC screenings in dental practices, even when visiting their dentist annually.
- There is little to no evidence to show that informing patients of OC screenings would result in significant risk of anxiety, worry or concern. Further studies of public perceptions are warranted.
- Dental patients want to be informed of OC examinations when delivered and desire help with OC prevention and awareness from their oral health care provider.
- Continuing education courses regarding OPC screening and related counseling have the potential to improve dental hygiene knowledge, attitudes and behaviors.

Summary

Dental hygienists are in a prime position to enhance early detection of OC because they see their patients regularly and have the opportunity to provide OC screenings and counseling. Dental hygienists need to be diligent about comprehensive screening for OPC and provide counseling to prevent OPC and reduce risk. Patients may be unaware of OPC screening during dental visits but want to have screenings, desire to be informed, and welcome the support of their oral health care provider to reduce their risk of developing oral cancer.

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