Café Discussions on Oral Sex, Oral Cancer, and HPV Infection: Summative Report

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Abstract

Recent emphasis has been placed on the potential links between oral sex, HPV infection, and oral cancer development. Such links were addressed by researchers, clinicians, and the community during two Café Scientifique discussions in October and November 2008, in Vancouver, Canada. The Cafes gathered panels of experts on oral pathology, dentistry, oncology, social work, and community-based research who interacted with an audience of policy makers, health care administrators, sociologists, sexologists, pharmacists, clinical and social researchers, social workers, technicians, and graduate, undergraduate, and high school students. This commentary summarizes the main points discussed during these two events to encourage a worldwide open dialogue about potential risks for oral cancer beyond tobacco smoking and excessive alcohol consumption as such malignancies have high mortality and morbidity, but are yet preventable diseases.

Keywords

Oral sex; Oral cancer; Human papillomavirus

Introduction

Worldwide, more than half of the 650,000 patients diagnosed with head and neck cancer each year will die within 12 months (Ferlay, Bray, Pisani, & Parkin, 2004). Oral cancer significantly impacts quality of life, physically and psychosocially, and the genetic links between some types of oral-pharyngeal carcinomas and ano-genital malignancies have been established via the human papillomavirus (HPV), particularly the strains 16 and 18 as found by Herrero et al. (2003) and others (Anhang, Goodman, & Goldie, 2004; Cox, 2000; D'Souza et al., 2007; Ha & Califano, 2004). Since HPV 16 is the most predominant strain in ano-genital carcinomas, its transmission to the oropharyngeal region can occur through the mouth, especially during oral sex in sexually active individuals (Scully, 2005). Such assertive supposition, however, does not exist without controversy among both scientific and lay communities (Brondani, 2008, 2009).

During the Spring of 2008, Vancouver hosted two Café Scientifique discussions sponsored by the Canadian Institutes of Health Research. The Cafes gathered highly experienced presenters with backgrounds in oral pathology, dentistry, oncology, social work, and community-based research who shared their ideas with the public on October 31¹ and on November 20, 2008. The discussions critically highlighted four main areas related to the triad HPV-Oral Sex-Oral Cancer:

1. *Oral malignancies*: Incidence, morbidity, risk factors, individuals at higher risk, and screening programs were highlighted. Within this area, the following topics were discussed: transmission of HPV during oral sex and its potential association to oral cancer, and promoting dialogue between dental professionals and patients about oral sex as a risk factor for oral cancer were stressed.
2. *Heterosexism*: The potential reasons for health care providers not discussing sexuality/sexual practices and oral sex with their patients were discussed.
3. *Belief systems*: Current understanding of the triad HPV-oral sex-oral cancer from a community perspective was explored through the results from a provocative pilot study on the values and beliefs men and women hold in regards to this triad.
4. *Community-based research*: The role of community based approaches in understanding sexual behavior. This area led to the discussion of oral sexual behavior in regards to HPV transmission and oral cancer development.

Café Scientifique

The two cafes began with a summary of some of the available scientific information on oral cancer, risk factors, and screening, on perceived risks for oral cancer development, as well as on the potential aspects hindering discussions about the triad HPV-oral sex-oral cancer during regular medical and dental appointments. After that, presenters promoted a discussion to engage the audience on the issues above. Each Café lasted for an average of 90 minutes and an assistant took field notes compiling the main statements and ideas debated and shared.

The goal of the Cafes was to bring together researchers, clinicians, and the public into a free conversation. In total, one oral pathologist, two general dentists, one oncologist, two social workers, and one community-based researcher participated as speakers to an audience of 67 participants in the two Cafes. Attendees included social workers, policy makers, health care administrators, sociologists, sexologists, pharmacists, technicians, clinical and social researchers, graduate students, undergraduate students, and high school students. This comment presents the main points addressed during the two Cafés Scientifique, from the perspectives of the presenters and from the perspectives of the audience. It also stressed the need in fostering dialogue about the potential role of oral HPV infection to the health of individuals of all sexual orientations. Table 1 outlines the main issues highlighted by the presenters and the attendees.

¹This Café occurred as a parallel event within the 4th Gay Men's Health Summit in Vancouver, which is organized by the Community Based Research Centre (<http://summit.cbrc.net/>).

From Table 1, it remains clear the need for encouraging discussion between health professionals and the public about issues related to oral sex practices and HPV transmission. As the author emphasized, “the mouth and its related structures are subject to harm from smoking, high sugar intake, and lack of proper brushing and flossing, [but yet] we only focus our inquiries on tobacco, dietary history, and oral hygiene practices [and] avoid asking about oral sex practices and all of the potential pathogens associated with it” (Brondani, 2008).

In 2008, two websites of public access in Canada—the Canadian Cancer Society (2008) and the British Columbia Cancer Agency (2008)—finally acknowledged HPV infection as a potential risk factor for oral cancer development. Such acknowledgment followed the American Cancer Society (2008) statement about HPV being a potential risk factor for the development of almost 30% of oral and oropharyngeal cancers. In this regard, oral sex can be a venue for HPV transmission and should be discussed accordingly since fewer than one-third of the sexually active individuals infected by HPV actually heard about this virus (Anhang et al., 2004). As shared by presenters and attendees of the Cafes, and by worldwide researchers (Scully, 2005), it is time to open our eyes about other potential risks for oral cancer beyond tobacco smoking and excessive alcohol consumption. Oral cancer has high mortality and morbidity, but still is a preventable disease as emphasised by Syrjänen (2007).

From Here and Beyond: Next Steps

The two Cafes offered the opportunity for discussing scientific evidence in the realm of lay public understanding. For the Cafes to make a difference outside their realm, however, the ideas and points brought up for discussion need to be disseminated widely and support further discussions, research, and knowledge transfer worldwide. The author recently published an editorial (Brondani, 2008) from which the idea for these Cafes emerged. Although this above mentioned editorial has been used in studies and researches worldwide, much more needs to be accomplished. This comment emerges as another venue for dissemination, but it is up to the professionals and the public to determine and take the next steps to nurture open and friendly discussions of the potential implication of oral HPV infection and vaccine to sexually active individuals. Readers with any questions, comments or ideas are encouraged to contact the author.

Acknowledgments

The author would like to acknowledge all the attendees who engaged into lively discussions during these two events. The author is also thankful to Drs. Allan Hovan, Catherine Poh, Brian O'Neill, and Francisco Ibanez Carrasco for their enthusiastic participation as presenters. Special thanks goes to Cheryle Colombe as an engaging volunteer. Support for the Cafes came from the Canadian Institutes of Health Research funding collaboration agreement # CA 2008-032.

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Table 1

Amalgamating scientific and lay knowledge in regards to oral sex, HPV infection, and oral cancer development

HPV is the most frequent and common sexually transmitted infections worldwide	HPV is transmitted by skin and mucosal contact
There are more than 120 different strains of HPV (200 according to some studies)	One of the common clinical manifestations of HPV is a skin wart caused by HPV 1, 2, 3, and 4. Warts are skin growths, not cancers
It is estimated that about 75% of all sexually active men and women are infected with HPV. The majority will remain asymptomatic, but infectious	Most of HPV infections will resolve spontaneously, but it is unknown if the virus is eliminated completely or just suppressed
More than 40 types of HPV can be isolated in the mouth and genital tracts concomitantly (e.g., they are the same strain)	Genital warts are caused by HPV 6 and 11, different from those causing skin warts. Genital warts are not considered cancers
HPV 16, 18, 31, 35, and 45 usually do not cause visible warts in genital areas, but have been associated with pre-cancerous lesions (dysplasia) in the cervix and anus mucosa	95% of cervical cancers are associated with HPV 16 and 18. In British Columbia, 6 cases of anal cancer in men are diagnosed every year
Oral sex appears to be a potential venue for HPV transmission even though it is difficult to prove	Oral sex is defined as an intimate contact of teeth, gums, lips, and tongue with genital (vagina, scrotum, penis), groin, and anal area
Some oral cancers (oropharyngeal area) have been associated with HPV infection	HPV 16 and 18 are risk factors for the development of oral cancer, the same strain associated with ano-genital malignancies
Between 12,000 and 15,000 cases of oral cancer are diagnosed every year in the U.S. About 3,000 in Canada	Almost half of the individuals diagnosed with oral cancer will die in less than a year
There is no single cause for oral cancer. It is a multifactorial disease associated with risk factors, not caused by these factors	People infected with HPV are 30 times more likely to develop oral cancer than those who are not. Those who smoke tobacco are 3 times more likely and those who drink alcohol 2.5 times more likely to develop oral cancer than those who do not smoke or drink, respectively
High risk individuals include those with more than 5 different oral sexual partners during a life-time and earlier oral sexual experience	High frequency of oral sex, about 3–5 times a week in the past 30 days, increases 9 times the risk for developing oral cancer
Generalist health care providers focus mostly on tobacco and alcohol when talking about risk factors for oral cancer	In average, less than 5% of dentists ask about oral sexual practices during routine medical and dental history taken. The % among physicians is not much higher
Patients might not feel comfortable in discussing oral sex practices with a dentist	Patients might feel that oral sex practices are meant to be discussed in a dental office
Gardasil (MERK laboratories) and Cervarix (GSK laboratories) are used to PREVENT HPV 6, 11, 16, and 18 infection in girls, before the first sexual experience. Most of women at high risk for HPV infection do not develop cervical cancer	Gardasil and Cervarix have not been tested against oral HPV. Such vaccines have been advocated to be used in boys, before their first sexual experience

Note: The facts listed in this table might or might not reflect the current knowledge on the topic as it combines both expert opinion and lay understandings. It does not necessarily concur with the published literature