

# HPV and Oral Cancer

## The need to integrate oral health practices into nursing education

Kimberly Walker, PhD, Richard Jackson, DMD, Paul C. Edwards, MSc, DDS, FRCD<sup>®</sup>, Dip ABOMP, and Susan T. Vadaparampil, PhD



**BACKGROUND:** Human papillomavirus (HPV)-associated oropharyngeal cancer has increased in recent decades. With a shortage of dental professionals, nurses may be key in detecting oral cancer and educating patients.

**OBJECTIVES:** The aim of this study is to assess students in nursing and dental programs for their oral and oropharyngeal cancer knowledge and perceptions of responsibility and capability of performing oral screenings and HPV counseling.

**METHODS:** 158 surveys were completed by students attending nursing and dental programs at a midwestern university. The chi-squared test and analysis of variance were used to calculate differences in frequencies of categorical and interval data.

**FINDINGS:** Many students across programs were unaware of the potential effectiveness of the HPV vaccination in reducing oropharyngeal cancer. Nursing and nurse practitioner students were less likely to believe they could perform an examination or that it was within their perceived scope of practice.

### KEYWORDS

oropharyngeal cancer; nursing programs; dental programs; human papillomavirus

### DIGITAL OBJECT IDENTIFIER

10.1188/18.CJON.E166-E173

**IN 2017, AN ESTIMATED 49,670 NEW CASES AND 9,700 DEATHS** from oral and oropharyngeal cancer occurred (National Cancer Institute Surveillance, Epidemiology and End Results Program, 2017). Although the primary etiologic agents for the development of oral cancer are long-term exposure to tobacco and alcohol alone or in combination, high-risk human papillomavirus (HPV) infection is now recognized as an important etiologic agent in the development of oropharyngeal cancer (Centers for Disease Control and Prevention [CDC], 2018). The CDC reported that HPV-associated oropharyngeal cancer has increased from 21% in 1980 to 65% in 2013 (Stein, Saha, Yu, Kimple, & Lambert, 2014). If this increase continues, the annual number of HPV-associated oropharyngeal cancers will surpass those of HPV-associated cervical cancers by 2020 (Stein et al., 2014).

Given the shortage of dental professionals available to meet the oral health needs of the population, the Committee on Oral Health Access to Services and the Institute of Medicine recognize that nondental providers, including those in nursing professions, can work collaboratively with dental professionals in the prevention, diagnosis, and treatment of oral disease (Institute of Medicine, 2011). However, oral health has not traditionally been a priority in nursing education (Dolce, 2014).

Nurses and nurse practitioners play important roles in public health, and they can influence oral cancer prevention and early detection behaviors at all levels of interaction and in a multitude of settings (Kempainen, Tossavainen, & Turunen, 2013). The study purpose was to gather preliminary data to assess and compare nursing, nurse practitioner, dental, and dental hygiene students' oral and oropharyngeal cancer knowledge and their perceptions of their perceived scope of practice and level of confidence for counseling patients about oral and oropharyngeal cancer risk and performing oral examinations.

### Literature Review

Nursing and dental professions have long embraced cancer prevention as a cornerstone of their respective practice models using primary and secondary preventive measures, but the level of knowledge and training continues to vary widely (Meng, Duncan, Porter, Li, & Tomar, 2007; Yellowitz, Horowitz, Drury, & Goodman, 2000). The nursing profession has counseled and