Evaluation of Head and Neck Cancer Awareness and Screening Status in Jeddah, Saudi Arabia

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Abstract

**Background:** Head and neck cancer (HNC) is one of the deadliest cancers worldwide. Early detection is a key determinant of HNC prognosis. Hence, raising awareness of this disease may improve survival rates. The present study evaluated the level of awareness and screening status for HNC in the general population of Jeddah, Saudi Arabia. **Materials and Methods:** An e-questionnaire was distributed during our HNC awareness campaign at the Red Sea Mall in Jeddah. The questions assessed HNC knowledge and screening status among participants. **Results:** Of the 112 respondents, 68% indicated that they had no knowledge of HNC. Social media was the major source of information (39%) for respondents. The majority (40%) believed that it was the joint responsibility of dentists, dental hygienists, and general physicians to screen for HNC; 82% had never been screened. **Conclusions:** Knowledge and awareness of HNC must be increased in the general population and among dental health professionals.

Keywords: Head and neck cancer - HNC - oral cancer - awareness - screening

Introduction

Head and neck cancer (HNC) is the current designation for oral cancer, which includes cancers that originate from the oral and nasal cavities, sinuses, lips, salivary glands, throat, and larynx (http://globocan.iarc.fr, Accessed 7-2015). HNC is the ninth most common cancer worldwide (http://globocan.iarc.fr, Accessed 7-2015), and in Saudi Arabia, it is the third most common cancer after lymphoma and leukemia and as such, represents a significant public health concern (Al-Balawi and Nwoku, 2002). Moreover, the prevalence of HNC is dependent on geographic location; the incidence is highest in the southern region of Gizan (Salem et al., 1984; Ibrahim et al., 1986; Allard et al., 1999; El-Husseiny et al., 2000; Zhang et al., 2001; Alsanosy, 2014).

It is worth noting that not all patients experience pain as part of the disease process (Scharpf et al., 2009), which presents a challenge for early detection; indeed, the widely held misconception in the general population that cancer is associated with pain must be dispelled. The lack of awareness about HNC among patients as well as health professionals can delay diagnosis, referral, and hence treatment. The present study evaluated the level of awareness about HNC as well as screening status in the general population of Jeddah, Saudi Arabia.

**Materials and Methods**

An e-questionnaire was developed using Google forms and accessed using tablet devices; it included questions that assessed both knowledge and screening status of HNC in a random sample of the population in Jeddah, Saudi Arabia. The study was conducted during our 3rd HNC awareness campaign in April 2015 at the Red Sea Mall, the largest mall in Jeddah.

The questionnaire was explained to all participants. Written, informed consent was obtained from all participants. The study was approved by the research ethical committee board from King Abdulaziz University, Faculty of Dentistry and Red Sea Mall Administration, and was in full accordance with the World Medical Association Declaration of Helsinki.
Results

A total of 400 adults participated in the HNC awareness campaign; of these, 112 individuals (28%; 40% male and 60% female) participated in the study. Most of the participants were 20-30 years old (45%) or 30-40 years old (28%) (Figure 1A); 43% were employed, 27% were students, and 27% were housewives (Figure 1B). The majority held bachelor degrees, whereas few had post-graduate education (Figure 1C). Unexpectedly, 68% of visitors indicated that they had never received any information about HNC (Figure 2A); those who had received information (32%) had obtained it mostly from social media (39%) or dentists (33%), through educational lectures (28%), or from television (28%) (Figure 2B).

Figure 1. Demographic Data and Education Level of Study Participants. (A) Age distribution. (B) Employment status. (C) Educational qualification of students

![Demographic Data and Education Level of Study Participants](image1)

Figure 2. HNC Awareness Level. (A) Knowledge of HNC. (B) Source of information

![HNC Awareness Level](image2)

Figure 3. Participants’ Knowledge of HNC. (A) Knowledge of common HNC lesion locations. (B) Knowledge of different types of smoking and alcohol as HNC risk factors. (C) Knowledge regarding pain as a characteristic of HNC

![Participants’ Knowledge of HNC](image3)
Only 26% and 28% of participants identified the tongue and floor of the mouth, respectively, as the most common locations of HNC, while 32% thought it could occur anywhere in the oral cavity (Figure 3A). The majority of participants (84%) correctly identified cigarette smoking, and use of shammah, hoka, and alcohol as HNC risk factors, while only 10% identified cigarette smoking alone as a major factor (Figure 3B). In addition, 53% thought that HNC is always painful; while the remaining participants either did not know (20%) or did not think pain was a typical presentation of HNC (27%) (Figure 3C). Only 19% of participants had heard of HPV (data not shown), but only 18% identified it as a risk factor for HNC (Figure 4A). In contrast, the percentages of individuals who thought or did not think HIV was a risk factor or who did not know were similar (Figure 4B). Interestingly, 59% of participants cited poor oral hygiene as a risk factor, while 26% believed it was irrelevant (Figure 4C). Most participants (58%) thought genetics predisposes to HNC, whereas 28.6% did not have this belief (Figure 4D).

A large percentage of participants (40%) believed that screening for HNC is the joint responsibility of dentists, dental hygienists, and general physicians (Figure 5A); however, 82% had never been screened for HNC, while the remainder were screened by dentists (53%) or physicians (40%) but not by dental hygienists (Figure 5B).

**Discussion**

The results of this study revealed a considerable lack of knowledge and awareness of HNC and associated risk factors among the general population in Jeddah. This is consistent with studies conducted in other countries such as United Arab Emirates, Britain, USA, and Iran among others (West et al., 2006; Amarasinghe et al., 2010; Pakfet et al., 2010; O Connor et al., 2010; Al-Rawi et
Jeddah need to educate their patients about HNC and examined by dentists but 60% preferred general physicians of participants did not think the oral mucosa should be performed by dentists, dental hygienists, or general physicians (40.2%), only 14% preferred dentists. This be performed by dentists, although most participants thought that this could undergone screening (Amarasinghe et al., 2010). In addition, although most participants thought that this could

Majority of participants (82.1%) had never been screened for HNC. Similarly, in the Sri Lankan study, < 5% had undergone screening (Amarasinghe et al., 2010). In addition, although most participants thought that this could

References


