

Cessation Attitudes and Preferences in Head and Neck Cancer Patients and Implications for Cessation Program Design: A Brief Report

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Abstract

Introduction: This brief report examined prior cessation attempts, attitudes toward nicotine replacement therapy (NRT), and interests in cessation interventions among head and neck cancer (HNC) patients with a recent smoking history (current smokers and recent quitters).

Methods: Forty-two HNC patients scheduled for major surgery who reported current or recent (quit <6 months) cigarette smoking participated. Participants completed a survey to assess smoking status, prior cessation attempts, attitudes toward NRT, and interest in and preferences for cessation interventions.

Results: Patients attempted to quit smoking on average 3.2 times in the past 12 months. Most patients (65.8%) reported that NRT products help people quit, with 42.5% reporting ever using cessation aids/services. Most patients (81.8%) reported interest in a smoking cessation program. Current smokers and recent quitters reported similar cessation attempts, attitudes toward NRT, and interest in smoking cessation interventions.

Discussion: Cancer center-based smoking cessation interventions are needed for current smokers and recent quitters maintaining cessation.

Keywords

cessation program, current smokers, head and neck cancer, intervention, recent quitters, tobacco cessation

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Roughly half of patients with head and neck cancer (HNC) are smokers at diagnosis.¹ One-third continue to smoke during treatment, which is associated with worse outcomes including diminished quality of life, second cancers, and shorter survival.^{2–5} Patients undergoing surgery may face additional and potentially severe risks, such as poor wound healing, and pulmonary and cardiovascular complications, making them a priority for smoking cessation interventions.⁶ The few studies of smoking cessation interventions in HNC patients have demonstrated mixed efficacy.^{7–9} These interventions have used a combination of counseling,^{7,8} cognitive behavioral therapy,⁹ printed materials,^{8,9} and

pharmacologic aids.^{7,9} Some were delivered in the clinic^{7,8} and some by telephone;⁹ whether patients had

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a preference for delivery approach is not clear. Despite oncology providers' perception that patients are resistant to quit smoking,¹⁰ 1 study of HNC and lung cancer patients reported that approximately 50% of current smokers were interested in cessation services.¹¹

To develop HNC-targeted smoking cessation interventions, this brief report examined prior cessation attempts, attitudes toward nicotine replacement therapy (NRT), and interests in and preferences for cessation programs among surgical HNC patients with a recent smoking history, defined as current smokers or recent quitters.

Methods

Participants

Patients with HNC presenting for a surgical consult at 2 cancer centers were approached for participation in a parent study.¹² Eligible participants were at least 18 years of age with a stage I–IV squamous cell carcinoma of the upper aerodigestive tract and scheduled for major surgery. Nonsurgical candidates, those who could not read or understand English, or were cognitively impaired, as judged by the referring physician, were not eligible.

Procedure

Before surgery, participants completed a survey to assess sociodemographic and cancer characteristics, prior cessation attempts, attitudes toward NRT, and interest in and preferences for cessation interventions. Participants received a gift card for participation. Study procedures were approved through the local institutional review board for each site (00015613; 00008760).

Measures

Sociodemographic and cancer characteristics. Patients reported their age, gender, race/ethnicity, marital status, education, and employment status. American Joint Committee on Cancer stage and tumor site were abstracted from medical charts.

Smoking status. Participants were categorized as current smokers (current cigarette use every day or some days) or recent quitters (quit <6 months prior to assessment) based on 2 items from the Current Population Study (CPS) Tobacco Use Supplement (“Do you now smoke cigarettes every day, some days, or not at all?” and “About how long has it been since you last smoked cigarettes regularly?”).¹³

Cessation attempts. Participants were asked, “In the past 12 months (and in your lifetime), how many times have you stopped smoking for 1 day or longer because you were trying to quit?” from the CPS Tobacco Use Supplement.¹³ Prior use of cessation aids and services (including pharmacotherapy and counseling services) ever or in the last quit attempt was assessed using an adapted item.¹⁴

Attitudes toward NRT. Patients completed the 12-item Attitudes Toward Nicotine Replacement Scale (ANRT-12).¹⁵ Response options were strongly disagree, disagree, agree, and strongly agree. The ANRT-12 includes 2 subscales for which mean scores are calculated: perceived advantages (8 items) and drawbacks (4 items) of using NRT. Scale scores range from 1 to 4, with higher scores reflecting greater perceived advantages or drawbacks. Belief that NRT helps people quit smoking was assessed with 1 item from the ANRT-12 scale (“These products help people to quit smoking”).

Interest in cessation programs. Participants were asked about their interest in a cessation program if offered in the coming year (not interested, somewhat interested, and very interested). Participants were also asked if they preferred to participate by phone, mail, in person (cancer center or community location), or computer/Internet. Response options were unlikely, somewhat likely, likely, and extremely likely.

Data Analysis

Descriptive statistics (means and standard deviations for continuous variables, frequencies for categorical variables) were used to summarize demographics, clinical characteristics, prior cessation attempts, attitudes about NRT, and interest in and preferences for tobacco cessation interventions. *t*-Tests were used to compare age, numbers of cessation attempts, and mean scores for perceived advantages and disadvantages of NRT among current smokers and recent quitters. Fisher's exact tests were used to compare demographics, clinical characteristics, use of cessation aids and services, belief that NRT helps people quit smoking, and interest in and preferences for cessation programs. All statistical tests were conducted at a 2-sided alpha level of 0.05 in SAS (version 9.4, Cary, NC).

Results

Sample Characteristics

From 103 participants in the parent study, we identified 28 current smokers and 14 recent quitters (Table 1).¹² The majority of patients were men (66.7%), non-Hispanic white (73.8%), married or living with a partner

Table 1. Cessation Attempts, Attitudes Toward NRT, and Interests in Cessation Programs Among Head and Neck Cancer Patients With a Recent Smoking History.

	All Patients N = 42	Current Smokers N = 28	Recent Quitters N = 14	P 2-Sample t Test/Fisher's Exact Test
Quit attempts in the past 12 months, mean (SD)	3.2 (7.9)	1.9 (3.2)	5.7 (12.9)	.30
Ever use of cessation aids, %				
Pharmacotherapy	42.5	50.0	25.0	.18
Counseling	15.0	17.9	8.3	.65
Use of cessation aids at last attempt, %				
Pharmacotherapy	30.0	32.1	25.0	.72
Counseling	2.5	3.6	0	1.0
NRT attitudes				
Belief that NRT products help people quit smoking, %	65.8	63.0	72.7	.71
Perceived advantages of NRT, mean (SD)	2.8 (0.5)	2.8 (0.5)	2.8 (0.5)	.98
Perceived disadvantages of NRT, mean (SD)	2.7 (0.6)	2.6 (0.6)	2.9 (0.6)	.12
Interest in cessation program in the coming year, %	81.8	80.8	85.7	1.0
Preferred setting for cessation program, %				
Cancer center	64.9	68.0	58.3	.72
Community location	58.3	64.0	45.5	.46
Mail	53.8	51.9	58.3	.74
Phone	43.2	46.2	36.4	.72
Computer/Internet	27.8	28.0	27.3	1.0

Abbreviations: NRT, nicotine replacement therapy; SD, standard deviation.

(54.8%), had less than a high school diploma or a general high school diploma (GED) (52.4%), and were unemployed (60.6%). Stage IV cancer was most common (57.5%). Tumor site varied and included oral cavity (35.7%), hypopharynx/larynx (35.7%), oropharynx (21.4%), or other (7.1%). Sociodemographic characteristics were similar for current smokers and recent quitters with the exception of race/ethnicity ($P = .02$).

Cessation Attempts and Use of Cessation Aids/Services

Participants reported an average of 3 quit attempts in the past year (Table 1). Less than half of patients have ever used pharmacotherapy (42.5%) and only 15% utilized counseling. There were no significant group differences in number of cessation attempts or use of cessation aids/services for current smokers and recent quitters (Table 1).

Attitudes Toward NRT

Overall, 65.8% of participants agreed NRT products help people quit (Table 1). A greater proportion of recent quitters agreed that NRT products help people quit compared to current smokers (72.3% vs 63.0%), though this difference was not significant. Mean scores for perceived advantages and disadvantages toward NRT were similar for current smokers and recent quitters.

Interest in a Smoking Cessation Program

Most participants reported interest in participating in a smoking cessation program within the coming year (81.8%) and at the cancer center (64.9%) (Table 1). While no significant differences were found by group, current smokers were more likely to express interest in participating at the cancer center (68.0% vs 58.3%), a community location (64.0% vs 45.5%), by phone (46.2% vs 36.4%), or Internet (28.0% vs 27.3%) compared to recent quitters who were more likely to express interest in participating by mail (51.9% vs 58.3%).

Discussion

Findings from this study suggest that HNC surgical patients with a smoking history are motivated to quit smoking. Use of both behavioral and pharmacologic approaches results in higher quit rates in oncology populations¹⁶ yet only 30% of those in our study used pharmacotherapy during their last quit attempt and only one reported use of counseling approaches. Although most patients reported believing NRT helps people quit, patients identified both advantages and drawbacks to using NRT. Interventions that incorporate both behavioral and pharmacologic approaches and help patients overcome the drawbacks of NRT may be most successful for surgical HNC patients.

The majority of patients preferred to participate in a smoking cessation intervention at a cancer center, and

more than half were interested in participating at a community location or by mail. An in-person approach combined with written materials delivered by mail may be an acceptable approach for this population. One study⁹ incorporated written booklets in their smoking cessation intervention for HNC patients and demonstrated a higher quit rate in the intervention versus usual care group. Furthermore, phone counseling, a modality widely available through state quitlines, was of some interest and could be explored further.

Limitations

Although we did inquire about the prior use of cessation aids/services, the survey did not account for how these services were initiated. Thus, it is unclear how many patients were offered cessation services by the health-care team and whether that would influence participation. This study had a small sample of patients treated surgically for HNC and cannot be generalized to all HNC patients; however, we focused on this group given their high risk for poor smoking-associated outcomes postoperatively.⁶ Consistent with other studies,^{7,9} we relied on patient report of smoking status, which may underrepresent actual smoking rates. However, our results are likely to apply to HNC patients who self-identify as smokers when presenting to a cancer center.

Conclusion

Few studies have targeted surgical HNC patients for smoking cessation interventions, despite their interest in participating in a cancer center-based smoking cessation intervention. Although the majority of surgical HNC patients in this study reported an interest in smoking cessation interventions, it is important to note that interest does not always translate to actual participation. Our results indicate that current smokers and recent quitters are similar with respect to their cessation behaviors and attitudes and interest in smoking cessation interventions, suggesting a uniform intervention approach may be acceptable for both patient groups. Future research should explore additional intervention preferences in a larger sample of surgical HNC patients.

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Declaration of Conflicting Interests

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