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Research Article

Smoking Cessation Practice: Do we Practice it Well? Do we know it Well?

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Abstract

Purpose

This study sought to describe smoking cessation practices across health disciplines and investigate the self-perceived roles and responsibilities in smoking cessation (SC) currently held by health care practitioners.

Methods

A cross-sectional survey design was employed. All health care professionals (HCPs) in active practice at Victoria Hospital (including primary care physicians, specialists, nurses and allied health) were invited to participate in an online survey on SC practices. Respondents were categorized by discipline: primary care practitioners (PCPs), specialist physicians, registered nurses, and all others (those in allied health, clinical research, etc.).

Results

In total, 294 (68% female, 32% male) responses were obtained. In total, 6.6% of respondents self-identified as being smokers. The majority (80%) of participating HCPs felt that it was within their scope of practice to implement SC initiatives. Questions relating to frequency and duration of smoking cessation guidance revealed that 39.3% of respondents reported addressing smoking cessation on a daily basis, with 60.9% indicated spending 1-15 minutes daily on this endeavor.

Conclusions

Despite awareness by health professionals of the importance of SC intervention for patients, a lack of compliance exists in various steps for proper counseling and considerable variation exists in current practice patterns.

Keywords: Smoking Cessation; Tobacco; Education

Introduction

The use of tobacco in general, and smoking in particular, are well-documented risk factors for a variety of cancers in-

cluding those that affect structures of the head and neck [1]. Similarly, smoking also serves as a risk factor for a number of other health conditions that negatively influence the cardiovascular and respiratory systems [2-4] or the increased

likelihood of other types of health risks including increased infection rates [5]. There are also additional risks posed to others through second hand smoke exposure. These risks may include poorer asthma outcomes [6]. The knowledge of such risks has existed over several decades [7] with substantial public exposure to the dangers associated with smoking. The availability of such information has subsequently led to campaigns that seek to encourage the reduction or cessation of smoking and its larger benefit to one's health.

Smoking cessation (SC) reduces morbidity and mortality [8] even among individuals who have already been diagnosed with cancer. It is intuitive, therefore, that SC is medically warranted after a cancer diagnosis because continued cigarette smoking is related to several adverse health outcomes such as increased risk of developing a second primary tumor (ie. stomach, lung, bladder) or other smoking-related diseases [9]. Additionally, research suggests that continued smoking may reduce treatment efficacy of radiation therapy [10] and chemotherapy [11,12].

Arguably, those in the health care community in general have had considerable exposure to the identification and documentation of the multidimensional risk factors secondary to smoking, as well as the potential health consequences. However, despite health care workers having direct exposure to clinical and scientific information on the health risks associated with smoking, concerns related to their level of understanding and how their own knowledge may translate to patient care and information provision remains poorly described. More explicitly, there is limited information related to how information on the risk of smoking is conveyed to patients in an effort to directly affect behavior change. Thus, when considering interactions between the patient and the health care provider regardless of professional affiliation, the intersection between one's knowledge and their ability to accurately and effectively convey such information is essential.

The importance of practitioner-patient relationships and how this might impact broadly defined treatment outcomes has been acknowledged in general medicine [13-18]. To date, however, there has been little research on the characteristics of those practitioners who may be directly involved in providing information specific to SC [19]. Additionally, a wide range of health care professionals (HCPs) potentially may have the opportunity to intervene with patients who smoke and provide counsel and education. These HCPs may include primary care physicians (PCPs), specialists, nurses, and others. Yet at present, and to a large extent, the respective roles of HCPs in the implementation of SC strategies remain elusive. To date, no study has addressed questions related to current practices among different HCPs relative to SC efforts. Therefore, the purpose of this study was two-fold. The primary aim of this study sought to describe SC practices across health disciplines

and the secondary aim sought to investigate the self-perceived roles and responsibilities in SC currently held by HCPs.

Methods

This study employed a cross-sectional survey design. The primary outcome measure was designed to address specific themes surrounding the topic of SC. These themes included personal experience with smoking, perception of role of SC, previous education in SC interventions, current SC practice and level of comfort with various smoking cessation interventions. The survey was developed using a multidisciplinary focus group including representation from nursing, social work, and otolaryngology - head & neck surgery. Consensus for construct and content validity was reached through an interdisciplinary, interactive process. Briefly, the survey contained 21 items covering a range of topics including population demographics, practice environment, educational background, and personal experience with smoking. Survey items relevant to the current analysis are highlighted in Table 2.

Inclusion criteria for participation were established a priori and included all physicians and HCPs providing care to patients in a single tertiary institution (Victoria Hospital) and the local community. All HCPs in active practice at Victoria Hospital, as well as those in academic practice and community practice were invited to participate. This included PCPs, specialists (all medical and surgical subspecialists), physician learners (residents and fellows, nurses (operating room, intensive care units, clinic and wards), allied health professionals (social work, dietician, speech-language pathology, occupational therapy, physiotherapy, and respiratory therapy). In addition to the Victoria Hospital posting, an electronic link of the survey was sent via email to the office of each PCP in the community. PCPs who returned surveys via fax had their data input into the electronic system by a research team member. Medical students and non-MD learners were excluded from participation.

Once the final questions to be assessed were determined, surveys were administered electronically to all participants using a modified Dillman method. Respondents accessed the survey through an electronic link provided on the Victoria Hospital website. This hyperlink was available for two weeks and was approved for use by Victoria Hospital.

A descriptive statistical analysis of the data gathered was performed for each question. Respondents were categorized by discipline: PCPs, specialist physicians, registered nurses, and all others (those in allied health, clinical research, etc.).

Results

In total, 294 (68% female, 32% male) responses were obtained.

A breakdown of healthcare disciplines is provided in Table 1. The response rate for PCPs was 69% (52/75); however, the response rate for hospital-based cohort could not be determined as it was an online link posted on the hospital webpage. Data obtained did reveal a variable level of compliance among HCPs in their SC practices.

Table 1. Respondent numbers.

Registered Nurses	81
Specialist Physicians	65
Primary Care Physicians	52
Other	96
	N = 294

(13.6%). In contrast, data revealed that no PCPs (0%) identified themselves to being smokers.

The majority (80%) of participating HCPs felt that it was within their scope of practice to implement SC initiatives. Quite notably, all participating PCPs felt SC fell within their job description. The remaining category of HCPs, which was not limited to allied health and environmental services workers, had the lowest proportion in agreement in regard to smoking cessation falling within their job descriptions.

Questions relating to frequency and duration of smoking cessation guidance revealed that 39.3% of respondents reported addressing smoking cessation on a daily basis. Additionally, of group, 60.9% indicated spending 1-15 minutes daily on this endeavor. Primary care physicians contributed the highest frequency of SC guidance with 82.4% reporting daily duties related to SC.

Table 2.

Survey Item	Response	n(%)				
		Primary Care Physicians	Specialist Physicians	Registered Nurses	Other (Allied health, etc.)	Total
1. Are you a smoker?	Yes	0 (0%)	1 (1.5%)	11 (13.6%)	6 (8.1%)	18 (6.6%)
	Ex-smoker (>one year)	5 (9.8%)	8 (12.3%)	12 (14.8%)	11 (14.9%)	36 (13.3%)
	No	46 (90.2%)	56 (86.2%)	59 (72.8%)	57 (77.0%)	218 (80.4%)
2. Do you think that smoking cessation is within your job description?	Yes	50 (100%)	54 (85.7%)	60 (75.0%)	46 (66.6%)	210 (80.2%)
	No	0 (0%)	9 (14.3%)	20 (25.0%)	23 (33.3%)	52 (19.8%)
3. How often do you address smoking cessation in your practice?	Daily	42 (82.4%)	34 (52.3%)	22 (27.2%)	16 (17.2%)	114 (39.3%)
	Occasionally	7 (13.7%)	23 (35.4%)	22 (27.2%)	35 (37.6%)	87 (30.0%)
	Neutral	2 (3.9%)	5 (7.7%)	7 (8.6%)	10 (10.8%)	22 (7.6%)
	Seldom	0 (0%)	3 (4.6%)	25 (30.9%)	19 (20.4%)	49 (16.9%)
	Never	0 (0%)	0 (0%)	5 (6.2%)	13 (14.0%)	18 (6.2%)
4. How much time do you spend with your patient on this matter?	Zero	0 (0%)	0 (0%)	5 (6.2%)	21 (23.9%)	26 (9.0%)
	<1 min.	1 (1.9%)	24 (36.9%)	28 (34.6%)	21 (23.9%)	74 (25.6%)
	1-15 min.	49 (94.2%)	40 (61.5%)	42 (51.9%)	42 (47.7%)	176 (60.9%)
	>15 min.	2 (3.8%)	1 (1.5%)	6 (7.4%)	4 (4.5%)	13 (4.5%)

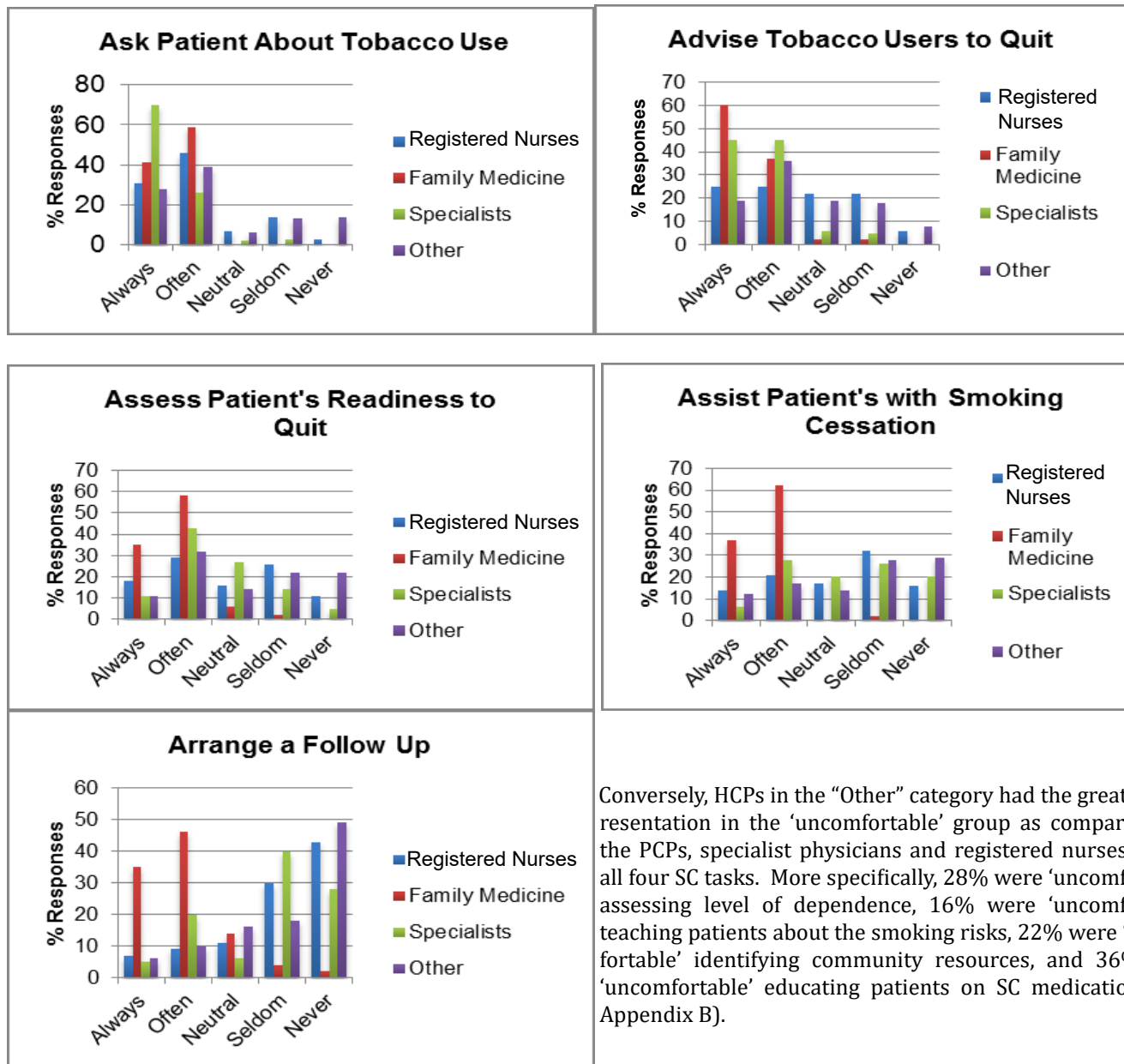
The response frequencies for each of the questions of interest are presented in Table 2. In total, 6.6% of respondents self-identified as being smokers. The highest proportion of smokers was revealed in the cohort of registered nurses

The frequency to which respondents employed what are referred to as the “5 A’s” of SC (i.e., Ask, Advice, Assess, Assist, Arrange) also was assessed. Respondents were given the choice of selecting ‘Always, Often, Neutral, Seldom, Never’ for each of

these five actions. In terms of 'Ask', 69.2% of specialist physicians selected 'Always', representing the highest proportion of all HCPs who selected this response. In comparison, 41.2% of PCPs selected "Always" to asking about SC with an additional 58.8% of PCPs selecting "Often" for this question. For each of the other three A's, PCPs were the group that most frequently addressed SC practices. The collective results are presented in Appendix A.

teaching patients about the smoking risks, identifying community resources for SC, and educating patients about SC medications. PCPs were most comfortable with all four of these SC tasks; 53.8% were 'very comfortable' with assessing level of dependence, 59.6% were 'very comfortable' teaching the risks of smoking, 32.7% were 'very comfortable' identifying community resources and 59.6% were 'very comfortable' educating patients about SC medications.

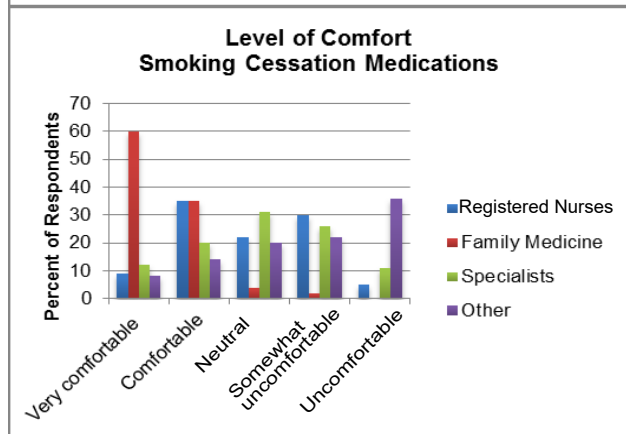
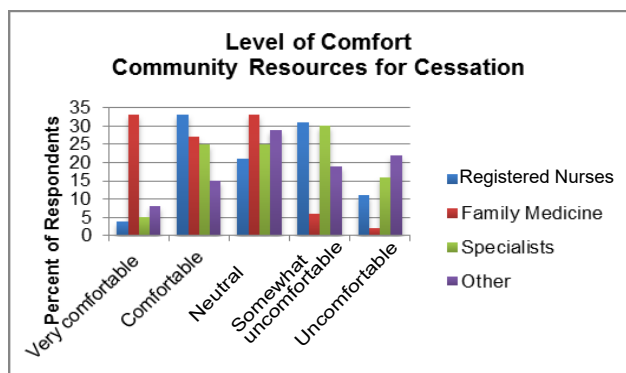
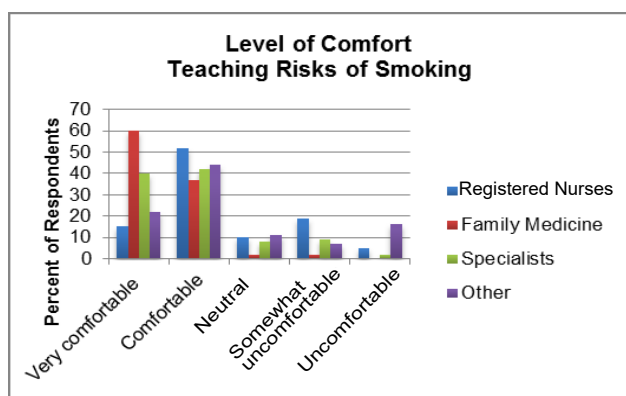
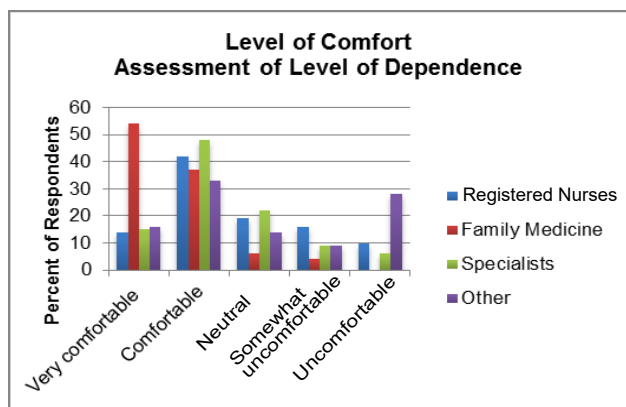
Appendix A-Five A's



Conversely, HCPs in the "Other" category had the greatest representation in the 'uncomfortable' group as compared with the PCPs, specialist physicians and registered nurses, across all four SC tasks. More specifically, 28% were 'uncomfortable' assessing level of dependence, 16% were 'uncomfortable' teaching patients about the smoking risks, 22% were 'uncomfortable' identifying community resources, and 36% were 'uncomfortable' educating patients on SC medications (see Appendix B).

The respondents' perceived level of comfort with a variety of SC tasks was also assessed. HCPs were asked about their level of comfort in assessing the level of dependence of a patient,

Appendix B- Level of Comfort



Discussion

Many HCPs are involved in the medical journey of patients and are, therefore, uniquely positioned to intervene in a variety of ways with respect to SC. Of all the HCPs involved in the complex care of patients, the obvious question that arises is “Whose job is it to treat this tobacco addiction?” However, the clear follow up question that emerges related to whether these practitioners are adequately trained to identify and manage this problem? The present study revealed that a majority of HCPs felt it was in their job description to facilitate smoking cessation with their patients. Yet not all of these HCPs were in agreement relative to their role(s) in smoking cessation; in fact, some admitted to not feeling comfortable with their role in tasks or actions related to smoking cessation.

The Registered Association of Ontario Nurses outlines the role of RN’s in SC within their Nursing Best Practice Guidelines. This set of guidelines recommends that nurses introduce intensive SC intervention (more than 10 minutes in duration) when their knowledge and time enables them to engage in more intensive counseling [20]. Despite this recommendation, 25% of registered nurses polled in this study did not feel SC was within their job description. But variability in perceived roles differed across the groups assessed.

The PCPs included in our study unanimously agreed that SC was within their scope of practice. The College of Family Physicians of Canada supports the role of PCPs in SC with knowledge of its core competencies [21]. These competencies include regular evaluation and documentation of smoking status in all patients, regular assessment of smoking status in smokers, discussion of the benefit of quitting or reducing smoking with smokers, and finally, in smokers motivated to quit, advising for the use of a multi-strategy approach to SC [21].

The Joint Position Statement released by the Canadian Counselling and Psychotherapy Association, the Canadian Dental Hygienists Association, Canadian Medical Association, the Canadian Nurses Association and the Canadian Physiotherapy Association acknowledges the role for every Canadian health professional in tobacco-use cessation [22]. This document underscores the role for educators and researchers, administrators of health-care organizations and public health advocates in smoking cessation. The Joint Position Statement strategies include prevention, cessation and protection, marking prevention as the most important strategy of the three.

Overall, the results from this study suggest that multiple HCPs felt SC fell within their scope of practice. Based on these findings, perhaps there is a role for multiple HCPs in SC interventions. Previous research indicates that smokers have increased odds of successfully ceasing their smoking when asked by two or more types of health professionals about cigarette use [23].

This study by An et al. suggested that increased support for a range of health professionals may be a particularly promising strategy for increasing the amount of exposure and education to SC treatments provided by the health-care system as a whole [23]. There may, however, be conflicting ideas of what constitutes appropriate SC intervention strategies.

When compared to other groups of HCPs, PCPs indicated that they were most confident in providing SC treatment and education. The literature suggests that most general practitioners are more comfortable using non-confrontational approaches towards discussing smoking [24]. These types of approaches are most easily applied in instances where smokers have already decided that they wish to stop smoking as general practitioners report a limited repertoire of counseling skills when dealing with smokers they believe are not motivated to stop smoking. In such instances, general practitioners tend to avoid detailed discussion with these patients [24] and, therefore, the opportunity for behavioral changes related to smoking are lessened. The present data and prior findings from the literature suggest that training general practitioners in additional approaches to how they counsel non-motivated smokers and smokers who still smoke despite previous advice to stop, could help general practitioners to successfully utilise these opportunities [24]. Under these circumstances, it may be posited that the net benefit of employing additional approaches to counseling patients may be realized in reduced rates of smoking. Yet continued efforts that are directed toward identifying challenges and barriers to SC programs are necessary.

Smoking cessation interventions are not without their challenges. Competing professional demands and associated time pressure during patient contacts, a lack of familiarity specific to effective treatments, provider perceptions of low receptivity to tobacco cessation interventions, and the absence of adequate reimbursement for providing treatment have all been previously described in the literature as being barriers to SC [25-31]. Previous research has confirmed these findings by indicating that HCPs are aware of the potential public health benefit of brief SC counseling sessions, but are ambivalent toward counseling patients themselves on account of time constraints, competing demands, and perceived resistance from patients [32]. Previous research also has indicated that additional training may not be adequate to solve this issue. Perhaps creating a demand for important preventive treatments [33], restructuring the healthcare financing and delivery systems to support vital services, [34], and using multicomponent interventions (i.e., education, feedback, systems changes) to improve clinician performance [35] would benefit the larger objective of SC programs.

Although the present data provide important insights into how HCPs view a broad array of issues related to SC, it is important to consider several potential limitations of our research. Our

results suggest that very few practitioners are current smokers. Current smokers might be the most hesitant to report their own smoking status and, therefore, the number of current smokers may have been underestimated with a direct impact on other responses [9]. The greatest proportion of self-identified smokers was found in the group of registered nurses. The prevalence of self-identified smokers in the nursing population was not inconsistent with previous research. In fact, prior research has suggested that 11% of nurses self-identified as smokers and it suggested this elevated prevalence was the result of working long hours [36]. But this may not be a substantial factor in the present study as the residents and medical doctors included herein may also work a disproportionate number of hours.

Conclusions

Despite awareness by health professionals of the importance of SC intervention for patients, a lack of compliance exists in various steps for proper counseling and considerable variation exists in current practice patterns. The present results emphasize the need for formal and mandatory SC education during training for all health professional disciplines. SC counseling is the responsibility of all health professionals. However, the importance of providing a systematic and structured approach to SC information is essential in effort to optimize the effectiveness of such programs. Upon initiation, SC programs should be systematically monitored relative to outcomes, both short- and long-term. Not only is the type and extent of information provided, but who disseminates such information may also be a factor that must be addressed for reasons of consistency. Further, while direct efforts at counseling are recommended to optimize SC, additional sources of information may also be of value. For example, written documentation and/or access to reliable information that can be accessed on line may also permit better acceptance. Formal SC program outcome data may provide an opportunity for the development of community and/or patient-directed programs. Collective efforts of this type may be seen to offer considerable advantages relative to the ultimate objective of SC program, namely, to see patients cease or reduce smoking. The present data provide an initial step in the development of comprehensive and strategic efforts to reduce health risks associated with smoking. Consequently, continued efforts that seek to formalize education related to SC remain an important area for clinical intervention, as well as an essential area for further research.

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