

The Tobacco Intervention Practices of Post-secondary Campus Nurses in Ontario

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Introduction

Repeated unsuccessful quit attempts are common among university students.¹

Despite their interest in quitting, young adults are less likely than adults to receive smoking cessation advice from clinicians.² Nurses in campus clinics are ideally situated to implement brief tobacco interventions. Whether, with what frequency and in what contexts nurses do so is unknown.

The objective of this study is to describe the tobacco intervention practices of nurses in campus clinics.

Methods

- Nurses ($N = 108$) working at 16 universities in Ontario were surveyed.
- Ten of the 16 universities were involved in Leave The Pack Behind (LTPB), a government-funded, campus-based tobacco control initiative.

Measures:

- On a 7-point scale (1=*never* and 7=*always*), nurses reported how often they typically asked patients about smoking status, and how often they did so during 9 specific types of patient visits.
- Nurses reported the extent to which they: advised cessation; provided specific forms of assistance (e.g., NRT, self-help); and arranged follow-up.

Analysis:

- To account for possible differences between nurses from campuses that were or were not operating LTPB, chi-square tests, t-tests and mixed model repeated measures designs were used to assess how often nurses asked patients about smoking, and whether or not they advised cessation, offered cessation assistance, and arranged follow-up.
- Except where between-group differences emerged, data are pooled.

Results

- 83 nurses completed the survey; 52 were from campuses involved in LTPB. Response rates were lower among nurses from campuses operating LTPB, $\chi^2(1, N = 107) = 7.47, p = .006$
- No demographic differences were observed for nurses from universities that were or were not operating LTPB
- 97.6% female; $M_{\text{age}} = 47.5$ years old ($SD = 8.8$); 9.9% were smokers

Asking about tobacco use:

- Proportion of patients asked about tobacco use:
 - 8.2% asked all or almost all patients
 - 5.5% asked most
 - 23.3% asked about half
 - 35.6% asked some
 - 27.4% asked none or almost none
- In what type of visit nurses asked about tobacco use differed between groups (with nurses from campuses with LTPB asking about tobacco use less frequently), $F(1,81) = 4.94, p = .029$, and across types of visit (see Table 1).
- Type of visit in which nurses ask about tobacco use:
 - nurses from campuses with LTPB asked about tobacco less often, $F(1,81) = 4.94, p = .029$
 - frequency of asking about tobacco use differed across types of visit, $F(8,74) = 91.59, p < .001$; see Table 1

Table 1

How Often Nurses Ask about Smoking Status in Specific Types of Patient Visits

Type of Visit	<i>Overall</i>		<i>Nurses from Campuses Not Involved In LTPB</i>		<i>Nurses from Campuses Involved in LTPB</i>	
	<i>M</i>		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Lower respiratory	5.68 ^a		6.11	1.14	5.42	1.81
Upper respiratory	5.65 ^a		6.10	1.26	5.38	1.82
Cardiovascular	5.06		5.62	1.62	4.72	2.17
Substance abuse	4.54 ^b		5.18	2.20	4.15	2.23
Reproductive	4.53 ^b		4.73	2.01	4.41	2.36
Annual physical	4.17 ^b		4.64	2.40	3.90	2.41
Mental health	2.71		3.01	2.19	2.52	1.81
Skin	1.73 ^c		2.02	1.40	1.56	0.88
Musculoskeletal	1.65 ^c		1.81	0.99	1.55	1.00

Nurses responded on 7-point scales, where 1 = *almost never* and 7 = *almost always*. Means sharing a superscript do not differ; all other means differ significantly ($p < .05$, two-tailed, sidak adjustment for multiple comparisons).

Advising and assisting smokers to quit:

- 83.1% of nurses advised identified smokers to quit and 63.9% offered assistance
- 63.9% of nurses offered assistance; when the option of offering LTPB's age-tailored self-help materials to smokers was included in the analysis, the percent of nurses offering assistance increased to 73.5%
- Self-help resources were suggested more often ($M = 5.06$) than nicotine gum ($M = 2.52$), the patch ($M = 2.42$) and "alternative" approaches ($M = 1.96$), $F(3, 79) = 50.92$, $p < .001$ [based on a 7-point scale where 1 = *almost never* and 7 = *almost always*]
- How assistance was offered^a:
 - 67.1% referred patients to another health professional or cessation service
 - 7.9% advised calling the provincial quitline
 - 6.6% suggested looking for information on the web
 - 5.3% offered a follow-up appointment
 - 57.9% offered LTPB materials (where available)

Arranging follow-up:

- 59.0% of nurses reported that they arranged a follow-up for patients identified as smokers; when the option of referring to LTPB's student team was included in the analysis, the percent of nurses arranging follow-up increased to 66.3%
- Type of follow-up arranged^a:
 - 91.8% referred smokers to physicians
 - 20.4% referred smokers to counsellors
 - 10.2% referred smokers to pharmacists
 - 8.2% referred smokers to themselves
 - 45.5% referred to LTPB peer teams (where available)

^aPercents sum to greater than 100 because participants could check more than one option.

Discussion

- Although the revised Registered Nurses Association of Ontario *Best Practice Guideline*³ calls for nurses to ask every patient about his or her tobacco use, more than one-quarter of nurses in this sample typically asked none or almost none of their patients. Furthermore, even when patients were identified as smokers, 17% of nurses did not advise cessation and 36% did not offer assistance. These results, suggest that many opportunities to advise and support cessation are being missed by nurses who are working in campus clinics. Given that smokers' quitting success increases when the advice to quit comes from multiple sources⁴ it is important for nurses to always advise cessation to all patients who smoke.
- It is also noteworthy that nurses reported offering self-help materials far more than NRT. Given that NRT may be a valuable quit aid for young adult smokers, this gap should be explored and addressed.
- Tobacco use was assessed by nurses most frequently during respiratory and cardiovascular visits. It was rarely assessed during visits for mental health, skin and musculoskeletal concerns. The comorbidity of poor mental health and smoking, and the relationship between healthy skin and smoking speak to the value of asking and intervening around smoking in these visits (as well as other visits). Why nurses do or don't ask about smoking during specific types of visits is one area for future research.
- Tobacco intervention practices of nurses were similar across campuses that were or were not operating LTPB except that nurses from campuses with LTPB asked about tobacco use less often (across all visit types). It may be that these nurses feel LTPB is adequately addressing tobacco use. Along these lines, nurses from campuses operating LTPB utilized LTPB's materials and supports. This finding suggests that a well-resourced clinic and cessation supports in the campus clinic environment increase the level of assistance that nurses offer to smokers.
- Overall, the data suggest that nurses generally offer cessation advice and assistance once a patient has been identified as a smoker, but may not be initiating the process by asking about smoking status.

Implications

Brief tobacco-intervention professional development sessions need to be designed to provide nurses (and other health professionals) with information about the relationship between smoking and health issues that are common in the young adult population. This understanding might reduce barriers to delivering cessation advice during visits where tobacco use seems unrelated to the presenting concern.

If nurses were more aware of how tobacco use is relevant to different health issues (particularly those relevant to young adults) and had strategies for tailoring cessation advice to different health concerns, they might be in a better position to ask about tobacco use during all patient visits.

- example: Appearance is important to young adults and may be a key motivator to quit smoking.⁵ A discussion of the damaging effects of tobacco use could be integrated into visits about skin conditions to encourage a patient's decision to quit smoking.

Conclusions

Nurses who work in campus clinics are in a unique position to promote smoking cessation; the high volume of patients visiting campus clinics shows that many young adult smokers could be reached in this setting.

The results of this study suggest, however, that nurses working in campus clinics may frequently miss opportunities to ask patients about their tobacco use, and thus, to capitalize on teachable moments for cessation. Additional research is needed to understand the barriers that may impede nurses from initiating cessation counselling. Supplying nurses with age-tailored smoking cessation resources and implementing other campus-based supports for cessation (such as those offered by LTPB) may increase the level of assistance offered to young adult patients using campus clinic services.

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¹ Patterson, F., et al., (2004). Cigarette smoking practices among American college students: review and future directions. *Journal of American College Health*, 52, 203-10.

² Curry, S., et al., (2007). Use of tobacco cessation treatments among smokers. *American Journal of Public Health*, 97, 1464-69.

³ Registered Nurses' Association of Ontario. (2007). *Integrating Smoking Cessation into Daily Nursing Practice* (Revised). Toronto, Ontario, Canada: Registered Nurses' Association of Ontario.

⁴ . Fiore, M.C., et al., *Treating Tobacco Use and Dependence: 2008 Update*. Clinical Practice Guideline. Rockville, MD: U.S. Department of Health and Human Services. PUBLIC Health Service. May 2008.

⁵ Grogan, S., et al., (2009). Smoking to stay thin or giving up to save face? Young men and women talk about appearance concerns and smoking. *British Journal of Health Psychology*, 14: 1, 175-86.