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Use of Quit Aids Among Ontario Smokers

Research shows that smokers who use quit aids such as pharmacotherapies and behavioral support are more likely to be successful in smoking cessation than smokers who do not use quit aids.^{1,2,3,4,5} First line pharmacotherapies for smoking cessation include nicotine replacement therapy (NRT), bupropion, and varenicline. Behavioural support may include individual or group counselling, aids from telephone or online quitlines, self-help materials and attendance at quit programs.^{6,7,8} Little is known, however, about who uses cessation aids and how the use of cessation aids has changed over time in Ontario. This update explores factors related to use and trends in the use of various cessation aids over time among Ontario smokers who made a quit attempt, using data from the Ontario Tobacco Research Unit's Ontario Tobacco Survey (OTS).

Key Message: Less than 50% of Ontario smokers use quit aids when trying to quit.

The Ontario Tobacco Survey collected information from a random sample of 4,500 Ontario adult smokers between 2005 and 2011. These participating smokers were followed every 6 months for up to 3 years. Information about quit attempts and use of quit aids in the previous 6 months was collected.

Among all participating smokers, 2,527 (57%) smokers made a quit attempt (i.e., tried to quit completely or stopped smoking for at least 24 hours) during the three year follow-up. Of these quit attempters, 48% used at least one type of quit aids (NRT: 32%, varenicline: 9%, bupropion: 8%, behavioral support: 19%, and self-help materials: 18%), while 52% did not use any of these. Among smokers who made a quit attempt and used any quit aids, the majority (66%) used NRT, 40% used behavioural support, 19% used varenicline, 17% used bupropion, and 37% used self-help materials during the overall follow-up period (note: some smokers used more than one type of quit aid, so the sum of these percentages is larger than 100%).

Trends in Use

Among quit attempters, use of NRT was relatively higher initially at 23% in the period of January -June 2006, then dropped to 11% in January-June 2009; NRT use declined significantly by 1.9 percentage points per every 6 months (p for trend <0.01) during the period of January 2006-June 2009. After June 2009, use of NRT increased to 18% in July-December 2009 and stayed relatively stable after Jan 2010.

Use of bupropion was relatively low over the survey period, from 6.4% at the beginning of data collection to 3.4% at the end, while the lowest use was 1.7% in July-December 2009. Use of bupropion

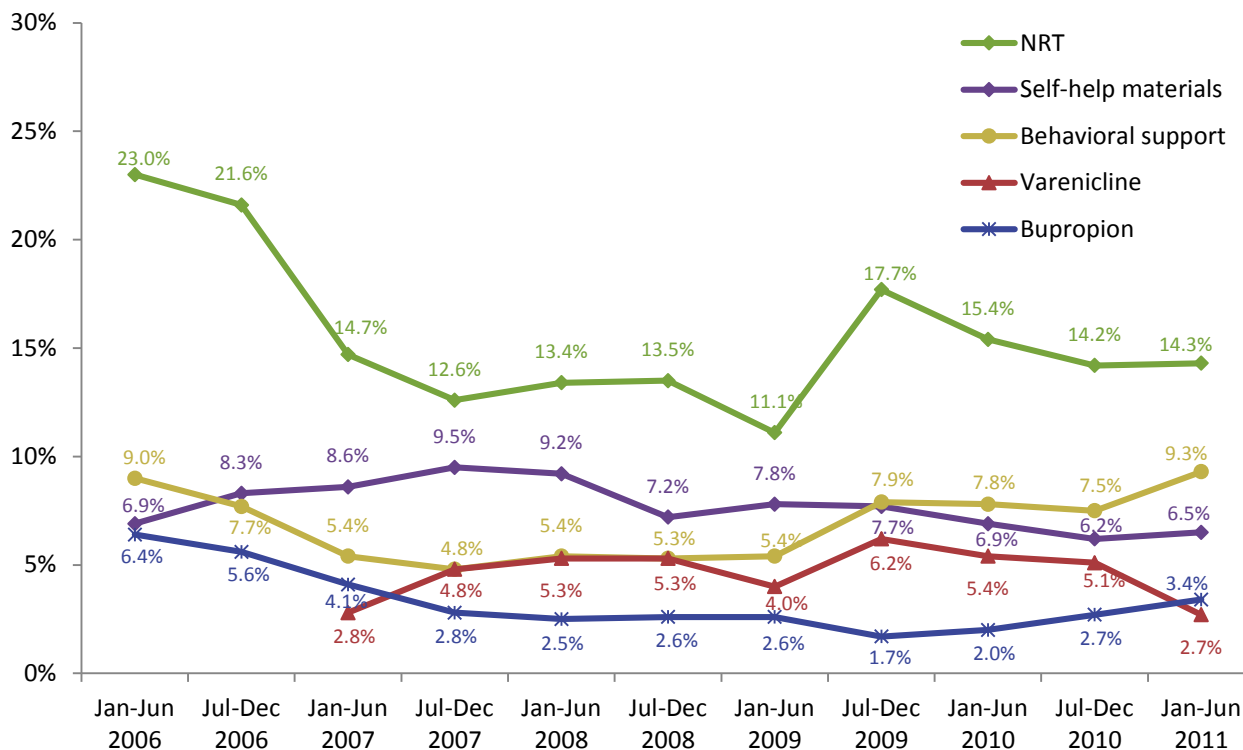
declined significantly during the overall survey period of January 2006-June 2011 by 0.32 percentage points per every 6 months (p for trend <0.05), especially before January 2010, declining by 0.63 percentage points per every 6 months (p for trend <0.01).

Use of varenicline began in 2007 when the medication was introduced in Ontario. Initially, use of varenicline was low at 2.8%; it increased to 5.3% in a year and to 6.2% two and a half years later; and then dropped to 2.7% at the end of the survey period. There was no significant change in use of varenicline during any period or the overall survey period (p for trend >0.05).

Use of behavioral support excluding self-help materials was relatively high initially at 9% in January-June 2006, but declined significantly from January-June 2006 to 4.8% in July-December 2007 (p for trend <0.05); after that period, use of behavioral support increased significantly to 9.3% in January-June 2011 (p for trend <0.01).

Use of self-help materials increased from 6.9% at the beginning of the survey to 9.5% during July-December 2007 by 0.81 percentage points per every 6 months (p for trend <0.05) and then decreased from that period to 6.5% at the end of the survey by 0.44 percentage points per every 6 months (p for trend <0.01) (Figure 1).

Figure 1: Use of Cessation Aids Among Smokers Who Made a Quit Attempt, Ontario, 18+, January 2006-June 2011



Factors Related to Use

Multivariable logistic regression was used to examine factors related to the use of various cessation aids. Compared to those who did not use any quit aids:

- Those who used NRT for smoking cessation during follow-up were more likely to be female and daily smokers, rated their health as poor-fair, and lived in Northern Ontario, but they were less likely to be single.
- Those who used varenicline were more likely to be female and daily smokers, with a moderate or high Heaviness of Smoking Index (HSI) score, and lived in Southwest Ontario and Northern Ontario, but were less likely to be single.
- Those who used bupropion were more likely to be female, with a moderate or high HSI score, and lived in Northern Ontario, but were less likely to be single.
- Those who used behavioral support were more likely to be female, with a moderate HSI score, and rated their health as poor-fair, but were less likely to be single.
- Those who used self-help materials were more likely to be female, highly educated and daily smokers, rated their health as poor-fair, and lived in Northern Ontario, but were less likely to be single (Table 1).

Table 1: Factors Significantly Associated with Use of Quit Aids Among Smokers Who Made a Quit Attempt During Follow-Up, Ontario, 18+, January 2006 – June 2011

Use of Quit Aids	Factors	Adjusted OR (95% CI) [†]
NRT	Female vs. male	1.37 (1.04-1.79)*
	Single vs. married	0.57 (0.39-0.81)**
	Poor-fair vs. good-excellent health	1.69 (1.18-2.43)**
	Daily vs. non-daily smoking	10.22 (2.44-42.83)**
	Northern Ontario vs. Toronto	1.90 (1.35-2.68)***
Varenicline	Female vs. male	1.78 (1.17-2.71)**
	Single vs. married	0.27 (0.15-0.48)***
	Daily vs. non-daily smoking	7.13 (1.47-34.69)*
	HSI: moderate vs. low	3.66 (2.33-5.75)*
	HSI: high vs. low	4.12 (2.06-8.21)*
	Southwest Ontario vs. Toronto	2.24 (1.28-3.91)*
Bupropion	Northern Ontario vs. Toronto	2.27 (1.30-3.97)*
	Female vs. male	1.71 (1.11-2.64)*
	Single vs. married	0.36 (0.19-0.70)*
	HSI: moderate vs. low	3.06 (1.89-4.95)*
	HSI: high vs. low	3.32 (1.63-6.74)*

	Northern Ontario vs. Toronto	1.87 (1.06-3.27)*
Behavioral support	Female vs. male	1.61 (1.17-2.21)**
	Single vs. married	0.52 (0.33-0.81)**
	Poor-fair vs. good-excellent health	1.68 (1.10-2.55)*
	HSI: moderate vs. low	1.55 (1.05-2.30)*
Self-help materials	Female vs. male	1.44 (1.04-2.00)*
	Post-secondary vs. high school or less	1.46 (1.03-2.06)*
	Single vs. married	0.51 (0.33-0.80)**
	Poor-fair vs. good-excellent health	1.69 (1.12-2.57)*
	Daily vs. non-daily smoking	8.40 (2.24-31.49)**
	Northern Ontario vs. Toronto	1.57 (1.06-2.33)*

CI, confidence interval; HSI, heaviness of smoking index; OR, odds ratio.

* p<0.05; ** p<0.01; ***p<0.001.

† Factors in logistic regression model included age, gender (male vs. female), marital status (single, divorced/separated/widowed vs. married), education (high school or less, vs. post-secondary education), living area (urban vs. rural), region (Southwest Ontario, Eastern Ontario, Northern Ontario vs. Toronto), perceived health (poor-fair vs. other health), concerns of the cost of quit aids (too high vs. about right), smoking status (daily vs. non-daily), and heaviness of smoking index.

Conclusions

More than half of Ontario smokers did not use any quit aids when making a quit attempt. Previous studies show that many smokers underestimate the effectiveness of smoking cessation medication and/or behavioral support,^{9,10,11} and have concerns about the safety of these medications, such as “nicotine can cause a heart attack or cancer,”¹² and “NRT was as harmful as cigarettes”.¹¹ Some smokers may not know about the existence of smoking cessation medication and behavioral support. Education programs may be needed to increase smokers’ awareness of the availability of effective smoking cessation aids and to provide them with better knowledge and a more positive attitude toward effective cessation aids. Promoting use of effective cessation aids among males, single persons, those who do not rate their health as poor, non-daily smokers or non-heavy smokers, and persons living in Toronto is specifically needed. Offering opportunities to reluctant smokers to try effective cessation methods in trial or community programs may be a way to improve knowledge about the safety and efficacy of these methods, and eventually increase smoking cessation among Ontario smokers.

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