

## Letter

## Beyond Quitting: Any Additional Impact of Mailing Free Nicotine Patches to Current Smokers?

John A. Cunningham PhD<sup>1,2,3</sup>, Vladyslav Kushnir MSc<sup>1,4</sup>,  
Peter Selby MBBS<sup>1,2,5,6</sup>, Rachel F. Tyndale PhD<sup>1,2,7</sup>, Laurie Zawertailo PhD<sup>1,7</sup>,  
Scott T. Leatherdale PhD<sup>8</sup>

<sup>1</sup>Centre for Addiction and Mental Health, Toronto, Ontario, Canada; <sup>2</sup>Department of Psychiatry, University of Toronto, Toronto, Ontario, Canada; <sup>3</sup>Research School of Population Health, the Australian National University, Canberra, Australia; <sup>4</sup>Department of Pharmaceutical Sciences, University of Toronto, Toronto, Ontario, Canada; <sup>5</sup>Dalla Lana School of Public Health, University of Toronto, Toronto, Ontario, Canada; <sup>6</sup>Department of Family and Community Medicine, University of Toronto, Toronto, Ontario, Canada; <sup>7</sup>Department of Pharmacology and Toxicology, University of Toronto, Toronto, Ontario, Canada; <sup>8</sup>School of Public Health and Health Systems, University of Waterloo, Waterloo, Canada

Corresponding Author: John A Cunningham, PhD, Centre for Addiction and Mental Health, 33 Russell St., Toronto, Ontario, Canada M5S 2S1.  
Telephone: 1 416 535 8501; E-mail: [john.cunningham@camh.ca](mailto:john.cunningham@camh.ca)

With smoking being the leading cause of preventable mortality,<sup>1</sup> there is a great need to develop effective means to promote tobacco cessation. One method, mailing free nicotine patches through mass distribution initiatives, has proved popular in both United States and Canada.<sup>2,3</sup> Further, mailing nicotine patches without behavioral support has been found to promote tobacco cessation when compared to participants randomized into a no intervention control group at a 6-month follow-up (30-day abstinence: 7.6% vs. 3.0%; odds ratio [OR], 2.65; 95% confidence interval [CI], 1.44 to 4.89,  $p = .002$ ).<sup>4</sup> While promoting abstinence is the gold standard in tobacco cessation initiatives, does mailing nicotine patches to those interested have additional benefits even among those who do not succeed at quitting?<sup>5–7</sup>

### Methods

In our trial (ClinicalTrials.gov # NCT01429129),<sup>4,8</sup> we recruited 2093 current adult smokers (10 or more cigarettes per day) using a random digit dialling telephone survey who were willing to take part in a baseline, 8-week, and 6-month longitudinal survey (participants paid \$20 at each time point). As part of the baseline survey, we asked a series of hypothetical questions to identify participants who would be interested in receiving free nicotine patches, would use them to try to quit smoking within 1 week of receiving them, and would be willing to have them mailed to their home. Of these participants, those who did not report any health contraindications to using nicotine patches ( $n = 999$ ) were randomized into two conditions—a condition where they were told that we actually had a supply of free

nicotine patches (5 weeks per person) and could mail it to their home ( $n = 500$ ; all said yes), or a no intervention condition ( $n = 499$ ) that was not told about nicotine patches and had no awareness that anyone else was receiving patches. All participants were then followed up at 8 weeks and 6 months. Beyond assessing abstinence at these time points (7-day abstinence at 8 weeks and 30-day abstinence at 6 months),<sup>4</sup> we asked if current smoking participants had made a serious quit attempt (for at least 24 hours), were intending to quit in the next 30 days, and the number of cigarettes per day that they were currently smoking. Analyses were conducted using an intention-to-treat approach and with missing data replaced with the last available value carried forward. Analyses reported here exclude participants reporting abstinence at each time point (pattern of outcomes are the same when these participants were included—not reported here; no significant differences observed at baseline).

### Results

Compared to those who did not receive free nicotine patches, participants who received the patches reported an increased likelihood of a serious quit attempt, and intending to quit in the next 30 days, at both 8 weeks and 6 months (Quit attempts: 8 weeks: OR = 5.00; 95%CI, 3.61 to 6.90;  $p < .001$ ; 6 months: OR = 2.96; 95%CI, 2.22 to 3.94;  $p < .001$ ; intent to quit: OR = 2.28; 95%CI, 1.73 to 3.00,  $p < .001$ ; 6 months: OR = 1.47; 95%CI, 1.05 to 1.89,  $p = .023$ ). Further, those who received nicotine patches reported smoking fewer cigarettes per day compared to those in the no intervention control group (8 weeks: mean [SD], 12.99 [9.28] vs. 17.33 [8.76]

cigarettes per day;  $\text{Exp}(\beta) = 0.75$  [95%CI, 0.66 to 0.86];  $p < .001$ ; 6 months: mean [SD], 13.17 [9.72] vs. 16.04 [9.16] cigarettes per day;  $\text{Exp}(\beta) = 0.82$  [95%CI, 0.72 to 0.94];  $p = .003$ ).

## Discussion

The provision of free nicotine patch by mail appears to have secondary benefits beyond promoting abstinence that are supportive of tobacco cessation objectives. These findings provide additional evidence of the benefits of mass distribution initiatives as well as the effectiveness of nicotine patches to promote tobacco cessation, even when behavioral support is not provided.

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## Declaration of Interests

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JAC, VK, LZ, and SL have no conflicts of interest to declare. RFT declares that, in the past 3 years, she has consulted with Apotex on topics unrelated to smoking cessation. PS has received grant/research funding from Pfizer Inc., Pfizer Canada Inc., and Shoppers Drug Mart. Speakers' bureau fees were received from Pfizer Inc. Canada, Pfizer Global, and ABBVie. Furthermore, Dr. Selby has received consulting fees from Pfizer Inc., Pfizer Canada Inc., Pfizer Global, NABI Pharmaceuticals, and V-CC Systems Inc.

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JAC and VK had full access to all of the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis.

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