“Catastrophic” pathways to smoking cessation: findings from national survey

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Abstract

Objective To assess the extent to which the prevailing model of smoking cessation (that smokers typically prepare their attempts to stop smoking in advance and that doing so increases their chances of success) is correct.

Design Cross sectional household survey.

Setting England.

Participants 918 smokers who reported having made at least one quit attempt and 996 ex-smokers aged 16 and over.

Main outcome measures Whether the most recent quit attempt was planned in advance and whether quit attempts made at least six months before resulted in at least six months’ abstinence.

Results 48.6% of smokers reported that their most recent quit attempt was put into effect immediately the decision to quit was made. Unplanned quit attempts were more likely to succeed for at least six months; among respondents who had made a quit attempt between six months and five years previously the odds of success were 2.6 times higher (95% confidence interval 1.9 to 3.6) in unplanned attempts than in planned attempts; in quit attempts made 6-12 months previously the corresponding figure was 2.5 (1.4 to 4.7). The differences remained after controlling for age, sex, and socioeconomic group.

Conclusions A model of the process of change based on “catastrophic” pathways to smoking cessation: findings from national survey

Research

Introduction

Approximately one third of smokers in Britain make at least one attempt to stop smoking in a given year.¹ Success in stopping smoking yields an increase in life expectancy of up to 10 years.² The prevailing model of the process of stopping smoking postulates a series of “stages” from thinking about quitting to planning and then subsequently making a quit attempt.³ This model has been criticised on many grounds, including arbitrariness of stage definitions and poor performance in predicting cessation compared with other approaches.⁴ The stage based model is also at odds with reports of many ex-smokers who say that they just decided to stop one day and did. A Canadian general practitioner recently reported that more than half of the smokers and ex-smokers she interviewed who had made attempts to stop smoking had done so without any preplanning.⁵ Surprisingly, smokers who made unplanned quit attempts were more likely still not to be smoking at the time of the interview than those who planned their attempts in advance. We investigated this in a national sample of smokers in England and included several additional measures designed to rule out important potential sources of bias and confounding.

Methods

Three consecutive household omnibus surveys carried out by the British Market Research Bureau (BMRB) in spring 2005 included questions on smoking. The BMRB omnibus uses computer assisted face to face interviews and a multistage quota sample designed to maximise representativeness within the age range 16 and over. In the first stage, grouped output areas (containing 300 households) have an equal chance of being selected. The interviewers then go to the selected areas and attempt to secure interviews with members of households—one member per household, according to quotas based on known percentages for age, sex, social grade, region, working status, and presence of children in the population.

A total of 5351 respondents were interviewed. Demographic information and smoking status were assessed by using standard questions based on those used in other national surveys.¹ The profile of the sample was similar to that found in those other surveys, with a slight excess of women (56%), 50% aged under 45, and 66% in socioeconomic groups C1, C2, and D according to the census classification system. The prevalence of cigarette smoking was 27%. To arrive at national prevalence estimates, data from the BMRB omnibus surveys are normally weighted by age, sex, and socioeconomic group. We applied these weights and arrived at a figure for smoking prevalence of 25%, which is the same as that found for England in the general household survey in 2003/4.⁶ Current smokers were asked: “How many cigarettes per day do you usually smoke, or if you don’t smoke daily how many do you usually smoke per week?” The unweighted average was 14 a day, the same as found in the general household survey; the weighted average was similar at 13.5. Our key findings were similar whether or not we used weighted data. We present findings from unweighted data to simplify interpretation of the statistical analyses.

Respondents who had ever smoked were asked: “Have you ever made a serious attempt to stop smoking? By serious attempt I mean you decided that you would try to make sure you never smoked another cigarette?” A total of 918 smokers reported a serious quit attempt, and a further 996 respondents reported that they were ex-smokers. We asked: “Thinking back to your most recent attempt to give up smoking, how long ago was it?” A “don’t know” response option was included. Smokers who had made a quit attempt and ex-smokers were asked: “Which of these
Table 1

<table>
<thead>
<tr>
<th>Sex</th>
<th>Socioeconomic group*</th>
<th>Age (years†)</th>
<th>Total (n=1914)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male (n=900)</td>
<td>AB (n=268)</td>
<td>C1/C2 (n=955)</td>
<td>DE (n=691)</td>
</tr>
<tr>
<td>Female (n=1014)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unplanned</td>
<td>50.0 (450)</td>
<td>52.6 (141)</td>
<td>50.5 (482)</td>
</tr>
<tr>
<td>Planned for later the same day</td>
<td>5.8 (52)</td>
<td>4.5 (4)</td>
<td>5.1 (49)</td>
</tr>
<tr>
<td>Planned for the next day</td>
<td>4.2 (38)</td>
<td>4.5 (12)</td>
<td>5.0 (48)</td>
</tr>
<tr>
<td>Planned a few days ahead</td>
<td>14.1 (107)</td>
<td>13.8 (27)</td>
<td>12.9 (123)</td>
</tr>
<tr>
<td>Planned a few weeks ahead</td>
<td>14.2 (128)</td>
<td>16.8 (45)</td>
<td>14.2 (136)</td>
</tr>
<tr>
<td>Planned a few months ahead</td>
<td>6.1 (55)</td>
<td>6.1 (58)</td>
<td>5.6 (39)</td>
</tr>
<tr>
<td>Other</td>
<td>7.0 (63)</td>
<td>5.6 (15)</td>
<td>5.5 (53)</td>
</tr>
<tr>
<td>Cannot remember</td>
<td>0.6 (7)</td>
<td>1.5 (4)</td>
<td>0.6 (6)</td>
</tr>
</tbody>
</table>

Insufficient difference in percentage planning ahead in different social grades by χ² test, P<0.001. Insufficient difference in percentage planning ahead in different age groups by χ² test, P>0.001.

Table 2

<table>
<thead>
<tr>
<th>Smokers and ex-smokers: 6 months to 5 years before* (n=611)</th>
<th>Smokers and ex-smokers: 6-12 months before* (n=1914)</th>
<th>Current smokers: 6 months to 5 years before* (n=391)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unplanned</td>
<td>65.4 (59.8 to 70.1)</td>
<td>45.8 (280)</td>
</tr>
<tr>
<td>Planned</td>
<td>42.3 (37.0 to 47.6)</td>
<td>54.2 (331)</td>
</tr>
</tbody>
</table>

*Most recent attempt to stop smoking. †(Percentage (95% confidence interval).
What is already known on this topic

The process of stopping smoking is thought to involve a series of “stages,” going from thinking about stopping, through planning an attempt, to actually making the attempt.

Such planning is widely thought to be important for success.

What this study adds

Almost half of smokers’ most recent attempts to stop involved no previous planning, and unplanned quit attempts were more likely than planned ones to be successful.

The process of stopping smoking is thought to involve a series of “stages,” going from thinking about stopping, through planning an attempt, to actually making the attempt. Such planning is widely thought to be important for success.

Contributors: RW devised the study, did the statistical analyses, and drafted the manuscript. TS coordinated implementation of the study, assisted with the analysis, and contributed to the drafting of the manuscript. RW is the guarantor.

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Competing interests: RW has done paid research and consultancy for, and received hospitality from, manufacturers of smoking cessation drugs. He has also written a book on the theory described in the paper.

Ethical approval: Ethical approval was granted by the UCL Ethics Committee.

5 Larabie L. To what extent do smokers plan quit attempts? Tob Control (in press).
7 National Institute for Clinical Excellence. Nicotine replacement therapy (NRT) and bupropion for smoking cessation. London: NICE, 2002. (Technology appraisal guidance No 58.)

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