extended period, giving rise to multiple cognitive deficits and a high likelihood of being classified as mildly cognitively impaired, although the probability of evolution towards dementia was low. Given that the aim of identifying mild cognitive impairment is the early treatment of dementia, notably with acetylcholinesterase inhibitors, people with mild cognitive impairment due to anticholinergic drugs could be in the absurd situation of receiving pro-cholinergic drugs to counteract the effects of anticholinergic agents.

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Competing interests: None declared.

Ethical approval: Authorisation for the study was obtained from the national data protection committee (CNIL) and the national ethics committee.

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 2003 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 60% 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 to maximise representativeness within the age range 16 and over.

Results

The results indicate that almost half of the attempts to stop smoking were made without previous planning (Table 1). Respondents in social groups D and E were slightly less likely to make unplanned attempts, and those aged over 55 were more likely to do so. More strikingly, the attempts that were unplanned and those aged over 55 were more likely to do so. Table 2 presents the percentage of planned and unplanned quit attempts, made at least six months previously, that succeeded for at least six months. It restricts analyses to quit attempts made up to five years previously, because recollection of the duration of quit attempts made before then might be subject to bias (although the pattern of results is the same as that found for England in the general household survey in 2003/4).2 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 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 statements best describes how your most recent quit attempt started?” (all response options were displayed): (1) I did not plan the quit attempt in advance; (2) I planned the quit attempt for later the same day; (3) I planned the quit attempt a few days beforehand; (4) I planned the quit attempt a few weeks beforehand; (5) I planned the quit attempt a few months beforehand; (6) I planned the quit attempt a few months beforehand; (7) Other; (8) Cannot remember.” We also asked them: “How long did your most recent quit attempt last?” and the response options included “Don’t know” and “Still not smoking.”

Table 1 Percentages (numbers) of quit attempts that were planned, analysed by age, sex, and socioeconomic status

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Sex</th>
<th>Socioeconomic group*</th>
<th>All (n=914)</th>
<th>C1/2 (n=955)</th>
<th>DE (n=691)</th>
<th>16-34 (n=602)</th>
<th>35-54 (n=662)</th>
<th>≥55 (n=750)</th>
<th>Total (n=914)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unplanned</td>
<td>Male (n=900)</td>
<td>50.0 (450)</td>
<td>47.3 (480)</td>
<td>52.6 (141)</td>
<td>50.5 (482)</td>
<td>44.4 (307)</td>
<td>47.8 (240)</td>
<td>42.1 (278)</td>
<td>54.8 (411)</td>
</tr>
<tr>
<td>Planned for the next day</td>
<td>Female (n=1014)</td>
<td>5.1 (52)</td>
<td>5.0 (60)</td>
<td>1.4 (5)</td>
<td>5.1 (48)</td>
<td>8.5 (50)</td>
<td>9.2 (31)</td>
<td>7.8 (38)</td>
<td>5.7 (43)</td>
</tr>
<tr>
<td>Planned the day before*</td>
<td>AB (n=268)</td>
<td>4.2 (38)</td>
<td>7.4 (72)</td>
<td>4.5 (12)</td>
<td>5.0 (48)</td>
<td>7.2 (50)</td>
<td>9.2 (46)</td>
<td>5.5 (33)</td>
<td>5.6 (31)</td>
</tr>
<tr>
<td>Planned a few days ahead</td>
<td>C1/2 (n=955)</td>
<td>11.8 (107)</td>
<td>13.3 (135)</td>
<td>13.8 (37)</td>
<td>12.9 (123)</td>
<td>11.9 (82)</td>
<td>12.9 (65)</td>
<td>16.9 (112)</td>
<td>8.7 (65)</td>
</tr>
<tr>
<td>Planned a month or more ahead</td>
<td>DE (n=691)</td>
<td>14.2 (128)</td>
<td>14.3 (145)</td>
<td>16.6 (45)</td>
<td>14.2 (156)</td>
<td>13.3 (92)</td>
<td>14.7 (74)</td>
<td>19.0 (128)</td>
<td>9.7 (73)</td>
</tr>
<tr>
<td>Planned a few months ahead</td>
<td>Total (n=914)</td>
<td>6.1 (55)</td>
<td>5.1 (52)</td>
<td>3.7 (10)</td>
<td>6.1 (58)</td>
<td>5.6 (39)</td>
<td>6.4 (32)</td>
<td>6.3 (45)</td>
<td>4.4 (33)</td>
</tr>
<tr>
<td>Planned for the same day</td>
<td>Male (n=268)</td>
<td>7.0 (63)</td>
<td>6.3 (64)</td>
<td>5.6 (15)</td>
<td>5.5 (53)</td>
<td>8.5 (59)</td>
<td>2.8 (13)</td>
<td>4.7 (31)</td>
<td>11.1 (83)</td>
</tr>
<tr>
<td>Cannot remember</td>
<td>Female (n=1014)</td>
<td>0.6 (7)</td>
<td>0.6 (6)</td>
<td>1.5 (4)</td>
<td>0.6 (6)</td>
<td>0.4 (3)</td>
<td>0.2 (1)</td>
<td>0.2 (1)</td>
<td>1.5 (11)</td>
</tr>
</tbody>
</table>

* Significant difference in percentage planning ahead in different social grades by χ² test, p<0.001.
† Significant difference in percentage planning ahead in different age groups by χ² test, p<0.001.


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Research

Table 2 Success rates of planned and unplanned quit attempts

<table>
<thead>
<tr>
<th>Sex</th>
<th>Smokers and-ex-smokers: 6 months to 5 years before* (n=611)</th>
<th>Smokers and-ex-smokers: 6-12 months before* (n=191)</th>
<th>Current smokers: 6 months to 5 years before* (n=391)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unplanned</td>
<td>Lasted ≥6 months†</td>
<td>Total % (No)</td>
<td>Lasted ≥6 months†</td>
</tr>
<tr>
<td>Male (n=691)</td>
<td>65.4 (59.8 to 70.1)</td>
<td>45.8 (280)</td>
<td>50.0 (37.6 to 62.4)</td>
</tr>
<tr>
<td>Female (n=320)</td>
<td>42.3 (37.0 to 47.6)</td>
<td>54.2 (331)</td>
<td>28.5 (20.5 to 36.4)</td>
</tr>
</tbody>
</table>

Most recent attempt to stop smoking.
†Percentage (95% confidence interval).

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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.

Discussion

The results show that a substantial proportion of attempts to stop smoking are made without any previous planning and, surprisingly, that unplanned quit attempts have a greater chance of succeeding. These findings do not necessarily imply that planning quit attempts is counterproductive, and use of behavioural support and nicotine replacement therapy are known to improve the chances of success even though they generally require planning ahead. More likely, whether a quit attempt is planned or unplanned reveals something about the state of mind of the smoker at the time, which has importance for whether the attempt will last.

We hypothesise an alternative model to the stages of change approach, one that is based on “catastrophe theory.” Catastrophe theory is a branch of mathematics that deals with the way in which tensions develop in systems so that even small triggers can lead to sudden “catastrophic” changes. We propose that beliefs, past experiences, and the current situation create varying levels of “motivational tension,” in the presence of which even quite small “triggers” can lead to a renunciation of smoking: where they lead instead to a “plan” for later action, this may signify a lower level of commitment in a proportion of smokers. This concept has been incorporated in a general theory of motivation and its application to addictive behaviours. Public health campaigns should perhaps focus on what might be called the “3 Ts”: creating motivational tension, triggering action in smokers who are on the “cusp” of a change in their orientation to smoking, and immediate availability of treatment such as nicotine patches and counselling to support those attempts, including attempts that were started before help was sought.

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.

Funding: Cancer Research UK.

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.36.)
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