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Evaluation of a nationally disseminated self-help intervention for smoking cessation ('Quit Kit')

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Abstract

Objective: To assess the extent of uptake and impact of a nationally disseminated self-help intervention for smoking cessation ('Quit Kit').

Methods: The kit contained practical tools for supporting quit attempts. Of 480,000 individuals receiving the kit, telephone interviews were conducted with 2347 randomly selected individuals. Interviews assessed the impact of the kit on smoking behaviours and on attitudes to the intervention and to health service support.

Results: The majority of interviewees reported the kit as being helpful for stopping smoking (61%) and agreed that, having received the kit, they would be more likely to consider the National Health Service for help with quitting (84%). Younger interviewees were significantly more likely to report the kit as helpful, to say they would recommend it to others and to agree that it increased their confidence for quitting (all $p \leq 0.001$). As a result of receiving the kit, 29%, 17% and 11% of interviewees, respectively, reported visiting their doctor, pharmacist or stop smoking service for help with quitting. The kit was reported to have triggered a quit attempt among around half (57%) of those receiving it. When only including those who had received the kit at least one month prior to interview, 26.5% (126/475) of those attempting to quit reported remaining completely abstinent from smoking for at least a month.

Conclusions: The findings suggest that distributing a self-help intervention for smoking cessation at a national level may be successful in terms of uptake of the intervention, triggering quit attempts and aiding smoking cessation.

INTRODUCTION

In the UK 67% of smokers report wanting to quit, while just 26% report making a quit attempt in the previous year¹. Of these, only 29% successfully quit for more than 6 months¹. The Department of Health (DOH) in England is committed to encouraging quit attempts, and to maximising their success. While around half of attempts are unassisted, these often relapse within seven days². UK National Health Service (NHS) stop smoking services (SSS) provide the most proven support for cessation; a combination of behavioural support and pharmaceutical aids³. However, there are barriers around accessing these services^{4,5}. Only 8% of smokers making a quit attempt in England access the NHS SSS¹. Ways of providing more accessible support are needed. There is evidence to suggest that mailed self-help materials are effective for smoking cessation⁶; however, we could not identify studies evaluating self-help interventions at a national level. The present study evaluated a nationally disseminated self-help intervention for smoking cessation.

METHODS

A self-help intervention for smoking cessation ('Quit Kit' (QK)) was devised through collaboration between academics and the DOH (English) tobacco control team. Self-help products were reviewed in 2009 and staff at the NHS Centre for Smoking Cessation Training were interviewed. Ideas for elements to be included in the QK were discussed with 12 groups of six to eight smokers (age 18-55, smoking ≥ 5 cigarettes/day). The following requirements were determined: provide information about SSS and medications; include practical tools; set milestones; promote health and financial benefits; focus on strengthening willpower; include stress management and distraction techniques; involve children (for parents); be fun; increase confidence for quitting; appeal to first time and experienced quitters and to the spectrum of gender, ethnic and socio-economic groups. To satisfy these requirements the kit included a:

health wealth wheel, 'tangle' stress reliever, 'quit plan' wall chart with stickers (including setting a quit-date), willpower assessment quiz, local NHS SSS and pharmaceutical leaflets, motivational postcards, a toothbrush, and information on stress management downloads⁷.

The kit was promoted through national television paid advertisements (appearing daily at their peak), with website and telephone details for ordering the kit. It was also promoted via direct mail, promotional stands, SSSs, websites and distribution in Asda stores. Between January-March 2010, 480,000 kits were issued. When ordering the kit (or obtaining via ASDA/SSS/stands) 422,400 (88%) of individuals agreed to be interviewed, 127,872 gave a phone number (and therefore were contactable for interview) and 8242 of these were randomly selected for a 15-minute telephone interview. On commencing the interview individuals were screened to confirm eligibility in terms of having ordered the kit for themselves, opened it, received it at least two weeks before interview (to allow time to use kit) and having not quit prior to receiving the kit. 1199 individuals refused to be interviewed, 996 were ineligible, 3700 were non-contactable (invalid number or no answer after multiple attempts), 59 had quit before receiving the kit and 2,288 (27.8%) were interviewed by an independent research company (HPI Research) ending March 2010.

As proxies of smoking dependence interviewees reported daily cigarettes consumption and time of smoking their first cigarette after waking^{8,9}. Further questions assessed demographics, smoking behaviours and attitudes to the kit and NHS support.

RESULTS

The vast majority of interviewees were white, just over half were female and the majority were classified as socio-economic group (SEG) C2/D/E (see Table 1.). Pregnancy status was not recorded. Nearly three quarters (73.3% (1676)) heard about the kit through television. The largest majority ordered the kit via the website (44.4% (1017)), 30.8% ordered by phone,

15.5% collected the kit from their SSS or promotional stands, 8% obtained it from ASDA and 1.3% ordered by SMS/text.

Insert table 1 about here

Attitudes

The majority reported the kit as helpful for quitting; nearly three quarters saying they would recommend it and around two thirds reported increased confidence and motivation for quitting (see Table 1.). The vast majority agreed they would be more likely to consider the NHS for help with quitting due to the kit. Moreover, of those reporting that they would not have considered NHS support prior to receiving the kit (38.2% (873/2288)), 61% reported that they would be more likely to consider NHS support as a result of the kit. All elements of the kit were used by at least a third of participants, except for the stress management downloads (24%) and the toothbrush (23%). The health/wealth wheel and 'tangle' stress reliever were the most used (64% and 63%, respectively). The majority of interviewees reported the kit as being 'fine as it is' (62%). By far the most popular suggestion for improving the kit (26%) was for adding nicotine replacement therapy.

Impact on behaviour

Just over half of interviewees reported attempting to quit completely; of which 17% (220/1296) reported not smoking at all for at least one month since quitting. When only including those who had received the kit for at least one month, 26.5% (126/475) of those attempting to quit reported complete abstinence from smoking for at least a month. As a consequence of receiving the QK, 29% of interviewees reported visiting their doctor and 17% reported visiting their pharmacist about quitting. Additionally, 24% reported looking up details of their local SSS, 13% said they had contacted the SSS and 11% reported visiting the SSS.

Associations

On an exploratory basis, ANOVAs, chi-squared tests and Pearson correlations tested associations between the key demographic and smoking variables (i.e. age (continuous variable), gender, SEG (A/B/C1 versus C2/D/E), smoking intake (continuous variable), time to first cigarette (within 30 minutes versus later) and outcomes for smoking status (not smoking at all versus smoking), how much the kit helped (extremely/very/fairly helpful versus other response), 'would recommend the kit to others' (agree strongly/slightly versus other), 'kit made me more likely to consider NHS help' (agree strongly/slightly versus other), 'kit has given me more confidence for quitting' (agree strongly/slightly versus other) and 'kit has made me more motivated to stop smoking' (agree strongly/slightly versus other). Due to multiple testing, the significance level was set at $p < 0.002$. Younger individuals were significantly more likely to report the kit as helpful (ANOVA, $F=15.8$), to say they would recommend the kit ($F=11.7$) and to report that the kit increased their confidence for quitting ($F=12.3$, all $p \leq 0.001$). Heavier smokers and those reporting smoking within 30 minutes of waking were significantly more likely to report complete abstinence from smoking ($F=60.0$, $\chi^2=20.9$; respectively, both $p < 0.001$). No other associations reached significance.

DISCUSSION

This study was the first to assess a nationally disseminated self-help kit for smoking cessation. The kit was popular, with nearly half a million issued in three months. The majority reported the kit as helpful for quitting; saying they would recommend it and reporting increased confidence and motivation for quitting. These views were more common in younger smokers, but otherwise these attitudes were held irrespective of socio-demographic characteristics, suggesting a broad appeal. Encouragingly, over half of interviewees reported attempting to quit since receiving the kit, with half of these declaring not smoking at all/occasionally. More dependent smokers were more likely to report

abstinence. This is inconsistent with previous studies of predictors of quitting¹⁰⁻¹² and needs confirmation with biochemical validation of abstinence.

The vast majority agreed they would be more likely to consider NHS help with quitting, having received the kit. This view was echoed by nearly two thirds of those indicating that they would not previously have considered NHS support. The findings suggest that the kit was successful in encouraging smokers to seek support from doctors, pharmacists and SSS. This is important since only 8% of smokers access NHS support annually¹, and supported quit attempts are more likely to be successful³.

Strengths of the study are that the sample was large, randomly selected and nationally representative^{13,14}. The characteristics of all those ordering the kit were not determined; therefore it was not possible to assess whether those interviewed were representative of the entire intervention group. The study was limited by a follow-up of only three months. The low follow-up rate for interview, and exclusion of those not opening the kit, may have biased the findings positively. Also, without a control group, it was not possible to assess the effects of a highly motivated sample self-selecting into the program. Smoking abstinence was not verified biochemically as it is difficult to obtain saliva for cotinine analysis via the mail¹⁵. However, self-report is generally accurate where there is no social pressure to report abstinence¹⁶. Overall, the findings suggest that disseminating a self-help intervention at a national level is likely to be successful in terms of uptake, positive attitudes, and effects on smoking behaviours, at least in the short-term. The kit now needs to be evaluated in a randomised controlled trial, including cost-effectiveness analysis. The QK also needs to be compared with other self-help interventions where there is no contact or minimal contact with therapists⁶. The kit may benefit through including other intervention elements that have previously been used in self-help interventions⁶, such as information on the adverse effects of smoking, and through having a version tailored to pregnant smokers¹⁷.

What is already known

Less than 10% of smokers making an attempt to quit smoking in England access the National Health Service Stop Smoking Service. Ways of providing more accessible support are needed. There is evidence to suggest that mailed self-help materials are effective for smoking cessation.

What this paper adds

A nationally disseminated self-help intervention for smoking cessation ('Quit Kit') was shown to have a high rate of uptake; with 480,000 kits mailed across three months. Among those interviewed, the kit was reported to have triggered a quit attempt among around half of those receiving it and about one quarter reported remaining abstinent for at least one month. Such an intervention is likely to be a feasible for reducing tobacco use in the UK.

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Competing interests None of the authors have competing interests.

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Contributors MU analysed the data and MU and RM drafted the manuscript. All authors conceived the study and designed the questions. EC, MC and RM edited earlier drafts of the manuscript and approved the final manuscript.

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Table 1. Demographics, smoking characteristics and attitudes of the interviewees (N=2288, percentages are out of the total figure unless stated otherwise)

Characteristic		Mean (SD)
Age (n=2277)		43.64 (15.23)
Cigarettes per day (current smokers, n=1658)		16.32 (9.06)
Years of smoking (n=2274)		24.19 (14.38)
		% (no)
Female		54.2 (1239)
White		96.2 (2771)
Socio-economic group (n=2288)	A. Higher managerial/professional	0.3 (7)
	B. Intermediate managerial/professional	10.7 (245)
	C1. Supervisory/clerical/junior managerial	22.5 (514)
	C2. Skilled manual workers	26.0 (596)
	D. Semi skilled/unskilled manual workers	10.8 (246)
	E. Casual labourers/pensioners/unemployed	28.2 (645)
Unknown		1.5 (35)
Children living in household		47.3 (1082)
Regional distribution of Interviewees in England:	North East	10.5 (241)
	North West	16.1 (368)
	Yorkshire and Humberside	8.2 (187)
	East Midlands	11.2 (257)
	West Midlands	11.3 (259)
	East of England	5.9 (134)
	South East (except London)	21.0 (480)
	London	5.2 (119)
South West		10.6 (243)
Smokes within 30 minutes of waking		63.5 (1452)
Have attempted to quit completely since receiving Quit Kit		56.6 (1296)
Smoking status of those attempting to quit since receiving the kit	Currently not smoking at all	38.3 (497/1296)
	Smoking occasionally	15.5 (201/1296)
Attitudes		
Do you think the Quit Kit has helped with your attempts to stop or cut down on your smoking?	Extremely/very/fairly helpful	61.0 (1397)
	Of little/no help at all	36.2 (828)
	Don't know	2.8 (63)
I would definitely recommend the Quit Kit to others trying to stop smoking	Agree strongly	56.3 (1288)
	Agree slightly	17.5 (400)
	Disagree strongly/slightly	22.4 (512)
	Neither agree or disagree/don't know	3.8 (88)
The Quit Kit has made me more likely to consider the NHS if I need further help to stop smoking	Agree strongly	64.3 (1472)
	Agree slightly	19.2 (439)
	Disagree strongly/slightly	12.7 (290)
	Neither agree or disagree/don't know	3.8 (87)
The Quit Kit made me more motivated to stop smoking	Agree strongly	41.5 (949)
	Agree slightly	23.6 (541)
	Disagree strongly/slightly	28.8 (660)
	Neither agree or disagree/don't know	6.1 (138)
The Quit Kit has given me more confidence in my ability to stop smoking	Agree strongly	38.7 (886)
	Agree slightly	22.0 (503)
	Disagree strongly/slightly	31.1 (713)
	Neither agree or disagree/don't know	8.2 (186)

