

Research Report

Stop smoking practitioners' reports on the success of quit attempts they support

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Abstract

Background and aims: Awareness of and feedback on the results of clinical interventions help practitioners to evaluate and improve their practice. Our aim was to assess how accurately Stop Smoking practitioners report their clients' short-term success rates.

Methods: Data from a 2011 survey of practitioners were used to gauge practitioners' knowledge of their clients' quit rates. To assess accuracy of reports, a separate sample was used that included practitioners who were registered with the NCSCT online knowledge training course (no requirement to have completed the training) and who were recorded in routine clinical data as having supported at least 12 quit attempts in the 6 months before course registration. Practitioners reported clients' quit rates at the start of training; service records were aggregated to obtain quit rates for each practitioner. Quit rates from the two data sets were correlated and their means compared. Professional characteristics of included practitioners were compared to those of all practitioners registered for the training.

Results: Survey responses indicated that of 947 practitioners, 35.2% did not know how many quit attempts they had supported and 33.5% did not know the proportion of successful attempts. Mean quit rate reported during training ($M=52.1$, $SD=17.7$) did not differ from that in service records ($M=50.8$, $SD=16.8$, $p=0.21$) for 278 practitioners. Quit rates were correlated moderately ($r=0.47$, $p<0.001$). Included practitioners were more experienced and had had more previous training.

Conclusions: A considerable proportion of practitioners appears to not be aware of the outcomes of their clinical practice. Practitioners registered for training, who believe they can report success rates of clients' quit attempts, report them reasonably accurately.

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Declaration of competing interest: RW has undertaken research and consultancy for companies that develop and manufacture smoking cessation medicines. His salary is covered by Cancer Research UK. He is a trustee of the charity QUIT. SM has received travel funds and hospitality from Pfizer, who manufacture Champix. She has received fees for speaking at educational events sponsored by Pfizer. She has received research funds and consultancy payments from the Department of Health and the Department of Transport. RW and SM are Co-Directors of the National Centre for Smoking Cessation and Training (NCSCT). AMcE undertakes research and consultancy and receives fees for speaking from companies that develop and manufacture smoking cessation medications (Pfizer, GSK and Novartis) and he is the director of the NCSCT. RW and AMcE have a share of a patent for a novel nicotine delivery device. LB's salary was covered by the NCSCT.

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Data access: The data files used for the main analyses and the command syntax are available as supplementary files on smokinginbritain.co.uk.

Commentaries: Readers are invited to comment on this article including presenting results of additional data analyses by going to: www.smokinginbritain.co.uk.

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Introduction

NHS Stop Smoking Services in England deliver a combination of behavioural support and medication to smokers contacting them for support in making a quit attempt. The support is delivered by stop smoking practitioners who can either be employed by the service specifically to deliver stop smoking support (specialist practitioners) or by part-time community practitioners whose main role often is that of a practice nurse or community pharmacist. Across the country, several thousand practitioners support smokers in around 150 regional services. The outcomes of quit attempts are partly dependent on the individual practitioner delivering the support¹, to a similar extent as outcomes of psychotherapy².

In 2009, the National Centre for Smoking Cessation and Training was set up to develop and deliver standardised evidence-based training and assessment for practitioners nationwide to improve the quality of behavioural support offered by stop smoking services and practitioners, and to narrow the gap between the worst and best performing services. The training and assessment programme consists of online knowledge and practice training and assessment, optional two-day face-to-face courses in behavioural support. The training programme aims to provide practitioners with knowledge and skills required to competently deliver a standard treatment programme for stop smoking support. The online training has been shown to improve knowledge^{3 4} and the face-to-face courses achieve a sustained improvement in practitioners' confidence to competently deliver effective support. We do not yet know if the training improves professional practice in a way that is reflected in clients' quit rates.

Training is not the only way to improve professional practice. Principles of continuing professional development include reflection on standards of professional practice and outcomes of learning and any impact (or expected impact) on performance and practice recorded^{5 6}. Audit of practice and feedback have been shown to lead to small but potentially important improvements in professional practice.⁷ The provision of timely feedback is also recommended to improve fidelity of treatment delivery and prevent skills drift following training⁸. Therefore practitioners' efforts to improve their clinical practice by completing the NCSCT training could be supported by self-monitoring of practice and outcomes or by feedback provided on these by the service that employs them. It is unknown to what extent practitioners are currently aware of the outcome of their practice, i.e. the success of the quit attempts they support.

This study addressed the following two-part research question: Are stop smoking practitioners aware of the short-term success rates of the quit attempts they support and how accurately do they report them?

Methods

Design and Sample: Data from a 2011 online survey of practitioners⁹ were used to assess level of awareness of number of clients and outcomes of 947 practitioners who had worked as practitioner for at least 12 months.

To examine how accurately practitioners report outcomes, two data sources were used: data provided by practitioners during an online knowledge training and assessment programme and routinely recorded clinical data from Stop Smoking Services in England. The NCSCT online knowledge training and assessment programme went live in September 2010, and by August 2012, more than 11,000 individuals had registered, with 5,181 identifying themselves as stop smoking practitioner. A subset of trainees were asked how many quit attempts they

had supported in the last year and how many had been successful. Stop Smoking Services record data on each quit attempt that they support, including information on the short-term outcome of the quit attempt. About half of the 151 services in England use QuitManager software (North51, Nottingham, UK) to record their practice and we were able to include data from 57 services that agreed to share their data for research purposes.

The analyses included Stop Smoking practitioners who had registered for the NCSCT online knowledge training and assessment programme and were identified in service data with records showing that they had supported at least 12 quit attempts in the six months before registering for the online training. This minimum number was used to ensure only active practitioners were included. Only quit attempts with an identified practitioner supporting the attempt were included.

Practitioners in the two data sets were matched by the software company hosting the records using the first three letters of their first and last names; matches were double checked by hand. Practitioners were included if information on their clients' 4-week quit rates were available from training data. These criteria were met by 279 practitioners. One was excluded because she was identified as practitioner in more than 1,000 quit attempts, which is likely to have been a data entry error. The remaining 278 practitioners had supported an average of 66.5 quit attempts in the 6 months prior to registration (SD=68.8, maximum 468).

Measures:

a. Online survey

Questions from the survey of practitioners were 'Approximately how many smokers have set a quit date with you in the past 12 months' and 'What percentage of these were CO-verified 4-week quitters?', both with a response option 'I don't know'.

b. Training programme

When registering for the training, trainees provide information on some professional characteristics, including time spent working as stop smoking practitioner (less than 1 year, 1 to 3 years, more than 3 years), amount of previous training for their role (less than 1 day, 1 to 3 days, more than 3 days) and proportion of their work spent providing stop smoking support (a small part, the main part, all of it). Those spending all of their time providing stop smoking support were assumed to be specialist stop smoking practitioners (n=126) while those spending a small part on it (n=120) were assumed to be community practitioners who provide support alongside their main role as for example practice nurse or pharmacist.

Before accessing the main training programme, trainees complete an assessment of their baseline knowledge. This consists of 25 multiple choice questions covering smoking, smoking cessation and providing support. The assessment score is the percentage of correct responses.

Questions included in the training programme for a limited period were used to obtain self-reported 4-week quit rates (whether or not biochemically validated). "Four weeks after the quit date, how many clients reported that they had not smoked (not even a puff) for at least two weeks?" Trainees could respond by giving a percentage (0 to 100) or the number of clients. For those giving a number, a percentage was calculated using responses to the question "How many clients have set a quit date with you in the last 12 months?". As this question only allowed answers from 0 to 100, the number of clients reporting that they had not smoked was also restricted to 0 to 100 where the percentage was calculated. Quit rates of 0% reported in the training were excluded from analyses as this also indicated a missed response.

c. Service records

Service records were used for clients who were recorded as having been supported by one of the 278 practitioners in the sample. A client is recorded as self-reported quit when they report not having smoked for at least 2 weeks at a follow-up 4 weeks after the quit date. Those who fail to attend the follow-up are counted as smoking. Self-reported quits were aggregated to obtain a quit rate for each practitioner's clients.

Analysis: The proportion of 'I don't know' responses was calculated for the two survey items. Professional characteristics of the sample of practitioners were compared with those of all practitioners registered for the training using t-tests and chi-square statistics to assess their representativeness. The quit rates as recorded by the service for the practitioner and the quit rates reported by the practitioner during the training were correlated and their means were compared using paired sample t-tests and Wilcoxon Rank tests. Correlation coefficients were calculated for the full sample and subgroups of specialist and community practitioners. Professional characteristics of the sample were compared with those of all practitioners registered for the online training to examine their representativeness.

Results

In the survey, 35.2% of practitioners did not know the approximate number of smokers that had set a quit date with them in the past 12 months and 33.5% did not know the percentage of CO-verified 4-week quitters.

Quit rates reported in the online training form [Mean (M)=52.1, Standard Deviation (SD)=17.7, median= 54.0] did not differ from those recorded by the service [M(SD)=50.8 (16.8), median=51.7, $t(277)=1.25$, $p=0.21$. Wilcoxon rank $p=0.26$]. The quit rates correlated significantly with a moderate effect ($r=0.47$, $p<0.001$). When excluding four outliers with residuals outside of 3 Standard Deviations, the quit rates correlated even better ($r=0.53$, $p<0.001$). Correlations were of very similar magnitude in the subgroups of specialist ($r=0.51$, $p<0.001$) and community practitioners ($r=0.46$, $p<0.001$) and quit rates reported in training did not differ from those in service records in either group ($p>0.2$).

Practitioners included in the sample differed in their professional characteristics from other practitioners registered with the training (Table 1). They were more likely to have more experience working as a practitioner, spend more of their time providing stop smoking support and to have received more than three days training for their role. As is to be expected based on these differences³, practitioners in the sample scored higher on the assessment of their knowledge on smoking and smoking cessation at the start of the training than other practitioners.

Table 1. Sample characteristics compared with characteristics of all other practitioners registered for training.

		Sample (N=278)		Other practitioners in training (N=4809)		Comparison
		N	%	N	%	
Time in job	< 1 year	26	9.4	1238	25.2	$\chi^2=39.9, p<0.001$
	1-3 years	86	30.9	1301	26.6	
	>3 years	156	59.3	5160	46.7	
Part of job	Small part	120	43.2	3103	63.3	$\chi^2=72.0, p<0.001$
	Main part	29	10.4	584	11.9	
	All of it	126	45.3	1122	22.9	
Previous training	None	6	2.2	677	13.8	$\chi^2=75.4, p<0.001$
	< 1 day	23	8.3	749	15.3	
	1-3 days	108	38.8	2034	41.5	
	>3 days	141	50.7	1441	29.4	
Baseline knowledge	Mean (SD)	65.2 (14.4)		58.5 (15.8)		$t=-7.0, p<0.001$

Discussion

Survey data indicated that around a third of practitioners were not able to provide an estimate of their clients' success rates. The training data indicated that practitioners who were able to report success rates gave reasonably accurate estimates when compared with those recorded by the service. Given the evidence of the effect of audit and feedback on professional performance⁷, lack of awareness of outcomes may limit the effectiveness of practitioners' efforts to improve clinical practice by completing evidence-based training and practitioners are likely to benefit from improved feedback on the outcomes of their own practice or improved self-monitoring. It is reassuring however that at least those who report success rates are able to do so reasonably accurately.

The main limitation of this study was the small sample of practitioners registered for the training that could be included in the analyses and that this sample was not representative of all practitioners registered for the training but were more experienced and more knowledgeable. Practitioners' ability to report quit rates may also be limited if clients accessing the Stop Smoking Services do not see the same practitioner throughout. Better data about practitioners' awareness are needed and will be collected. However, these are the best data we currently have.

In conclusion, about a third of practitioners appears to not be aware of the outcomes of their clinical practice. Practitioners registered for training who believe they can report success rates of clients' quit attempts report them reasonably accurately.

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